FULL TIME WITH INTERNATIONAL ORIENTATION

"Evaluating the product image of the Greek olive oil and the role of customer's nationality."

A thesis submitted in partial fulfillment of the requirements for the master's degree in marketing & communication

BY

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CERTIFICATE OF DISSERTATION PREPARATION

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ABSTRACT

Olive oil consumption worldwide has more than tripled over the past two decades and imports have grown considerably mainly in non – traditional markets, in particular from Mediterranean countries. This is a consequence of the spread of the Mediterranean diet and the awareness of consumers about the health benefits of olive oil. On the contrary, Greece is not following this increasing trend as there are observed several issues regarding the profitability.

This study investigates quality cues to explore the product opinion towards Greek olive oil by consumers in Greece and several countries around the world and the role of consumer's nationality. The data that emanated from the sample of 232 accepted questionnaires were statistically analyzed using the Statistical Package for the Social Sciences (SPSS 20.0).

The analysis revealed that taste, colour and the opinion for Greece generally as a country were the most important quality attributes of the consumption and trust for Greece as COO of olive oil with regards to nationality. Also, this research aims to provide managerial understanding about the promotion of bottled Greek olive oil regarding domestic and foreign market.

It is important to note the limitations of this research, especially for the small sample (n232), so that it is not representative of the views of the entire population. The study is also limited by the small number of non-Greeks per country. Finally, suggestions for future research are formed, as a new study may distinguish its samples by geographical or cultural criteria for the consumption of the olive oil to get more in-depth conclusions about the differentiation in olive oil selection based on nationality.

Key Words: Country of origin, Product Attributes, Nationality, Consumer Behaviour, Consumption, Greek Product

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CHAPTER 1: INTRODUCTION

1.1 OLIVE OIL IN GREECE

Beginning with the ancient Greeks, they believed according to Sophocles that the goddess Athena had created the olive tree and that this tree was sacred to them and protected, at a level if one uprooted an olive tree was an offence punishable by exile and confiscation of goods. In the years that followed, many civilizations were engaged with olive oil, such as King Solomon and King David in Israel, paid particular attention to it, especially King David, who hired security to guard Israel's olive groves and warehouses (Antol, 2004). Despite this, Greece had always the strongest relation with this product while it has been the fountain of great wealth and power, anointing the noblest of heads throughout history (Boardman et al., 1976). The olive tree has long been the symbol of peace dating back to 5000 B.C. Olive oil was considered a luxury in ancient Greece. Its strong relation with Greek culture is confirmed, considering the extended usage of it on Olympic games till today and the favour of various important people to it like when Hippocrates called it “the great healer” and Homer “Liquid gold’’, as it is cited in the Bible and the Koran, repeatedly mentioned by Homer in the Odyssey, and frequently present in Greek mythology (Boulanger, 1985; Foxhall & Forbes, 1982).

In recent years and more precisely for the period 2014 -2017, Greece is the country with the highest consumption of olive oil per capita worldwide at an average level of 15kg per capita, followed by Spain and Italy with almost the same average consumption per capita up to 10 kg (FAO, 2018). Olive oil sector is one of the most vital components of the Greek primary production activities: olive groves are being cultivated in 50 out of 54 prefectures of the country. In addition, Greece with an average production of around 340,000 tonnes per year (IOOC, 2018) is the third-largest producer of olive oil in the world, with Spain and Italy being the leader producers and influencing the prices of olive oil (Blery & Sfetsiou, 2008). Also, it is a worth mentioned information that as much as 70% of the overall production it is extra virgin grade compared with 65 per cent in Italy and 30 per cent in

Spain (IOOC, 2012). Almost one-third of the overall production goes for export, mainly to the European Union (90%). In total, 1.2 million hectares are being covered with olive trees, with the vast majority of them producing olives for olive oil (more than 85%), while the rest of them represent edible olive varieties.

1.2 PROBLEM STATEMENT

However, there are observed several issues regarding the profitability of olive oil. It worth mentioning that 80% of the overall production goes to export in bulk and only 20% as Greek branded. In addition, Greece's market share in the world market of branded olive oil shrinks from 6 per cent during the 1990s to 4 per cent according to National Bank of Greece (2015). Olive oil is one of the leading products of the Greek agricultural sector, covering 9 per cent of total production value (compared with 1 per cent in Europe), on average during 2016 – 2018 (Eurostat, 2019) and its contribution is approximately 0.4 per cent of GDP (or €750 million) per year, on average, compared with 0.3 per cent in Spain and 0.1 per cent in Italy.

1.3 OLIVE OIL CONSUMPTION IN MEDITERRANEAN DIET & A WORLDWIDE TREND

Olive oil, as a fundamental element of Greek and Mediterranean diet, has strong and continuous relationships with Greek consumers, since it has been always used not only to satisfy nutritional needs but also for cultural and religious reasons from antiquity to the present day. According to Lazaridis (2004), olive oil is maybe one of the most typical elements of the Mediterranean diet. It is distinguished worldwide for its demonstrated health benefits (Hu, 2003; Martínez-González & Sánchez-Villegas, 2004). At present, almost 70 per cent of world olive oil production and approximately 55 per cent of consumption are collected in the traditional producing countries which are the Mediterranean countries of the European Union (International Olive Oil Council (IOOC), 2018), which consumers are considered as traditional consumers.

Although, it is surprising the fact that olive oil consumption is also rising speedily outside the Mediterranean basin- where the production and consumption of olive oil is traditionally concentrated- and noteworthy production has also been starting in many other non – traditional (emerging markets) countries such as Australia, New Zealand, China, South Africa, Argentina, Chile, Brazil, Mexico, and United States. The recognition of United Nations Educational, Scientific and Cultural Organization (UNESCO) — it has declared to the Mediterranean diet 'the intangible cultural heritage of humanity'— offers a promising perspective for the Mediterranean diet in the future years (Fifth Session of the Intergovernmental Committee [5.COM], 2010).

As a matter of fact, the past two decades, world olive oil trade (excluding intra-European Union [EU] trade) has more almost tripled, from 310 thousand tons in 1990 to over 780 thousand tons in 2018 (IOC, 2018). As a result, the world olive oil market has been changing quickly and is becoming more composite. Thus, the global olive oil consumption has approximately doubled from 1.66 million tons in 1990 to 3 million tons in 2018 (IOC, 2018).

Among the non – producing countries of olive oil, US is the most significant market except from the Mediterranean basin (Zampounis, 2006), while concerning the EU non – producing countries, UK and Germany are the major consumers (Viesca et al., 2005). For example, concerning US market which position is the 4th in olive oil consumption after Italy, Spain and Greece, faced a huge enhance regarding consumption, as from 88,000 tons in 1990, went to 315,000 tons in 2018; an increase of 357% (International Olive Council, 2018). Something analogous faced China, where the demand for olive oil was expected to increase significantly in the next few years (Soons, 2004) and as a matter of fact, the last decade is observed a 388% increase (from 12,6 tons in 2009 went to 46,6 in 2018, International Olive Council, 2018). According to this author, Chinese tourism to Mediterranean countries would influence the general consciousness of the healthy Mediterranean diet and its utilization of olive oil in an optimistic way.

The phenomenon of the ever-increasing demand for olive oil appears to be predominantly correlated with growing consumer awareness of the health benefits offered by the Mediterranean diet, especially with olive oil consumption (Clodoveo et al., 2014; Mili, 2006; Xiong et al., 2014). Thus, various medical studies have revealed that usual olive oil consumption is significantly connected with lower blood cholesterol, reducing the danger of certain kinds of cancer like breast cancer according to Sieri et al. (2004), and also helps in calcium absorption (Owen et al., 2000; Sofi et al., 2008; Tuck & Hayball, 2002). According to Estruch et al. (2013), there is further evidence that a Mediterranean diet enhanced with extra virgin olive oil (EVOO) efficaciously reduces the incidence of major cardiovascular events among high-risk people. The widespread dissemination of these findings supported by information campaigns delivered by mass media channels has contributed decisively in order to create an excellent image of olive oil as a healthy food product (Delgado & Guinard, 2011; Santosa et al., 2013; Xiong et al., 2014).

The growing preference for olive oil worldwide indicates a change in consumer behaviour, either by enhancing its role in their diet or by incorporating it in a new way. The set of tangible and intangible features that consumers believe to particularly meet their needs is a concept of successful product marketing.

1.4 GLOBALIZATION & FOOD SECTOR

The effect of globalization led to the internationalization of markets which has a major effect on the standardization of products all over the world. According to Askegaard and Madsen (1998), while this is accurate for the food sector, cultural differentiations in food habits and customs remain. Consumers in diverse countries, or different subcultures within the same country, evaluate and purchase goods based on product characteristics that could be special to their culture. The evaluation and the comprehension of the importance of these products attributes can facilitate managers and marketers to develop marketing strategies specific to consumers' cultural

expectations and needs. Regarding food products, consumers use natural characteristics to calculate the perceived quality; they concentrate more on sensory characteristics (taste, colour, and appearance). Nevertheless, sometimes this could be not easy for consumers to obtain information on intrinsic characteristics prior to acquisition. As a result, they often utilize extrinsic indications like the brand, labels, price, country or region of origin, and production methods. Over the years and taking into consideration various food crises (e.g. mad cow crisis) have sharpened consumers' consciousness of product quality and dangers. In an effort to offer encouraging cues, producers pressure the significance of geographic origin or terroir in their marketing strategies (Aurier et al., 2005). As a consequence, these circumstances have led to the widespread use of origin labels and promotion efforts (Papadopoulos, 2004).

1.5 OBJECTIVES OF THIS STUDY

The goal of this study is to propose a conceptual model that investigates the product image of the Greek olive oil and the role of customer's nationality to shape it. The objective of this study is to evaluate the importance of origin cues as choice criteria for Greek olive oil and to explore whether differences can be highlighted in two various contexts of nationality, i.e., Greeks and non -Greeks. Greece is considered as a traditional producer and consumer of olive oil and the researcher tries to figure out the overall product opinion for the domestic product, considering a big variety of international consumers.

Previous research has tried to investigate the product image of olive oil regarding a specific country (either producing county either not) or comparing producing countries to non- producing countries. The focus of this thesis is to further examine the product image of olive oil in a general concept, taking into consideration a big variety of nationality of consumers, trying to figure out the difference of opinions of Greeks to non – Greeks.

1.6 METHODOLOGY

Based on the findings of the literature regarding the characteristics that contribute to the image of the product for Greek olive oil and the role of consumer nationality, this study proceeds to use a quantitative approach. Thus, the use of a questionnaire survey serves the purpose of measuring a variety of aspects in terms of consumer preferences. A quantitative approach is applied in the form of an online and offline questionnaire with the exact same questions, which has been distributed to 520 participants during the period of late November 2019 to late December 2019; correlation and regression analysis have been employed so as to test the research questions that were developed with regards to the study's constructs.

1.7 PERSONAL INTEREST FOR THIS STUDY

The primary interest of the researcher lies in the field of product image of olive oil and the goal is to investigate it as regards both Greek's and non- Greeks opinion on it, inspired by the his/her own participation to the farming as a member of a family of olive oil producers. The personal motivation behind this research is to assist any effort of every Greek company to enter a foreign or a domestic market in order to promote the Greek olive oil, by providing inspiration and recent data to them.

1.8 OUTLINE OF THE DISSERTATION

The rest of the study is organised as follows: Chapter two is including all the theory that is required in order to generate the hypotheses and it contains an analytical presentation about consumer behaviour on general, more specifically the consumer behaviour regarding food products and the determinants, the country of origin effect and also an explanatory analysis of consumer preferences of olive oil. In addition, it includes the conceptual framework as well as the hypotheses that are going to be tested. Chapter three describes the research approach used in the present study, the sample, the measures, the questionnaire design and explains the research methods used. It also refers to the sampling frame and the final response rate. Chapter four presents first the descriptive

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statistics and then the results of the statistical SPSS analysis and the findings of the study. Finally, chapter five provides some conclusions, the academic and managerial implications, along with an overview of some limitations and recommendations that should be taken into account by researchers in the future. Indicative tables, charts and supporting material are included in the appendix section.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

The primary objective of this chapter is to present an introductory understanding of all the theoretical concepts that are of supreme importance for this dissertation and they are required in order to develop the conceptual model. As mentioned before, this thesis tries to combine the existing theory on consumer behaviour, consumer perceptions and preferences about food products; especially for the olive oil and country of origin effect. At this moment each of these fields has been researched separately and in detail for specific markets or markets with similar characteristics but the combination of them has not been examined in depth. The terms of this many-sided theoretical knowledge will be useful to build up the conceptual model which originates this research.

2.2. CONSUMER BEHAVIOUR

Consumer behaviour is a crucial concept for understanding the decision-making process and the factors that affect it emphasising on the selection of a food product. According to Solomon et al. (1999), a consumer is generally thought of as a person who identifies a need or desire, makes a purchase and then disposes of the product during the pre-purchase, purchase and post-purchase stage of the consumption process. According to Loudon and Della Bitta, (2006) consumer behaviour, has been defined as the decision process and physical activity individuals engage in when evaluating, acquiring, using or disposing of goods and services. Also, Keller and Kotler, (2009) suggested that "consumer behaviour is the study of how individuals, groups and organizations select, buy and use, and dispose of goods, services and ideas or experiences to satisfy their needs and wants'', or similarly Solomon et al. (1999) suggested that is the analysis "of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires".

One of the frequent beliefs is that understanding consumer behaviour has become an issue that has a direct impact on the overall performance of the businesses (Kotler & Keller, 2012). According to Lancaster et al., (2002) understanding consumer behaviour has become crucial especially due to fierce competition in the retail industry in the UK and worldwide. In addition, the market's internationalization makes it increasingly necessary for business people to acquire a clear perspective and understanding of cultural differences and similarities among consumers from different countries (Solomon, 2006).

2.3. DETERMINANTS OF CONSUMER BEHAVIOUR

According to Schiffman and Kanuk (2001), the study of consumer behaviour and marketing discipline has focused on analysing how individuals make decisions to allocate their resources in categories related to consumption. The act of purchase is considered as an action aimed at resolving a problem (Howard and Sheth, 1969). In general, the buyer faces a huge number of decisions to make, whose density differs depending on product and purchase situation (Lambin, 1995). As a result, to understand consumer behaviour, it is considering that a decision is the result of selecting a choice from two or more alternative possibilities (Schiffman & Kanuk, 2001) and then it is essential to assess how people make their purchasing and consumption decisions (Blackwell et al., 2001). According to Keller and Kotler (2009), the factors that are identified to determine the consumer behaviour are the following.

Cultural Factors: Culture influences behaviour through its manifestations: values, heroes, rituals (behaviour of religious or mystical significance), and symbols (Hofstede, 1997). These are the forms in which culturally-determined knowledge is stored and expressed. Thus, each cultural group possesses different cultural manifestations. These manifestations are used, as they encompass most elements of culture described by other authors (e.g. Sojka & Tansuhaj, 1995). Consumer buying behaviour is mostly influenced by culture, subculture and social class. Culture may define a person's

wants and behaviours and it depends on the values that they believe in. Each culture consists of smaller subcultures that identify their members specifically. Subcultures include nationalities, religion, racial groups and geographic regions.

Social Factors: In addition to cultural factors, social factors such as reference groups, family, and social roles and statuses affect our buying behaviour. According to Kotler and Keller (2009), a person's reference groups are all the groups that have a direct (face to face) or indirect influence on their attitudes or behaviour. Groups having a direct influence are called membership groups. Some of these are primary groups with whom the person interacts fairly continuously and informally, such as family, friends, neighbours, and co-workers. People also belong to secondary groups, such as religious, professional, and trade-union groups, which tend to be more formal and require less continuous interaction. Reference groups influence members in at least three ways according to Kotler and Keller (2009). They expose an individual to new behaviours and lifestyles, they influence attitudes and self-concept, and they create pressures for conformity that may affect product and brand choices. People are also influenced by groups to which they do not belong. Aspirational groups are those a person hopes to join; dissociative groups are those whose values or behaviour an individual rejects. Where reference group influence is strong; marketers must determine how to reach and influence the group's opinion leaders. An opinion leader is the person who offers informal advice or information about a specific product or product category.

Personal Factors: Personal characteristics influence also buying decision, including characteristics as the age, stage of lifecycle, occupation and economic circumstances, personality and self-concept, lifestyle and values. By personality, we mean a set of distinguishing human psychological traits that lead to relatively consistent and enduring responses to environmental stimuli (including buying behaviour). We often describe personality in terms of such traits as self-confidence, dominance, autonomy, deference, sociability, defensiveness, and adaptability.

Concerning the lifestyle and values, people from the same subculture, social class, and occupation may lead to quite different lifestyles.

2.4. THE COUNTRY OF ORIGIN EFFECT

Country of Origin can be defined in many various ways in the literature. According to Usunier (2006), over four hundred academic articles on the country of origin have been produced in the last 40 years. The basic question behind this phenomenon responds to how individuals' perceptions of products are affected by knowledge of the country where the products were made (Ahmed, et al. 1994).

It is common to face the situation of "associations in the minds of consumers" (Aaker, 1991; Keller, 1993). For instance, according to Pappu (Pappu et al., 2007) consumers might "associate the countries France and Spain with the intangible attributes "reliability" and "durability'' in a related field, to a different degree." That is the reason why a lot of researchers suggested that the Country of Origin concept (COO) should be considered as the 5th element of the marketing mix on the traditional 4 P's, along with the product itself, its price, promotion and distribution (place) (Baker and Ballington 2002). Additionally in the global world of business affected by internalisation, according to Baker and Ballington (2002), the product country image which is more commonly described as the country of origin effect is one of the most significant attributes of a product and can offer a competitive advantage in the market place.

In addition, aspects connected to the origin of olive oil are becoming more important in consumers' choice behaviour. Dekhili and d'Hauteville (2009) showed that the region of origin was significant regarding the explanation of the consumer behaviour. Such a regional image has three sides: (1) local agronomic conditions (soils, climate); (2) traditional human knowhow; and (3) raw product characteristics (variety). Therefore, these authors discovered significant differentiations between France and Tunisia in giving credence to the role of an olive-oil-specific regional image.

More specifically, the mentioned authors found fairly noteworthy differences concerning the relative weights of the attributes of this image esteemed in each country, as the results emphasize the importance of origin cues in consumer choice and showed that French consumers tend to choose olive oil based on official signals, while Tunisian consumers mainly use origin and sensory cues.

2.5. CONCEPTS OF COUNTRY OF ORIGIN ON THE FOOD SECTOR

"Food products belong to the type known as experience goods", (Schooler 1965; Nelson, Page 14, 1974). Going back, Dichter (1962) was among the first to demonstrate that the country of origin can influence whether products are accepted or successful for the consumers. Schooler, (1965) has replicated the very first study regarding the country of origin for food products. This research, which used juice products coming from different countries found out that country stereotypes affected consumers' attitudes towards juice products, concluding that the evaluation of product quality is subjective by stereotypes towards a country. Later, Schooler and Wildt (1968) carried out an empirical test using glassware identical in every respect, except for the country of origin, and concluded that they were evaluated differently. Research is coming to verify them while investigating an extensive variety of countries of origin, consumer nationalities, and product categories by these studies, which found that country of origin is an essential extrinsic attribute to indicate quality (Agrawal & Kamakura, 1999; Ahmed & d'Astous, 1993; Hong & Wyer, 1989; Steenkamp & Van Trijp, 1996; Verlegh & Steenkamp, 1999).

In 2009, Krystallis and Chryssochoidis studied the impact of the COO effect on the evaluation of specific food products by Greek consumers. The results of this study, which was conducted in young and well educated Greek consumers, demonstrated that they "were marginally ethnocentric". Krystallis and Chryssochoidis (2009) pointed out that the existence of the COO effect activated both at the product and the attribute level. Also, the authors claimed that a more thorough analysis justified only minor differences between the competing products of domestic and foreign origin at

the attribute level, whereas the differences observed at the product level should be mainly attributed to market conditions external to the products under examination and the resulting limited familiarity with the foreign products that stimulate the COO effect at the product level.

The following hypotheses try to test if the trust for Greece as COO of olive oil is influenced by the nationality of the consumers, as well as their preference to Greek olive oil.

H1: Greeks trust Greece as country of origin of olive oil more than non- Greeks.

H2: The consumers, who prefer Greek olive oil, trust Greece as COO more than the others.

2.6. DIFFERENT OPINIONS FOR COO EFFECTIVENESS

When it comes to food products, fewer studies are faced in the literature (Carter et al., 2006; Kleppe et al., 2002; Loureiro & Umberger, 2005). French wine and cheese, German beer, and Swiss chocolate are some examples used by Kleppe et al. (2002), which lead to the rise of importance in the marketing of food products and as a consequence, the product-specific country image where the origin is the most important heuristic evaluation in this specific examples. The Country of Origin is used to measure these perceptions and also the purchase intentions of the consumers as well since companies and products are often associated with their countries of origin (White, 2012).

In contrast, regardless of abundant evidence of country of origin effect, conflicting research has emerged, which suggests that most consumers care very little about the origin of products. Liefeld (2004) suggests that only 1.4 per cent of consumers explicitly acquired a product's country of origin and only about 6 per cent of them knew the country of origin prior to the purchase. Also, according to Grunert (2005), in some cases, origin information has no consequence on quality perception. Also, Papadopoulos (2004) gave the example of French wine which has a strong image but that this image has evolved from beginning to end the product itself, rather than through methodical origin promotion.

2.7. THE ROLE OF CULTURE IN THE CONSUMPTION OF OLIVE OIL CATEGORIZED BY INTRINSIC AND EXTRINSIC ATTRIBUTES

According to Solomon et al. (1999), a consumer culture controls the precedence of specific products and the accomplishment or failure thereby. If a consumer purchases a product, expects that it will carry out his/her need. However, these needs are diverse among cultures. An example close to this research is the case of olive oil. According to Delgado and Guinard (2011), it is not clear what motivates consumers to prefer and purchase olive oil. There are major dissimilarities between olive oil-producing, Mediterranean countries and non-producing countries. Regarding the first mentioned, olive oil may be considered as a traditional food product. Based on this opinion, the literature demonstrates some significant associations between the consumption of such traditional products and cultural aspects such as values, beliefs and lifestyle directions (Vanhonacker et al., 2010). In this regard, several studies have tried to identify how consumers favour products or brands with a precise symbolic concept, well-matched with the icon they wish to express of themselves (Govers & Schoormans, 2005).

There are cases where this is projected to bear a resemblance to the kind of people who usually utilize the product (Heath & Scott, 1998). Therefore, traditional food consumers are normally not caught up in modern ways of life (Guerrero et al., 2009), where business, convenience orientation and time pressure rule. Housewives are frequently characterized in the literature as typical consumers. Furthermore, traditional food consumers are described as liking the familiar; one face of this preference being the consumption of familiar dishes (Dagevos, 2005). Based on this author, this kind of consumers has quite traditional food habits, preserving culinary habits across generations and in addition, they use to be alarmed about their health. In this context, olive oil plays a significant role.

According to Blackwell et al (2001), culture contains a complex of values, ideas, attitudes and other significant symbols that permit humans to be in touch with each other, to interpret and evaluate as members of a society. In addition, it is the sum of learned beliefs, values and customs helping to determine the behaviour of members of a given society as a consumer (Schiffman & Kanuk, 2001). Indisputably, culture is a core division not only because it influences all stages of consumer choice, but also because it exerts an extensive power on the reasons why people of diverse cultures purchase and consume products (Blackwell et al., 2001). Thus, culture assists to make plain the behavioural differences among them. Especially, through the evaluation stage, culture mostly persuades the allocation of a superior value to specific features of the product over others for the consumer.

