INTERNATIONAL HELLENIC UNIVERSITY

MASTER OF SCIENCE IN MANAGEMENT

Dimitriadis N. Efstratios

Consumers' Willingness to Buy Organic Products in Greece

Supervisor: Dr. Lilia Ziamou

Thessaloniki 2010

I. Abstract

As the organic market continues to grow in Greece, consumers' purchasing behaviour for organic products has emerged as an essential research topic. Moreover, the domestic organic industry has been constantly growing, and the organic consumers' profile continuously evolves.

The purpose of this study is to investigate:

- The effect of various demographic factors on
  - consumers' purchase history for organic products
  - consumers' purchase likelihood for various categories of organic products.
  - consumers' organic attitude and consumers' perception of organic products.
- The relationship between consumers' willingness to spend more on organic products and (a) consumers' organic attitude and (b) consumers' perception of organic products. Specific hypotheses were developed to investigate this relationship. These hypotheses are presented in the next section.

To accomplish this goal, we developed a large scale survey.

The main findings indicate that consumers who exhibit high health preventing behaviour are more likely to spend more on organic products. Furthermore, it is important for them to eat healthy, safe and high quality products. Organic products need to be certified and be widely available.

II. Acknowledgments

First of all I want to thank all my professors at the International Hellenic University for the high level of lecturing they offered to us during the academic year. The chance they gave me to obtain a postgraduate degree in Management was both a major challenge and a fascinating experience.

I also like to thank my tutor and supervisor Dr Lilian Ziamou for her constant encouraging, advising and guidance in conducting this research, despite the difficulties we faced.

I would like to thank all the employees in I.H.U. from the administration office to the library for their kindness, their solid professional attitude they kept all year and mostly for their indefinite patience and understanding they showed.

All my colleagues, as we did not live this year just an international educational experience, but we had also tones of fun.

Special thanks to Alekos from the coffee-house, for his tremendous coffee which accompanied us during our studies.

Lastly, I want to thank my father Nikos, my mother Stefania and my sister Asimina for their ethical and financial support. I dedicate this master thesis to them.

III. Table of Contents

IV. Table of Figures

V. Tables

1. Introduction

In the last years there is a globally growing demand for organic products driven primarily by the consumer's perceptions of the quality and safety of these products and by the positive environmental impacts of organic agriculture practices (Bellows et al, 2008).

The origin though, of the organic movement, goes many years back and firstly appeared in 1920 in Europe by the anti-industrialization movement (Tanneeru, 2006). Their beliefs were based on the philosophy of sustainable and environmental friendly production, with respect to the nature and humans themselves. The next serious wave of the organic movement started after the worldwide known food scandal of the Mad Cow disease.

Later on, the creation of genetically modified foods (GM) caused alarm and raised once again food safety concerns. European consumers became suspicious of the conventional agriculture industry and looked for alternative solutions. (Wollen, 2003).

Nowadays the organic movement, which began as a social movement against the conventional agricultural practices in the 1920s, became an organic industry engaging mainstream food systems, networks of farmers, activists and consumers with one billion euro turnover in the last decade.

1.1 Defining Organic Agriculture and Organic Products

Organic agriculture and consequently the definition of its products, evolved mostly in terms of the characteristics and the technical specifications required for a product to be identified as organic. However, the core values of organic agriculture and the necessity of it remained the same through time. All these years many definitions were given to it by the industry, consumers, organizations, farmers and governments, each one from their own perspective. The most dominant perspectives are summarized below.

The first perspective simply sees organic agriculture as an alternative to the conventional agriculture (Michelsen, 2001a). The second perspective identifies organic agriculture as a self-organising system with its roots on values, principles, goals, standards and practices of sustainable development and production (Alrøe and Noe, 2008). The third perspective of organic agriculture associates it with a market niche, based on standards that specify the certain conditions for production, processing, certification, control, and marketing of the products.

Setting the above organic standards was a vital element for organic agriculture in linking it with the global market as they define the significant market niche, they aid in avoiding unfair competition and enhance consumers' recognition and choice.

Alrøe & Noe (2008), though, argue that there isn't one right perspective that fully reveals organic agriculture. These three perspectives are believed to capture most of the heterogeneity in what organic agriculture is.

Most of the current general standards worldwide are technical and the regulation specifies objectives, principles and core values for organic production. By definition, organic products are produced by farming techniques that maintain and replenish soil fertility without the use of toxics, pesticides, fertilizers and any other form of agrochemicals. Organic meat, poultry, eggs, and dairy products come from animals that are not given antibiotics or growth hormones.

Organic food products can be either fresh or processed. Processed organic food contains only organic ingredients and no artificial food additives. It is processed

with limited artificial methods, excluding ionizing radiation to kill germs, genetic engineering and no mixing of organic and non organic substances. The use of genetic modified seeds (GM) and irradiation is also not allowed in organic production. The same rules apply both in production of organics and in any kind of further processing (USDA National Organic Program, 2007, Organic Trade Association, 2006a).

The rest of organic product categories are still in an infant stage and have recently started to appear in emerging markets. These categories include nutritional supplements, fibbers, household cleaners and personal care products.

1.2 Organic Agriculture and Organic Products in Greece

The production of organic goods was firstly introduced in Greece in 1980. Since then, organic products continued to grow rapidly with EU support funds, and farmers' desire to add value to their production. It appears that the Greek market has embraced this attempt, as a result of environmental awareness, health consciousness, and financial benefits.

Specifically, organic agriculture in Greece was initially started as an ecological movement at the beginning of the 1980s. The first organic farmers were in the vast majority amateurs and only after 1982 serious professional steps were made in products such as olive oil, cotton, raisins, vegetables, fruits etc. The situation was very vague with little progress made till the first commercial projects appeared in the late 1980's and EU Regulations 2092/91 and 2078/92 were implemented at the beginning of the 1990's. These were the main factors that established organic agriculture in Greece (Vassiliou et al, 1999). Contracts required farmers to produce according to specified standards (certification body standards or EU Reg.2092/91). Farmers delivered their produce to the company and received a premium price.

In 1991 the implementation of EU Reg. 2092/91 ended the existing chaos in which different inspection and certification organisations applied different definitions and rules regarding the certification of organic products, at to the expense of the producers. The subsequent EU Reg. 2078/92, stimulated development through the payment of subsidies to establish and maintain organic farming systems (Vassiliou et al, 1999).

Since then, organic products have been blossoming both as agricultural products and as processed organic food products (Smissen, 2004), and continue to expand having solid foundations on organic agriculture. With a large number of organic producers, Greece holds the second place in Europe, just behind Italy and the eighth worldwide (Willer et al, 2009). However, the production has not reached yet the desired level although many of the organic products, like olive oil and wine, are produced for the export market.

Organic products include primarily olives, olive oil, fruits, vegetables, grapes for wine and raisin. The production of organic apples, pears and cherries is of smaller importance, but farmers show increasing interest in developing these crops (Berry, 2002). Organic animal products have also made their appearance in the domestic market, as the EU Committee Regulation for biological animal breeding has been adopted in the country. However, the rest of the organic product categories, such as personal care products, nutritional supplements, fibbers and household cleaners have not yet prospered.

1.3 Organic Market and Distribution Channels in Greece

The distribution network of organic food products in Greece is still in its early stages. In spite of the lack of well organized distribution channels, the domestic market is characterized by an increasing trend, because of an increase in the volume of organic producers, the establishment of specialised shops and the advanced marketing techniques applied by the large supermarket chains (Baourakis et al, 2002).

In 1995 the national market consisted of eight retail shops, one processing unit and two daily open markets. Because of the lack of distribution channels, the limited variety, the low volume and the seasonality of the fresh products, the small number of processing and packaging units, more than 50% of organic food products were imported in the local market. Many farmers, especially those producing vegetables and fruits, would sell directly at the farm gate or in local markets. Producers were also retailers, processors and sometimes wholesalers to other retailers. Unfortunately, a considerable volume around of 30% of the certified organic products was sold as conventional, due to the inability of the farmers to sell it as organic (Fotopoulos and Pantzios, 1998). At the same time efforts have been made to export certain products to northern Europe, especially olive oil, oranges and aromatics (Baourakis and Apostolakis, 1999).

This has been slowly changing as considerable investments have been made in the processing, packaging and distribution of organic food products. Specialised shops that sell organic food can be found in almost all cities in Greece and the largest supermarkets that control the mainstream of the distributed food in Greece have already been interested in having organic food in their outlets. Presently, the Market of organic products consists of Specialty Organic Food stores that supply 50 percent of the consumed amounts, followed by the Supermarket chains with 45 percent and 5 percent by open markets. Domestic market for organic products is considered to be still small relatively to its potential, but rapidly developing.

The most frequently consumed organic products are some basic components of the Mediterranean-Greek cuisine, such as olives, olive oil, pasta, cereals, giant beans, Greek lentils, spoon desserts, herbs, certain fresh fruits and vegetables, organically farmed sheep and goat meats, Greek Style natural yogurt made using pasteurized fresh milk from organic farms, etc. (USDA Foreign Agricultural Service, 2007).

Consumer demand is the main driving force behind the boosting of organic sales in Greece. As far as prices are concerned, the prices of organic Greek products are much higher than conventional ones, since they are products of high quality and the cultivation and production costs are significantly higher.

2. Literature Review

The factors that affect consumer's response to organic food products are reviewed. Specifically, we focus on two categories: (1) Organic Attitude, and (2) Attributes of Organic Products, the first category deals with consumers' beliefs and knowledge. The second category focuses on the attributes of organic products. These categories are reviewed in order to build a clear and solid theoretical background.

2.1 Organic Attitude

2.1.1 Preventive Health Behavior

Preventive health care behaviour is "any activity undertaken by people who believe on the purpose of preventing or detecting illness in an asymptomatic state" (Kasl and Cobb, 1966). Such kinds of behaviours lead to lifestyles that include working out in gyms, following healthy diets, reading books about preventive medicine etc (Moorman and Matulich, 1993). Preventive health care behaviours are influenced by many different factors. The primary and most important of them are health consciousness, health knowledge and health value (Jayanti and Burns, 1998). Research on the above factors showed that they are linked with the consumption of healthy foods and healthy diets based on organic products (Johnson and Johnson, 1985).

Health consciousness is the degree of someone's awareness and concern over being well, by improving and maintaining their health and the quality of their life (Kraft and Goodell, 1993). Health consciousness results in organic food consumption, as organic products are believed to be healthier (Larue et al., 2004).This fact also holds strong in Greece as organic food is perceived highly nutritious and high in vitamin and minerals. The health benefits are even more clear when organic food is compared to conventional food that intensive farming provides using pesticides and other chemicals (Fotopoulos and Krystallis, 2002, Kalogianni et al, 1999). In addition, Kyriakopoulos and Ophuis, (1997) demonstrate a positive correlation between health consciousness and the consumer's intention to buy and consume organic food.