According to Oude Ophuis and Van Trijp (1995), Steenkamp (1997), and Verbeke and Vackier (2004), it is acceptable to categorize the concept of perceived quality into two groups of factors that permit consumers to evaluate the products: intrinsic characteristics and extrinsic characteristics. Intrinsic quality cues refer to physical characteristics of the product, such as colour and odour (Bech et al., 2001), while extrinsic cues are associated to the product without being a part of it, e.g. specific labels or price (Verbeke et al., 2005). More specifically, this research focus on the case of olive oil products, whereas a large number of studies concluded that the intrinsic attributes (such as taste, colour, flavour, smell) and the extrinsic attributes (packaging, price, origin) have great importance in consumers' purchase decision (Chan-Halbrendt et al., 2010; Ward et al., 2003).

2.7.1. Health & Nutrition

Based on the literature, there are numerous studies which investigate the role of culture and food habits in the behaviour of consumers concerning such products. As a consequence, according to Nielsen et al. (1998) cross-cultural study demonstrated that there were great differentiations regarding the perceptions of virgin olive oils across France, Denmark and the UK. More specifically,

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olive oil users from these three mentioned countries agreed on the health advantages of virgin olive oil, which directs to the sense of fine health and a lengthy life. Thus, it is observed that among the countries, both hedonistic and sensory features of virgin olive oil appeared to be the most different.

Other authors focus on olive oil's health benefits and flavour (including its use to enhance the taste of recipes) as main motivators for olive oil consumption. Therefore, olive oil is promoted as favourable for health, and industrial strategies and advertising are frequently based on health claims (Duff, 1998) even though, the last years, EU regulation has set as obligatory the use of 'nutrient profiling', which were already in use in the USA and Canada, and which are under development (Blery & Sfetsiou, 2008).

Furthermore, new olive oil consumers seem to be more interested in olive oil for two main reasons: health benefits and flavour (Santosa, 2010). Olive oil is claimed to be beneficial for health, because it does not contain preservatives and also has a high content of vitamin E (Blery & Sfetsiou, 2008). Among health benefits, lowering the danger of coronary disease, preventing certain kinds of cancer and reducing inflammation have been highlighted (Medeiros and Hampton, 2007). For these reasons, Duff (1998) pointed out that the preference for olive oil is a result of health reasons because the replacement of saturated fats by olive oil results in a lowering of the rate of heart disease.

Based on the literature review, the following hypothesis is suggested:

H3: Nutrition value of olive is significant attribute for the consumers of every nationality

2.7.2. Colour

In The Netherlands and Greece, Baourakis and Baltas (2003) studied the effect of product characteristics (quality, colour, odour, image-reputation, price, package, and social influences) on olive oil brand preferences. Quality and colour are the most important predictors in the case of the Greek market. In addition, it is correct that features such as colour, packaging and product labelling

are helping producers to make a distinction for their brands from those of competing suppliers (Van der Lans et al., 2001).

Besides, Siskos et al. (2001) studied the consumption patterns of French olive oil consumers and showed the importance of the colour and company image, while price and packaging identified as lower importance to French consumers.

Based on the literature review, the following hypothesis is suggested:

H4: Colour is the most important attribute for the consumers, regardless nationality.

Regarding Uruguay, according to Gambaro et al. (2014), consumers appear to not yet have a clear preference regarding a virgin olive oil's colour but there is observed a clear tendency among the respondents to reject those oils of a yellow colour (pale yellow and golden yellow), assuming that it was indicative of poor quality olive oils, presumably because of an association with yellow-colored seed oils widely available on the local Uruguayan market. These findings agree with Mtimet et al. (2013) regarding the Tunisian market. Furthermore, according to of Mtimet et al. (2008), who analysed the Japanese consumer, the colour is the most important factor for this market and they prefer a green olive oil with a bland test.

Based on the literature review, the following hypothesis is suggested:

H5: The green olive oil is preferred for both nationalities.

2.7.3. Flavour

Regarding the flavour, Santosa and Guinard (2011) recently reported that this is an important characteristic in both the consumption and purchase motivations for olive oil, especially for extra-virgin olive oil, where sensory characteristics are even more important and according to Thompson et al. (1994), this is also a consequence of improving the taste of salads and meals.

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Regarding Italy, according to Piccolo et al. (2013), the pungency/bitterness of taste is the variable that consumers find more difficult to assess and that causes greater uncertainty in responses. In some respects, this fact may be justified by considering that bitterness and pungency are not universally recognized as a sign of quality, since inexpert consumers tend to dislike them. Finally, Cicia et al. (2013), suggest that despite recent trends in production and marketing of high-quality EVO oil with refined taste, purchasers still prefer oils with neutral flavour and taste.

Based on the literature review, the following hypothesis is suggested:

H6: The bland olive oil taste is preferred for the consumers of every nationality.

2.7.4. Quality

Mtimet et al. (2013) after conducting a conjoint experiment based on olive oil attributes (type, taste, colour, packaging, region of origin, and price) in Tunisia, showed that consumers were found to prefer more extra-virgin, followed by virgin olive oil, to pomace oil. They also prefer green coloured olive oil with strong flavoured taste and the region of origin attribute did not show a significant effect on consumers' purchasing decisions. Finally, the results show that Tunisian olive oil consumers are price sensitive and for that reason, the researchers suggest that any price strategy to introduce bottled products should take into account consumers' preferences for bulk purchase.

This is confirmed by Mtimet et al. (2011), while the results of their research indicate a higher preference of Japanese consumers to extra-virgin olive oil. It is worth mentioning that in the same research the authors confirmed that informing consumers about olive oil attributes affects their selection and consumption behaviour.

Based on the literature review, the following hypothesis is suggested:

H7: Both Greek and non – Greek prefer extra virgin olive oil.

In 2014, Muñoz et al., conducted research in Chile market, in order to find which attributes influence more positively and negatively the final price of olive oil. The positive influencers are oil acidity level, tin can container of imported oil, and origin. On the other hand, the attributes that most negatively influenced final consumer price are retailer house brand and plastic container.

Based on the literature review, the following hypotheses are suggested:

H8: Acidity level is important for Non – Greeks more than Greeks.

2.7.5. Place of purchase

Another notable characteristic related to culture and purchase behaviour is the place of purchase. Therefore, in buying olive oil at supermarkets or hypermarkets, consumers are not exposed to the sensory properties of the product, as they are at farmers'markets or direct from the producers or farms, and so their decisions are based on extrinsic factors such as packaging materials, bottle material and label design (Delgado & Guinard, 2011).

Based on the literature review, the following hypothesis is suggested:

H9: Consumers who buy on supermarket are positively influenced by packaging material.

Delgado and Guinard's (2011) study of US consumers, stated that the majority of them bought olive oil (extra-virgin) primarily at the supermarket (68%), specialty stores (50%) and farmers' markets (43%), which is going against the ways that Mediterranean consumers most frequently acquire their olive oil.

Based on the literature review, the following hypothesis is suggested:

H10: Non Greeks purchase olive oil in supermarkets more than Greeks.

2.7.6. Price

One of the most determinant factors during the decision of the purchase the product is the price, which plays a significant role in the exchange relationship among the retailer and the consumer (Angulo et al., 2000; González & Melo, 2008).The major role of price regarding the selection of olive oil, was later indicated by Dekhili and d' Hauteville (2009**)**, who pointed out that price was the most significant choice attribute in both producing (e.g., Tunisia) and non-producing (e.g., France) countries.

Regarding the UK, Martínez et al. (2002) approached the research using focus groups and conjoint analysis, in order to investigate the product attribute trade-offs that consumers make when choosing olive-oil products. One of this paper's main findings was that British consumers persist to consider olive oil as a set of individual attributes (e.g., size, taste and health) instead of a product that is perceived as encapsulating all these attributes. Also, they discovered that price was one of the most controlling factors on consumers' preferences for basic olive oil, while the next was the size of the container.

Similarly, in the Dutch market according to Baourakis and Baltas (2003) price plays the most important role in olive oil selection, followed by quality and colour. According to Erraach et al. 2014, regarding Spanish market, "origin" appears to be the second most important factor after price in determining consumer preference and utility, followed by "packaging", whereas the olive-oil colour was regarded as the least important attribute in consumer choice.

However, according to Bernabéu et al. (2009), it is true that there are exist in the market other lower-cost seed or vegetable oils being used as substitutes. Therefore, olive oil has a high price, even though it depends on its origin and its quality (Warner et al., 1984). For instance, virgin and extra-virgin olive oils are more expensive than standard olive oil. In this context, even if fair prices may be charged for olive oil in contrast to other vegetable oils, there is a precise boundary to the

price numerous consumers are prepared to pay (Mili, 2006). The existence of price as a choice decisive factor for consumers is a result of the diversity of olive-oil brands.

Based on the literature review, the following hypothesis is suggested:

H11: The price of olive oil is considered higher from the other substitutes but valuable for the consumers.

2.7.7. Packaging

G. Di Vita et al. (2014) showed that there are differentiations among the same country. The central-northern Italy sample showed a greater inclination to buy bottles of 0.75 and 0.50 cl., whereas in the southern area the responders seemed to buy 1 litre-sized bottles (52.5%) and greater 5 Bulk olive oil actually refers to oil that's not yet packaged for retail sale or equal to 5 litre-sized bottles (38.0%). Consumption of 0.75 ml. bottles was moderately widespread (8.6%), while the purchasing of 0.50 ml. bottles was practically nonexistent. This is explained from the researcher from the household composition (a large number of single households were detected among the investigated sample) or the custom of buying high-priced olive oils which could influence consumers to buy a smaller-sized bottle. Also, taste and flavour were more appreciated in central-northern Italy, while green colour and pungency were more highly evaluated in southern Italy.

According to Rosseli et al. (2016), regarding the US market, all other characteristics being equal, olive oils in containers of 0.5 L or less are sold at almost double the price of olive oils in containers over 1 L, while this huge difference is explained by the consumer's belief that container size as an important indicator of olive oil quality.

Based on the literature review, the following hypothesis is suggested:

H12: Packaging is important for consumers or every nationality.

2.7.8. Demographics

Chousou et al. (2018), examining the consumer perceptions of olive oil authenticity in Greece market, showed that the education level influences the significance of olive variety, taste, and organic production of olive oil. Also, they found that consumers with high monthly household income attach great importance to the attributes of country and region of origin, extra-virgin, certification of organic production, and reward.

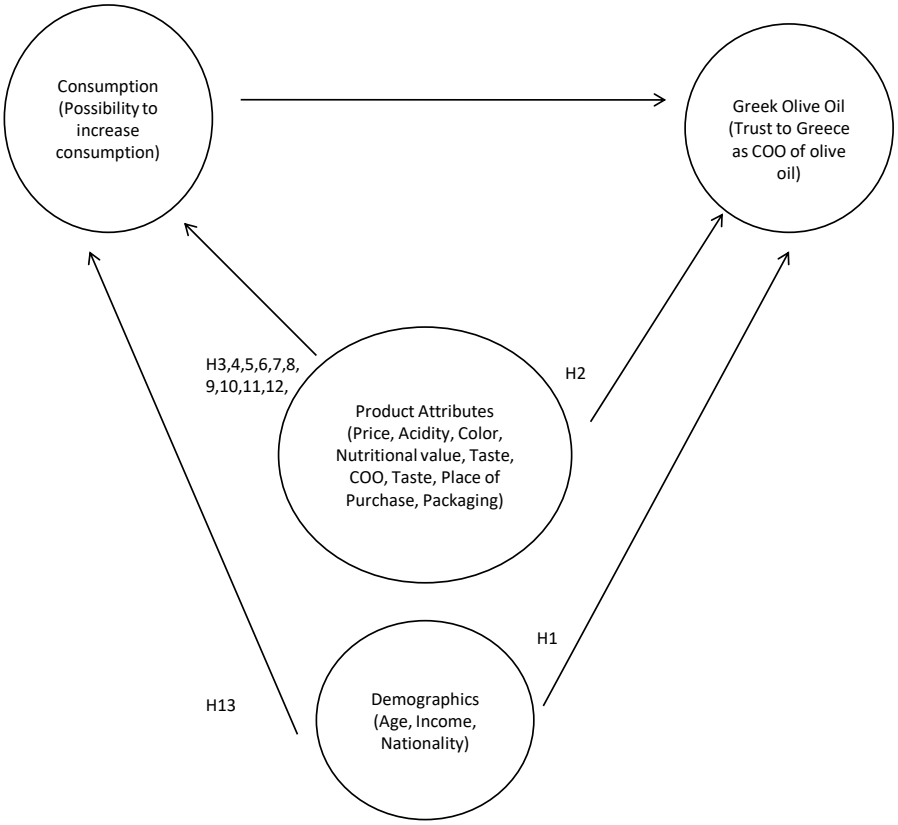
Finally, the researchers suggest that the colour and taste of olive oil are the main intrinsic attributes, whereas acidity, country and region of origin, olive variety, regional certification, and certification of organic production are the main extrinsic attributes which consumers can easily recognize, confide in, and relate to olive oil authenticity. In addition, the results reveal that regional certification and organic production affirm consumers' perceptions of olive oil authenticity.

Based on the literature review, the following hypotheses are suggested:

H13: The country of origin is more significant for consumers with higher household income.

2.8. CONCEPTUAL MODEL

Subsequent to the thorough analysis of each attribute which can affect the product image of olive oil, the segmentation of the consumers and markets to traditional and non-traditional, as well as the hypotheses for this research are formed, follows the conceptual model. The conceptual model of this research formed lying on both literature findings and consequently on the research objectives set above, endeavours to assess the research hypotheses, which influence said factors.



CHAPTER 3: METHODOLOGY

3.1. INTRODUCTION

Reading the following chapter, the reader is going to be familiar with the methodology used in order to examine the research objectives. This chapter is going to present and analyze the research design, beginning with a short review of the available research methods, followed by a description of the ones applied in this dissertation. More specifically the following sections will provide information on some important stages within the selection of the research design and the data collection method. Finally, it presents the selected research approach, the volume of the response rate and data preparation.

3.2. DATA SOURCES

As known by the literature, data can be grouped in two categories. The first category is called primary data, which is information that has been collected for a specific purpose for the first time (Kumar, 1999; Craig & Douglas, 2005). Most often, primary data are collected using the previously mentioned methods of data collection like survey, interview or observation (Hox & Boeije 2005). Primary data are collected from the researcher for the first time via three ways, namely, interviews, observations and questionnaires for the purpose of a specific research study (Kumar, 1999).

On the contrary, the other group is called secondary data which is information that has been obtained by other sources internal or external (Malhotra, 2004) at a different time and not for the particular research. Secondary data are data that have already been used and are readily accessible in quite a few sources such as libraries, magazines, reports and internet search engines. As a matter of fact, secondary data can offer economical, commercial, demographic and many other types of information for a particular market (Craig & Douglas, 2005).

3.3. TYPES OF DATA COLLECTION METHODS

Based on the literature, there are two types of data collection methods: the qualitative and the quantitative, while the research problem and the type of the mandatory information to be used as the selection determinants among these two types.

Starting with the qualitative approach, it is usually used to approach opinions and to comprehend core reasons and motives of a particular behaviour. Creswell (1998) suggests that the goal of every qualitative research is not the generalization of conclusions or results, but rather a more detailed understanding of a problem based on the experiences and thoughts of its participants. Based on Craig and Douglas, (2005, pp. 39) qualitative research is ideal when the researcher has limited information and awareness about the potential market circumstances and as a result he/she wants to widen his/her knowledge for the exact market.

Quantitative research is performed by gathering numerical data which are later analyzed using mathematical and statistical approaches in order to capture knowledge about a specific research problem (Creswell, 1994). and consequently, the acquirement of numerical data is a necessity (Kumar, 1999). Additionally, according to Burns and Grove (2001), quantitative research is a systematic process in which numerical data are used to obtain information about a particular research topic.

This study is based on this type of research which is originated on the purpose of the research that is to test the relationships of constructs that have already been developed and tested by academics, instead of using qualitative research to approach an unexplored issue or relationship. The main reason is why the target is to acquire a general idea about the research question and to measure causality and impacts of numerous factors to our dependents variables.

3.4. METHODS OF COLLECTING PRIMARY DATA USING QUESTIONNAIRE

There are four leading techniques to collect primary data using a questionnaire according to Craig and Douglas (2005). The first method is using the telephone interviewing (Craig & Douglas, 2005). The main benefits of this technique are: 1) it make possible the coverage of an extensive range of respondents without needed the physical attendance of the interviewer, 2) is a productive, fast method that provides high response rates, and 3) there is communication among the interviewer and the potential respondent, that disincline probable omissions and misunderstandings. The most important downsides of this method are: 1) the questionnaire should not be long 2) regarding business surveys, the response rate is depended on the time pressures of the interviewer, 3) some managers are uncertain to make available information due to the fear of providing information to competitors, 4) the cost for conducting the survey is superior in comparison with other methods and 5) visual techniques like ‘‘samples’’ cannot be used.

In addition, according to Craig and Douglas (2005), the second method is the traditional one, via the use of personal interviewing. The key benefits of this method are: 1) personal interviewing is the most appropriate method to perform the research, 2) it typically accomplishes large response rates, 3) the respondent can be simply detected and 4) every type of questions can be practical. On the contrary, the main disadvantages are: 1) the costs for accomplishing the survey are vastly enough 2) managers are relatively reluctant to offer information concerned that it might be exploited from the competitors and 3) regarding business research, the manager’s response rate is extremely depended on time pressures.

The third one is by the use of mail surveys. The key advantages of this procedure are: 1) it enables a sufficient coverage as it supports the researcher to sent the mail into various probable respondents, 2) the expenses for conducting the survey are almost to the point of zero, 3) respondents may be more eager to accomplish the survey as long as they are open to respond when

they will have enough free time. The most important disadvantages are: 1) there is a possibility that all respondents do not have the permissible point of literacy that required to fulfil the questionnaire, 2) there is a complexity to discover the personal details of the suitable respondent within a company in order to send the mail, 3) the nonattendance of a specialized interviewer may generate omissions and insufficient comprehension.

Finally, the fourth method is using an electronic survey (Craig & Douglas, 2005). The enormous growth of the Internet and social media has made this method pretty famous, specifically concerning business to business surveys as they rely on computer systems to a great extent. The main advantages of conducting the electronic survey are: 1) it is the most inexpensive technique for conducting a survey, 2) it is possible to make available links to facilitate the interviewer by containing thorough and helpful information concerning the survey process, 3) all types of research questionnaire can be applied (e.g. use of graphics), 4) data collection is typically "on time" and 5) respondents are free to complete the questionnaire when it is convenient for them and they will have spare time. In contrast, this method has some perceptible negative aspects such as: 1) typically the response rate is quite low as the questionnaire might be considered as "spam" (unsolicited e-mail), 2) in some cases it might be existing downloading problems, mainly when the questionnaire is attached in a particular file.

3.5 PRESENT RESEARCH APPROACH

In the case of this study, a descriptive approach was adopted, in order to determine the importance of origin attributes in the choice of olive oil and the product opinion towards Greek olive oil by consumers in Greece and several countries around the world. Analyzing attitudes toward a specific issue is typical of descriptive research (Kumar, 2002). The results of this study will endeavour to build some predictions on the managerial implication of the findings.

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Primary data should be used when the secondary data cannot supply the researcher with sufficient information (Craig & Douglas 2005, pp. 39). The purpose of this study requires the collection of primary data because there is not available in the literature any research regarding this specific topic and run in multiple countries in the same time. A structured questionnaire was created in order to execute this research gathering a large size of sample, since via internet it can be geographically. This quantitative research was conducted with a survey via questionnaire, in order to examine a specific sampling.

A questionnaire was designed to be used for data collection. The initial form of the questionnaire was in English and afterwards it was translated in Greek. The questionnaire was at first designed in English and in the end of the design stage, the questionnaire was translated in the Greek version in order to be given to Greeks consumers. This translation was made based on the back-translation method in order to ensure the homogeneity. The use of a back-translation procedure involves a native Greek speaker ensuring that the meanings of the item statements were not altered (Craig & Douglas, 2005). The 2 actual questionnaires used are demonstrated in the Appendix. The questionnaire used in this research is a structured questionnaire and all the respondents were asked to answer the same questionnaire, where the questions are the identical and in the same time where ordered in the same pattern both in Greek and English version (Appendix 1). The currency used was the US dollar for both questionnaires in order to use one and only global currency and prevent any misunderstandings.

Both final versions of the questionnaires after the Pre–test changes, were transferred to the online survey service, Google Forms, in order to secure that the design and every one aspect is identical for both questionnaires. The questionnaire is structured in six (6) main sections and was made up of open-ended questions, multiple-choice questions and a Likert scale questions, based on a 7-point scale. It is mentioned that before the completion of the questionnaire, the respondents were

set to read the main subject of the survey, as well as the identity of the researcher and for which occasion is created.

In the first section, there are given two filter questions in order to be able to select the appropriate responders and exclude all that do not match to the needed profile. Subsequently, in the third section, the questions are aimed at understanding the characteristics of the product that shape the consumer's mindset. In the fourth section, the questions refer to the country of origin and how it affects the consumption. In the end of the questionnaire (5th section), the responders should fill out the demographics information needed to shape later their profile.

More specifically, in the first section, it is required to filter out the responders in order to be the consumer and the buyer in the same time. Moreover, the rest of the responders that did not match the filters were not excluded at all, but they are driven in demographics section to form another one profile of the non- consumers and/or the non – buyers. In the second, there are given questions regarding the consumption. Here, the researcher tries to form a profile of how heavy or light consumer is the responder. To be more specific, in the 2nd section there are questions that are helpful to build a profile for olive oil consumer. The consumer's profile was measured with questions that asked the frequency that the respondents buy olive oil, the quantity they consume, the place of the buy. Concerning the 3rth session, the responder is called to describe by specific question the product characteristics of olive oil which are expected and the relationship with the substitutes on his / her mindset. Furthermore, in the 4th section, the Country of origin effect is analysed which is an area highly important regarding the foreign responders and last but not least, the 5th section analyzes the demographics information.

3.6. SAMPLING METHOD & CRITERIA

In this study, it is used a combination of types of non-probability sample. Due to the lack of recourses and sampling frame, the selected method is a combination of quota sampling and snowball effect in order to increase representativeness and the validity of the research. The researcher tried to approach a large number of people but with a variety of different characteristics in order to increase the representativeness of the population: different ages, both males and females, having different educational and employment background, all over the world.

The base of the structure of the sample is to select non-random sampling in which there is a human interaction trying to keep some attributes at the same level as in the population by using some proportions in the sample. The collection of people, events or objects investigated for the purpose of a particular research is defined as a target population (Cavana et al. 2001). This research plans to examine the product image of Greek olive oil, and if there is a scenario of different point of view based on nationality. So, it is sensible to address to Greeks first of all, because they are considered as the prior consumer of this product. In order to examine the role of nationality, it is mandatory to approach also other nationalities. This study aims to examine consumers all over the world to have the most accurate result.

In this case, the population is set by all bottled olive oil consumers. In order to achieve it, is considered as a filter question to be a consumer of bottled olive oil. This question allows the responder to fill the demographics section in order to create a profile of the non- users. Except from this, the study needs the one who buys olive oil for the household. Using this extra filter, no-interesting data for the study are excluded- they only fill the demographics section in order to create a profile. Another specific criterion for taking part in this quantitative research study is the constraint to be adults.

The total participation in this study was 520 responders, while the 232 from the total where consumers and buyers of olive oil and olive oil products. Almost the half of them and some more (345) currently resides in Greece and the other half (175) from several countries around the world.

3.7. IMPLEMENTATION

The pre-tests run before the release of the questionnaire, during October. The researcher tried to be precise and use the same profile of the responders and also to distribute it in the same location. 30 responders, 15 Greeks and 15 foreigners completed the pre-test. According to Hair et al. (2006), the original 30 respondents of the pre-test did not participate in the second test, because there may be a carryover effect from the first measurement.

The majority of the given recommendations from the responders were based on vocabulary issues. For example, in the print edition of the questionnaire, the ovals for the answers were characterized as ''not obvious and difficult to see''. In the question No5, (Appendix) it was recommended to add as an option of usage of olive oil, the beauty usage from 3 responders. Also, the word ''fruity'' which characterizes the taste of olive oil, was not familiar for 4 responders and as a result, after the pre-test the word - explanation ''intense'' was added. Another change is that after the pre- test and the notice of some misunderstandings regarding the short answers of the questionnaire, Google forms helps and explanations have been used, like examples or the use of numbers only and custom error text. Furthermore, the scale 1 to 7 was not clear for 2 responders, so an explanation is used to avoid other misunderstandings.

The questionnaire distributed from November to December 2019 in the broad perimeter of the municipality of Athens. As far as concerned the Greek participants, e-distribution took place and the international consumers are met in the Athens International Airport (AIA), including both Greece' visitors and non-visitors who just used the AIA as a transfer airport. The collection took place only in airport lounges in order to the tourists to be in a relaxed mood and also and more importantly, to be

more positive in responding. Prospective respondents were approached in a friendly manner and were briefly introduced in the topic in some cases that it was needed; the researcher helped the respondents with further explaining the questions.

3.8. ETHICAL CONSIDERATIONS

Some ethical considerations have been considered regarding this study. First of all, the participants were informed from the cover letter, in advance, about the purposes of this study and it was stated clearly that the participants' identity will be kept in strict confidentiality. Also, all the information collected was used only for the purposes of this study and were kept confidential.

3.9. ANALYTICAL METHODOLOGY

The quantitative data analyses were processed via the computer program Statistical Package for the Social Sciences (SPSS 20.0). This tool was very practical for the data analysis and necessary for understanding the results. The Likert scale, close-ended and open-ended questions were input using a coding method unique to each question. The open-ended question of the country of origin was categorized into two categories of Greeks and non – Greeks. The other open – ended questions were coded to numeric in order to be easily analyzed. Next, the categories were assigned a variable code and entered as "numeric" in order to be statistically analyzed. All the data was first analyzed using descriptive statistics. Bivariate statistics ware then used to explore the relationship between variables further. Specifically, the methods of analyses used were: independent samples t-test, one-way ANOVA, bivariate correlation (Pearsons) and cross-tabulation. The significant outcomes will be analyzed in the following chapter.

CHAPTER 4: ANALYSIS

The data collected from the online and offline survey are analyzed by the statistical package for social sciences (SPSS) version 20. 520 hypotheses have been presented in this research. The data collection analysis and the testing of the research hypothesis have been performed using descriptive statistics, correlation analysis and regression analysis.

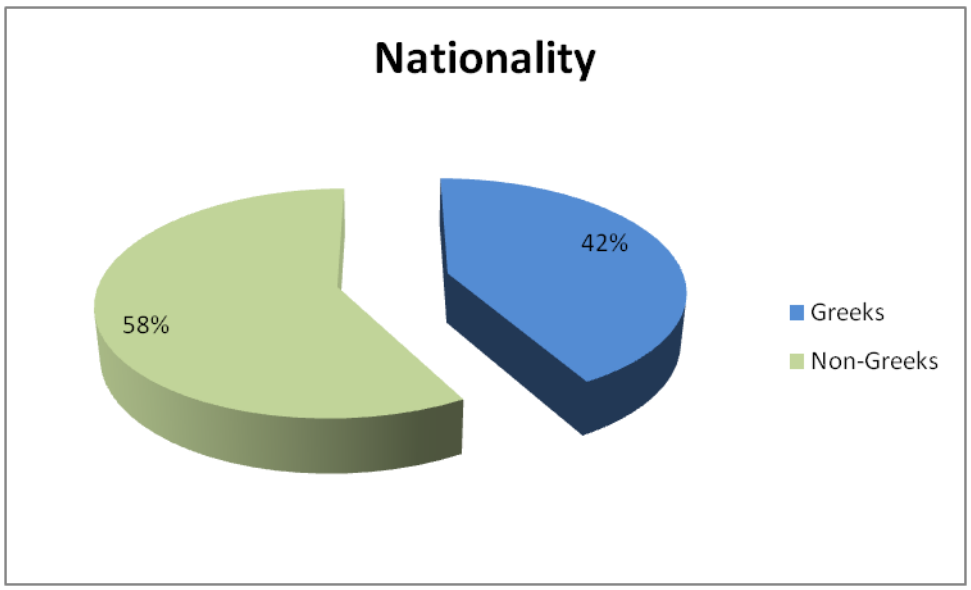
Note: every number included in the main analysis has been rounded to 2 decimal.

4.1. DEMOGRAPHICS

Before model testing, descriptive statistics were used as variables, presenting an insight into the demographic section of the sample; a profile of 232 individuals was constructed offering information concerning gender, age range, education level, occupation as well as the level of user (heavy or light). The 30 pre-test respondents were excluded from the test to avoid a carryover effect. In addition, of the 520 total respondents, only 232 remained, as 288 were rejected by filter questions as non-consumers of bottle olive oil or as non-buyers.

An extreme difficulty was faced regarding Greeks, as the majority of them (73%) use bulk olive oil or is not the buyer and consequently is excluded from the research. In contrast, this was not the same case for non – Greeks, as the majority of them (74%) consume bottled and is the buyer. This is the final sample as regards to nationality. 23 different nationalities participated to the research: Australia (2), Austria (4), Canada (2), Cyprus (1), Germany (6), India (4), Ireland (4), Italy (8), Korea (2), Lebanon (2), Luxembourg (2), Netherlands (12), New Zealand (2) Norway (2), Pakistan (2), Poland (2), Scotland (2), Sweden (4), Switzerland (10), UK (40), Ukraine (2), United Arab Emirates (2) and USA (12). In the final sample, it is almost achieved equity between Greeks and non – Greeks (figure 4.1.)

Figure 4.1 Nationality



With regards to gender, 70% of the sample was female with the remaining 30% being male (Figure 4.2). The largest age group included those between 18 and 30 years old (63%), with those from 31 to 43 (24%), 44-56 (12%), 57-68 (1%), as well as those above 68 years old following further behind (Figure 4.3).

Figure 4.2 Gender

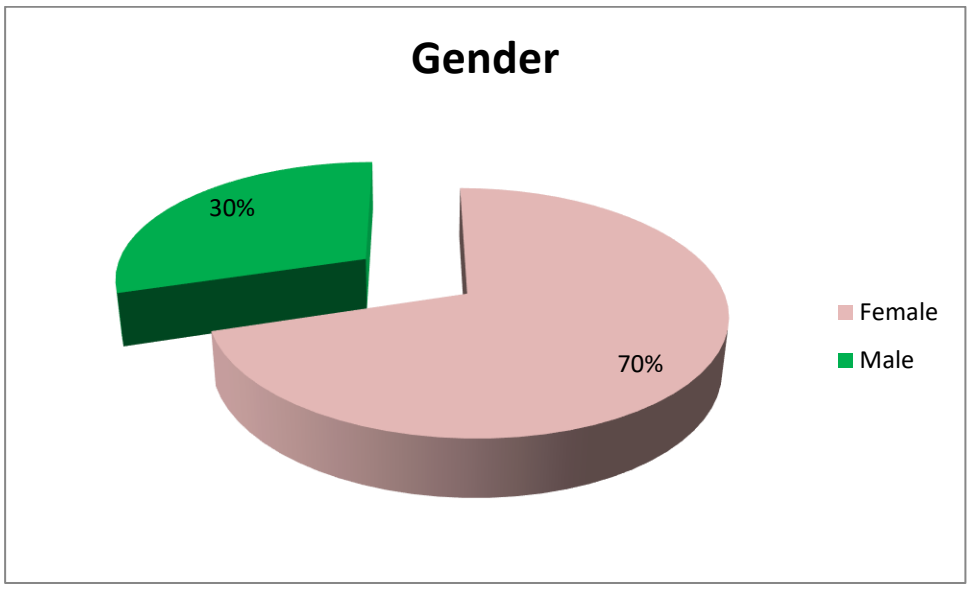
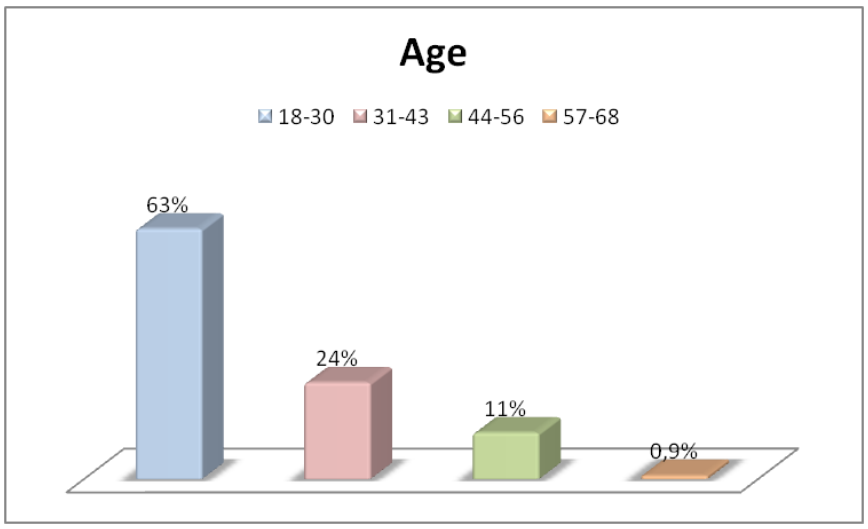


Figure 4.2 Age



When it comes to education, 45% hold a Master's degree or Doctorate degree and another 45% a Bachelor's degree, respectively. Only 10% are high school graduates and 0% posses less than high school degree (Figure 4.3). Annual household income could be another demographic characteristic that could influence consumers' behaviour against the purchase. In the sample for this study, 22% had an income ranging from 10,000-19.000, 21% had an income above 50.000€, 20 % an income less than 10.000, 14% had an income ranging from 20.000- 35.000, 13% had an income ranging from 35.000- 50.000 and 10% had no income (Figure 4.4 Income). It is mentioned that the sample is has an almost equal income distribution due to the fact that for Greeks the median was much lower that the non – Greeks.

Figure 4.3 Education

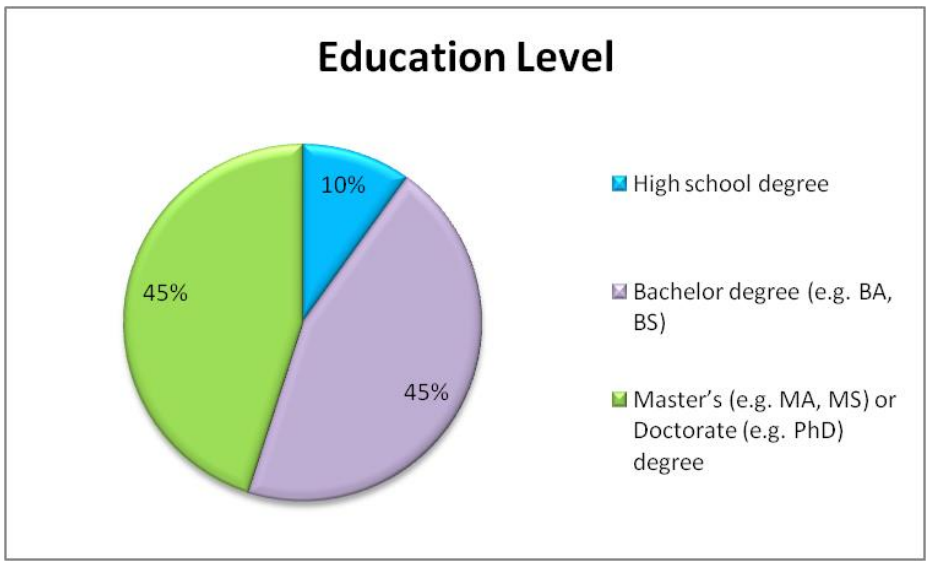
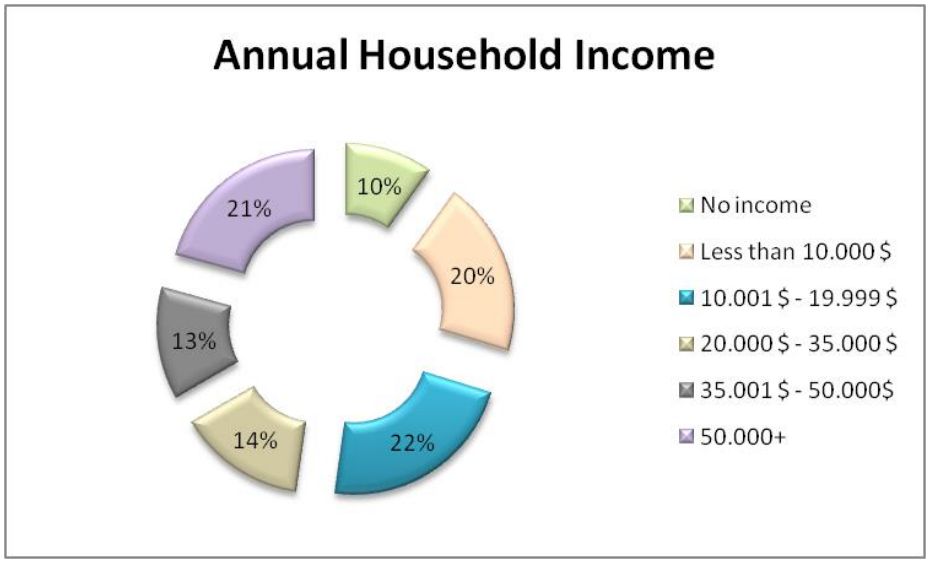


Figure 4.4 Income



4.2 CROSSTABS ANALYSIS

Beginning with the analysis of the data, the qualitative data are advanced using crosstabs and chi – square. This analysis allows the researcher to test whether there is a significant effect on the effect of nationality on several determinants. This is achieved by analyzing each variable tested with the nationality variable (Greek or non- Greek participants).

Table 4.1: Place of purchase

		Please indicate the most common place of purchase of olive oil for you.				
		Supermarket	Specialty shops	Local grocery shop	Directly from the producer	Open air markets
Greece	Count	59	0	0	42	2
	% within Nationality	57,30%	0,00%	0,00%	40,80%	1,90%
Non Greece	Count	103	8	8	8	2
	% within Nationality	79,80%	6,20%	6,20%	6,20%	1,60%

The first variable to be analyzed is the place of purchase (Table 4.1: Place of purchase) and there is an obvious difference based on the nationality, while Greeks tend to buy directly from the producer (40,8%) much more than foreigners (6,2%) who have a strong preference towards the supermarket (79,8%). From the value from fisher's exact test is 51,161 while the significance of Monte Carlo is <0,05 (sig=0) and as a result the findings can be generalized in the population. The effect of nationality to the place of the purchase is moderate because Cramer's V value = 0,458 (sig=0). As a result, the H10 hypothesis is supported. Non – Greeks purchase more in supermarkets than Greeks.

Table 4.2: Preference for COO

		Which olive oil would you prefer based on the country of origin?			
		Greek	Spanish	Italian	Other
Greece	Count	103	0	0	0
	% within Nationality	100,00%	0,00%	0,00%	0,00%
Non Greece	Count	49	6	64	10
	% within Nationality	38,00%	4,70%	49,60%	7,80%

Continuing with which olive oil the responders would prefer based on country of origin, (Table 4.2: preference for coo)it is observed an clear difference based on the nationality, while Greeks buy only Greek olive oil (100%) whereas non – Greeks do not have a clear preference but it seems to be between Greek (38%) and Italian (49,6%). From the value from fisher's exact test is 117,9 while the significance of Monte Carlo is <0,05 (sig=0) and as a result the findings can be generalized in the population. The effect of nationality to the place of the purchase is high because Cramer's V value = 0,65 (sig=0).

Table 4.3: Quantity of consumption

		How much olive oil do you consume in the household each year? (L=liter)				
		<0,750 L	0,751- 1,5 L	1,501- 5 L	5,001- 10 L	10L>
Greece	Count	0	4	24	30	45
	% within Nationality	0,00%	3,90%	23,30%	29,10%	43,70%
Non Greece	Count	12	32	48	22	15

	% within Nationality	9,30%	24,80%	37,20%	17,10%	11,60%

Regarding on how much olive oil do the responders consume as a household each based on country of origin, (Table 4.3: quantity of consumption) it is observed a very diverse image. Greeks tend to consume more than 10 litres (43,7%) and 1,5 – 10 litres (52,4%). On the other hand concerning non- Greeks, only the 11,6% of them consume more than 10 litres, while the majority (62%) consume 0,75 to 5 litres per year. Relying on the Pearson chi square value which is 55,976 while the significance of Monte Carlo is <0,05 (sig=0) so the relationship is statistically significant and any differences observed between the observed and the expected counts are real and they can be generalised to the population. Because the Asympt. Sig. (2-sided) is 0,000, then we say that we have an absolutely statistically significant relationship. The effect of nationality to the place of the purchase is moderate because Cramer's V value = 0,49 (sig=0).

Table 4.4: Preference to use more

		Where do you mostly prefer to use olive oil?						
		Salads	Baked foods	In sauces	Casserole dishes	Fried dishes	Beauty/ care	Everything
Greece	Count	56	4	0	30	6	0	7
	% within Nationality	54,40%	3,90%	0,00%	29,10%	5,80%	0,00%	6,80%
Non Greece	Count	59	20	8	8	28	4	2
	% within Nationality	45,70%	15,50%	6,20%	6,20%	21,70%	3,10%	1,60%

It is observed (table 4.4: preference to use more) that as far as the Greeks is concerned, the majority of them (83,5%) prefer to use most the olive oil on salad (54,4%) and to casserole dishes (29,1%) while non- Greeks prefer the salad as well (45,7%) but also to baked food (15,5%) and to fried dishes (21,7%). Relying on the fisher's exact test, the value is 51,387 while the significance of Monte Carlo is <0,05 (sig=0) so the relationship is statistically significant and any differences observed between the observed and the expected counts are real and they can be generalised to the population. Because the Asympt. Sig. (2-sided) is 0,000, it is an absolutely statistically significant relationship. The effect of nationality to the place of the purchase is moderate because Cramer's V value = 0,49 (sig=0).

Table 4.5: Packaging preference

		Which packaging type do you prefer the most?		
		Glass	Plastic	Metallic
Greece	Count	48	27	28
	% within Nationality	46,60%	26,20%	27,20%
Non Greece	Count	106	23	0
	% within Nationality	82,20%	17,80%	0,00%

Regarding the packaging preference (Table 4.5), there is observed serious dissimilarities based on the nationality. Beginning with non – Greeks, the massive 82,2% prefer glass packaging, while the small 17,8% prefers plastic. This contrasts with Greeks who though the majority prefer the glass as well (46,6%), the rest 53,4% split their preferences between the metal and the plastic packaging. From the value from Pearson Chi-Square is 47,851 while the significance of Monte Carlo is <0,05 (sig=0) so the relationship is statistically significant and any differences observed between the

observed and the expected counts are real and they can be generalised to the population. Because the Asympt. Sig. (2-sided) is 0,000, then we say that we have an absolutely statistically significant relationship. The effect of nationality to the place of the purchase is moderate because Cramer's V value = 0,45 (sig=0).

Table 4.6: Olive oil type

		Please indicate which olive oil type do you buy?		
		Extra Virgin	Virgin	Olive Oil
Greece	Count	74	24	5
	% within Nationality	71,80%	23,30%	4,90%
Non Greece	Count	88	20	21
	% within Nationality	68,20%	15,50%	16,30%

Regarding the type of olive oil, the responders from all nationalities have similar preferences as it is observed from Table 4.6: olive oil type. The majority of them prefer extra virgin olive oil (Greeks -71,8 , non - Greeks - 68,2) and the only variation appears regarding olive oil because Greeks do not prefer it (4,9%) almost at all while non – Greeks select it with a significant per cent of 16,3. From the value from Pearson Chi-Square is 8,61 while the significance of Monte Carlo is >0,05 (sig=0,57) so the relationship is not statistically significant and any observed deviations are due to chance or a sample anomaly and they cannot be generalised to the population. The effect of nationality to the olive oil type is very low because Cramer's V value = 0,19 (sig=0). As a result, the H7 is not supported, while the relationship is not statistically significant.

H9 Hypothesis cannot be testified due to low N, as observed from the table 4.7.

Table 4.7

PLACE OF PURCHASE				
	Frequency	Percent	Valid Percent	Cumulative Percent
Supermarket	162	31,2	69,8	69,8
Specialty shops (delicatessen)	8	1,5	3,4	73,3
Local grocery shop	8	1,5	3,4	76,7
Directly from the producer (online and offline)	50	9,6	21,6	98,3
Open air/ flea markets	4	,8	1,7	100,0
Total	232	44,6	100,0	

4.3 INDEPENDENT SAMPLES T- TEST

Besides, concerning the quantitative variables, the comparison with nationality is achieved using the independent samples t-test. The variables are grouped into 3 categories: the first team contains the variables where Greeks give more weight, the second involves the variables where the non – Greeks provide more weight and the third and last one category enclose the variables where Greeks and foreigners offer non- significant results based on nationality. 1st and 2nd categories' results are statistically important (sig <0,05) and as a result, can be generalized in the population.

Table 4.8: 1st category

Group Statistics					
	Nationality	N	Mean	Mean Difference	Sig
What percentage of the fat you consume is olive oil?	Greece	103	58,06	32,09	0,00
	Non Greece	129	25,97		
The acidity of olive oil is important to me. (1= Totally disagree, 5= Totally agree)	Greece	103	4,1	0,91	0,02
	Non Greece	129	3,19		
The nutritional value of olive oil is important to me. (1= Totally disagree, 5= Totally agree)	Greece	103	4,34	0,75	0,00
	Non Greece	129	3,54		
The brand name of olive oil is important to me. (1= Totally disagree, 5= Totally agree)	Greece	103	3,23	0,48	0,00
	Non Greece	129	2,75		

Please indicate the colour you prefer for the olive oil. (1=yellow, 7=green)	Greece	103	5,27	1,18	(Sig 2 tailed: 0,00)
	Non Greece	129	4,09		
Compared to animal fats (e.g. butter) you consider olive oil: (1=less tasty, 7=more tasty)	Greece	103	5,64	0,83	0,05
	Non Greece	129	4,81		
Compared to animal fats (e.g. butter) you consider olive oil: (1=less expensive, 7=more expensive)	Greece	103	6,44	0,84	0
	Non Greece	129	5,31		
Compared to vegetable oils (e.g. soybean oil) you consider olive oil: (1=less tasty, 7=more tasty)	Greece	103	6,58	0,98	0,00
	Non Greece	129	5,6		
Compared to vegetable oils (e.g. soybean oil) you consider olive oil: (1=less quality, 7=more quality)	Greece	103	6,06	0,46	0,29
	Non Greece	129	5,6		
Compared to vegetable oils (e.g. soybean oil) you consider olive oil: (1=less expensive, 7=more expensive)	Greece	103	6,63	1,47	0,00
	Non Greece	129	5,16		
How important is the country of origin for your final choice to buy olive oil? (1=Completely unimportant, 7=Extremely important)	Greece	103	6,17	1,68	0,00
	Non Greece	129	4,49		
Would you trust Greece as a country of origin for olive oil? (1=Not at all, 7=Absolutely)	Greece	103	6,72	0,57	0,00
	Non Greece	129	6,14		

From the Table 4.8 It is observed that the variable: "the percentage of fats", which refers to the percentage of olive oil from the total amount of the consumed fats has a very higher mean for Greeks (58,06) than for non- Greeks (25,97), while it is statistically significant (sig=0 <0,05) and the mean difference is 32,08. As a result, non – Greeks consume =~32% less olive oil than Greeks.

The next question which refers to the importance of olive oil acidity for the consumer, place Greeks more a bit more acidity oriented than non- Greeks, while the mean difference is 0,91. As a result, the H8 is not supported, as the acidity of olive oil is more important for Greeks than for non – Greeks.