Health knowledge is the individual's amount of information one carries about preventive health care behaviours (Kraft and Goodell, 1993).There is also a positive relationship between health knowledge and highly nutritious diets. Though, the level of nutritious value or more general the quality of food seems to be perceived and interpreted differently according to the degree of knowledge the individual carries (Boechner, Kohn, and Rockwell, 1990).

Health value refers to the cost of the preventive actions relatively to the positive outcomes that they will bring out (Kraft and Goodell, 1993). Health value for organic products is directly associated with the higher price that consumers are willing to pay comparing to conventional products. Consumers who perceive organic products as high quality, healthier and environmentally friendlier are more likely to pay a premium price

The vast majority of academic papers relevant to health matters and organic products suggest that consumers are interested in them because of the health benefits and more specifically because they protect their bodies against toxins, pesticides, hormones, antibiotics, chemicals, and genetically modified products. On the other hand, prior research also suggests that health consciousness cannot explain such a motivation or at least it plays a less important role on attitudes and intensions towards

organic food (Michaelidou et al, 2008). In addition, Greek consumers are not quite aware and informed about the benefits and the superiority of the organic products, although in the last years there is a steady improvement towards this direction. The discouraging fact though, is that consumers are not able to clearly discriminate organic and conventional products (Baourakis 1999, Sekkas 1995, Fotopoulos 2001, Zotos 1999).

2.1.2 Food Safety Concerns

Nowadays consumers are getting more and more cautious when it comes to food products and the potential health risks due to numerous examples of food scandals that involved dangerous chemical residues. There is excessive use of these substances, which are called agrochemicals, in conventional agriculture practices (i.e., pesticides, fertilizers, preservatives and many other chemical additives (Baker et al 2005, Zanoli and Naspetti 2002, Michaelidou et al, 2001). In addition, a new trend on food production, genetically modified food products have raised a lot of concerns on the impact these products might have on human health. Although genetic specialists and biotech scientists claim that genetically modified products have mostly benefits, the debate is still going on (Wansink & Kim, 2002 http://www.agbioforum.org/v7n4/v7n4a02-ho.htm - R29).

Researches conducted in several countries, revealed that agrochemicals are suspicious for threatening human health by causing headaches, nausea, fever, fatigue, asthma etc. In some rare cases they have even been hold responsible for some forms of cancer and other serious illnesses (Michaelidou et al, 2001). An official survey that has been conducted in the Unites States by the Food and Drug Administration on dangerous diet habits and food products, revealed the true size of the problem. According to this survey, bad food products cause 76 million illnesses, 325.000 hospitalizations and 5.000 deaths annually. The numbers speak for themselves (Mead et al., 1999). On the other hand, organic food, which by definition is free of chemicals and toxins, seems to be synonymous with food safety, for many consumers who share a high level of health knowledge. Consequently, food safety concern is expected to be one of the primary drivers that lead consumers in preferring organic over conventional food.

In Europe and more specific in Denmark, a big scale research, which lasted from 1997 to 2001, revealed that consumers were very concerned about unsafe food, salmonella, bacteria and pesticide residues (Millock, Wier & Andersen, 2002). They were less concerned about Mad Cow Disease, genetically modified food and cholesterol. The study also demonstrated that 70% of people believed that food should be tested more often and more accurately for pesticide residues (Millock et al., 2002). In the US, a similar study in an elementary school revealed that children were exposed to two widely used pesticides. When their diets were switched from conventional to organic foods, the volume of these chemicals dropped significantly (Lu et al., 2005).

By choosing organic food, consumers are making an effort to protect their bodies from pesticides, hormones, antibiotics, chemicals, and genetically modified food products (GM).

2.1.3 Environmental Friendly Behavior

During the past decades, awareness and concern for the environment and sustainable development has increased significantly. At the same time, people's values, ethics, attitudes and beliefs have changed radically towards nature. People

started to show genuine concern for natural resources and ecosystems as they are no longer considered to be invulnerable and indefinite. After all, this is what the organic movement was about back in 1920 and today it still remains one of its core values.

Moreover, this kind of behaviour is typical of consumers who do not purchase products that are likely to endanger health, cause damage to the environment during production, use or disposal, cause unnecessary waste, and use materials derived from threatened species or ecosystems (Thorgensen and Olander, 2003).

Indeed, environmental ethics play an important role in purchasing organic products as consumers of organic products are considered to be by definition people with ethical values. Ethical issues and more specific, the environmental ones have been a major influence on the segment of organic products consumers. Many studies have shown clearly that environmental friendly behaviour is close connected with organically shopping (Lockie et al. 2004, Thorgensen, 1999).

The environmental friendly behaviour or as it is also called nowadays, the eco-friendly behaviour can explain attitude and intention towards organic products. The eco-friendly consumers are true supporters of sustainable and organic agriculture's practices and products. The question that still remains is whether environmental friendly behaviour is likely to influence consumers' willingness to buy organic products (Honkanen et al. 2006, Zanoli et al. 2004).

2.2 Attributes of Organic Products

2.2.1 High Quality of Organic Products

Organic products are perceived of high quality and classified as premium products due to the specific production methods, techniques and strict regulations. Results have shown that organically grown food is generally perceived by consumers as more natural than conventional food with rich flavour and intense taste. Furthermore, on average, organic products contain 20% more nutrients than the conventional ones (Magkos, Arvaniti & Zampelas, 2006).

More specifically, for organic products quality is determined by intrinsic factors such as freshness, taste, nutritious value and appearance and also by extrinsic factors such as price, labelling, origin and quality certification (Fotopoulos et al, 2000, Krystallis et al, 2008). Organically produced foods also are safer or more nutritious than conventionally produced foods. Numerous health claims have been made by marketers on the quality of organics. Basic claims support that organic products are of higher nutritional value, healthier, more tasty and better looking. In more details, organic food contains higher levels of vitamin C and minerals such as iron, calcium, chromium magnesium etc and cancer protecting antioxidants (Soil Association, 2007). Several studies have confirmed that organically grown food contains less pesticide residues compared to conventionally produced food (Baker et al., 2002). This fact also holds strong in Greece as organic food is perceived of higher nutritional value, and high in vitamins and minerals. The health benefits are even more clear when organic food is compared to conventional food that intensive farming provides using pesticides and other chemicals (Fotopoulos and Krystallis, 2002, Kalogianni et al, 1999).

However, other studies suggest that there is little evidence that organic and conventional foods significantly differ in terms of minerals, vitamins and trace elements. Differences do exist, but not in the nutritional value. According to a study conducted by the publisher of Consumer Reports, the real differences were found in

the amount of pesticide residues which are detected less often and at lower levels in organically grown food (Baker et al., 2002, Magkos et al, 2003).

2.2.2 Price of Organic Products

As far as the price is concerned, consumers know that high quality usually is accompanied by higher prices and they should be willing to pay a higher price for a product of better quality (Kavallaris, 1998). Organic products follow this rule and generally enjoy a premium price compared to the conventional ones, for a number of reasons. These reasons spring out from the fact that organic farming is more intensive, which consequently means it has significant higher labour, production, procession and overall costs. For instance, due to the lack of chemical fertilizers, organic farming requires crop rotation to fertilize the soil. In the same way the lack of pesticides that can effectively and spontaneous eliminate all threats, now makes a necessity the use of other bio-dynamic ways of defending the production that also cost more.

As a natural result all these higher costs are displaced in the consumers' wallet, hidden under the form of a premium price that consumers are going to pay for purchasing organic products. In more simple words this premium price is the extra money that a consumer will spend in order to buy organic products instead of conventional ones. The basic problem here is to determine exactly how much is this 'extra money'. This gets even more complicated as organic products cost higher because of the higher production and elaboration costs (Sgouros, 1999). Many studies have tried to estimate the premium price that consumers would pay for an organic product, though as it appears to be a topical issue. The term widely used for this purpose is consumers' willingness to pay (WTP) and it refers to the extra money paid above the 'fair price' of the product (Laroche, 2001).

In emerging organic markets in Eastern Europe and Balkans, organic food prices can be really high and only high income consumers can afford to buy. In mature markets such as Denmark, price reductions can attract more consumers through environmental programs. On average most European citizens are willing to pay a price premium around 5-10 % (Sandalidou et al., 2002).

Fotopoulos and Krystallis (2001) calculated the consumers' willingness to pay (WTP) a higher price in Greece for several organic products such as fruits, vegetables, olive oil, wine etc. They found out that this premium price (WTP) is different for each product, it ranges between 19% and 63% and it is strongly influenced not only by the volume of the price but also by consumers' level of health knowledge. A previous study also demonstrates a positive relationship between high income and consumers' intention to buy organic products. Naturally the high price of organic products plays a significant role in the attitude and intention to purchase and usually acts as a barrier in households with low and medium income (Kyriakopoulos and Van Dijk 1997). But certainly, this by no means suggests that only households with high income are going to purchase organic products in a regular basis. (Zanoli 2002, Krystallis et al 2006, Fotopoulos and Krystallis, 2001). Organic food price differences still remain the major barrier for most of the consumers. (Padel and Foster, 2005, Zanoli et al., 2004).

2.2.3 Availability of Organic Products

Seasonality is one of the main characteristics of all agriculture products, organic or non organic. Each country according to the geographical region it belongs and the dominant weather conditions produces certain types of agricultural products, at a certain time during the year. These products, that are locally produced, are

distributed in the market and consequently are available for consumption only at a specific time during the year.

Many years ago seasonality was an important issue for agricultural products, but with the globalization of trade and the international distribution channels this has changed. Now a consumer who desires a specific product that normally could not been found in the domestic market because it is not produced in his country this time of year, he has the option of buying the same product imported from another country which produces it this time of year. For instance, if a Greek consumer wants to buy cherries in the winter, he may be able to do as long as cherries are imported e.g. from Australia. This example shows in a simple way that today, purchasing an agricultural food product is a matter of availability in the market, rather than seasonality.

However, availability for many consumers is interpreted by going shopping near their house as a way of saving time and money, especially when it comes to every day consumed products such as milk, bread, etc. Consumers, when returning home after work, feel so much tired that even if they wanted to buy organic products, they are too exhausted to put themselves in the procedure of 'seeking' them. So, there is not much time to look for organic products (Zanoli et al., 2004) Another survey in the United Kingdom revealed that 35% of the consumers questioned, did not even know where to found organic products. Even if they wanted to buy organic products, they could not, since they did not know where to find them (Padel and Foster, 2005).