Nutritional value seems to be median for both of the groups (3,34 – 2,54) but slightly more important for Greeks (mean difference= 0,75). As a result, the H3 is not supported, as the nutritional value of olive oil is moderate for both groups.

The brand name of olive oil is not very important for Greeks (mean = 2,23) but less significant is for non Greeks (mean=1,75).

As far as the colour of the olive oil concerns, the consumers differ their opinions a little bit while Greeks prefer it more green (mean= 5,27) than the non- Greeks (mean= 4,09) who prefer it in the middle of yellow and green. As a result, the H5 is not supported, as the green colour of olive oil is not preferred by both groups.

When comparing to other animal fats like butter the responders replied that they believe that olive oil is tastier but more expensive than butter, while Greeks (mean= 5,64 , 6,44) have strongest belief on this effect than non- Greeks (mean= 4,81, 5,31).

Comparing to other vegetable oils like soybean oil, Greeks (mean= 6,58, 6,06, 6,63) consider olive oil tastier, more qualitative and more expensive than non – Greeks (mean= 5,60, 5,60, 5,16) but both of their values tend to the same direction.

Regarding the importance of the country of origin for the customer's final choice to buy olive oil, Greeks seem to be very influenced by the origin (mean= 6,17) while non- Greeks are also influenced but not that much (mean= 4,49).

Both groups, Greeks (mean=6,72) and non- Greeks (6,14) trust Greece as a country of origin of olive oil to a great extent however, Greeks trust it a bit more (+0,57). From this result, the H1 hypothesis is supported. Greeks trust Greece as country of origin of olive oil a bit more than non – Greeks.

Table 4.9: 2nd category

Group Statistics					
	Nationality	N	Mean	Mean Difference	Sig
Please indicate how possible it is for you to increase the proportion of olive oil that you consume in the near future. (1= Not at all possible, 7= Absolutely possible)	Greece	103	3,15	-1,75	(Sig 2 tailed: 0,00)
	Non Greece	129	4,9		
Compared to animal fats (e.g. butter) you consider olive oil: (1=less quality, 7=more quality)	Greece	103	5,05	-0,59	0,01
	Non Greece	129	5,64		
Generally, which is your opinion towards Greece as a country?	Greece	103	5,22	-0,44	0,08
	Non Greece	129	5,66		

Asked how possible is to increase the proportion of olive oil consumption in the near future, non- Greeks (mean=4,90) respond that is more possible to increase the consumption than Greeks (mean=3,15) with the mean difference to be at the important level of 1,75 (Table 4.9).

Regarding on the comparison of quality between olive oil and animal fats like butter, the results are similar among the nationalities, although non – Greeks consider olive oil a bit more quality (+0,59) than Greeks. As a result, taking into consideration the findings from the previous table (table X), the H11 is supported, while both Greeks and non – Greeks consider olive oil as more expensive but more quality than its substitutes (animal fats and other vegetable oils).

The general opinion towards Greece as a country comes with similar results but again Non – Greeks have more positive opinion for the country than Greeks with a mean difference equal to +0,44.

Table 4.10: 3rd category

Group Statistics	Nationality	N	Mean	Mean Difference	Sig
How many times do you buy olive oil in one year?	Greece	103	5,16	0,41	(Sig 2 tailed: 0,48)
	Non Greece	129	4,75		
The price of olive oil is important to me. (1= Totally disagree, 5= Totally agree)	Greece	103	3,78	0,24	(Sig 2 tailed: 0,06)
	Non Greece	129	3,54		
The packaging of olive oil is important to me. (1= Totally disagree, 5= Totally agree)	Greece	103	3,49	0,02	(Sig 2 tailed: 0,48)
	Non Greece	129	3,47		
Please indicate the taste you prefer for the olive oil. (1= bland and 7= fruity/ intense)	Greece	103	4,31	-0,36	(Sig 2 tailed: 0,87)
	Non Greece	129	4,67		
Please indicate the number of persons in your household including yourself.	Greece	345	2,91	-0,01	(Sig 2 tailed: 0,92)
	Non Greece	175	2,92		

Facing the third and last category (Table 4.10), it is observed that both groups buy olive oil around 5 times per year while the mean difference is 0,41.

The price seems to be slightly important for the two nationality groups with a very small mean difference to the point of 0,24.

The packaging importance is considered approximately in the same level of price but there is roughly not at all mean difference (0,02). The H12 is not supported because the relationship is not statistically significant and as a consequence, results will not be valid.

Regarding the taste preference, non – Greeks prefer a lightly fruitier flavour than Greeks while the mean difference is 0,36, nevertheless both of them are in the middle of fruity / bland scale. The H6 is not supported because the relationship is not statistically significant and as a consequence, results will not be valid.

As far as the sample, the mean number of persons in the household is practically equal on the point of 3 (2,9).

5.4 CORRELATIONS

According to Saunders et al. (2000), the correlation coefficient provides a uniqueness of quantifying intercorrelations between two or more quantitative variables. After assuming that linearity exists, Pearson's correlations were conducted to examine whether there are existing correlations between the variables of the conceptual model. Correlations between two variables can range from -1 to 1; if a correlation equals 0, then there is no relationship between the two variables (Cohen, 1988).

The full data set was investigated. This approach was chosen on the assumption that the independent variables were not correlated with each other and that the dependent variables had a linear correlation with the independent variables.

Correlation matrix (Table 4.11) presents the relationships among the dependent variable "Trust for Greece as COO of olive oil" with seven independent variables, and appeared to have a weak positive correlation with:, "Percentage of consumed fats"(r=.159, N=232) (Q5), "Colour " (r=.208, N=232) (Q13), "Taste of other fats VS olive oil " (r=.182, N=232) (Q14), "Taste of other vegetable oils VS olive oil " (r=.175, N=232) (Q17), "Price of other vegetable oils VS olive oil " (r=.145, N=232) (Q19), "Importance of COO for the choice "(r=.134, N=232) (Q20), "Opinion towards Greece generally as a country "(r=.372, N=232) (Q23). Therefore, these relationships are statistically significant with pvalue<0.05. Also, after correlation analysis the following variables are not

statistically significant with pvalue >0.05: Possibility to increase consumption (Q6), Taste preferation) (Q12), Quality of other vegetable oils vs olive oil (Q18), “Price of other fats VS olive oil (Q16), “Quality of other fats VS olive oil (Q15), “Importance of brand name for the choice “ (Q11), “Importance of nutritional value for the choice “ (Q11) “Importance of acidity for the choice “ (Q11), “Importance of packaging for the choice “ “ (Q11) “Importance of price for the choice “ (Q11).

In addition, the second correlation matrix (Table 4.12) presents the relationships among the second dependent variable “Possibility to increase consumption” with seven independent variables, and appeared to have a weak positive correlation with: “Taste preferation “ (r=.197, N=232) (Q12) and “Opinion towards Greece generally as a country “(r=.144, N=232) (Q23). A weak negative correlation is appeared with: “Colour“ (r=-.199, N=232) (Q13), “Percentage of consumed fats“(r=-.176, N=232) (Q5), “Importance of COO for the choice “(r=-.155, N=232) (Q20), “Price of other vegetable oils VS olive oil“ (r=-.182, N=232) (Q19), and “Price of other fats VS olive oil “ (r=-.231, N=232) (Q17). Therefore, these relationships are statistically significant with pvalue<0.05. Also, after correlation analysis the following variables are not statistically significant with pvalue >0.05: Quality of other vegetable oils vs. olive oil (Q18), “Importance of brand name for the choice“ (Q11), “Importance of nutritional value for the choice“ (Q11) “Importance of acidity for the choice“ (Q11), “Importance of packaging for the choice“ (Q11), “Importance of price for the choice“ (Q11), “Quality of other fats VS olive oil“ (Q15), “Taste of other fats VS olive oil“ (Q14), and “Taste of other vegetable oils VS olive oil“ (Q17).

Table 4.11: Correlations

Correlations							
		Percentage of consumed fats	Colour	Taste of other fats VS olive oil	Taste of other vegetable oils VS olive oil	Price of other vegetable oils VS olive oil	Importance of COO for the choice
Trust for Greece as COO of olive oil	Pearson Correlation	,159*	,208**	,182**	,175**	,145*	,134*
	Sig. (2-tailed)	,015	,001	,005	,008	,027	,041

Table 4.12: Correlations 2

Correlations							
		Greece as country	Importance of COO	Taste of other vegetable oils VS olive oil	Taste of other fats VS olive oil	Taste	Colour
Possibility to increase consumption	Pearson Correlation	,144*	-,155*	-,182**	-,231**	,197**	-,199**
	Sig. (2-tailed)	,028	,018	,005	,000	,003	,002

4.5 ONE WAY ANOVA

In order to understand how trust for Greece as COO of olive oil and possibility to increase consumption are affected from age, income, education, preference for COO, type of oil, place of purchase, preference to use more and packaging preference one-way anova was conducted. One-way analysis of variance or one-way ANOVA analyses the variance and tests whether there is a difference between 3 or more group means (Saunders et al., 2000). All the analysis is citied in Appendix 2.

More specifically, 3 of them were not statistically significant, 1 of them, the preference to use more and trust for Greece was statistically significant so it is included in the regression analysis (see 4.7 below), while the rest of them (12) violated the Homogeneity of Variance, which is less than 0.05 (see in the appendix 2) so the non-parametric test Kruskal Wallis was conducted. More specifically there is no significant change as the sig >0,005 between the following variables:

a) Possibility to increase consumption and: Preference for COO, Preference to use more, Packaging preference, income and age.
b) Greece as COO of olive oil and: income, education, age and packaging preference.

On the other hand there is a significant change as the sig< 0,005 between the following variables:

a) Possibility to increase consumption and: Education, Type of oil and Place of purchase.
b) Greece as COO of olive oil and: Type of oil, Place of purchase and Preference to use more.

In order to evaluate the H2 hypothesis, the relationship between the Trust for Greece and Preference for COO is analyzed with anova but as mentioned before, it violates the test of homogeneity of variance (Table 4.13). The test (Table 4.14) exhibits that the relationship is statistical significant, however there is not, non parametric post hoc tests to help the user to define where the differences exist. As a result, the H2 Hypothesis is not supported.

Table 4.13

Test of Homogeneity of Variances			
Trust for Greece as COO of olive oil			
Levene Statistic	df1	df2	Sig.
4,444	3	228	,005

Table 4.14

Test Statistics[a,b]			
			Trust for Greece as COO of olive oil
Chi-Square			51,297
df			3
Asymp. Sig.			,000
Monte Carlo Sig.	Sig.		,000[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,000
a. Kruskal Wallis Test			
b. Grouping Variable: PREFERATION FOR COO			
c. Based on 10000 sampled tables with starting seed 824006022430271490.			

This test exhibits that the relationship is statistical significant however, there is no non parametric post hoc tests to help the user to define where the differences exists.

One more Anova analysis is conducted to evaluate the H13 hypothesis and figure out if there is a relationship between the importance of COO of olive oil and household income. From the table 4.15, it is not observed any issue with homogeneity (sig>0,05). From the table 4.16 it is observed sig

<0,005, that means that there is a significant change. In order to figure out the particular change, post hoc test are conducted and more specifically Hochberg test. From the table 4.17 (Appendix 2) it is observed a significant difference (sig=0,01) between the group with income, Less than 10.000 $ and with the group with income: 10.001 $ - 19.999 $. The difference is |1,133|. So as a result the H13 is supported because consumers with income between 10.001 $ - 19.999 considered the importance of COO of olive oil 1,133 point more significant (scale 1-7) than the consumers with income less than 10.000 $.

Table 4.15

Test of Homogeneity of Variances			
IMPORTANCE OF COO			
Levene Statistic	df1	df2	Sig.
2,002	5	226	,079

Table 4.16

ANOVA					
IMPORTANCE OF COO					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46,089	5	9,218	3,321	,006
Within Groups	627,342	226	2,776		
Total	673,431	231			

4.6 REGRESSION ANALYSIS

According to Malhotra and Birks (2006), regression analysis is a very valuable tool which helps to understand the degree to which the dependent variable is explained by the independent variables. In this research, two multiple linear regressions were conducted.

4.6.1 POSSIBILITY TO INCREASE CONSUMPTION OF OLIVE OIL

The first multiple linear regression analysis was conducted to investigate the relationship between the dependent variable, Possibility to increase consumption in the future (Y), and the independent ones, Greece as a country, Importance of COO, Vegetable oils – Price, Animal Fats – Price, Taste, Colour, as well as Percentage of fats. Firstly, there are five assumptions need to be met (Saunders et al., 2000): 1) Linearity Assumption, 2) Independence Assumption, 3) No multicollinearity assumption, 4) Normality assumption, 5) Homoscedasticity assumption.

Assumptions regarding normality, and the absence of multicollinearity were met. However, due to issues with heteroscedasticity, robust regression, with the use of bootstrapping, was performed so that results would be robust from the violations of these assumptions (all tables are available in Appendix 3).

In Table 4.18 the model summary is presented, revealing that the specific multiple regression portrays 17,6% of the total information. The adjusted R2 presents the value of 0,143, meaning that the independent variables cause to the constant model an arise of 0,143 points to the R2. The results came up after bootstrapping the effects.

Table 4.18

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,420[a]	,176	,143	1,828	1,839
a. Predictors: (constant), place of purchase, taste, Greece as country, butter- price, color, type of oil, percentageof_fats, importance of coo, vegetable oil- price					
b. Dependent Variable: possibility to increase consumption					

In Table 4.19 it can be seen that the proposed model is statistically significant and it can predict the dependent better compared to a model which contains only the intercept.

Table 4.19

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158,713	9	17,635	5,277	,000[b]
	Residual	741,908	222	3,342		
	Total	900,621	231			
A. Dependent variable: possibility to increase consumption						
B. Predictors: (constant), place of purchase, taste, Greece as country, butter- price, color, type of oil, percentageof_fats, importance of coo, vegetable oil- price						

In Table 4.20 (Appendix 3) the estimated values of the regression coefficients from the current multiple regression model are presented. It can be seen that all the independent variables influence the possibility to increase consumption, since Sig<0, 05, except from Vegetable oil- price, Importance of coo, Place of purchase and Type of oil. The standardized beta values reveal that the most important predictor is the Taste, since it has the bigger absolute value. In addition, there is no issue with multicollinearity, since no VIF>5 or Tolerance is <0,2. Since the data, as it has already been said, have some issues with heteroscedastisity, it has been followed the procedure of bootstrapping.

Table 4.21

Bootstrap for Coefficients						
Model	B	Bootstrap[a]				
		Bias	Std. Error	Sig. (2-tailed)	BCa 95% Confidence Interval	
					Lower	Upper
(Constant)	3,974	,055	1,040	,000	1,876	6,177
Education	,129	,007	,200	,519	-,281	,542
Greece as country	,238	,007	,096	,014	,038	,439
Importance of coo	-,033	-,002	,095	,722	-,223	,151
Vegetable oil-price	,045	-,010	,119	,702	-,193	,239
Butter- price	-,263	-,004	,120	,028	-,508	-,045
Colour	-,212	-,002	,089	,019	-,384	-,044
Taste	,299	-,001	,081	,000	,140	,451
Percentage of fats	-,009	9,693E-05	,004	,045	-,017	,000
Place of purchase	-,065	,008	,107	,546	-,270	,171
Type of oil	,055	-,016	,180	,750	-,301	,363
a. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples						

From the Table 4.21 it is observed the multiple linear regression equation:

Possibility to increase consumption =3.97 + 0,299*Taste-0,2623*butter-price +0,238*Greece as country -0,212*Colour -0,009*Percentage of fats + e.

The H4 is not supported because the colour is not the most important attribute for Greeks and non – Greeks, as from the standardized beta values it is observed that it scores fourth.

4.6.2 TRUST FOR GREECE AS COO OF OLIVE OIL

The second multiple linear regression analysis was conducted to investigate the relationship between the dependent variable, Trust for Greece as COO of olive oil (Y), and the independent ones, Greece as country, Importance of COO, Vegetable oils – Price, Animal Fats – Taste, Taste, Colour, Preference for COO, Place of purchase, Preference to use more as well as Percentage of fats.

Assumptions regarding normality, and the absence of multicollinearity were met. However, due to issues with heteroscedasticity, robust regression, with the use of bootstrapping, was performed so that results would be robust from the violations of these assumptions (all tables are available in Appendix 3).

In Table 4.22 the model summary is presented, revealing that the specific multiple regression portrays 35,2% of the total information. The adjusted R2 presents the value of 0,323, meaning that the independent variables cause to the constant model an arise of 0,323 points to the R2. The results came up after bootstrapping the effects.

Table 4.22

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,594[a]	,352	,323	,725	1,910

A. Predictors: (constant), vegetable oil - taste, greece as country, preferation for coo, place of purchase, preferance to use more, butter- taste, color, percentageof_fats, vegetable oil- price, importance of coo

B. Dependent variable: greece for oil

In Table 4.23 it can be seen that the proposed model is statistically significant and it can predict the dependent better compared to a model which contains only the intercept.

Table 4.23

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63,239	10	6,324	12,019	,000[b]
	Residual	116,278	221	,526		
	Total	179,517	231			

A. Dependent variable: greece for oil

B. Predictors: (constant), vegetable oil - taste, greece as country, preferation for coo, place of purchase, preferance to use more, butter- taste, color, percentageof_fats, vegetable oil- price, importance of coo

In Table 4.24 (Appendix 3) the estimated values of the regression coefficients from the current multiple regression model are presented. It can be seen that the independent variables that influence the trust for Greece as COO for olive oil with Sig<0, 05 are 1) Greece as country, 2) Place of purchase and 3) Preference for COO. All the other variables are excluded due to sig> 0,05. The standardized beta values reveal that the most important predictor is the Preference for COO, since it has the bigger absolute value. In addition, there is no issue with multicollinearity, since no VIF>5 or Tolerance is <0,2. Since the data, as it has already been said, have some issues with heteroscedastisity, it has been followed the procedure of bootstrapping.

Table 4.25

Bootstrap for Coefficients						
Model	B	Bootstrap[a]				
		Bias	Std. Error	Sig. (2-tailed)	BCa 95% Confidence Interval	
					Lower	Upper
(Constant)	4,322	,004	,410	,000	3,492	5,137
Percentage of fats	-,001	,000	,002	,391	-,005	,002
Colour	,049	,000	,034	,157	-,017	,116
Vegetable oil - Price	,005	-,001	,041	,895	-,076	,081
Importance of COO	-,034	-,002	,033	,303	-,098	,026
Greece as country	,285	,001	,044	,000	,197	,373
Place of purchase	,079	,000	,036	,025	,011	,149
Butter - Taste	,042	-,003	,033	,194	-,021	,098
Vegetable oil - Taste	,076	,003	,055	,168	-,030	,193
Preference for COO	-,310	-,002	,071	,000	-,449	-,176
Preference to use more	-,016	-,001	,029	,569	-,073	,036
a. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples						

From the Table 4.25 it is observed the multiple linear regression equation:

Trust for Greece as COO of olive oil =4,32 - 0,310*Preference for COO +0,285* Greece as country +0,079 *Place of Purchase + e.

4.7 HYPOTHESES TESTING SUMMARY

Below is presented an overall depiction of the tested hypotheses:

Hypothesis	Result
H1: Greeks trust Greece as country of origin of olive oil more than non- Greeks.	Supported
H2: The consumers, who prefer Greek olive oil, trust Greece as COO more than the others.	Not - Supported
H3: Nutrition value of olive is significant attribute for the consumers of every nationality	Not - Supported
H4: Colour is the most important attribute for the consumers, regardless nationality.	Not - Supported
H5: The green olive oil is preferred for both nationalities.	Not - Supported
H6: The bland olive oil taste is preferred for the consumers of every nationality.	Not - Supported
H7: Both Greek and non – Greek prefer extra virgin olive oil.	Not - Supported
H8: Acidity level is important for Non – Greeks more than Greeks.	Not - Supported
H9: Consumers who buy on supermarket are positively influenced by packaging material.	Not - Supported
H10: Non Greeks purchase olive oil in supermarkets more than Greeks.	Supported
H11: The price of olive oil is considered higher from the other substitutes but valuable for the consumers.	Supported
H12: Packaging is important for consumers or every nationality.	Not - Supported
H13: The country of origin is more significant for consumers with higher household income.	Supported

CHAPTER 5: CONCLUSIONS, IMPLICATIONS, LIMITATIONS & FUTURE DIRECTIONS

5.1 INTRODUCTION

The final chapter of this dissertation presents the conclusions, implications of the findings of this study. A discussion of the findings and their similarity to those of previous studies is examined. Moreover, managerial implications are discussed, as well as the limitations and suggestions for future research.

5.2 CONCLUSIONS

This research has attempted to provide more understanding with regards to the product image of Greek olive oil, as well as the role of consumer's nationality. Moreover, the relationship between the increase of consumption and the trust for Greece as olive oil producer is investigated as well.

Regarding the increase of consumption of olive oil, the taste has the strongest positive impact which agrees with Santosa and Guinard (2011), who reported that this is an important characteristic in both the consumption and purchase motivations for olive oil, especially for extra-virgin olive oil, where sensory characteristics are even more significant. The second strongest negative impact is the price of substitutes, and more specifically the estimation that animal fats are more expensive than olive oil. The opinion for Greece as a country has the second positive impact, which is it is consistent with Schooler, (1965) who suggests that the evaluation of product quality is subjective by stereotypes towards a country. Colour has the second negative impact to the increase of consumption, means that the consumers need it more yellow yet. This disagrees with Mtimet et al. (2008), who analysed the Japanese consumer and stated that the colour is the most important

factor for this market and they prefer a green olive oil with a bland test but agrees to the level of importance with Siskos et al. (2001) who showed that the importance of the colour.

Regarding the trust for Greece as an olive oil producer, the preference for COO (Which olive oil would you prefer based on the country of origin?) has the strongest negative impact. The opinion for Greece as a country has the strongest positive impact which consents with Dekhili and d'Hauteville (2009) who showed that the region of origin was significant regarding the explanation of the consumer behaviour and with Baker and Ballington (2002), who suggested that the country of origin effect is one of the most significant attributes of a product and can offer a competitive advantage in the market place.

5.3 IMPLICATIONS

This research aims to provide managerial understanding about the promotion of bottled Greek olive oil regarding domestic and foreign market. The results of the study can be useful for marketing managers, professionals working in media/merchandise sector and being in charge of developing brand strategies in the food industry and more specifically olive oil industry, as they can supply them with several feasible implications.

In addition, with the emergence of a plethora of options and alternatives in the food industry, customized products are a necessity for the brand of 2020 in order to maintain and then to expand its audience. In the case of olive oil, this research suggests that there is a gap in this market, especially in the foreign market as non – Greeks claimed that there it is possible to increase the consumption of olive oil in the future (mean = 4,90, scale 1-7). More specifically, the brand name seems to be indifferent to the consumers, especially for the non – Greeks (mean= 2, 75 to a scale 1-5), so managers should enforce on other characteristics in order to "catch up" the consumers. This study, suggests that the most important factor in order to increase olive oil consumption is Taste, almost neutral (4,5 in scale 1-7). This attribute may be difficult to communicate to the audience

according to Cicia et al. (2013), who suggests that despite recent trends in production and marketing of high-quality EVO oil with refined taste, purchasers still prefer oils with neutral flavour and taste. It is observed also that as of third significance of the possibility to increase consumption is the consumer's opinion for Greece generally as a country, which was more positive for the foreigners than for Greeks (mean=5,66, scale 1-7). This may be exploited by companies targeting to tourists. Another important result from this research is that the consumers showed to trust almost absolutely Greece as country of origin of olive oil (mean for Greeks 6,72, mean for foreigners 6,14; scale 1-7). This fact, combined with the general positive opinion for Greece, even from consumers who do not purchase Greek olive oil could be useful for brand managers.

What is more, taking into consideration the supported Hypothesis 10: ''Non – Greeks purchase more in supermarkets than Greeks'', the research provides useful information on olive oil distribution, so if a Greek brand endeavours to enter a foreign market, it should approach this way. On the other hand, as far as the Greek market is concerned, another gate will have to be found as most do not buy olive oil from supermarkets. Hypothesis 14: The country of origin is more significant for consumers with higher household income. This supported hypothesis offer extra information regarding the targeting of a Greek olive oil brand to a foreign or domestic market. Premium supermarkets as well as areas with higher incomes may be a potential choice for future approaches. Lastly, the supported hypothesis 12: The price of olive oil is considered higher from the other substitutes but valuable for the consumers. This result can be an important constant for future pricing approaches, as it shows that the highest price is acceptable because of the high quality, but there is no place of overpricing, as mentioned before that even if fair prices may be charged for olive oil in contrast to other vegetable oils, there is a precise price limit that many consumers are willing to pay (Mili, 2006).

5.4 LIMITATIONS

Despite the effort to provide a sturdily built study, limitations are still apparent that should be considered when interpreting the findings of the study. First and foremost, due to temporal and financial constraints the number of questionnaires collected was relatively small (n232), so it cannot be representative of the viewpoints of the whole population (added to that is the use of convenience, snowballing method as a means of data collection). Another issue the researcher pointed out was the small number of respondents in Greece - 73% of those surveyed filtered as non-consumers or non-buyers of bottled olive oil. In addition, the study is limited by the small number of non-Greeks per country, as the majority is around 2-5 per country and is not able to extract results among them. Also, there is a high percentage of younger people in the sample and this may affect the results. Last, the vast majority of the respondents were Europeans (n=202, 87%). This is promising for companies that are exporting in Europe but it is not for those who want to export to other markets.

5.5 DIRECTIONS FOR FUTURE RESEARCH

Future research could be conducted to achieve what the present dissertation failed to achieve caused by several reasons. Initially, the next research could invest more time and effort to collect a bigger number of questionnaires. Preferably, a random sampling should be used for the results to representative to the population. As it has been mentioned before, only a few citizens from each country have participated in this study except from Greece (n=103) and UK (n=40). Another study could be conducted by gathering a larger sample from other countries, in order to examine cross-cultural differences between samples. In addition, in order to be able to draw more in-depth conclusions about the differentiation in olive oil selection on the basis of nationality, a new study could distinguish its samples by geographical or traditional criteria (traditional, non – traditional markets) for the consumption of the olive oil.

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APPENDIX 1

ENGLISH QUESTIONNAIRE

Dear Participant,

This questionnaire is part of the research for my master thesis in the postgraduate program "MSc in Marketing & Communication: Specialization in International Marketing (PRIMA)" in "Athens University of Economics and Business". The conducted survey is entitled "Evaluating the product image of Greek olive oil and the role of customer nationality". The purpose of this study is to investigate consumer opinion for Greek bottled olive oil and the role of nationality in shaping this opinion. The questionnaire is designed to gather information and your participation in this study is completely voluntary. The survey should take approximately 10 minutes to complete. Please answer all the questions that follow in the given order as honestly, accurately and carefully as possible. All of the responses in this survey will be recorded anonymously and will remain private. You have the right to withdraw your participation at any time without any consequence. Please be aware that there are no right or wrong answers, your real personal opinion and perspective is the one that matters.

Thank you in advance for taking the time to assist in the study and complete this questionnaire. Your participation is appreciated. *Required

Yours sincerely,

Vasiliki Magklara

Section 1: Filter Questions

1. Do you consume bottled olive oil? * *Mark only one oval.*

a) Yes b) No *Skip to question 24*

2. Are you the person that buys olive oil for the household? * *Mark only one oval.*

a) Yes b) No *Skip to question 24*

Section 2: Consumption

3. How much olive oil do you consume in the household each year? * (*L=liter) Mark only one oval.*

a) <0,750 L b)0,751- 1,5 L c)1,501- 5 L d)5,001- 10L e) 10L>

4. How many times do you buy olive oil in one year? * *Open ended question.*

5. What percentage of the fat you consume is olive oil? * *Open ended question.*

6. Please indicate how possible it is for you to increase the proportion of olive oil that you consume in the near future. * *Mark only one oval.*

Not at all possible 1 2 3 4 5 6 7 Absolutely possible

**7. Please indicate the most common place of purchase of olive oil for you. ***Mark only one oval.*

a) Supermarket b) Specialty shops (delicatessen) c) Open air/ flea markets d) Local grocery shop e) Directly from the producer (online and offline) f) Other: *(Please indicate)*

8. Where do you mostly prefer to use olive oil? * *Mark only one oval.*

a) In salads b) In baked foods c) In sauces In casserole dishes e) In fried dishes f) Beauty/ care g) Other: *(Please indicate)*

Section 3: Product characteristics

**9. Which packaging type do you prefer the most? ***Mark only one oval.

a) Glass b) Plastic c) Metal

10. Please indicate which olive oil type do you buy? * Mark only one oval.

a) Extra virgin (acidity <= 0,8) b) Virgin (acidity <= 0,2) c) Olive oil (acidity > 2) d) Pomace oil

**11. Please indicate the level of agreement regarding the following statements. ***Mark only one oval per row.*

Tottally disagree (1) Disagree (2) Indifferent (3) Agree (4) Tottally agree (5)

a) The price of olive oil is important to me.

b) The packaging of olive oil is important to me.

c) The acidity of olive oil is important to me.

d) The nutritional value of olive oil is important to me.

e) The brand name of olive oil is important to me

12. Please indicate the taste you prefer for the olive oil. * *Mark only one oval*.

Bland 1 2 3 4 5 6 7 Fruity/ Intense

**13. Please indicate the color you prefer for the olive oil. ***Mark only one oval*.

Yellow 1 2 3 4 5 6 7 Green

**14. Compared to animal fats (e.g. butter) you consider olive oil: ***Mark only one oval.*

Less tasty 1 2 3 4 5 6 7 More tasty

**15. Compared to animal fats (e.g. butter) you consider olive oil: ***Mark only one oval.*

Less quality 1 2 3 4 5 6 7 More quality

**16. Compared to animal fats (e.g. butter) you consider olive oil: ***Mark only one oval.*

Less expensive 1 2 3 4 5 6 7 More expensive

17. Compared to other vegetable oils (e.g. soybean oil) you consider olive oil:* *Mark only one oval.*

Less tasty 1 2 3 4 5 6 7 More tasty

18. Compared to other vegetable oils (e.g. soybean oil) you consider olive oil:* *Mark only one oval.*

Less quality 1 2 3 4 5 6 7 More quality

19. Compared to other vegetable oils (e.g. soybean oil) you consider olive oil:* *Mark only one oval.*

Less expensive 1 2 3 4 5 6 7 More expensive

Section 4: Country of Origin

20. How important is the country of origin for your final choice to buy olive oil?* *Mark only one oval.*

Completely unimportant 1 2 3 4 5 6 7 Extremely important

21. Which olive oil would you prefer based on the country of origin? * *Mark only one oval.*

a) Greek b) Spanish c) Italian d) Other: (*please indicate)*

22. Would you trust Greece as a country of origin for olive oil? * *Mark only one oval.*

Not at all 1 2 3 4 5 6 7 Absolutely

23. Generally, which is your opinion towards Greece as a country? * *Mark only one oval.*

Completely negative 1 2 3 4 5 6 7 Extremely positive

Section 5: Demographics

24. Please indicate your age. * *Mark only one oval.*

a) 18-30 b) 31-43 c) 44-56 d) 57-68 e) 68+

25. Please indicate your educational level. * *Mark only one oval.*

a) Less than high school degree b) High school degree c) Bachelor degree (e.g. BA, BS) d) Master's (e.g. MA, MS)

or Doctorate (e.g. PhD) degree

**26. Please indicate your gender. ***Mark only one oval.*

a) Female b) Male

27. Please indicate your annual household income. **Mark only one oval.*

a) No income b) Less than 10.000 $ c) 10.001 $ - 19.999 $ d) 20.000 $ - 35.000 $ e) 35.001 $ - 50.000$ f)

50.001+ $

28. Please indicate the number of persons in your household including yourself. * *Open ended question.*

29. Please indicate the country where you live. * *Open ended question.*

GREEK QUESTIONNAIRE

Αγαπητέ/ή Συμμετέχοντα/ουσα,

Στα πλαίσια της διπλωματικής μου εργασίας για τις μεταπτυχιακές μου σπουδές “MSc in Marketing & Communication: Specialization in International Marketing (PRIMA)” στο Οικονομικό Πανεπιστήμιο Αθηνών (ΟΠΑ), διεξάγω μία δημοσκόπηση με θέμα «Αξιολογώντας την προϊοντική εικόνα του Ελληνικού ελαιολάδου και τις διαφορές με βάση την εθνικότητα του καταναλωτή.» Σκοπός της δημοσκόπησης είναι η διερεύνηση της γνώμης των καταναλωτών για το Ελληνικό ελαιόλαδο καθώς και ο ρόλος της εθνικότητας στη διαμόρφωσή της. Το ερωτηματολόγιο που ακολουθεί έχει σχεδιαστεί ώστε να συλλεχθούν τα απαραίτητα δεδομένα και η συμμετοχή σας στην έρευνα είναι εντελώς εθελοντική. Η διαδικασία συμπλήρωσης θα διαρκέσει περίπου 10 λεπτά. Παρακαλώ κοιτάξτε προσεκτικά το ερωτηματολόγιο και απαντήστε στις ερωτήσεις που ακολουθούν με τη σειρά που παρατίθενται και με όσο μεγαλύτερη προσοχή, ακρίβεια και ειλικρίνεια γίνεται. Όλες οι πληροφορίες που θα παρέχετε θα παραμείνουν ανώνυμες και εμπιστευτικές. Δεν χρειάζεται να γράψετε πουθενά το όνομά σας στο ερωτηματολόγιο. Έχετε το δικαίωμα να αποχωρήσετε οποιαδήποτε στιγμή χωρίς καμία απολύτως επίπτωση. Παρακαλώ να θυμάστε πως δεν υπάρχουν σωστές και λάθος απαντήσεις. Αυτό που με ενδιαφέρει είναι η πραγματική προσωπική σας γνώμη και αντίληψη.

Σας ευχαριστώ προκαταβολικά για το χρόνο σας και την προθυμία σας να συμμετέχετε στην έρευνα και να συμπληρώσετε το παρόν ερωτηματολόγιο. *Required

Με εκτίμηση,

Βασιλική Μαγκλάρα

Ενότητα 1: Ερωτήσεις φίλτρου

1) Καταναλώνετε συσκευασμένο ελαιόλαδο; * *Παρακαλώ σημειώστε μία επιλογή*

Α) Ναι β) Όχι *Κατευθυνθείτε στην ερώτηση 24*

2. Είστε εσείς αυτός που αγοράζει το ελαιόλαδο για το νοικοκυριό; * *Παρακαλώ σημειώστε μία επιλογή*

Α) Ναι β) Όχι *Κατευθυνθείτε στην ερώτηση 24*

Ενότητα 2: Κατανάλωση

3. Πόσο ελαιόλαδο καταναλώνετε σαν νοικοκυριό το χρόνο; (L=λίτρο) * *Παρακαλώ σημειώστε μία επιλογή*

Α) <0,750 L β) 0,751- 1,5 L γ) 1,501- 5 L δ) 5,001- 10 L ε)10L>

4**. Πόσες φορές αγοράζετε ελαιόλαδο σε ένα χρόνο; *** *Απάντηση ανοιχτού τύπου*

5. Από τα λιπαρά που καταναλώνετε, τι ποσοστό είναι ελαιόλαδο; * *Απάντηση ανοιχτού τύπου*

6. Παρακαλώ δηλώστε πόσο πιθανό είναι να αυξήσετε στο άμεσο μέλλον το ποσοστό του ελαιολάδου που καταναλώνετε σε σχέση με σήμερα * *Παρακαλώ σημειώστε μία επιλογή*

Απίθανο 1 2 3 4 5 6 7 Απόλυτα πιθανό

7. Παρακαλώ σημειώστε το πιο σύνηθες μέρος αγοράς ελαιολάδου για εσάς. * *Παρακαλώ σημειώστε μία επιλογή*

Α) Σουπερμαρκετ β) Ντελικατέσεν γ) Υπαίθριες αγορές δ) Τοπικά μανάβικα/ παντοπωλεία ε): Απευθείας από τον παραγωγό (είτε μέσω διαδικτυακού καταστήματος είτε σε πραγματική επαφή) στ) Άλλο *(Παρακαλώ υποδείξτε)*

8. Πού προτιμάτε περισσότερο να χρησιμοποιείτε το ελαιόλαδο; * *Παρακαλώ σημειώστε μία επιλογή*

Α)Σε σαλάτες β) Σε ψητά πιάτα γ) Σε σάλτσες (sauces) δ)Σε μαγειρευτά πιάτα Ε)Σε τηγανιτά πιάτα

Στ) Αισθητικούς λόγους(περιποίηση-ομορφιά) ζ)άλλο *(Παρακαλώ υποδείξτε)*

Ενότητα 3: Προϊοντικά χαρακτηριστικά

9. Τι είδους συσκευασία προτιμάτε περισσότερο; * *Παρακαλώ σημειώστε μία επιλογή*

Α) Γυάλινη β) Πλαστική γ) Μεταλλική

10. Τι τύπο ελαιολάδου προτιμάτε; * *Παρακαλώ σημειώστε μία επιλογή*

Α) Έξτρα παρθένο (οξύτητα <=0,8) β)Παρθένο (οξύτητα <=2) γ) Ελαιόλαδο (οξύτητα >2) δ)Πυρηνέλαιο

11. Παρακαλώ επιλέξτε το βαθμό συμφωνίας σας αναφορικά με τις ακόλουθες προτάσεις. * *Παρακαλώ σημειώστε μία επιλογή ανά σειρά*

Διαφωνώ απόλυτα (1), Διαφωνώ (2), Ούτε διαφωνώ/ Ούτε συμφωνώ (3), Συμφωνώ (4), Συμφωνώ Απόλυτα(5)

Α)Η τιμή του ελαιολάδου είναι σημαντική για εμένα.

Β) Η συσκευασία του ελαιολάδου είναι σημαντική για εμένα.

Γ) Η οξύτητα του ελαιολάδου είναι σημαντική για εμένα.

Δ) Η διατροφική αξία του ελαιολάδου είναι σημαντική για εμένα.

Ε) Η επωνυμία του ελαιολάδου είναι σημαντική για εμένα.

12. Στην παρακάτω κλίμακα, επιλέξτε τι γεύση προτιμάτε για το ελαιόλαδο; * *Παρακαλώ σημειώστε μία επιλογή*

Ήπια 1 2 3 4 5 6 7 Φρουτώδης/ Έντονη

13. Στην παρακάτω κλίμακα, επιλέξτε τι χρώμα προτιμάτε στο ελαιόλαδο; * *Παρακαλώ σημειώστε μία επιλογή*

Κίτρινο 1 2 3 4 5 6 7 Πράσινο

14. Σε σχέση με ζωικά λίπη (π.χ. βούτυρο) θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο ακριβό 1 2 3 4 5 6 7 Περισσότερο ακριβό

15. Σε σχέση με ζωικά λίπη (π.χ. βούτυρο) θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο γευστικό 1 2 3 4 5 6 7 Περισσότερο γευστικό

16. Σε σχέση με ζωικά λίπη (π.χ. βούτυρο) θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο ποιοτικό 1 2 3 4 5 6 7 Περισσότερο ποιοτικό

17. Σε σχέση με άλλα φυτικά έλαια (π.χ. σπορέλαιο), θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο γευστικό 1 2 3 4 5 6 7 Περισσότερο γευστικό

18. Σε σχέση με άλλα φυτικά έλαια (π.χ. σπορέλαιο), θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο ακριβό 1 2 3 4 5 6 7 Περισσότερο ακριβό

19. Σε σχέση με άλλα φυτικά έλαια (π.χ. σπορέλαιο), θεωρείτε το ελαιόλαδο: * *Παρακαλώ σημειώστε μία επιλογή*

Λιγότερο ποιοτικό 1 2 3 4 5 6 7 Περισσότερο ποιοτικό

Ενοτητα 4: Χώρα προέλευσης

20. Πόσο σημαντική είναι η χώρα προέλευσης για την τελική σας επιλογή για την αγορά ελαιολάδου; * *Παρακαλώ σημειώστε μία επιλογή*

Απόλυτα ασήμαντη 1 2 3 4 5 6 7 Απόλυτα σημαντική

21. Ποιο ελαιόλαδο θα προτιμούσατε με βάση τη χώρα προέλευσης; * *Παρακαλώ σημειώστε μία επιλογή*

Α) Ελληνικό β) Ισπανικό γ) Ιταλικό δ) Άλλο

22. Θα εμπιστευόσασταν την Ελλάδα ως χώρα προέλευσης ελαιολάδου; * *Παρακαλώ σημειώστε μία επιλογή*

Καθόλου 1 2 3 4 5 6 7 Απόλυτα

23. Τι γνώμη έχετε για την Ελλάδα ως χώρα γενικότερα; * *Παρακαλώ σημειώστε μία επιλογή*

Απόλυτα αρνητική 1 2 3 4 5 6 7 Απόλυτα θετική

Ενότητα 5: Δημογραφικά χαρακτηριστικά

24. Παρακαλώ επισημάνετε την ηλικία σας. * *Παρακαλώ σημειώστε μία επιλογή*

Α) 18-30 β) 31-43 γ) 44-56 δ) 57-68 ε) 68+

25. Παρακαλώ επιλέξτε το επίπεδο εκπαίδευσής σας. * *Παρακαλώ σημειώστε μία επιλογή*

Α) Απόφοιτος Δημοτικού β) Απόφοιτος Γυμνασίου/Λυκείου γ) Απόφοιτος ΑΕΙ/ΤΕΙ δ)Κάτοχος Μεταπτυχιακού / Διδακτορικού

26. Φύλο: * *Παρακαλώ σημειώστε μία επιλογή*

Α) Γυναίκα β)Άνδρας

27. Παρακαλώ υποδείξτε το εισόδημά σας ως νοικοκυριό σε ένα έτος. *Παρακαλώ σημειώστε μία επιλογή*

Α) Καθόλου εισόδημα β) Κάτω απο 10.000 $ γ) 10.001 $ - 19.999 $ δ) 20.000 $ - 35.000 $ ε) 35.001 $ - 50.000$ στ) 50.001+ $

28. Παρακαλώ σημειώστε τον αριθμό των ατόμων στο νοικοκυριό σας, συμπεριλαμβανομένου του εαυτού σας. * *Απάντηση ανοιχτού τύπου*

29. Παρακαλώ σημειώστε τη χώρα στην οποία ζείτε: * *Απάντηση ανοιχτού τύπου*

APPENDIX 2

GREECE FOR OIL & ANNUAL INCOME

Test of Homogeneity of Variances			
Greece FOR OIL			
Levene Statistic	df1	df2	Sig.
5,312	5	226	,000

ANOVA					
Greece FOR OIL					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11,545	5	2,309	3,107	,010
Within Groups	167,973	226	,743		
Total	179,517	231			

Robust Tests of Equality of Means				
Greece FOR OIL				
	Statistic[a]	df1	df2	Sig.
Welch	3,404	5	94,630	,007
Brown-Forsythe	3,043	5	153,248	,012
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & ANNUAL INCOME

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
1,006	5	226	,415

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36,641	5	7,328	1,917	,092

Within Groups	863,979	226	3,823		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	1,892	5	93,521	,103
Brown-Forsythe	1,892	5	192,456	,097
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & EDUCATION

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
3,904	2	229	,022

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51,787	2	25,894	6,986	,001
Within Groups	848,833	229	3,707		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	7,684	2	65,602	,001
Brown-Forsythe	7,180	2	106,222	,001
a. Asymptotically F distributed.				

GREECE FOR OIL & EDUCATION

Test of Homogeneity of Variances
Greece FOR OIL

Levene Statistic	df1	df2	Sig.
5,237	2	229	,006

ANOVA

Greece FOR OIL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,517	2	,758	,975	,379
Within Groups	178,001	229	,777		
Total	179,517	231			

Robust Tests of Equality of Means

Greece FOR OIL

	Statistic[a]	df1	df2	Sig.
Welch	1,247	2	72,856	,294
Brown-Forsythe	1,169	2	156,701	,313

a. Asymptotically F distributed.

Greece FOR OIL &AGE

Test of Homogeneity of Variances

POSSIBILITY TO INCREASE CONSUMPTION

Levene Statistic	df1	df2	Sig.
2,510	3	228	,060

ANOVA

POSSIBILITY TO INCREASE CONSUMPTION

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33,333	3	11,111	2,921	,035
Within Groups	867,287	228	3,804		
Total	900,621	231			

Robust Tests of Equality of Means[b]				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	.	.	.	.
Brown-Forsythe	.	.	.	.
a. Asymptotically F distributed.				
b. Robust tests of equality of means cannot be performed for POSSIBILITY TO INCREASE CONSUMPTION because at least one group has 0 variance.				

Post Hoc Tests

Multiple Comparisons							
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION							
	(I) AGE	(J) AGE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Gabriel	18-30	31-43	-,042	,306	1,000	-,83	,75
		44-56	1,012	,415	,052	-,01	2,03
		57-68	2,243	1,388	,218	-,64	5,13
	31-43	18-30	,042	,306	1,000	-,75	,83
		44-56	1,055	,463	,120	-,15	2,26
		57-68	2,286	1,404	,263	-,79	5,36
	44-56	18-30	-1,012	,415	,052	-2,03	,01
		31-43	-1,055	,463	,120	-2,26	,15
		57-68	1,231	1,431	,903	-2,07	4,54
	57-68	18-30	-2,243	1,388	,218	-5,13	,64
		31-43	-2,286	1,404	,263	-5,36	,79
		44-56	-1,231	1,431	,903	-4,54	2,07
Hochberg	18-30	31-43	-,042	,306	1,000	-,85	,77
		44-56	1,012	,415	,089	-,09	2,11
		57-68	2,243	1,388	,492	-1,44	5,93
	31-43	18-30	,042	,306	1,000	-,77	,85

		44-56	1,055	,463	,133	-,17	2,28
		57-68	2,286	1,404	,483	-1,44	6,01
	44-56	18-30	-1,012	,415	,089	-2,11	,09
		31-43	-1,055	,463	,133	-2,28	,17
		57-68	1,231	1,431	,948	-2,57	5,03
	57-68	18-30	-2,243	1,388	,492	-5,93	1,44
		31-43	-2,286	1,404	,483	-6,01	1,44
		44-56	-1,231	1,431	,948	-5,03	2,57
Games-Howell	18-30	31-43	-,042	,332	,999	-,91	,83
		44-56	1,012	,407	,080	-,09	2,11
		57-68	2,243*	,153	,000	1,85	2,64
	31-43	18-30	,042	,332	,999	-,83	,91
		44-56	1,055	,479	,135	-,21	2,32
		57-68	2,286*	,295	,000	1,51	3,07
	44-56	18-30	-1,012	,407	,080	-2,11	,09
		31-43	-1,055	,479	,135	-2,32	,21
		57-68	1,231*	,377	,016	,19	2,27
	57-68	18-30	-2,243*	,153	,000	-2,64	-1,85
		31-43	-2,286*	,295	,000	-3,07	-1,51
		44-56	-1,231*	,377	,016	-2,27	-,19

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

POSSIBILITY TO INCREASE CONSUMPTION			
	AGE	N	Subset for alpha = 0.05
			1
Gabriel[a,b]	57-68	2	2,00
	44-56	26	3,23
	18-30	148	4,24
	31-43	56	4,29

	Sig.		,157
Ryan-Einot-Gabriel-Welsch Range	57-68	2	2,00
	44-56	26	3,23
	18-30	148	4,24
	31-43	56	4,29
	Sig.		,210
Hochberg[a,b]	57-68	2	2,00
	44-56	26	3,23
	18-30	148	4,24
	31-43	56	4,29
	Sig.		,157
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 7,104.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

GREECE FOR OIL & PREFERENCE FOR COO

Test of Homogeneity of Variances			
Greece FOR OIL			
Levene Statistic	df1	df2	Sig.
4,444	3	228	,005

ANOVA					
Greece FOR OIL					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	41,627	3	13,876	22,943	,000
Within Groups	137,890	228	,605		
Total	179,517	231			

Robust Tests of Equality of Means
Greece FOR OIL

	Statistic[a]	df1	df2	Sig.
Welch	16,068	3	16,014	,000
Brown-Forsythe	15,206	3	28,227	,000
a. Asymptotically F distributed.				