2.2.4 Origin of Organic Products

The origin of organic products is another issue for consumers. The globalization of markets and consumers' need for organic products have resulted in imports and exports of huge quantities between countries.

However, a large number of consumers pay attention to the origin of organic products. A big scale survey in Australia, United Kingdom, Germany and Switzerland revealed that consumers prefer buying products that are grown in their region. Specifically, in Switzerland and Denmark, consumers have stated that they do not like buying and consuming products imported form distant lands. Furthermore they stated that they wanted to support the domestic market. They felt that buying products from their region supported small organic farmers against the international big food producers (Zanoli et al, 2004).

According to Tovey (1997) the value of organic food products lies on the fact that they are locally produced, consumers are aware where they come from and who produced it, and therefore they can trust. In addition, organic agricultural practices are deeply rooted in local cultures, their ethical values and beliefs.

Reality shows that organic farming has become a globalised industry involving billions of Euros. The increasing trade of organic products though, have raised numerous debates and discussions on the globalized versus local organic products. Generally, there is a negative perception around globalisation of organic products as it is associated with unfair trade, lack of transparency, doubts on the certification processes, breakdown of regional food producing systems etc. On the other hand, globalization is believed to have a significant impact on decreasing the already high prices, and increasing the range and availability of organic products.

Summarising the two sides in the globalisation debate, it seems that local organic products are associated with everything that is good about organics, whereas globalised products are equated with all the negative sides of global trade and organics (Padel et al., 2007).

2.2.5 Trust in Organic Products

Environmental awareness does not necessarily result in environmentally friendly behaviour. For example, all people are aware of the danger causing a fire when throwing a cigar down, but still they are doing it.

Consumers can be aware of environmental issues but not willing to pass their environmental beliefs into their behaviour. According to the National Geographic Society's Greendex, the main barrier towards this is the phenomenon of 'greenwashing'. Greenwashing is the corporate marketing practice of making false claims about the environmental impact of their products. Companies accurately target the environmental friendly consumer, as they have already recognised the strategic marketing importance in finding solutions and appropriate products for these environmental needs (Laroche *et al*. 2001, NGS Greendex, 2010).

When it comes to organics, due to greenwashing, most of the marketing practises look rather suspicious and usually raise a lot of discussion among consumers. It appears that consumers are quite sceptical about putting their trust in organic labelling and in order to do this, first they have to be sure about the quality characteristics that the product seems to carry, according to the label. On the other hand there is another segment of customers that would believe, without second thought, every claim that organic labels write on the product packages (Bellows, 2008, Krystallis et al. 2006). Therefore it is quite obvious that organic labelling can be both a barrier and an incentive towards shopping organic products, depending on the personal beliefs, knowledge, and the trust or distrust a consumer is willing to show.

European consumers and Greeks also, do not seem able to discriminate organic from conventional products and genetically modified ones. The confusion gets even bigger when trying to understand what is written on the product label about quality characteristics and certification. Many consumers don't have any idea what an organic product stands for or how it is defined. Governments, unions and organizations also seem ignorant; and even more responsible as it took them years, almost decades to establish some common standards in defining the specifications of organic products. This is the reason why in the introductory chapter this thesis does not give a specific definition of what organic agriculture is and what organic products are, but provides the three dominant perspectives on organic products.

Nevertheless, the European Union spotted the seriousness of the problem and set some specific standards that a food product must have, in order to carry the organic label. In addition, a logo, which is shown on the front cover of this master thesis, was designed to be used to supplement the labelling and increase the visibility of organic food and drink products. Therefore, consumers buying products bearing the EU logo can be confident that:

- at least 95% of the product's ingredients have been organically produced
- the product complies with the rules of the official inspection scheme
- the product was provided by the producer or preparer in a sealed package
- the product bears the name of the producer, the preparer or vendor and the name or code of the inspection body

For this reason the placement of the EU logo is mandatory from July 1, 2010 for pre-packaged food (European Commission, 2010). This is what differentiates organic products from conventional ones (Gibbon & Memedovic, 2006). It would be interesting to see, if this honest effort of the European Union to enhance trust on the

organic label and the logo will bring the desired results or once again it will be used from companies as a Trojan horse for greenwashing or misleading the consumers.

In the US, where these standards where first introduced, 40% of the companies dealing with organic products, stated that labelling and certification increased sales, (Organic Trade Association, 2006b).

3. Research Objectives

Nowadays the organic movement is spreading rapidly worldwide and especially European consumers who seem quite interested in organic rather than green, natural or genetically modified products. Greece is a less industrialized country where people are used to consume regional products. Moreover organic agriculture was introduced around 1980 mostly for covering the demand of organics for European consumers. This means that majority of the Greek people in the past days, were not looking for organic products or environmentally friendly production methods in agriculture. However, in the last few years people are getting more involved in the production and consumption of organic products and the demand has been increased significantly. Greece though, in comparison with the rest of the developed European countries is still lugging some steps behind.

The major factors that influence the consumption of organic products and purchasing behaviour is a research priority, as the conditions in organic production, processes and market are constantly changing and need to be closely monitored. This research topic is even more relevant today, as Greece is suffering from a deep economic recession that had great impact on the domestic market.

The goal of this research is to investigate:

- The effect of various demographic factors on
  - consumers' purchase history for organic products
  - consumers' purchase likelihood for various categories of organic products.
  - consumers' organic attitude and consumers' perception of organic products.
- The relationship between consumers' willingness to spend more on organic products and (a) consumers' organic attitude and (b) consumers' perception of organic products. Specific hypotheses were developed to investigate this relationship. These hypotheses are presented in the next section.

4. Hypotheses

Based on the Literature Review our hypotheses are grouped in two categories: (1) Consumers' organic attitude, and (2) Consumers' Perception of Organic Products. Greek people seem to pay attention to matters associated with their health and their diet habits, as the rate of life expectancy in Greece is one of the highest in Europe. Consequently the first hypothesis is:

H1: ***Consumers exhibiting high health preventing behaviour are likely to spend more on organic products.***

The global scaled scandals in conventional food in the recent years, such as the Mad Cow disease and the introduction of the genes science in producing genetic modified (GM) food products have attracted consumers' attention and raised a lot of concern about food safety issues. The vast majority of surveys on organic food products have concluded that food safety concerns are a major influence in consumers' willingness to buy organic products. Therefore the second hypothesis is:

H2: Consumers' exhibiting high food safety concerns are likely to spend more on organic products.

The initial spark that gave birth to the organic movement was based on the principles of sustainable development with respect to the natural resources, protection and maintenance of the environment and ecosystems. Naturally the third hypothesis states that:

H3: Consumers' exhibiting high levels of environmentally friendly behaviour are likely to spend more on organic products.

According to the results of large scale surveys reported in prior research, perceived quality is the second major driver after health concern, that encourages consumers to buy organic products. This leads to the fourth hypothesis:

H4: Consumers who perceive organic products as being of high quality are likely to spend more on organic products.

As stated in the literature, for many European consumers the origin of a product is a key element when selecting a product. It seems that local produced food is a more acceptable option, rather than globalized products. The fifth hypothesis focuses on replicating this finding in the Greek context.

H5: Consumers are likely to spend more on organic products that are locally produced.

Availability and consequently variety are also crucial factors when it comes to consumer shopping. A consumer cannot purchase a product, if this specific product is only available far away from his house. The problem becomes more important for

daily consumed products and gets even bigger when the product is not available at all. Consequently the sixth hypothesis is:

H6: Consumers are willing to pay more for organic products when these products are widely available in their area.

Last but not least, it is expected that the European Committee's regulation on organic labelling is an effort that will give the expected results and protect consumers from 'green' marketing tricks. Therefore the last hypothesis to be tested states that:

H7: Consumers are willing to pay more for organic products that are certified.

5. Methodology

5.1 Data collection and Participants

Data were collected during the first annual Festival of Organic Food Products in Edessa city, the capital of the prefecture of Pella, situated in the geographical region of Macedonia in Northern Greece. The festival was organized under the support of agriculturists who specialize in organics, organic producers, merchandisers, NGOs and the Greek state. It lasted three days; from ten to thirteen of September 2010.

The fair enabled us to locate a large number of consumers of organic products in a short period of time (N=210). We made sure to exclude organic vendors, producers, marketers and any other professionals involved in the production, distribution and selling of organic products. All participants were screened based on their answers to the following questions .The first question was if they were consumers of organic products and the second questions was whether they were professionally involved with organic products (e.g., producing, certifying, selling, distributing, advertising etc. If the respondent answered yes to question number one and no to question number two, he or she was asked to complete the questionnaire. The fair attracted visitors from all over Greece as the city of Edessa is a highly touristic destination and therefore the sample was quite diverse.

The event took place in the park of waterfalls, where several small kiosks. The kiosks had stands and tables that enabled respondents to take their time and fill out the questionnaire. Participants were informed that the survey was conducted for the purpose of a master thesis in the international Hellenic University. They were assured that responses would be kept confidential.

5.2 Questionnaire Design

The questionnaire consisted of three parts:

First, participants were asked to indicate purchase likelihood for various organic products in the Greek market. The following products were included: fruits, vegetables, meat, milk, cheese, yogurt, bread, alcohol, poultry, eggs, sweets, snacks, olives, olive oil, rice, pulses, sugar, cosmetics, detergents, household cleaners, napkins and the option to specify other organic products that were not included in the main list. Specifically, they were asked: “How likely are you to buy the following organic products 1= not likely at all to 7=very likely. Participants were also asked about their purchase history for organic products. Specifically, they were asked: When did you started to buy organic food products? The following options were provided “Last week”, “A few weeks ago”, “A month ago”, “Half a year ago”, “A year ago” and “Other. Please Specify”.

In the second part of the questionnaire, questions were designed to obtain information about consumers’ organic attitude, perception of organic products, and willingness to pay more for organic products. Specifically, consumers were asked the following questions (1= Strongly Disagree to 7=Strongly Agree)

Organic Attitude

1. I try to maintain a balanced diet
2. I consume organic products as they are healthier than the conventional ones

3. Organic products are safe for human health
4. Organic products contain no chemicals and toxic residues
5. Buying organic products enhances environmental protection
6. Organic products are produced without the excessive use of natural resources.
7. Organic products are of high quality

Perception of Organic Products

1. Organic products are richer in nutrients than conventional ones.
2. Organic products are fresher than conventional ones
3. Organic products taste better than conventional ones
4. There is a selling point for organic products near where I live
5. I am pleased with the variety of organic products in the domestic market.
6. I prefer Greek organic products rather than imported ones.
7. The Greek organic food products are of higher quality than imported ones.
8. There is transparency in the certification process of organics.
9. The presence of organic label makes me feel more confident about what I buy.
10. I buy only certified organic food products.

Willingness to spend more on organic products

1. I am willing to spend more money on buying organic products.

In the third part of the questionnaire, questions referred to demographic variables, such as age, gender, educational level, frequency of household shopping, monthly income, number and age of children and the area of residence.

The questionnaire was in Greek, and was later translated to meet the requirements of this thesis. Both questionnaires are included in the Appendix.

6. Results

In this chapter the findings of the survey are stated, after being processed and analyzed.

6.1 Participants' Profile

Greek organic consumers' age distribution demonstrates a major group from 25 to 54 years old and account for 71% of the participants. The other two groups are significant smaller and for ages above 65 stands for 16%, whereas younger people under 24 years form a group that accounts only for 13%.

More specific participants under 24 years old were 29 (13%), from ages 25 to 34 were 75 (34%), from ages 35 to 44 were 46 (21%), from ages 45 to 54 were 35 (16%), from ages 55 to 64 were 22 (10%) and ages above 65 were 13 (6%) participants.The main group is from age 25 to 54 and account for 156 (71%) respondents (see Figure 1)

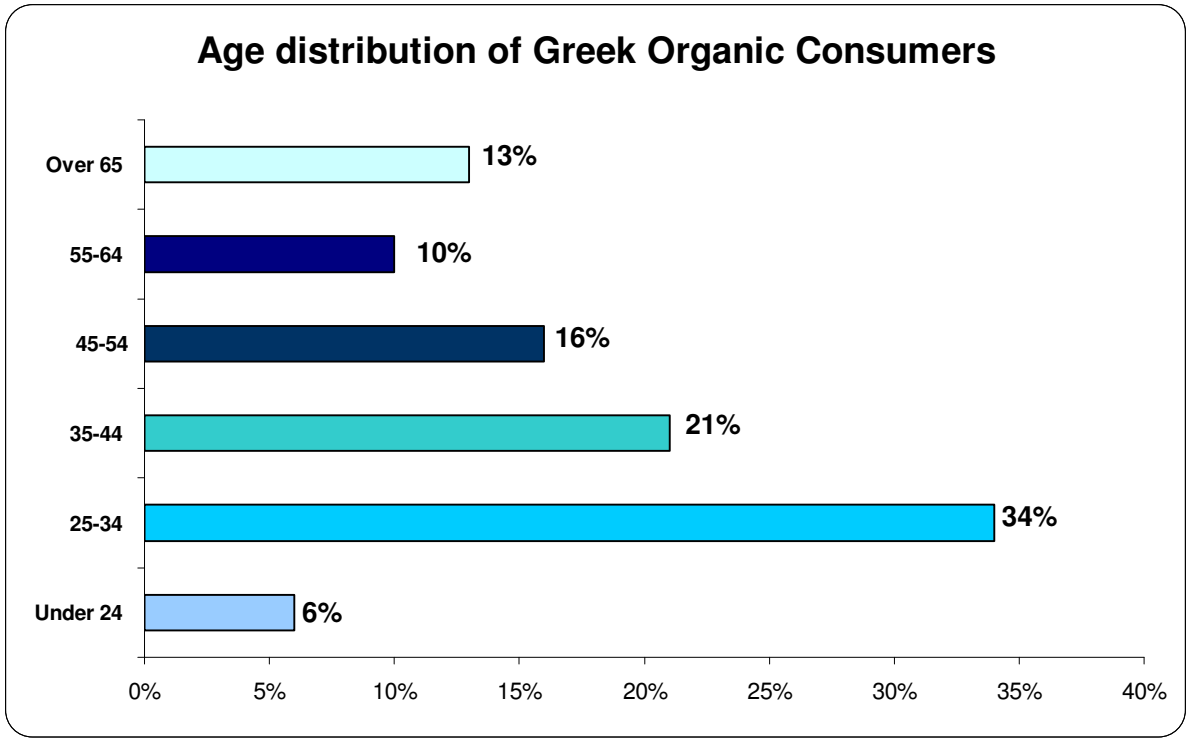

Figure 1: Age dstribution of Greek Organic Consumers

Genders' distribution, revealed that women are the dominant organic Greek shoppers with a percentage of 70%, when at the same time men accounted only for 30%. This fact was not a surprise though, but in full compliance with other European and Greek researches that presented women as predominant organic consumers (see Figure 2).

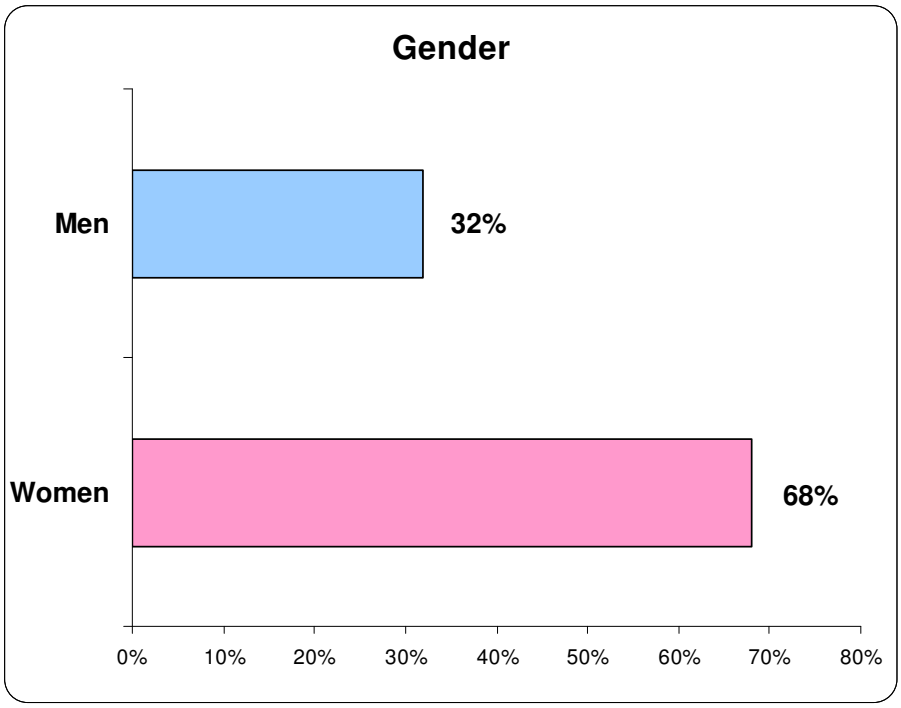

Figure 2: Gender distribution

In addition, 128 (58%) of the respondents are members of a family with one or two children, 33 (15%) of a family with three or four children, 11(5%) of a family with more than four children and 48 (22%) respondents did not have any children at all. Consequently, 194(88%) of the consumers were found to have children and not 26 (12%) of them. The fact that such a highly percentage of the respondents are parents, indicates that there must been a positive correlation between organic food consumption and parents with children (see Figure 3)

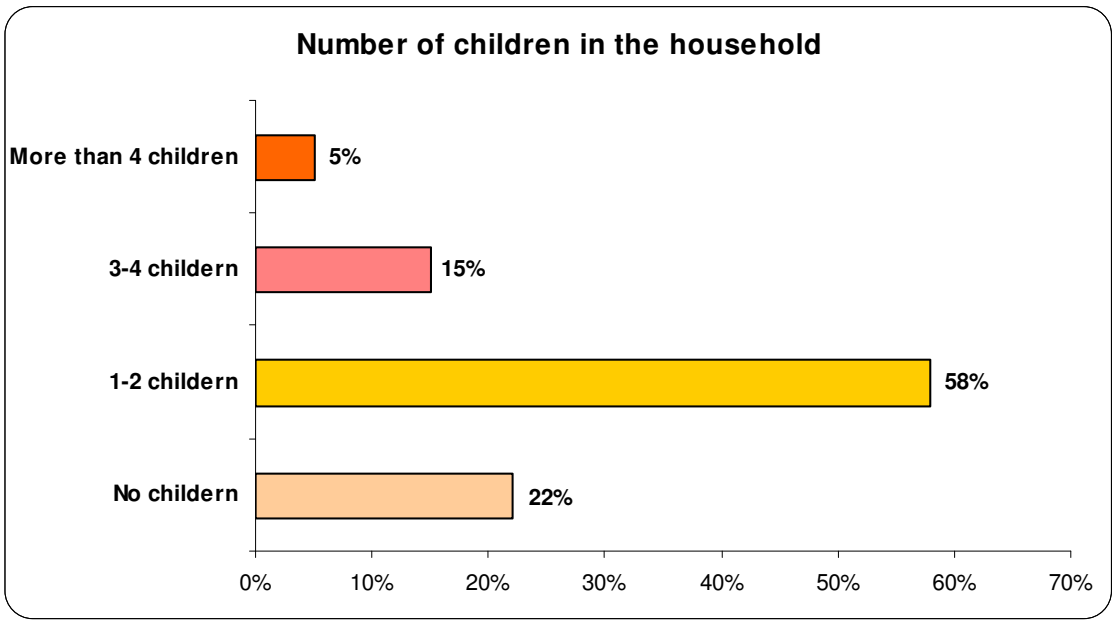

Figure 3: Number of children in the household

Furthermore, from the 194 respondents who have children, 70 of them have children with ages up to six years old, 56 of them have children with age from seven to ten years old and 43 were found to have children from eleven to thirteen years old. Adding these figures give a total number of 169 respondents with young children up to thirteen tears old. The presence of young children implies that the parents themselves are young. This is an indication that organic food consumption is furthermore linked with young parents who care about the diet habits of their young children.The rest of the participants are; 27 with children with ages from fourteen to seventeen years old and 10 participants with children above the age of eighteen (see Figure 4)