GREECE FOR OIL & TYPE OF OIL

Test of Homogeneity of Variances			
Greece FOR OIL			
Levene Statistic	df1	df2	Sig.
1,660	2	229	,192

ANOVA					
Greece FOR OIL					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,214	2	1,607	2,088	,126
Within Groups	176,303	229	,770		
Total	179,517	231			

Robust Tests of Equality of Means				
Greece FOR OIL				
	Statistic[a]	df1	df2	Sig.
Welch	1,482	2	54,355	,236
Brown-Forsythe	1,793	2	62,673	,175
a. Asymptotically F distributed.				

GREECE FOR OIL & PLACE OF PURCHASE

Test of Homogeneity of Variances			
Greece FOR OIL			
Levene Statistic	df1	df2	Sig.
8,631	4	227	,000

ANOVA

Greece FOR OIL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13,937	4	3,484	4,777	,001
Within Groups	165,580	227	,729		
Total	179,517	231			

Robust Tests of Equality of Means[b]

Greece FOR OIL

	Statistic[a]	df1	df2	Sig.
Welch	.	.	.	.
Brown-Forsythe	.	.	.	.

a. Asymptotically F distributed.

b. Robust tests of equality of means cannot be performed for Greece FOR OIL because at least one group has 0 variance.

GREECE FOR OIL & PREFENCE TO USE MORE

Test of Homogeneity of Variances

Greece FOR OIL

Levene Statistic	df1	df2	Sig.
1,995	6	225	,067

ANOVA

Greece FOR OIL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11,237	6	1,873	2,504	,023
Within Groups	168,280	225	,748		
Total	179,517	231			

Robust Tests of Equality of Means

Greece FOR OIL

	Statistic[a]	df1	df2	Sig.
Welch	2,288	6	24,903	,068
Brown-Forsythe	2,082	6	32,743	,082
a. Asymptotically F distributed.				

GREECE FOR OIL & PACKAGING PREFERENCE

Test of Homogeneity of Variances			
Greece FOR OIL			
Levene Statistic	df1	df2	Sig.
18,772	2	229	,000

ANOVA					
Greece FOR OIL					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10,158	2	5,079	6,868	,001
Within Groups	169,359	229	,740		
Total	179,517	231			

Robust Tests of Equality of Means				
Greece FOR OIL				
	Statistic[a]	df1	df2	Sig.
Welch	17,128	2	98,244	,000
Brown-Forsythe	11,711	2	143,198	,000
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & PACKAGING PREFERATION

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
5,461	2	229	,005

ANOVA

POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51,929	2	25,965	7,006	,001
Within Groups	848,691	229	3,706		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	11,519	2	75,727	,000
Brown-Forsythe	8,863	2	120,947	,000
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & PREFENCE TO USE MORE

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
2,551	6	225	,021

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	89,675	6	14,946	4,147	,001
Within Groups	810,945	225	3,604		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	15,064	6	29,019	,000
Brown-Forsythe	6,091	6	115,596	,000
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & TYPE OF OIL

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
1,832	4	227	,124

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32,141	4	8,035	2,100	,082
Within Groups	868,480	227	3,826		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	2,803	4	13,674	,068
Brown-Forsythe	2,378	4	16,540	,094
a. Asymptotically F distributed.				

TYPE OF OIL & POSSIBILITY TO INCREASE

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
6,587	2	229	,002

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16,278	2	8,139	2,108	,124
Within Groups	884,343	229	3,862		
Total	900,621	231			

Robust Tests of Equality of Means

POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	3,413	2	65,095	,039
Brown-Forsythe	2,909	2	109,751	,059
a. Asymptotically F distributed.				

POSSIBILITY TO INCREASE & PREFERANCE FOR COO

Test of Homogeneity of Variances			
POSSIBILITY TO INCREASE CONSUMPTION			
Levene Statistic	df1	df2	Sig.
3,793	3	228	,011

ANOVA					
POSSIBILITY TO INCREASE CONSUMPTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	85,095	3	28,365	7,930	,000
Within Groups	815,525	228	3,577		
Total	900,621	231			

Robust Tests of Equality of Means				
POSSIBILITY TO INCREASE CONSUMPTION				
	Statistic[a]	df1	df2	Sig.
Welch	8,623	3	18,266	,001
Brown-Forsythe	13,119	3	60,575	,000
a. Asymptotically F distributed.				

NON PARAMETRIC TEST

Greece FOR OIL & PREFERATION FOR COO

Ranks			
	PREFERATION FOR COO	N	Mean Rank
Greece FOR OIL	Greek	152	134,93
	Spanish	6	32,17

	Italian	64	89,97
	Other	10	56,70
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			51,297
df			3
Asymp. Sig.			,000
Monte Carlo Sig.	Sig.		,000[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,000
a. Kruskal Wallis Test			
b. Grouping Variable: PREFERATION FOR COO			
c. Based on 10000 sampled tables with starting seed 5557525355736306700.			

POSSIBILITY TO INCREASE CONSUMPTION & PREFERATION FOR COO

Ranks			
	PREFERATION FOR COO	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Greek	152	101,97
	Spanish	6	131,83
	Italian	64	143,94
	Other	10	152,50
	Total	232	

Test Statistics[a,b]	
	POSSIBILITY TO INCREASE

			CONSUMPTION
Chi-Square			21,502
df			3
Asymp. Sig.			,000
Monte Carlo Sig.	Sig.		,000[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,000
a. Kruskal Wallis Test			
b. Grouping Variable: PREFERATION FOR COO			
c. Based on 10000 sampled tables with starting seed 6252171291911082000.			

POSSIBILITY TO INCREASE CONSUMPTION & TYPE OF OIL

Ranks			
	TYPE OF OIL	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Extra Virgin	162	116,57
	Virgin	44	104,09
	Olive Oil	26	137,04
	Total	232	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			4,032
df			2
Asymp. Sig.			,133
Monte Carlo Sig.	Sig.		,131[c]
	99% Confidence Interval	Lower Bound	,122
		Upper Bound	,140
a. Kruskal Wallis Test			
b. Grouping Variable: TYPE OF OIL			

c. Based on 10000 sampled tables with starting seed 8849327128347933700.

Greece FOR OIL & TYPE OF OIL

Ranks			
	TYPE OF OIL	N	Mean Rank
Greece FOR OIL	Extra Virgin	162	118,13
	Virgin	44	121,82
	Olive Oil	26	97,35
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			3,284
df			2
Asymp. Sig.			,194
Monte Carlo Sig.	Sig.		,193[c]
	99% Confidence Interval	Lower Bound	,183
		Upper Bound	,204
a. Kruskal Wallis Test			
b. Grouping Variable: TYPE OF OIL			
c. Based on 10000 sampled tables with starting seed 6954400445020202000.			

Greece FOR OIL& PLACE OF PURCHASE

Ranks			
	PLACE OF PURCHASE	N	Mean Rank
Greece FOR OIL	Supermarket	162	112,39
	Specialty shops (delicatessen)	8	64,50
	Local grocery shop	8	88,75
	Directly from the producer (online and offline)	50	138,98

	Open air/ flea markets	4	161,50
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			18,716
df			4
Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PLACE OF PURCHASE			
c. Based on 10000 sampled tables with starting seed 6169284015734423600.			

POSSIBILITY TO INCREASE CONSUMPTION & PLACE OF PURCHASE

Ranks			
	PLACE OF PURCHASE	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Supermarket	162	120,17
	Specialty shops (delicatessen)	8	147,25
	Local grocery shop	8	144,00
	Directly from the producer (online and offline)	50	95,50
	Open air/ flea markets	4	114,00
	Total	232	

Test Statistics[a,b]	
	POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square	8,605

df			4
Asymp. Sig.			,072
Monte Carlo Sig.	Sig.		,065[c]
	99% Confidence Interval	Lower Bound	,059
		Upper Bound	,071
a. Kruskal Wallis Test			
b. Grouping Variable: PLACE OF PURCHASE			
c. Based on 10000 sampled tables with starting seed 602360688484980740.			

POSSIBILITY TO INCREASE CONSUMPTION & PREFERANCE TO USE MORE

Ranks			
	PREFERANCE TO USE MORE	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Salads	115	104,29
	Baked foods	24	115,08
	In sauces	8	125,63
	Casserole dishes	38	90,08
	Fried dishes	34	144,32
	Total	219	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			15,660
df			4
Asymp. Sig.			,004
Monte Carlo Sig.	Sig.		,003[c]
	99% Confidence Interval	Lower Bound	,002
		Upper Bound	,004
a. Kruskal Wallis Test			
b. Grouping Variable: PREFERANCE TO USE MORE			

c. Based on 10000 sampled tables with starting seed 5207213214346967000.

Greece FOR OIL & PREFERANCE TO USE MORE

Ranks			
	PREFERANCE TO USE MORE	N	Mean Rank
Greece FOR OIL	Salads	115	111,24
	Baked foods	24	90,46
	In sauces	8	70,63
	Casserole dishes	38	133,71
	Fried dishes	34	102,35
	Total	219	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			14,728
df			4
Asymp. Sig.			,005
Monte Carlo Sig.	Sig.		,004[c]
	99% Confidence Interval	Lower Bound	,003
		Upper Bound	,006
a. Kruskal Wallis Test			
b. Grouping Variable: PREFERANCE TO USE MORE			
c. Based on 10000 sampled tables with starting seed 5054666235479278600.			

Greece FOR OIL & PACKAGING PREFERATION

Ranks			
	PACKAGING PREFERATION	N	Mean Rank
Greece FOR OIL	Glass	154	107,56
	Plastic	50	126,58
	Metallic	28	147,64
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			13,043
df			2
Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PACKAGING PREFERATION			
c. Based on 10000 sampled tables with starting seed 5165062464768517100.			

Ranks			
	PACKAGING PREFERATION	N	Mean Rank
Greece FOR OIL	Glass	154	107,56
	Plastic	50	126,58
	Metallic	28	147,64
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			13,043
df			2
Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PACKAGING PREFERATION			
c. Based on 10000 sampled tables with starting seed 5165062464768517100.			

POSSIBILITY TO INCREASE CONSUMPTION & PACKAGING PREFERATION

Ranks			
	PACKAGING PREFERATION	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Glass	154	127,01
	Plastic	50	104,42
	Metallic	28	80,29
	Total	232	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			13,865
df			2
Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PACKAGING PREFERATION			
c. Based on 10000 sampled tables with starting seed 3538406553514814500.			

Ranks			
	PACKAGING PREFERATION	N	Mean Rank
Greece FOR OIL	Glass	154	107,56
	Plastic	50	126,58
	Metallic	28	147,64
	Total	232	

Test Statistics[a,b]	
	Greece FOR OIL
Chi-Square	13,043
df	2

Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PACKAGING PREFERATION			
c. Based on 10000 sampled tables with starting seed 5165062464768517100.			

Ranks			
	PACKAGING PREFERATION	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Glass	154	127,01
	Plastic	50	104,42
	Metallic	28	80,29
	Total	232	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			13,865
df			2
Asymp. Sig.			,001
Monte Carlo Sig.	Sig.		,001[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,002
a. Kruskal Wallis Test			
b. Grouping Variable: PACKAGING PREFERATION			
c. Based on 10000 sampled tables with starting seed 3538406553514814500.			

POSSIBILITY TO INCREASE CONSUMPTION & GENDER

Ranks			
	GENDER	N	Mean Rank

POSSIBILITY TO INCREASE CONSUMPTION	Female	162	114,44
	Male	70	121,27
	Total	232	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			,519
df			1
Asymp. Sig.			,471
Monte Carlo Sig.	Sig.		,471[c]
	99% Confidence Interval	Lower Bound	,458
		Upper Bound	,484
a. Kruskal Wallis Test			
b. Grouping Variable: GENDER			
c. Based on 10000 sampled tables with starting seed 4717599300631524400.			

Greece FOR OIL& GENDER

Ranks			
	GENDER	N	Mean Rank
Greece FOR OIL	Female	162	111,91
	Male	70	127,13
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			3,317
df			1
Asymp. Sig.			,069
Monte Carlo Sig.	Sig.		,067[c]
	99% Confidence Interval	Lower Bound	,060

		Upper Bound	,073
a. Kruskal Wallis Test			
b. Grouping Variable: GENDER			
c. Based on 10000 sampled tables with starting seed 8198793480618126300.			

Greece FOR OIL &AGE

Ranks			
	AGE	N	Mean Rank
Greece FOR OIL	18-30	148	101,47
	31-43	56	139,93
	44-56	26	142,73
	Total	230	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			24,272
df			2
Asymp. Sig.			,000
Monte Carlo Sig.	Sig.		,000[c]
	99% Confidence Interval	Lower Bound	,000
		Upper Bound	,000
a. Kruskal Wallis Test			
b. Grouping Variable: AGE			
c. Based on 10000 sampled tables with starting seed 8504305807483966500.			

POSSIBILITY TO INCREASE CONSUMPTION& AGE

Ranks			
	AGE	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	18-30	148	118,77
	31-43	56	120,50
	44-56	26	86,12
	Total	230	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			5,880
df			2
Asymp. Sig.			,053
Monte Carlo Sig.	Sig.		,051[c]
	99% Confidence Interval	Lower Bound	,045
		Upper Bound	,057
a. Kruskal Wallis Test			
b. Grouping Variable: AGE			
c. Based on 10000 sampled tables with starting seed 2997567922861465600.			

POSSIBILITY TO INCREASE CONSUMPTION & EDUCATION

Ranks			
	EDUCATION	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	Master's (e.g. MA, MS) or Doctorate (e.g. PhD) degree	24	76,92
	2	108	128,56
	3	100	112,98
	Total	232	

Test Statistics[a,b]			
			POSSIBILITY TO INCREASE CONSUMPTION
Chi-Square			12,393
df			2
Asymp. Sig.			,002
Monte Carlo Sig.	Sig.		,002[c]
	99% Confidence Interval	Lower Bound	,001

		Upper Bound	,003
a. Kruskal Wallis Test			
b. Grouping Variable: EDUCATION			
c. Based on 10000 sampled tables with starting seed 4357016109654928400.			

Greece FOR OIL & EDUCATION

Ranks			
	EDUCATION	N	Mean Rank
Greece FOR OIL	Master's (e.g. MA, MS) or Doctorate (e.g. PhD) degree	24	125,92
	2	108	116,22
	3	100	114,54
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			,738
df			2
Asymp. Sig.			,691
Monte Carlo Sig.	Sig.		,690[c]
	99% Confidence Interval	Lower Bound	,678
		Upper Bound	,702
a. Kruskal Wallis Test			
b. Grouping Variable: EDUCATION			
c. Based on 10000 sampled tables with starting seed 6894840607515375600.			

Greece FOR OIL& ANNUAL HOUSEHOLD INCOME

Ranks			
	ANNUAL HOUSEHOLD INCOME	N	Mean Rank
Greece FOR OIL	No income	24	88,75
	1	48	117,83
	2	50	113,38

	3	36	125,94
	4	28	144,86
	50.000+	46	108,33
	Total	232	

Test Statistics[a,b]			
			Greece FOR OIL
Chi-Square			14,016
df			5
Asymp. Sig.			,016
Monte Carlo Sig.	Sig.		,014[c]
	99% Confidence Interval	Lower Bound	,011
		Upper Bound	,017
a. Kruskal Wallis Test			
b. Grouping Variable: ANNUAL HOUSEHOLD INCOME			
c. Based on 10000 sampled tables with starting seed 1368248407684925440.			

POSSIBILITY TO INCREASE CONSUMPTION & ANNUAL HOUSEHOLD INCOME

Ranks			
	ANNUAL HOUSEHOLD INCOME	N	Mean Rank
POSSIBILITY TO INCREASE CONSUMPTION	No income	24	129,92
	1	48	98,46
	2	50	104,26
	3	36	128,67
	4	28	120,43
	50.000+	46	129,72
	Total	232	

Test Statistics[a,b]	
	POSSIBILITY TO INCREASE CONSUMPTION

Chi-Square			9,370
df			5
Asymp. Sig.			,095
Monte Carlo Sig.	Sig.		,095[c]
	99% Confidence Interval	Lower Bound	,088
		Upper Bound	,103

a. Kruskal Wallis Test

b. Grouping Variable: ANNUAL HOUSEHOLD INCOME

c. Based on 10000 sampled tables with starting seed 8217548638224163800.

Table 4.17

Multiple Comparisons

Dependent Variable: IMPORTANCE OF COO - Hochberg

(I) ANNUAL HOUSEHOLD INCOME		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No income	Less than 10.000 $	,167	,417	1,000	-1,07	1,40
	10.001 $ - 19.999 $	-,967	,414	,262	-2,19	,26
	20.000 $ - 35.000 $	-,667	,439	,871	-1,97	,63
	35.001 $ - 50.000$	-,810	,463	,716	-2,18	,56
	50.000+	-,123	,420	1,000	-1,36	1,12
Less than 10.000 $	No income	-,167	,417	1,000	-1,40	1,07
	10.001 $ - 19.999 $	-1,133*	,337	,013	-2,13	-,14
	20.000 $ - 35.000 $	-,833	,367	,305	-1,92	,25
	35.001 $ - 50.000$	-,976	,396	,195	-2,15	,20
	50.000+	-,290	,344	,999	-1,31	,73
10.001 $ - 19.999 $	No income	,967	,414	,262	-,26	2,19
	Less than 10.000 $	1,133*	,337	,013	,14	2,13
	20.000 $ - 35.000 $	,300	,364	1,000	-,78	1,38
	35.001 $ - 50.000$	,157	,393	1,000	-1,01	1,32

	50.000+	,843	,340	,188	-,16	1,85
20.000 $ - 35.000 $	No income	,667	,439	,871	-,63	1,97
	Less than 10.000 $	,833	,367	,305	-,25	1,92
	10.001 $ - 19.999 $	-,300	,364	1,000	-1,38	,78
	35.001 $ - 50.000$	-,143	,420	1,000	-1,38	1,10
	50.000+	,543	,371	,898	-,55	1,64
35.001 $ - 50.000$	No income	,810	,463	,716	-,56	2,18
	Less than 10.000 $	,976	,396	,195	-,20	2,15
	10.001 $ - 19.999 $	-,157	,393	1,000	-1,32	1,01
	20.000 $ - 35.000 $	,143	,420	1,000	-1,10	1,38
	50.000+	,686	,399	,738	-,49	1,87
50.000+	No income	,123	,420	1,000	-1,12	1,36
	Less than 10.000 $	,290	,344	,999	-,73	1,31
	10.001 $ - 19.999 $	-,843	,340	,188	-1,85	,16
	20.000 $ - 35.000 $	-,543	,371	,898	-1,64	,55
	35.001 $ - 50.000$	-,686	,399	,738	-1,87	,49

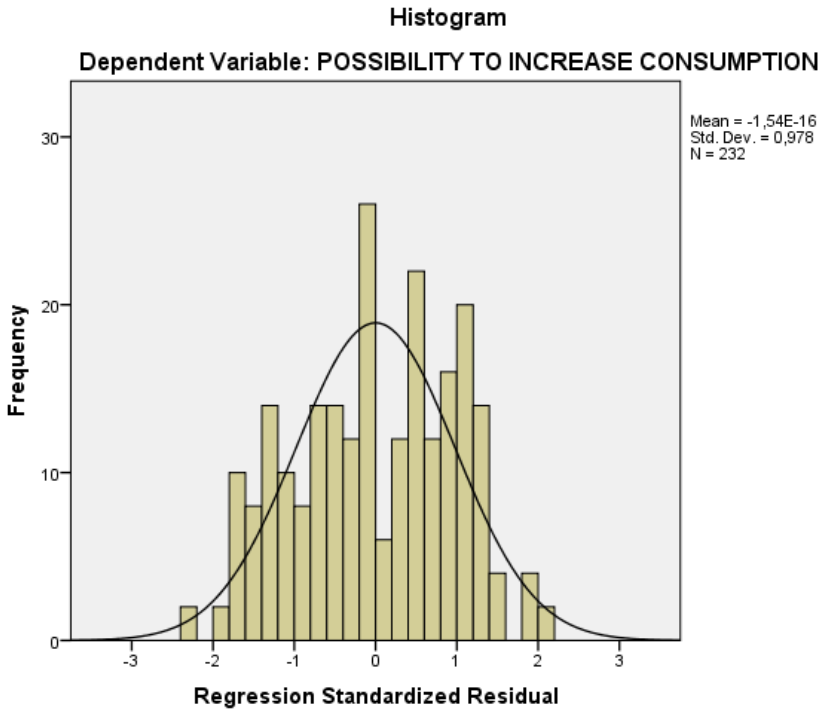
***. The mean difference is significant at the 0.05 level.**