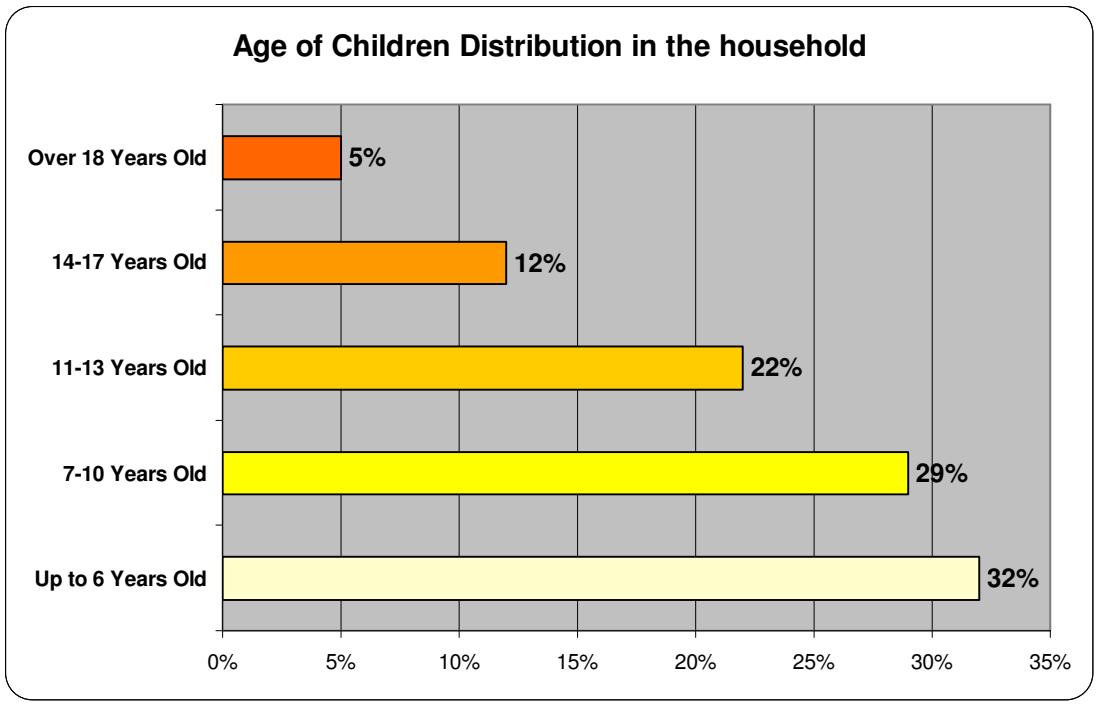

Figure 4: Age of Children distribution in the Greek household

The leading group of the participants is highly educated and has a bachelor degree with accounting for 105 (48 %,) the following group is the one of high school graduates representing 84 (38%). Lowest education, have received 9 (4%) respondents, whereas highest education; Masters' degree and Phd, account for 18 (8%) and 4 (2%) respectively). This finding is also in consistence with organic big scale surveys which suggest that the more educated a consumer is, the more likely to be a supporter of organic products.

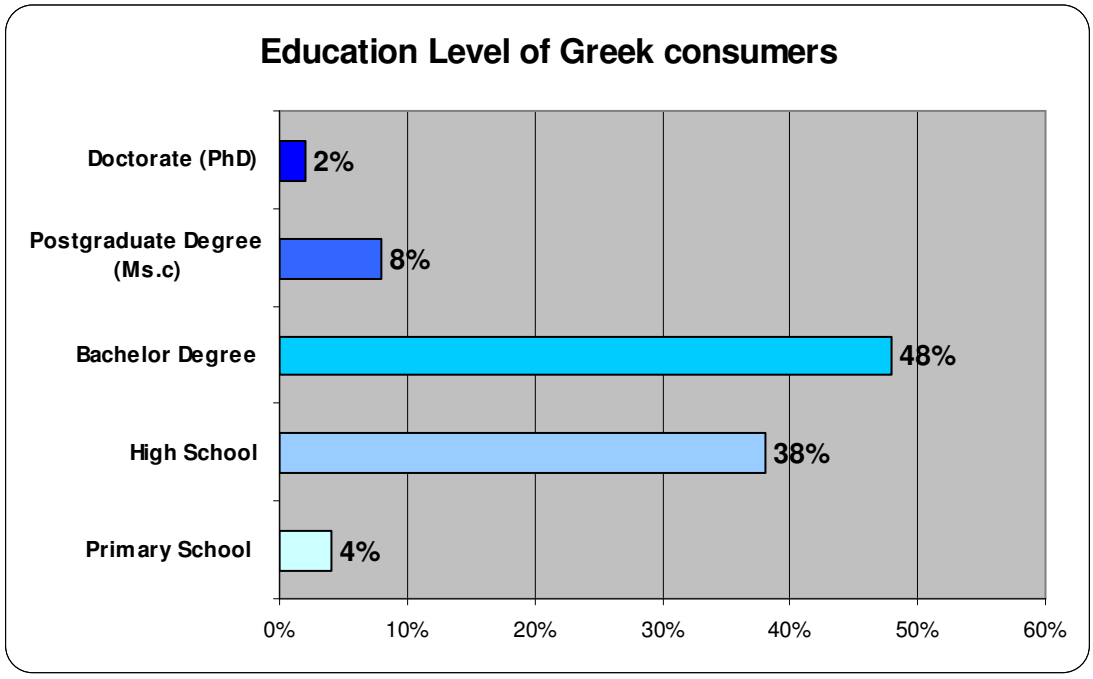

Figure 5: Education Level of Greek consumers

The distribution of monthly income shows that the dominant group of organic consumers belong to the low-middle and upper class (1500€ and more) with a figure of 128 (73%) together. The low and low-middle class have an income (up to 1499€) that stand for 59 (37%) participants. This finding shows clear that organic food products are purchased by people who have an income higher than the average (see Figure 6).

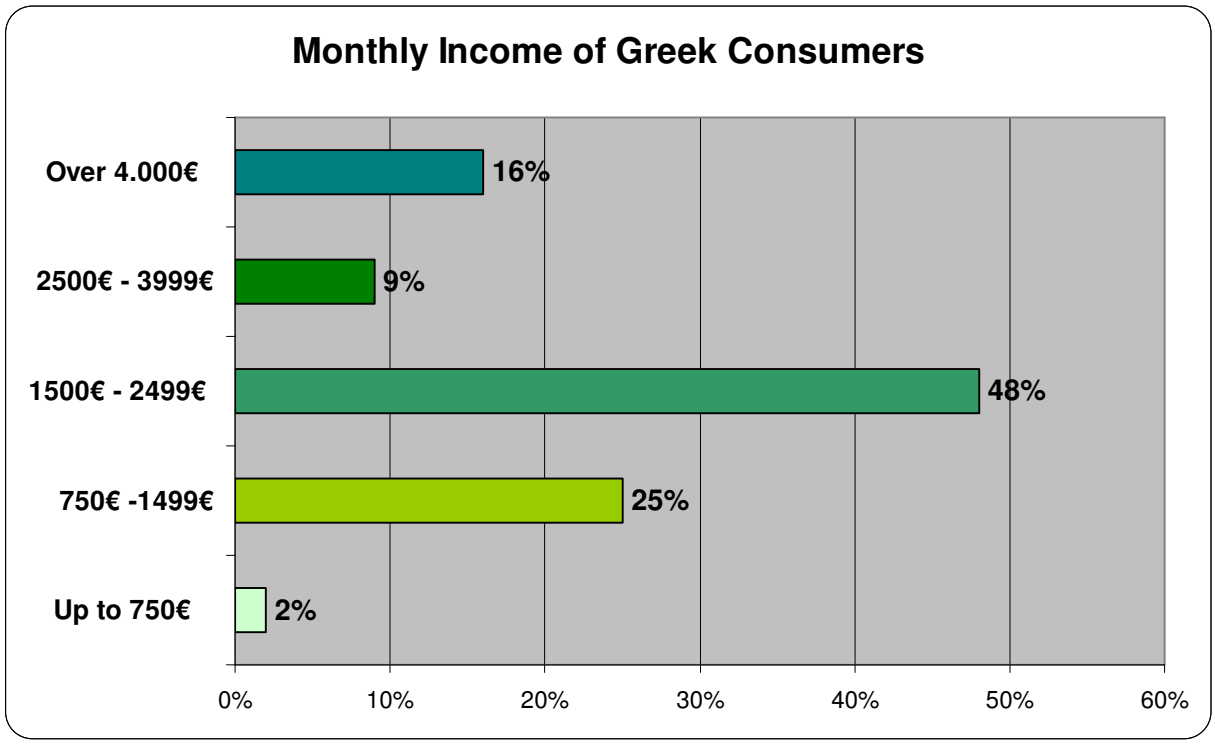

Figure 6: Monthly Income of Greek Consumers

Finally, 112 (51%) of the respondents live in urban areas versus 108 (49%) who live in suburban and rural areas. More specific, 86 (39%) live in cities (population from 20.000 to 100.000) and 26 (12%) in the big cities (population more than 100.000). In towns (population from 5.000 to 20.000) live 62 (28%) of them and 46 (21%) live in villages (population up to 5.000). This finding is a sign that the area of residence does not seem to affect the consumption of organics, but this cannot be told by sure as Greek cities can be either urban or suburban (see Figure 7).

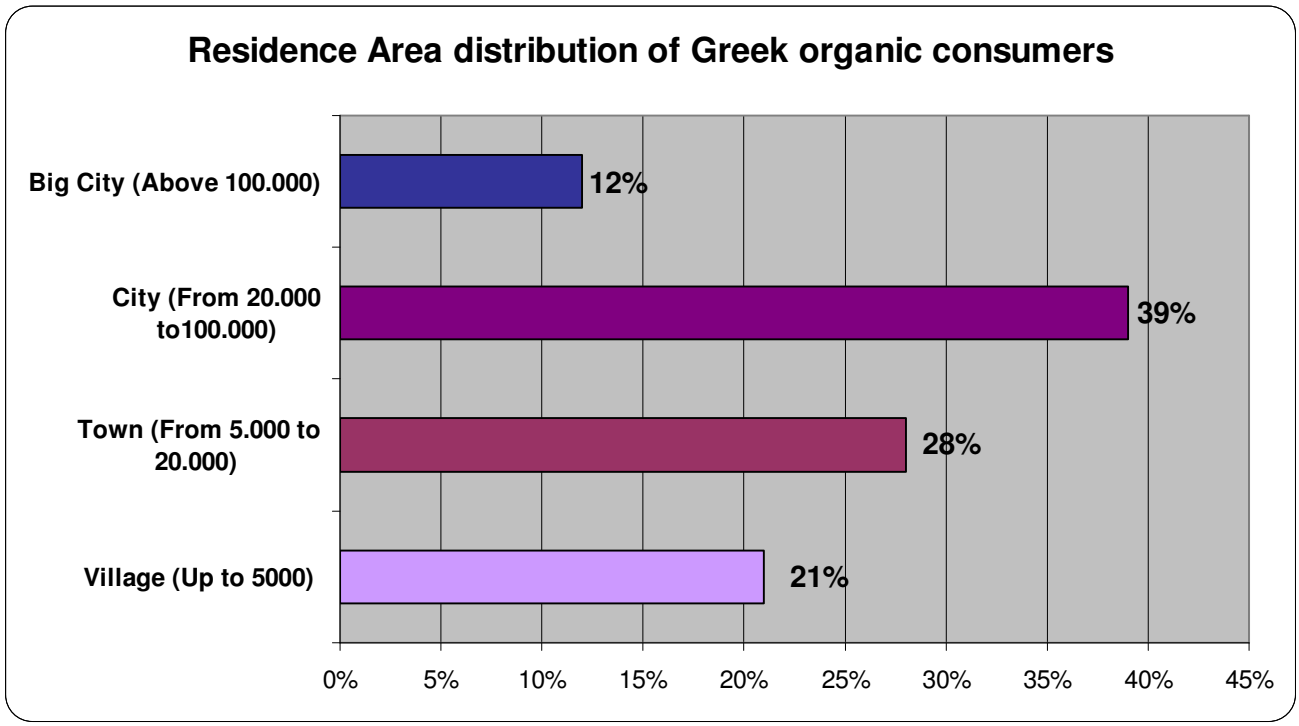

Figure 7:Residence Area distribution of Greek Organic Consumers

6.2 The Effect of Various Demographic Factors on Consumers' Purchase History for Organic Products

The table below shows participants' purchase history for various demographic factors. Main findings:

- 47.3% of the consumers are women who have been buying organics for half a year
- 57% of the consumers buy organics in a daily basis
- Around 50% of the consumers who have from 3 or more children have been purchasing organic for more than half a year
- Almost 95% of consumers who live in villages and towns (suburban areas) are consuming organics for more than half a year

Purchase history	Last week		A few weeks ago		A month ago		Half a year ago		Other		Total
Demographics	No of Cons.	Percenatge	No of Cons.	Percentage	No of Cons.	Percentage	No of Cons.	Percentage	No of Cons.	Percentage	
Male	8	11,4%	10	14,3%	15	21,4%	20	28,6%	17	24,3%	**70**
Female	7	4,7%	9	6,0%	28	18,7%	71	47,3%	35	23,3%	**150**
Under 24 years old	0	0,0%	1	7,7%	4	30,8%	5	38,5%	3	23,1%	**13**
25 to 34 years old	12	16,0%	21	28,0%	15	20,0%	14	18,7%	13	17,3%	**75**
35 to 44 years old	4	8,7%	12	26,1%	8	17,4%	12	26,1%	10	21,7%	**46**
44 to 55 years old	2	5,7%	9	25,7%	5	14,3%	10	28,6%	9	25,7%	**35**
54 to 64 years old	3	13,6%	2	9,1%	2	9,1%	11	50,0%	4	18,2%	**22**
Over 65 years old	3	10,3%	4	13,8%	5	17,2%	12	41,4%	5	17,2%	**29**
Daily (Purchase Freq.)	0	0,0%	19	15,2%	15	12,0%	44	35,2%	47	37,6%	**125**
Few times a week	2	4,3%	5	10,9%	13	28,3%	14	30,4%	12	26,1%	**46**
Few times a month	0	0,0%	14	33,3%	18	42,9%	6	14,3%	4	9,5%	**42**
Several times a year	0	0,0%	0	0,0%	1	14,3%	3	42,9%	3	42,9%	**7**
Never	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	**0**
Primary Scholl	0	0,0%	2	22,2%	1	11,1%	3	33,3%	3	33,3%	**9**
High Scholl	10	11,9%	14	16,7%	16	19,0%	19	22,6%	25	29,8%	**84**
Bachelor Degree	7	6,7%	16	15,2%	19	18,1%	29	27,6%	34	32,4%	**105**
Postgraduate (Ms.c)	0	0,0%	2	11,1%	3	16,7%	5	27,8%	8	44,4%	**8**
Doctorate (Ph.d)	0	0,0%	0	0,0%	0	0,0%	0	0,0%	4	100,0%	**4**
Other	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	**0**

Table 1: The Effect of Various Demographic Factors on Consumers' Purchase History for Organic products

Purchase history	Last week		A few weeks ago		A month ago		Half a year ago		Other[1]		Total
Demographics	**No of Cons.**	**Percenatge**	**No of Cons.**	**Percentage**	**No of Cons.**	**Percentage**	**No of Cons.**	**Percentage**	**No of Cons.**	**Percentage**	
Up to 750€	3	6,8%	4	9,1%	9	20,5%	14	31,8%	14	31,8%	**44**
750-1.499€	4	7,3%	5	9,1%	5	9,1%	17	30,9%	24	43,6%	**55**
1.500-2.499€	4	3,8%	13	12,3%	14	13,2%	35	33,0%	40	37,7%	**106**
2.500-3.999€	0	0,0%	2	10,0%	1	5,0%	8	40,0%	9	45,0%	**20**
Over 4.000€	0	0,0%	3	8,6%	3	8,6%	10	28,6%	19	54,3%	**35**
No children	8	16,7%	12	25,0%	9	18,8%	7	14,6%	12	25,0%	**48**
1-2 children	12	9,4%	22	17,2%	27	21,1%	32	25,0%	35	27,3%	**128**
3-4 children	0	0,0%	5	15,2%	5	15,2%	9	27,3%	14	42,4%	**33**
Over 4 children	0	0,0%	2	18,2%	1	9,1%	3	27,3%	5	45,5%	**11**
Until 6 years	0	0,0%	9	17,6%	8	15,7%	14	27,5%	20	39,2%	**51**
7-10 years old	0	0,0%	5	10,4%	6	12,5%	15	31,3%	22	45,8%	**48**
11-13 years old	0	0,0%	4	10,0%	4	10,0%	14	35,0%	18	45,0%	**40**
14-17 years old	0	0,0%	2	8,7%	1	4,3%	8	34,8%	12	52,2%	**23**
Over 18 years old	0	0,0%	1	10,0%	2	20,0%	2	20,0%	2	20,0%	**10**
Village (Up to 5.000)	0	0,0%	0	0,0%	0	0,0%	0	0,0%	46	100,0%	**46**
Town (5.000-20.000)	0	0,0%	0	0,0%	0	0,0%	4	6,5%	58	93,5%	**62**
City (20.000-100.000)	3	3,5%	7	8,1%	11	12,8%	22	25,6%	43	50,0%	**86**
Big City (Over 100.000)	0	0,0%	0	0,0%	2	7,7%	14	53,8%	10	38,5%	**26**

Table 1: The Effect of Various Demographic Factors on Consumers' Purchase History for Organic products (Cont)

[1] Most of the participants chose 'Other'. When they were asked to specify, they stated that it meant that they have been buying organic products for more than half a year.

6.3 The Effect of Various Demographic Factors on Consumers' Purchase Likelihood for Various Categories of Organic Products

This table shows the effect of various demographic factors on participants' purchase likelihood for various categories of organic products. Main findings:

- Women gave higher ratings for almost all organic products
- Younger (Under 24 years) and older people (Over 65 years old) gave overall lower ratings
- Overall, most likely to buy: organic fruits, vegetables, eggs, sweets, olive oil, rice, pulses, sugar, pasta, flour, fruit juices, detergents and household cleaners.
- Overall, less likely to buy: organic meat, bread, alcohol and napkins.
- High ratings for cosmetics, detergents and household cleaners although these products have been recently introduced into the Greek market.

Products/Demographics	Fruits	Vegetables	Meat	Milk	Cheese	Yogurt	Bread	Alcohol	Poultry	Eggs	Sweets	Snacks
Male	6.6	6.8	1.9	1.8	4.2	3.8	1.2	3.4	2.9	5.6	5.8	5.2
Female	6.9	6.9	2.6	3.8	3.9	4.1	1.5	1.1	3.9	6.3	6.8	4.9
Total	6.8	6.9	2.4	3.2	4	4	1.4	1.8	3.6	6.1	6.5	5
Under 24 years old	6.6	6.6	1.7	2.8	3.8	3.9	1.1	2.4	1.5	5.9	6.6	5.1
25 to 34 years old	6.9	6.9	2.8	4.2	4.2	4.4	1.4	2.2	2.7	6.1	6.6	4.9
35 to 44 years old	6.9	6.9	2.6	4.1	4.1	4.4	1.4	2.1	3.8	6.1	6.4	4.8
44 to 55 years old	6.8	6.9	2.6	3.9	4.1	3.8	1.3	1.8	3.9	6.3	6.6	5.3
54 to 64 years old	6.9	6.8	2.9	2.8	3.8	3.9	1.2	1.8	3.9	6.2	6.5	5.1
Over 65 years old	6.6	6.9	2.6	2.2	3.5	3.9	1.1	1.2	4.3	6.5	6.4	4.8
Daily (Purchase Freq)	6.9	6.8	2.8	2.8	4.1	3.7	1.3	2.6	3.1	6.8	6.9	4.7
Few times a week	6.8	6.8	2.6	4.2	4.3	3.6	1.2	1.8	3.3	6.4	6.8	5.3
Few times a month	6.9	6.6	2.9	3.9	3.8	3.8	1.2	1.3	3.7	5.9	6.4	5.1
Several times a year	6.9	6.6	2.9	2.8	3.5	4.1	1.1	2.6	3.7	6.1	6.6	5.2
Never	-	-	-	-	-	-	-	-	-	-	-	-
Primary Scholl	6.6	6.9	2.8	4.2	3.5	3.9	1.3	1.4	3.5	6.7	6.2	5.5
High Scholl	6.9	6.9	2.6	4.1	3.9	3.9	1.3	1.6	3.6	6.5	6.7	5.3
Bachelor Degree	6.9	6.8	2.6	3.9	3.8	3.8	1.2	2.6	3.6	6.9	6.6	5.1
Postgraduate (Ms.c)	6.8	6.9	2.9	2.8	3.5	3.9	1.1	1.8	3.5	6.6	6.3	5.5
Doctorate (Ph.d)	6.6	6.8	2.6	3.9	3.5	4.1	1.2	2.6	3.1	6.7	6.6	5.3
Other	-	-	-	-	-	-	-	-	-	-	-	-
Up to 750€	6.8	6.6	2.8	4.1	4.3	4.4	1.2	2.6	3.9	6.1	6.5	5.1
750-1.499€	6.8	6.8	2.6	3.9	3.8	3.8	1.2	2.9	3.9	6.3	6.6	4.7
1.500-2.499€	6.9	6.8	2.9	3.9	3.5	3.8	1.1	2.6	2.7	6.2	6.4	4.7
2.500-3.999€	6.9	6.8	2.6	2.8	3.9	3.9	1.2	1.8	2.8	6.5	6.5	5.3
Over 4.000€	6.8	6.6	2.6	3.7	3.6	3.8	1.4	1.2	3.5		6.6	5.1
No children	6.9	6.8	2.9	3.9	3.5	4.2	1.3	1.4	3.6	6.1	6.2	4.8
1-2 children	6.9	6.8	2.6	3.9	3.5	3.9	1.2	1.3	3.5	6.7	6.5	5.3
3-4 children	6.8	6.6	2.9	3.6	4.7	4.1	1.3	2.6	3.9	6.1	6.5	5.1
Over 4 children	6.8	6.6	2.8	3.7	4.5	3.8	1.1	2.9	3.9	6.3	6.3	4.7
Village (Up to 5.000)	6.9	6.9	2.9	3.6	3.8	3.9	1.4	1.3	3.5	5.9	6.5	5.5
Town (5.000-20.000)	6.9	6.9	2.8	3.7	3.5	4.1	1.3	2.6	2.7	6.1	6.5	5.3
City (20.000-100.000)	6.8	6.9	2.9	2.7	3.4	3.9	1.1	1.4	2.8	6.7	6.3	5.1
Big City (Over 100.000)	6.6	6.8	2.6	2.9	3.4	3.8	1.1	1.3	3.1	6.6	6.6	5.3