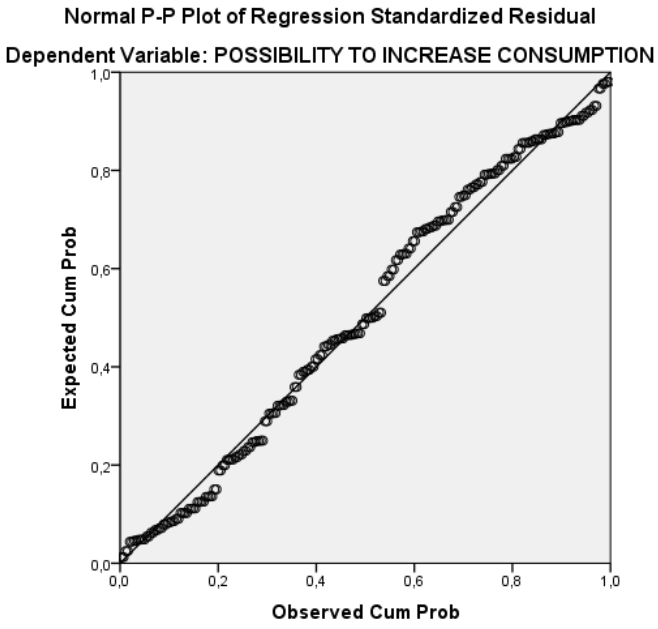
APPENDIX 3

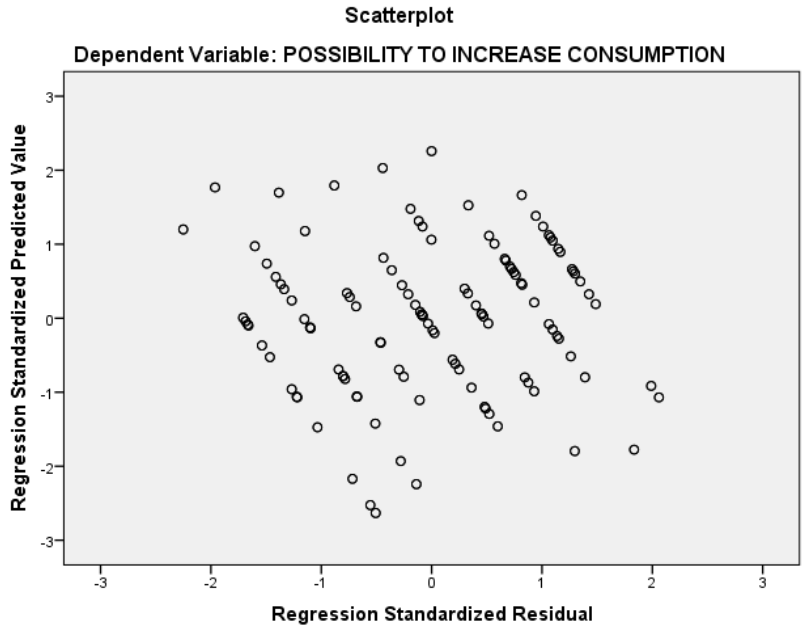
Regression No1

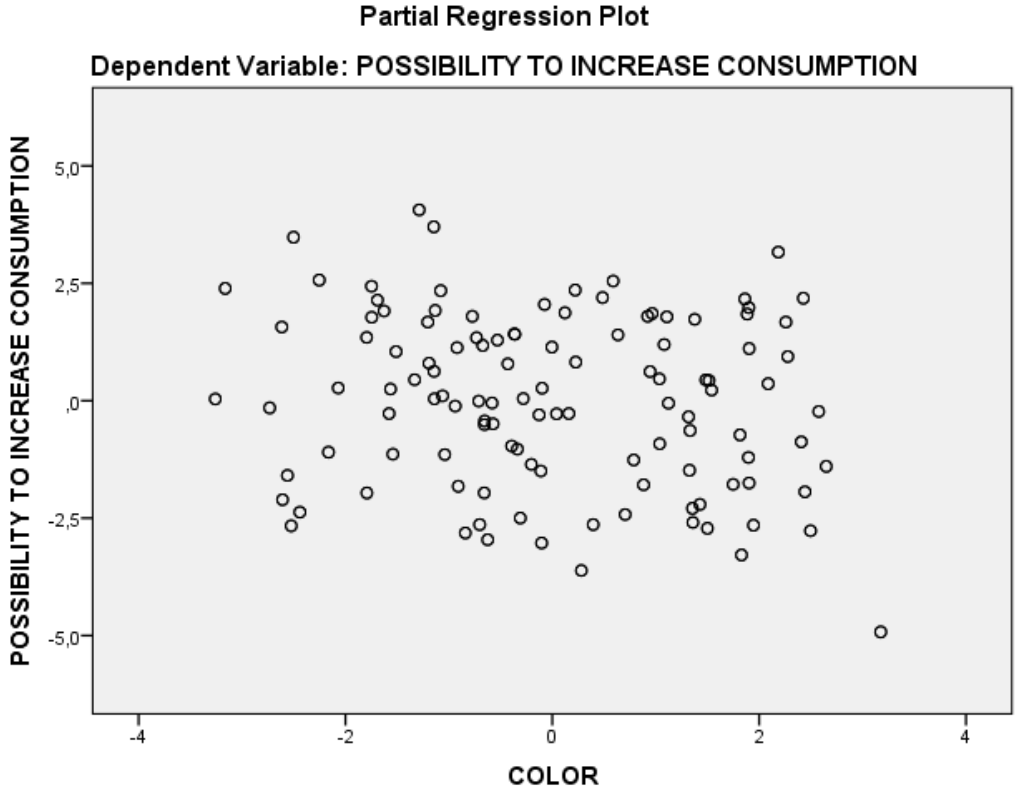
Table 4.21

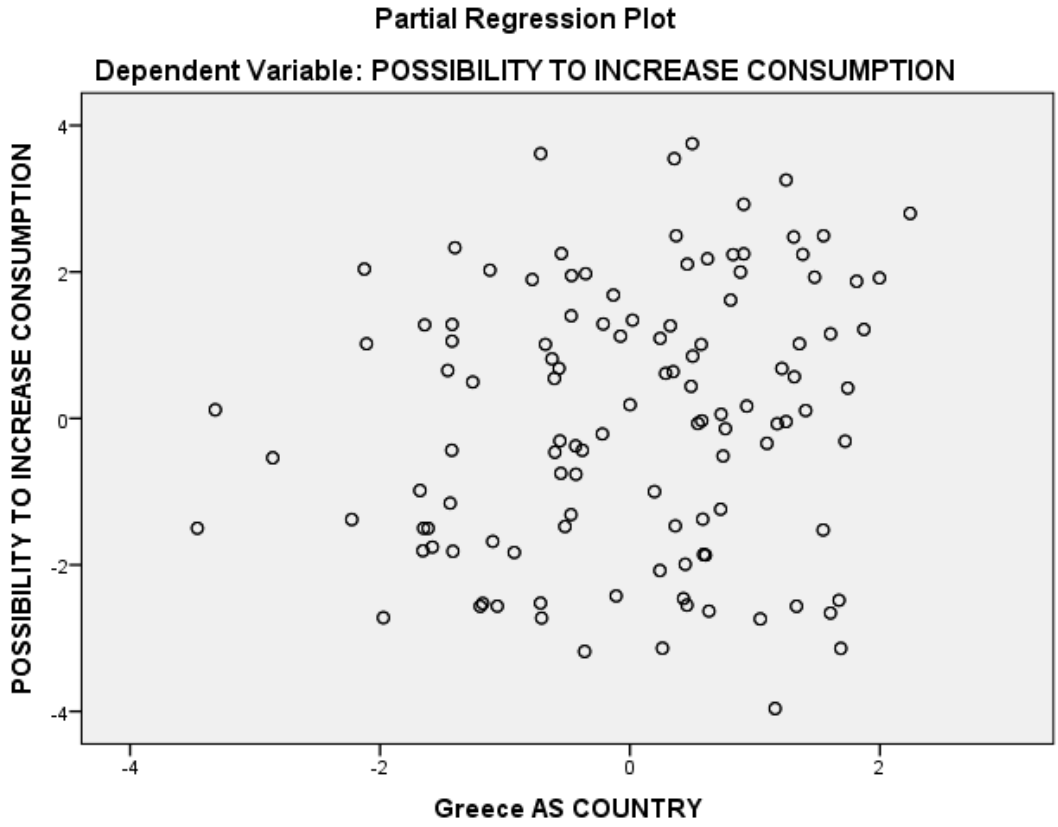
Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	4,150	1,008		4,118	,000		
Colour	-,208	,079	-,173	-2,629	,009	,853	1,172
Greece as country	,237	,101	,148	2,356	,019	,943	1,060
Percentage of fats	-,008	,004	-,143	-2,094	,037	,793	1,261
Importance of coo	-,031	,083	-,027	-,376	,708	,717	1,394
Taste	,314	,078	,254	4,008	,000	,921	1,085
Vegetable oil-price	,047	,108	,034	,440	,660	,632	1,582
Butter- price	-,262	,107	-,175	-2,448	,015	,730	1,371
Type of oil	,058	,184	,020	,317	,752	,908	1,101
Place of purchase	-,069	,097	-,046	-,707	,480	,893	1,120
a. Dependent Variable: possibility to increase consumption							

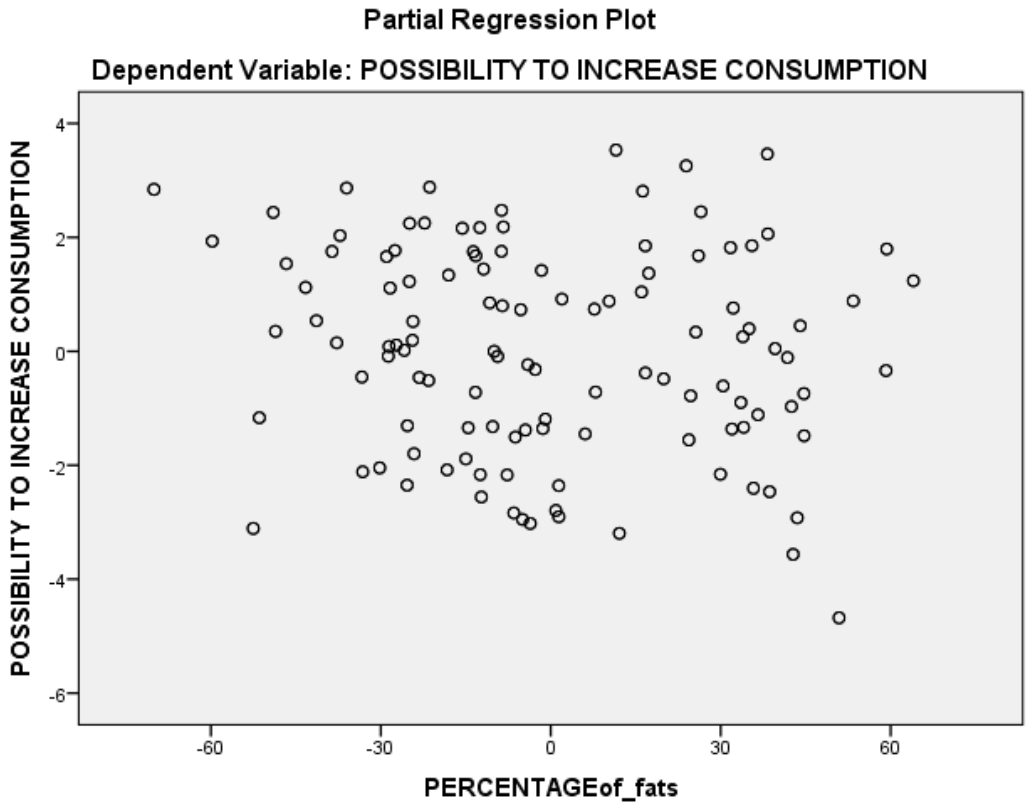

Histogram
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
Mean = -1,54E-16
Std. Dev. = 0,978
N = 232
Frequency
Regression Standardized Residual

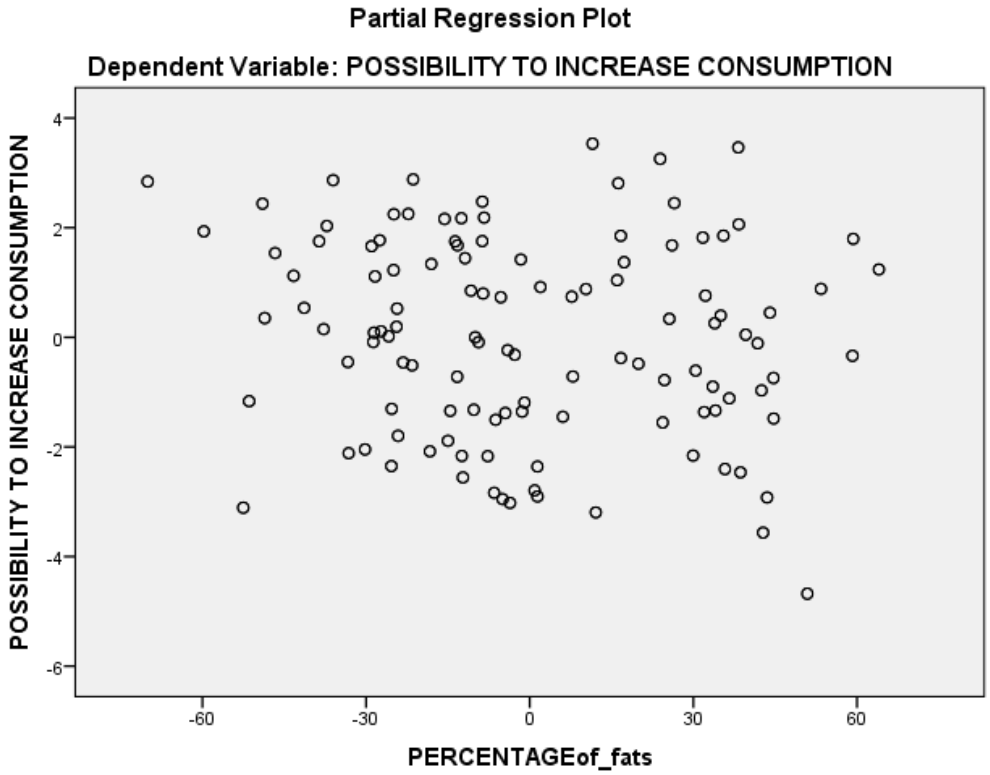

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
Expected Cum Prob
Observed Cum Prob

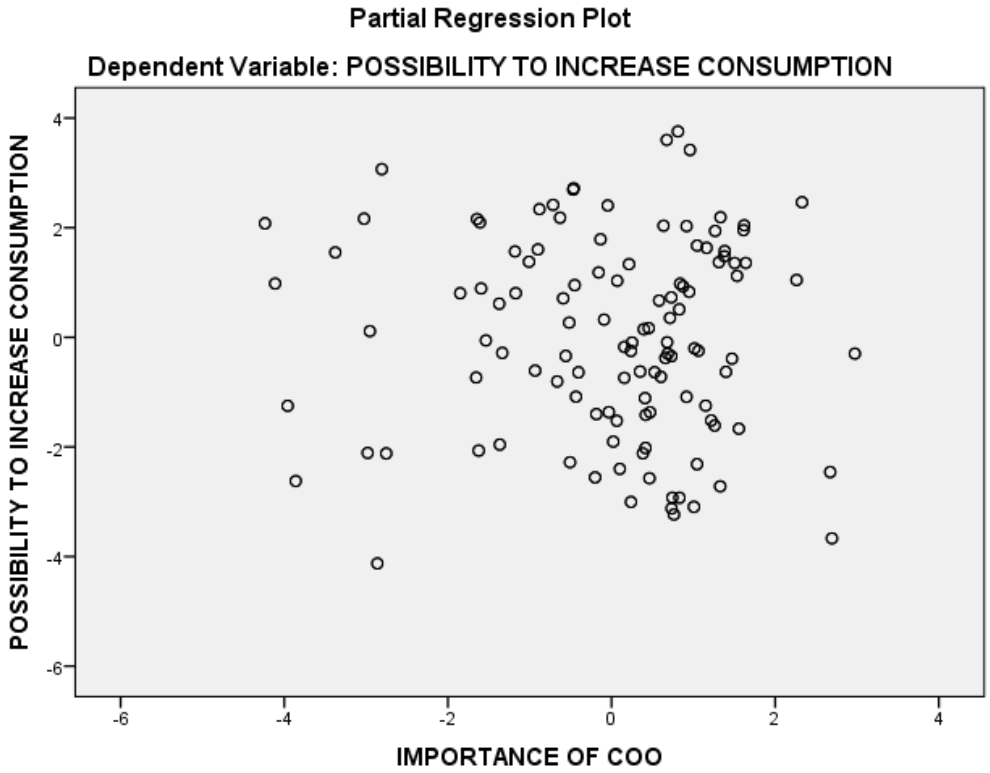

Scatterplot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
Regression Standardized Predicted Value
Regression Standardized Residual
3
2
1
0
-1
-2
-3

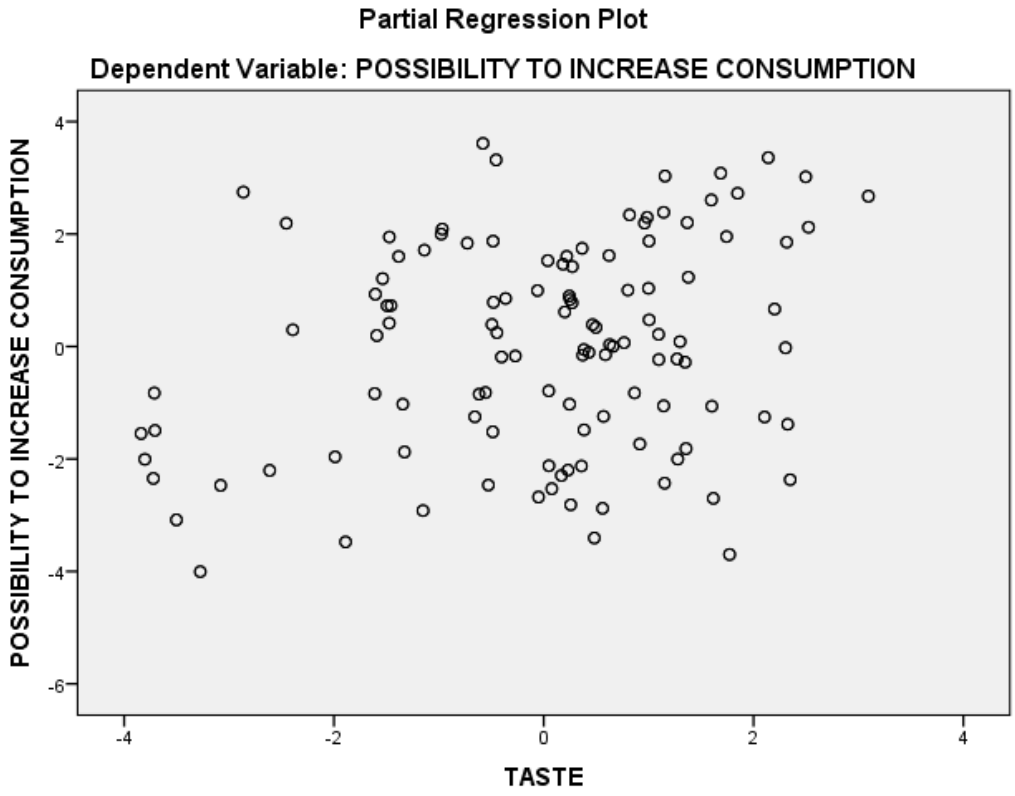

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
COLOR
5,0
2,5
,0
-2,5
-5,0
-4
-2
0
2
4

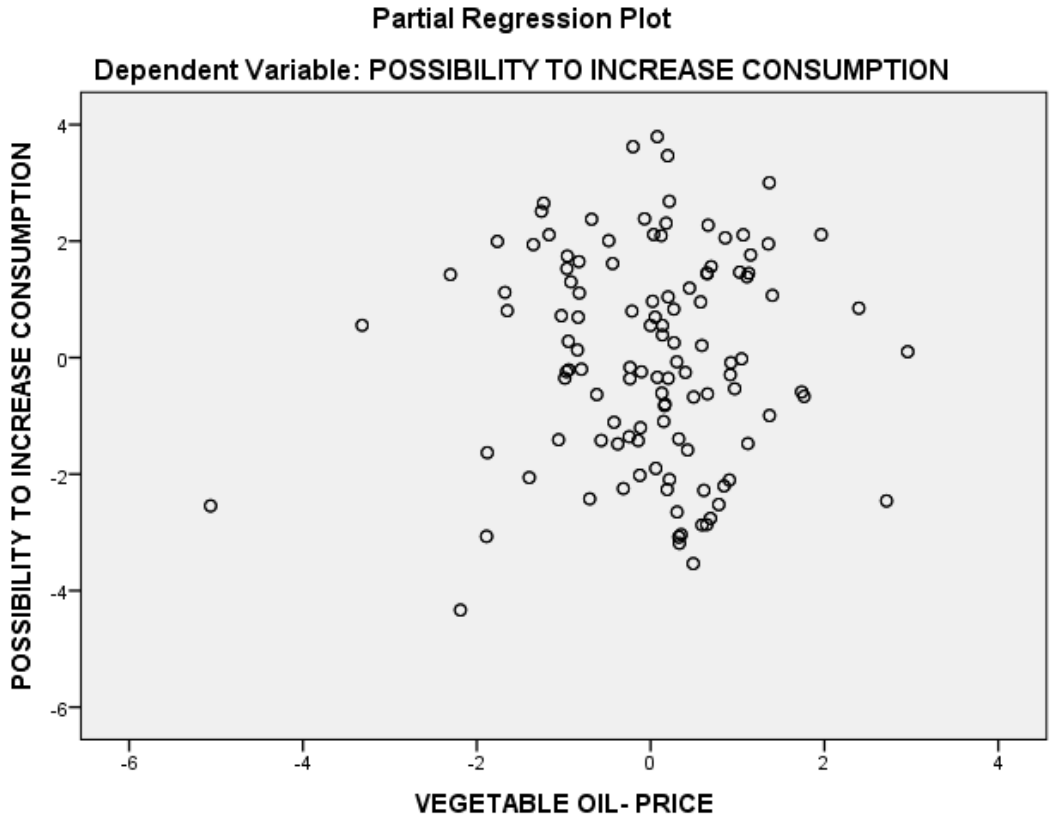

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
4
2
0
-2
-4
-4
-2
0
2
Greece AS COUNTRY

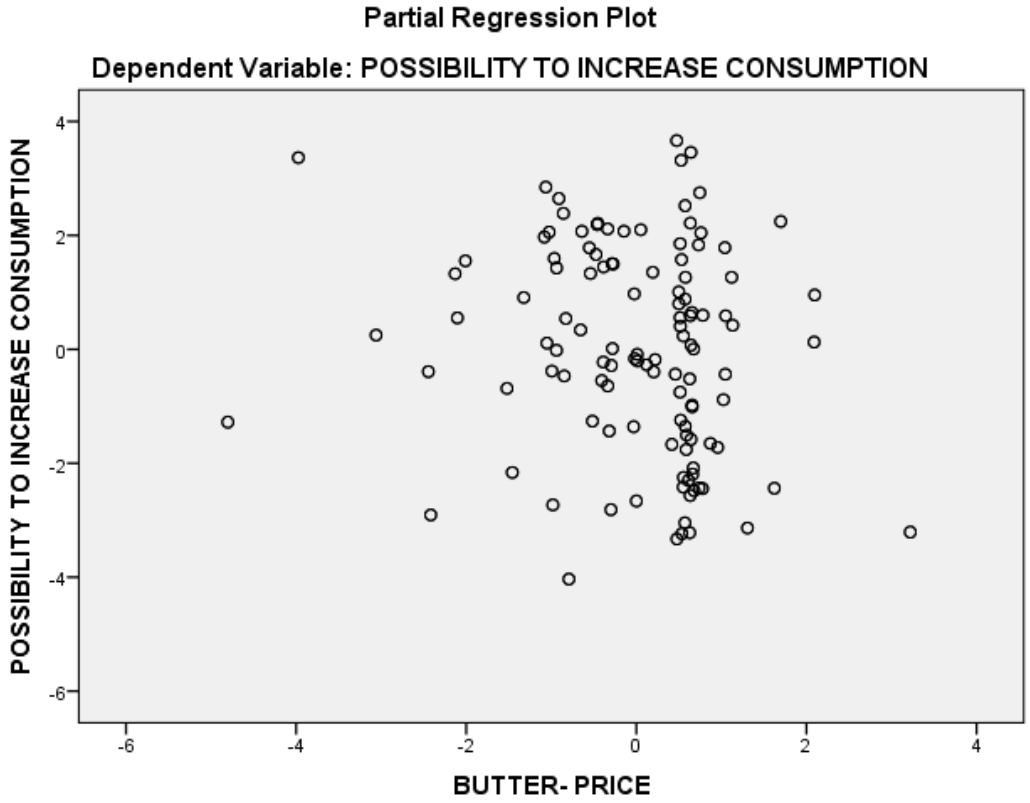

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
4
2
0
-2
-4
-6
-60
-30
0
30
60
PERCENTAGEof_fats

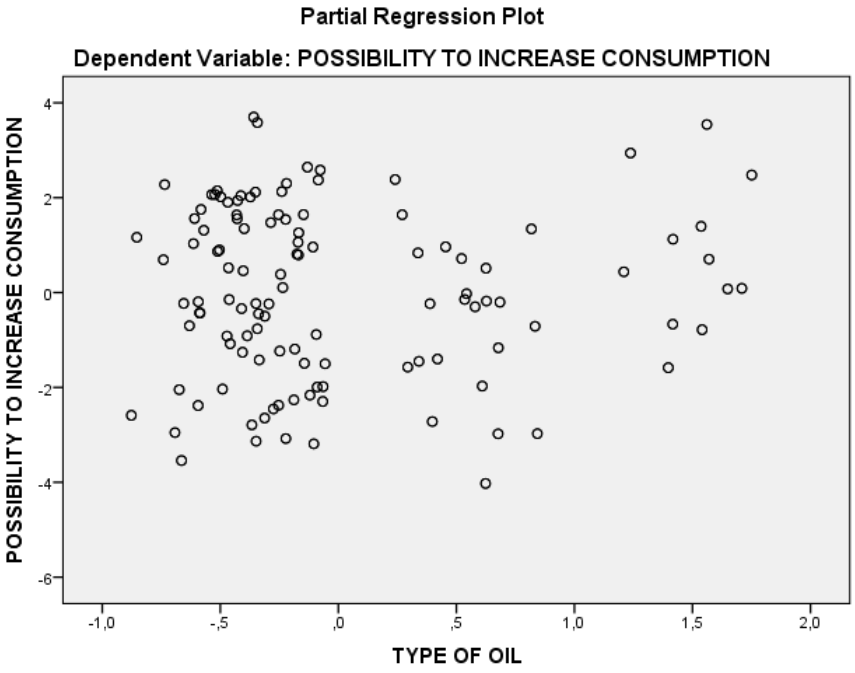

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
4
2
0
-2
-4
-6
-60
-30
0
30
60
PERCENTAGEof_fats