Table 2: The Effect of Various Demographic Factors on Consumers' Purchase Likelihood for Various Categories of Organic Products

Products/Demographics	Olives	Olive Oil	Rice	Pulses	Sugar	Pasta	Flour	Fruit Juices	Cosmetics	Detergents	Napkins	Household cleaners
Male	5	5.4	6.1	6.2	5.8	5.3	4.5	7	1.5	4.6	1	4.5
Female	5.3	6.4	6.8	6.5	6.8	6.6	6.8	6.7	5.1	6.9	1	6.9
Total	5.2	6.1	6.6	6.4	6.5	6.2	6.1	6.8	4	6.2	1	6.2
Under 24 years old	4.7	5.8	6.7	5.8	6.6	6.4	5.5	6.9	4.1	6.4	1	4.7
25 to 34 years old	5.1	6.1	6.9	6.5	6.5	6.4	6.1	6.8	4.2	6.9	1	6.8
35 to 44 years old	5.3	6.2	6.9	6.4	6.6	6.3	6.5	6.6	4.1	6.7	1	6.5
44 to 55 years old	5.1	6.1	6.7	6.4	6.4	6.1	6.5	6.8	4.1	6.6	1	6.6
54 to 64 years old	5.1	6.1	6.6	6.5	6.6	6.1	6.1	6.8	3.9	6.7	1	6.8
Over 65 years old	5.6	6.2	6.8	6.7	5.8	6.1	5.4	6.8	3.7	6.5	1	6.5
Daily (Purchase Freq)	5.1	6.6	6.7	6.5	6.1	6.4	5.8	6.4	1.1	6.1	1	6.7
Few times a week	5.6	6.8	6.6	6.7	6.1	5.9	6.1	6.5	1.5	6.9	1	6.6
Few times a month	5.6	6.1	6.9	6.8	6.4	6.1	6.7	6.7	5.5	6.3	1	6.8
Several times a year	4.8	6.9	6.9	6.5	6.4	6.9	6.7	6.6	5.8	6.2	1	6.1
Never	-	-	-	-	-	-	-	-	-	-	-	-
Primary Scholl	5.3	6.5	6.6	6.1	6.6	6.3	6.1	6.6	4.7	6.2	1	6.2
High Scholl	5.1	6.3	6.7	5.9	6.6	6.1	6.6	6.8	4.8	6.3	1	6.4
Bachelor Degree	5.5	6.5	6.6	5.9	6.8	6.2	6.8	6.1	3.8	6.5	1	6.4
Postgraduate (Ms.c)	5.3	6.4	6.8	6.6	6.5	6.2	6.7	6.5	4.1	6.5	1	5.9
Doctorate (Ph.d)	4.4	6.5	6.5	6.3	6.6	6.4	6.2	6.6	3.7	6.6	1	5.5
Other	-	-	-	-	-	-	-	-	-	-	-	-
Up to 750€	4.6	6.1	6.5	6.6	6.3	6.1	6.1	6.6	3.9	6.6	1	6.1
750-1.499€	4.6	6.9	6.6	6.6	6.6	6.9	6.3	6.7	3.6	6.8	1	6.9
1.500-2.499€	3.8	6.5	6.5	6.5	6.6	6.5	6.1	6.5	4.1	6.7	1	6.7
2.500-3.999€	5.2	6.5	6.7	6.2	6.3	6.4	6.5	6.7	4.2	6.6	1	6.7
Over 4.000€	5.2	6.3	6.1	6.5	6.6	6.4	6.4	6.9	2.7	6.8	1	6.5
No children	4.4	6.3	6.6	6.3	6.4	6.3	5.9	6.7	4.3	6.1	1	5.9
1-2 children	3.8	6.3	6.8	6.8	6.6	6.1	6.4	6.8	4.1	6.5	1	6.5
3-4 children	4.3	6.7	6.5	6.8	5.8	6.1	6.5	6.9	3.8	6.1	1	6.1
Over 4 children	4.1	6.9	6.5	6.6	6.5	6.4	6.5	6.9	3.5	6.9	1	6.5
Village (Up to 5.000)	5.3	6.1	6.2	6.8	6.5	6.6	6.2	6.2	3.8	6.4	1	6.6
Town (5.000-20.000)	5.1	6.9	6.5	6.9	6.6	6.8	6.2	6.9	4.1	6.6	1	6.8
City (20.000-100.000)	5.2	6.6	6.3	6.7	6.6	6.1	67	6.8	4.1	5.9	1	6.1
Big City (Over 100.000)	5.2	6.5	6.4	6.6	6.2	6.1	6.3	6.9	4.2	5.7	1	6.5

Table 3: The Effect of Various Demographic Factors on Consumers' Purchase Likelihood for Various Categories of Organic Products (Cont)

6.4 The Effect of Various Demographic Factors on Consumers' Organic Attitude and Consumers' Perception of Organic Products

This table shows the effect of various demographic factors on consumers' organic attitude and consumers' perception of organic products.

- Overall, organic products are perceived as being healthier, free of chemicals, safe, of high quality and having better taste than non organic products.
- Consumers' buy only certified products and the organic label makes them feel confident about what they buy.

Questions/ Demographics	I try to maintain a balanced diet	I consume organic products as they are healthier than conventional	Organic products are safe for human health	Organic products contain no chemicals and toxic residues	Buying organic products enhances environmental protection	Organic products are produced without the excessive use of natural resources.	Organic products are of high quality	There is a selling point of organics where I live	I am pleased with the variety of organics
Male	6.2	6.2	6	5.7	3.5	4.5	6	4.4	4
Female	6.9	6.5	6.3	6.4	4.5	3.8	6.7	3.7	4.7
Total	6.7	6.4	6.2	6.2	4.2	4	6.5	3.9	4.5
Under 24 years old	6.5	6.2	6.1	6.1	4.1	3.8	6.7	4.1	4.6
25 to 34 years old	6.5	6.6	6.2	6.3	4.2	4.2	6.7	3.8	4.2
35 to 44 years old	6.6	6.6	5.8	6	4.1	4.4	6.5	3.8	4.2
44 to 55 years old	6.8	6.6	6.3	6.4	4.3	3.7	6.9	3.8	5
54 to 64 years old	6.3	6.3	6.3	6.6	4.3	3.8	6.6	3.6	5.1
Over 65 years old	6.9	6.3	6.5	6.1	3.9	4.1	6.5	3.5	5.1
Daily (Purchase Freq)	6.4	6.5	6.5	6.1	3.8	4.2	6.4	4	4.9
Few times a week	6.4	6.5	6.5	6.4	4.1	4.1	6.5	3.6	4.7
Few times a month	6.7	6.2	6.1	6.7	4.1	3.8	6.5	3.3	4.4
Several times a year	6.9	6.2	6.1	6.7	4.3	4	6.2	3.3	4.3
Never	-	-	-	-	-	-	-	-	-
Primary Scholl	6.5	6.6	6.2	6.3	4	3.9	6.1	3.9	4.2
High Scholl	6.6	6.7	6.8	6.5	4.1	4.2	6.9	3.8	4.2
Bachelor Degree	6.8	6.3	6.8	6.6	4.2	3.8	5	3.8	4.3
Postgraduate(MsC)	6.3	6.6	6.6	6.3	4.2	4.1	6.6	3.9	4.9
Doctorate (Phd)	6.4	6.6	6.9	6.6	3.8	4.1	6.5	4	4.8
Other	-	-	-	-	-	-	-	-	-
Up to 750€	6.9	6.2	6.2	6.2	3.7	4.2	6.5	3.9	4.3
750-1.499€	6.8	6.1	6.7	6.3	3.9	3.8	6.1	3.6	4.2
1.500-2.499€	6.5	6.3	6.7	6.6	4.1	4.1	6.2	3.5	5
2.500-3.999€	6.3	6.6	6.1	6.7	4.1	4.2	6.2	3.5	4.8
Over 4.000€	6.9	6.6	6.1	6.7	4.5	3.5	6.7	4	4.5
No children	6.8	6.3	6.7	6.4	4.9	3.8	6.6	3.8	4.4
1-2 children	6.3	6.6	6.3	6.6	4	4.1	6.5	3.8	4.2
3-4 children	6.9	6.4	6.5	6.1	4.1	4.2	6.5	3.9	4.4
Over 4 children	6.8	6.4	6.5	6.7	4.3	3.9	6.2	3.8	4.7
Village (Up to 5.000)	6.7	6.2	6.3	6.1	4.1	4.1	6.3	3.5	4.9
Town (5.000-20.000)	6.9	6.7	6.6	6.4	4.1	4.2	6.6	3.5	4.5
City (20.000-100.000)	6.9	6.3	6.4	6.4	4.3	4.1	6.4	3.9	4.5
Big City (Over 100.000)	6.7	6.4	6.4	6.1	4.2	3.7	6.4	4.1	4.3

Table 4: The Effect of Various Demographic Factors on Consumers' Organic Attitude and Consumers' Perception of Organic Products