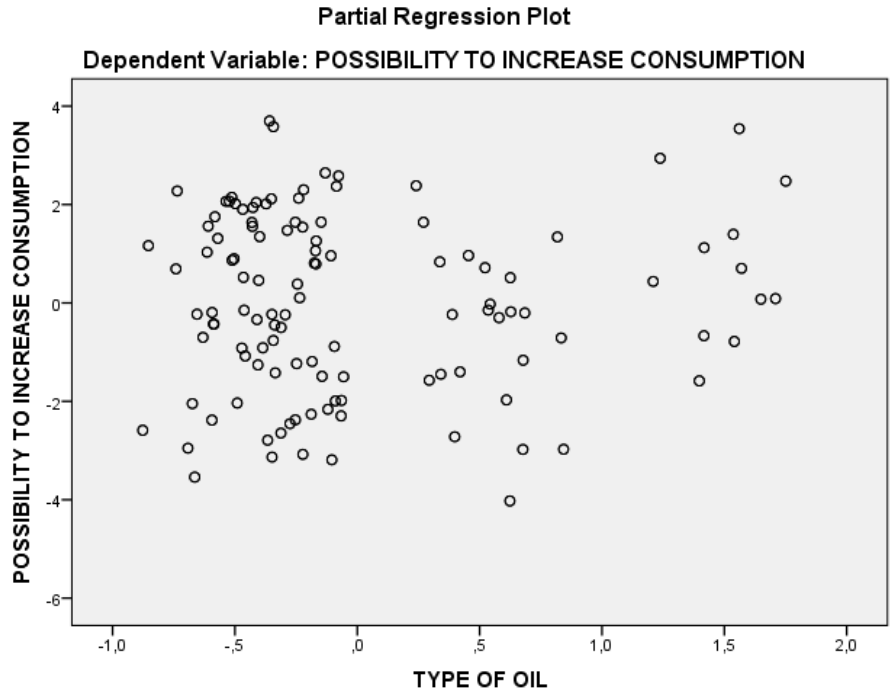

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
IMPORTANCE OF COO

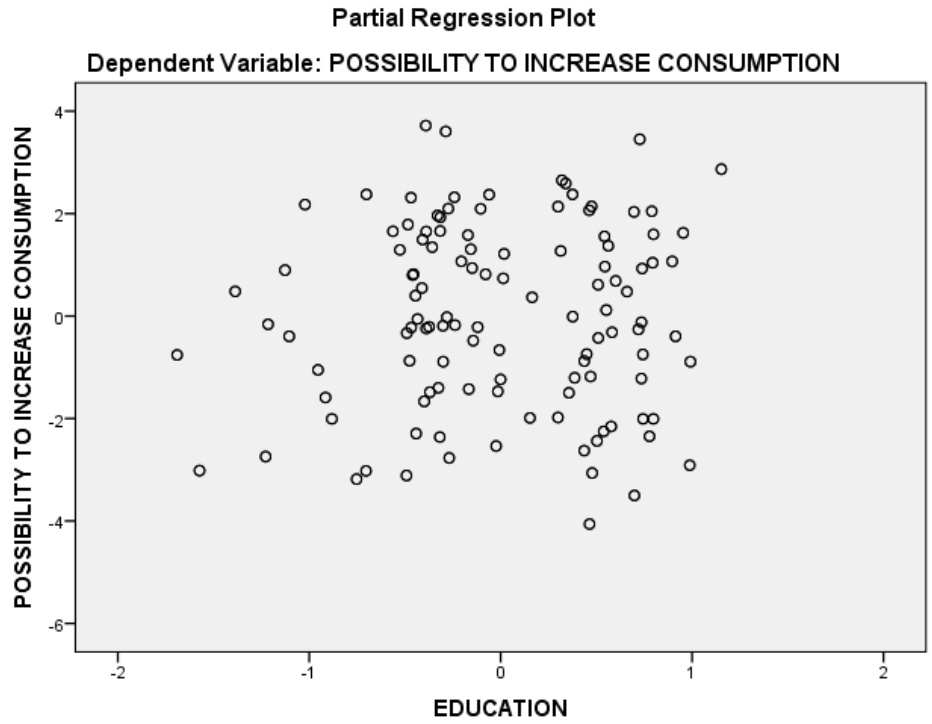

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
TASTE
4
2
0
-2
-4
-6
-4
-2
0
2
4


Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
VEGETABLE OIL- PRICE
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4


Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
BUTTER- PRICE
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4


Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
TYPE OF OIL
4
2
0
-2
-4
-6
-1,0
-,5
,0
,5
1,0
1,5
2,0

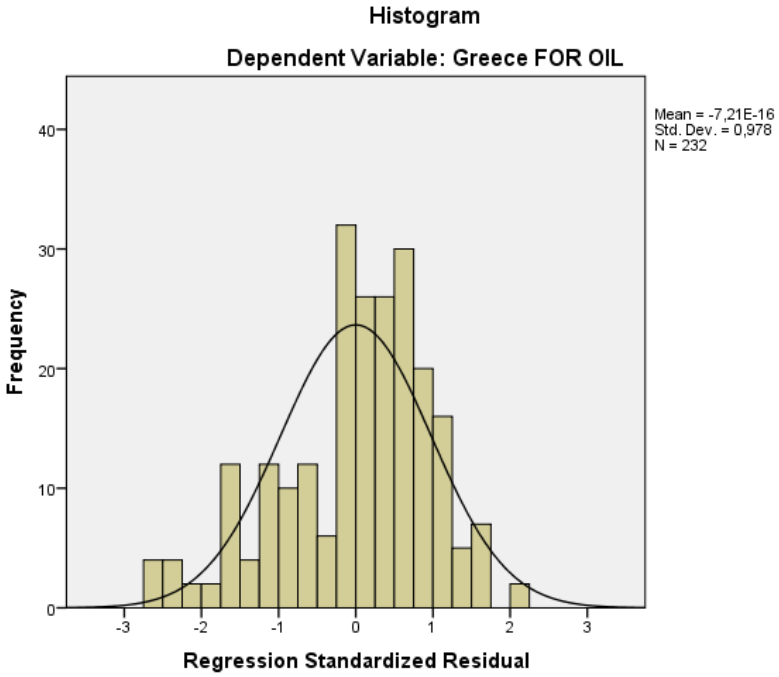

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
TYPE OF OIL
4
2
0
-2
-4
-6
-1,0
-,5
,0
,5
1,0
1,5
2,0

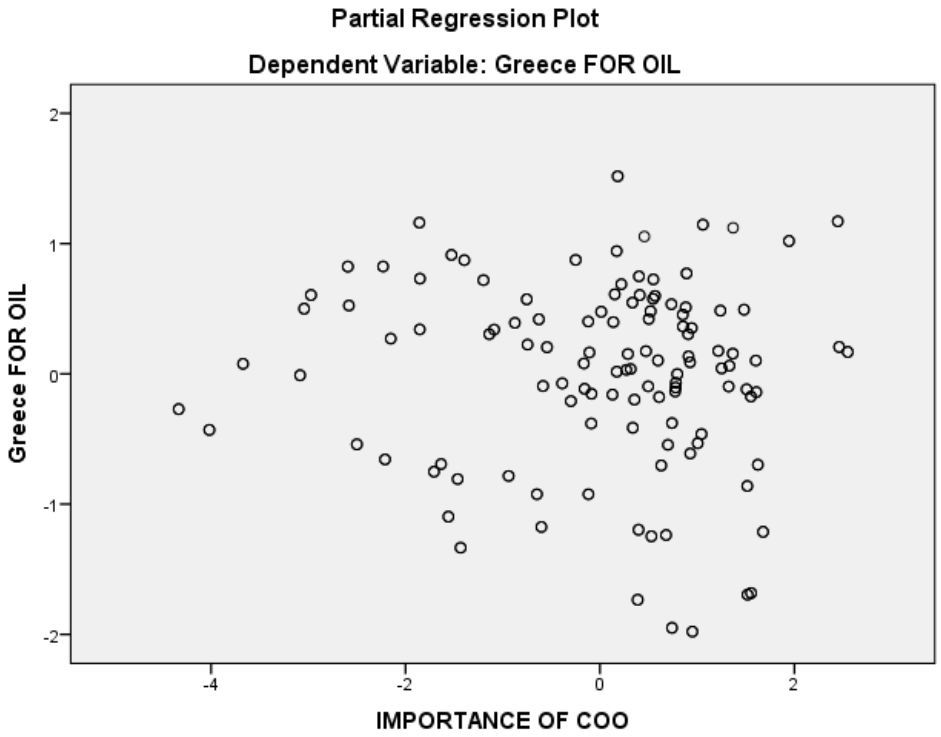

Partial Regression Plot
Dependent Variable: POSSIBILITY TO INCREASE CONSUMPTION
POSSIBILITY TO INCREASE CONSUMPTION
EDUCATION
4
2
0
-2
-4
-6
-2
-1
0
1
2

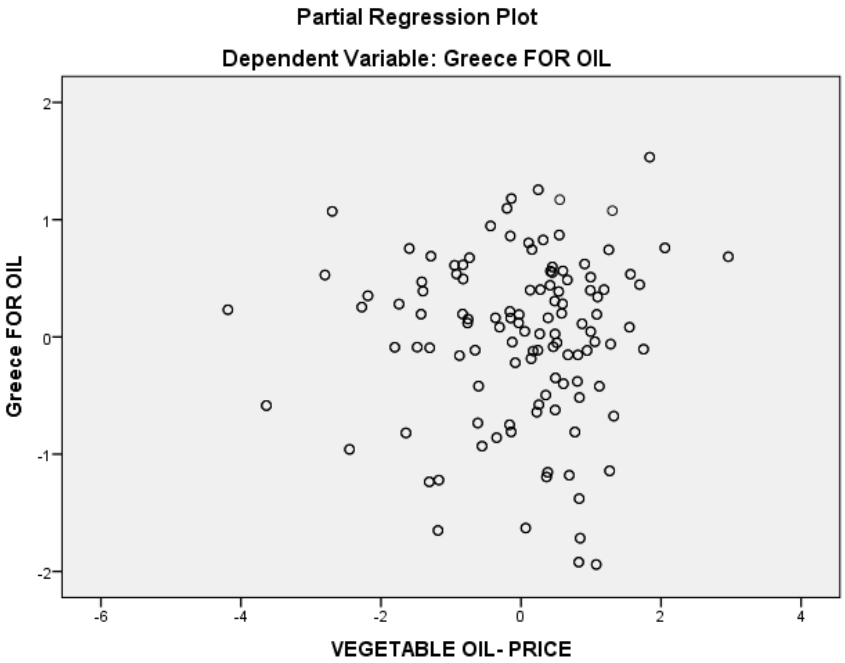
Regression No2

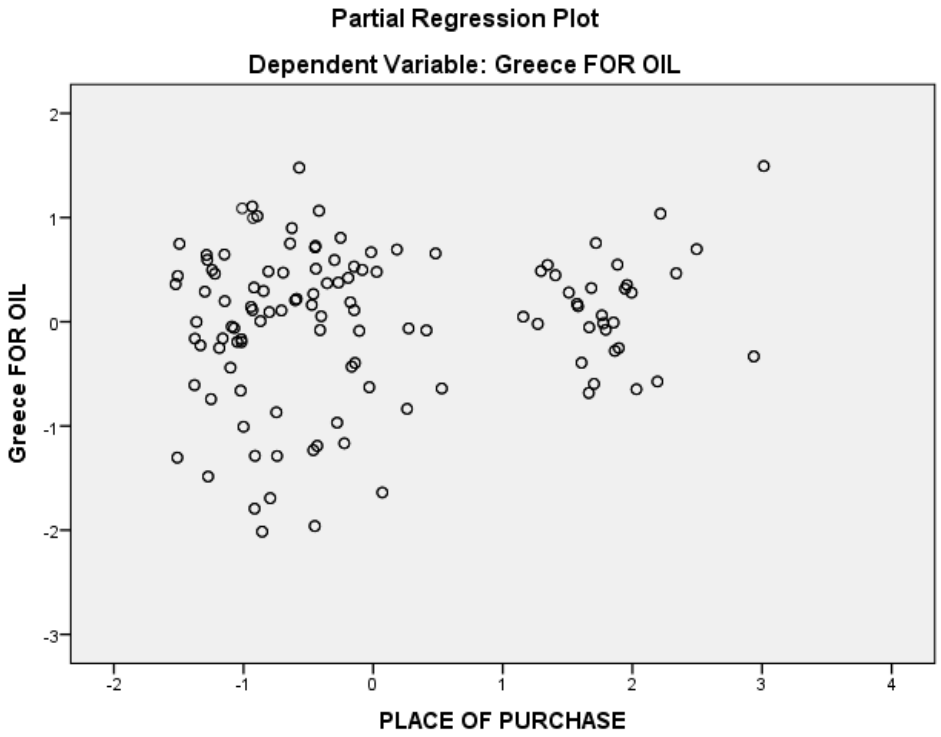
Table 4.24

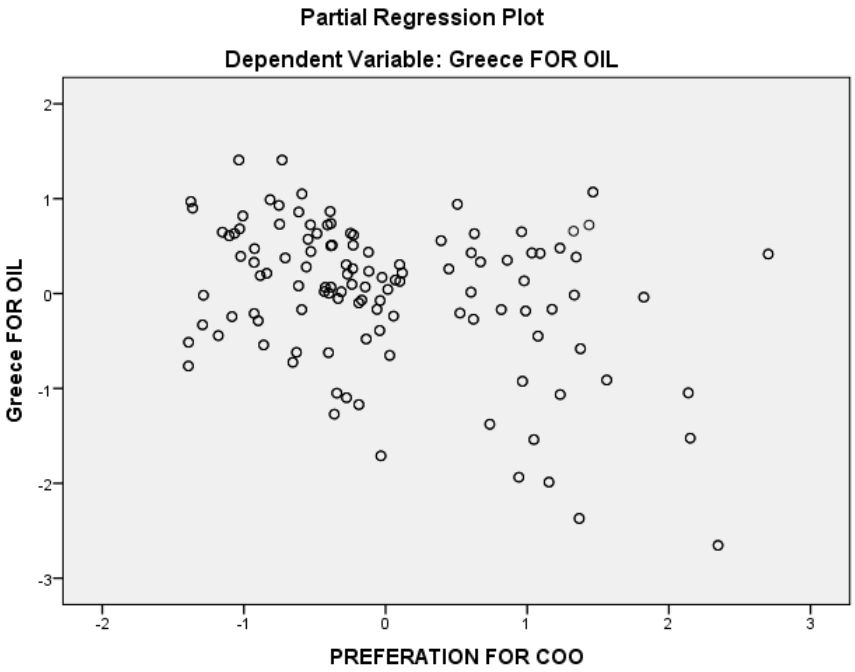
Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	4,322	,395		10,945	,000		
Colour	,049	,033	,091	1,489	,138	,780	1,282
Greece as country	,285	,041	,398	7,012	,000	,911	1,098
Percentage of fats	-,001	,002	-,053	-,833	,406	,716	1,397
Importance of COO	-,034	,034	-,065	-,986	,325	,668	1,497
Vegetable oil - Price	,005	,041	,008	,129	,898	,688	1,454
Place of purchase	,079	,039	,118	2,028	,044	,860	1,163
Preference for COO	-,310	,053	-,356	-5,903	,000	,806	1,240
Preference to use more	-,016	,028	-,034	-,574	,567	,818	1,222
Butter - Taste	,042	,033	,079	1,269	,206	,763	1,311
Vegetable oil - Taste	,076	,048	,113	1,588	,114	,582	1,717
a. Dependent Variable: Greece FOR OIL							

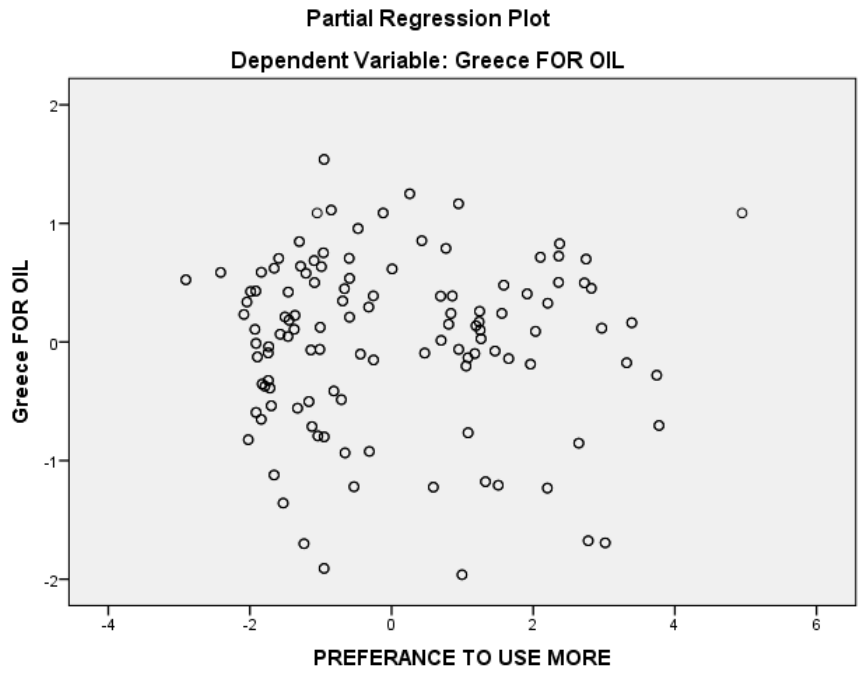

Histogram
Dependent Variable: Greece FOR OIL
Mean = -7,21E-16
Std. Dev. = 0,978
N = 232
Frequency
40
30
20
10
0
-3
-2
-1
0
1
2
3
Regression Standardized Residual

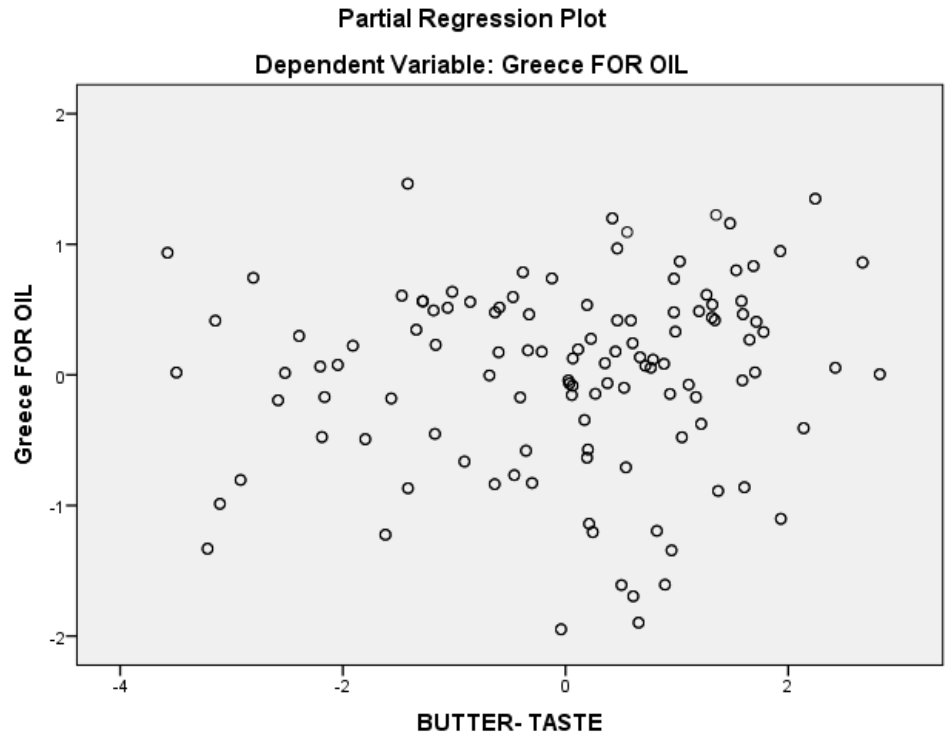

Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
IMPORTANCE OF COO
2
1
0
-1
-2
-4
-2
0
2

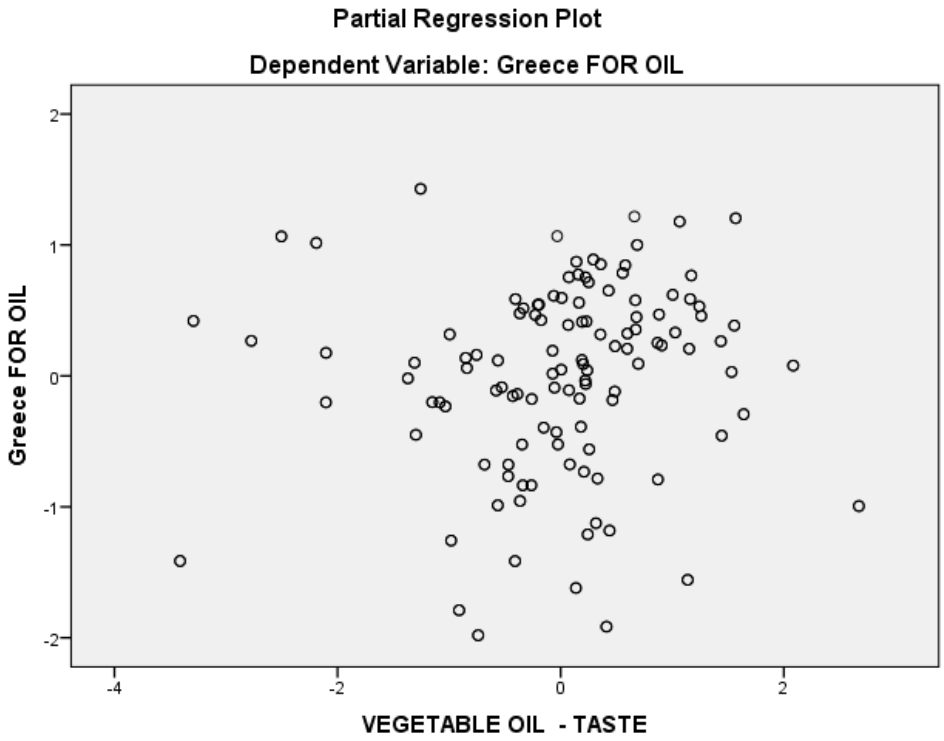

Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
VEGETABLE OIL- PRICE
2
1
0
-1
-2
-6
-4
-2
0
2
4


Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
PLACE OF PURCHASE
2
1
0
-1
-2
-3
-2
-1
0
1
2
3
4


Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
PREFERATION FOR COO
2
1
0
-1
-2
-3
-2
-1
0
1
2
3


Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
PREFERANCE TO USE MORE
2
1
0
-1
-2
-4
-2
0
2
4
6


Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
BUTTER- TASTE
2
1
0
-1
-2
-4
-2
0
2


Partial Regression Plot
Dependent Variable: Greece FOR OIL
Greece FOR OIL
VEGETABLE OIL - TASTE
2
1
0
-1
-2
-4
-2
0
2