Questions Demographics	I am willing to spend more money on organics	Organic products are richer in nutrients than conventional ones.	Organic products are fresher than conventional ones	Organic products taste better than conventional ones	I prefer Greek organic products than imported	The Greek organic food products are of higher	There is transparency in the certification process	The presence of organic label makes me feel confident	I buy only certified organic products
Male	5	4	4.3	6	5.2	3,2	2.6	5	6.1
Female	6.3	5.3	3.6	4.7	3.5	3.9	3.3	5.7	6.8
Total	5.9	4.9	3.8	5.1	4	3.7	3.1	5.5	6.6
Under 24 years old	5.2	5.2	4.4	5.6	3.8	3.7	3.3	4.8	6.4
25 to 34 years old	5.9	5.3	3.7	5.2	3.5	3.5	3.2	5	6.6
35 to 44 years old	5.9	4.9	3.8	5.1	3.5	3.5	3.3	5.3	6.5
44 to 55 years old	5.9	5	4.1	5	4	3.7	3.1	5.4	6.5
54 to 64 years old	6.1	5.1	3.8	5.1	4.1	3.8	3	5.6	6.6
Over 65 years old	6.1	4.7	3.5	4.9	4.3	3.8	2.8	5.9	6.9
Daily (Purchase Freq)	6	5	4.1	5.3	4.4	4	3.7	5.3	6.8
Few times a week	5.9	4.9	3.5	5.1	4.1	3.9	3.8	5.6	6.8
Few times a month	5.8	4.8	3.2	5.2	3.9	3.9	4.1	5.2	6.6
Several times a year	6	4.8	3.7	5.3	3.9	3.5	3.8	5.3	6.6
Never	-	-	-	-	-		-	-	-
Primary Scholl	5.8	4.8	3.8	5.2	3.5	3.4	3.3	5.6	6.8
High Scholl	5.2	5.2	3.7	5.2	3.8	3.5	3.4	5.5	6.8
Bachelor Degree	6.3	5.3	3.8	5.3	3.5	3.7	3.5	5.7	6.7
Postgraduate (Msc)	6.9	4.9	4.1	4.9	4.2	3.7	3.5	5.7	6.9
Doctorate (Phd)	6.9	4.9	4	4.8	4.3	3.8	2.8	5.5	6.8
Other	-	-	-	-	-	-	-	-	-
Up to 750€	5.2	5.2	3.8	5.3	4.2	4.2	3.8	5.2	6.8
750-1.499€	6.1	5.3	3.5	5.2	4.1	3.7	3.5	5.3	6.6
1.500-2.499€	6.4	5.4	3.5	5	4	3.7	3.1	5.5	6.6
2.500-3.999€	6.4	5.6	3.6	4.8	4	3.4	3.1	5.7	6.9
Over 4.000€	6.4	5.1	4.1	4.5	3.6	3.2	2.6	5.9	6.6
No children	5.4	4.4	3.9	5.4	4.4	3.9	2.9	5.4	6.6
1-2 children	6.9	4.9	3.8	5.2	3.9	3.8	3.2	5.6	6.8
3-4 children	6.9	4.9	3.9	5.1	3.8	3.5	3.3	5.1	6.8
Over 4 children	5	5	3.7	4.7	3.9	3.5	3.1	5.5	6.7
Village (Up to 5.000)	5.2	5.2	3.7	4.9	4.5	4.1	3.3	5.3	6.7
Town (5.000-20.000)	5.3	5.3	3.8	5	4.3	3.8	3.1	5.6	6.6
City (20.000-100.000)	6.6	4.6	4.1	5.1	3.9	3.5	3.1	5.7	6.
Big City (Over 100.000)	6.7	4.7	3.7	5.3	3.5	3.2	3.3	6	6.9

Table 5: The Effect of Various Demographic Factors on Consumers' Organic Attitude and Consumers' Perception of Organic Products (Cont)

6.5 Hypotheses testing

Participants were divided in two groups, high and low, based on their scale ratings. Ratings 4-7 were considered "high" and ratings 1-3 were considered "low".

H1: ***Consumers exhibiting high health preventing behaviour are likely to spend more on organic products.***

H1 is supported.

Health Care Behaviour	Willingness to pay more
High	Mean: 6.6
Low	-

H2: Consumers' exhibiting high food safety concerns are likely to spend more on organic products.

H2 is supported.

Food Safety Concerns	Willingness to pay more
High	Mean: 6.2
Low	-

H3: Consumers' exhibiting high levels of environmentally friendly Behaviour are likely to spend more on organic products.

H3 is rejected, as participants with low levels of environmentally friendly behavior were more likely to spend more on organic products.

Environmentally Friendly Behavior	Willingness to pay more
High	Mean: 4.1
Low	Mean: 4.5

H4: Consumers who perceive organic products as being of high quality are likely to spend more on organic products.

H4 is supported.

High Quality	Willingness to pay more
High	Mean: 5.1
Low	Mean: 3.1

H5: Consumers are likely to spend more for organic products that are locally produced.

H5 is rejected, participants were likely to spend less on organic products that were produced locally.

Localy Produced	Willingness to pay more
High	Mean: 3.6
Low	Mean: 3.8

H6: Consumers are willing to pay more for organic products when these products are widely available in their area.

H6 is supported.

Availability	Willingness to pay more
High	Mean: 4.8
Low	Mean: 2.8

H7: Consumers are willing to pay more for organic products that are certified.

H7 is supported.

Certification	Willingness to pay more
High	Mean: 5.1
Low	Mean: 2.9

7. Discussion

The goal of this research is to investigate:

- The effect of various demographic factors on
  - consumers' purchase history for organic products
  - consumers' purchase likelihood for various categories of organic products.
  - consumers' organic attitude and consumers' perception of organic products.
- The relationship between consumers' willingness to spend more on organic products and (a) consumers' organic attitude and (b) consumers' perception of organic products. Specific hypotheses were developed to investigate this relationship. These hypotheses are presented in the next section.

Organic market in Greece is at an infant stage, especially when compared to other European countries. However, the organic industry is developing rather dynamically, with the number of organic land, farmers, distributors, retailers, marketers etc. rapidly increasing. The findings of this research suggest that the profile of organic consumers is constantly changing and the stereotype of the organic consumer who is rich and educated, is outdated. Furthermore, this research examined the relationship between consumers' willingness to spend more on organic products and (a) consumers' organic attitude and (b) consumers' perception of organic products. The findings of this research demonstrate that the major forces that can drive consumers to spend more on organic products have to do both consumers' organic attitude and consumers' perception of organic products. More specifically, the desired attributes of organic products are health care concern, quality and food safety. Availability refers not only to the range of products provided, but also at the illustrating a supply problem. Last but not least, special attention must be given to the certification processes as Greek consumers do not believe that these processes are always transparent, paradoxically though they buy only certified organic products.

In the future demand for organic products is going to be even bigger, as long as the specific products are healthier, safer and of higher quality than conventional ones. It is important to point out that as consumers' interest in organics is steadily increasing, more effective and efficient distribution channels are necessary for providing better access to organic products.

Lastly, it is also important to support the recent effort of the European Union in setting standards in certification and labelling of the organics products, as this makes the consumer more confident and willing to spend more.

8. Limitations and Directions for Further Research

The main limitation of this research is the geographical region where it was conducted.

Therefore, it is suggested that research on this topic includes participants from various locations in the country. It must be noted, however, that the distribution of the sample size was quite satisfactory as participants were consumers or organic products from all over Greece, who visited the specific fair.

For future research it is recommended that as the Greek society is getting more and more multinational with different cultures and consequently eating habits, all nationalities and ethnicities should be included. In this way the constant changes in the profile of the organic consumer will be effectively monitored and marketing strategies will be developed more accurately.

9. References

1. Alrøe, H. F., and Noe, E., 2008, "What makes organic agriculture move - protest, meaning or market? A polyocular approach to the dynamics and governance of organic agriculture.", International Journals of Agricultural Resources, Governance and Ecology, 7(1/2), 5-22.

2. Baker, B., Benbrook, C.M. , Groth, E., and Benbrook, K.L., 2002, "Pesticide residues in conventional, integrated pest management (IPM)-grown and organic foods: insights from three US data sets.", Food Additives and Contaminants Vol. 19, No. 5, pp. 427-446.

3. Baourakis, G., Apostolakis, I., 1999, "A statistical assessment of consumers' criteria regarding organic agricultural products: the case of organic olive oil", Foundations of Computing and Decision Science, vol. 24, No. 1, pp. 22 – 31.

4. Baourakis G., Drakos P. and Spyridakis D., 2002, "Data analysis for the identification of Greek Distribution Channels: the case of organic olive oil", Foundations of Computing and Decision Sciences, Vol 26, no 4, pp. 239-254.

5. Bellows, A., Diamond, A., Hallman, W., and Onyango, B., 2008, "Understanding consumer interest in organics: production values vs. purchasing behavior", JAFIO, vol. 6, Article 2.

6. Berry, P.M., Sylvester-Bradley, R., Philipps, L., Hatch, D.J., Cuttle, S.P., Rayns, F.W., Gosling, P, 2002, "Is the productivity of organic farms restricted by the supply of available nitrogen?", Soil Use and Management 18 (s1), 248–255.

7. Boechner, Linda S., Harriet Kohn, and S. Kay Rockwell., 1990, "A Risk-Reduction Nutrition Course for Adults", Journal of The American Dietic Association 90 (February): 260-263.

8. Fotopoulos, Ch., Pantzios, C., 1998, "An Assessment of Current Conditions and Respectives of the Organic Farming sector in Greece", Journal of agricultura Mediterranea,Vol.128:142-152

9. Fotopoulos, C., Krystallis, A., 2001, "Defining the organic consumer and his willingness to pay for selected food products in Greece: a countrywide survey", Proc. 51st Atlantic Economic Society Conference, Athens, March 13-20. pp. 1-34.

10. Fotopoulos. C. & Krystallis. A., 2002, "Purchasing motives and protile of the Greek organic consumer: A countrywide survey", British Food Journal. 104. 730-765.

11. Gibbon, P., & Memedovic, O., 2006, "Decoding Organic Standard-Setting and Regulation in Europe (1991-2005).", Vienna: United Nations Industrial Development Organization.

12. Honkanen, P,. Verplanken, B. and Olsen, S.O., 2006, “Ethical values and motives driving organic food choise.”, Journal of Consumer Behaviour, 5, pp.420-431

13. Jayanti and Burns, 1998, “The Antecedents of Preventive Health Care Behavior: An Empirical Study”, Journal of the academy of Marketing Science, 26: 6-15.

14. Johnson, David W., and Roger T. Johnson., 1985, “Nutrition Education: A Model for Effectiveness, A Synthesis of Research”, Journal of Nutrition Education 17 (June): S1-S44.

15. Kalogianni, I., Papadaki-Klavdianou, A., and Tsakiridou, E., 1999, “Consumer behaviour and information on organic and hygiene products”, MEDIT, Vol. 2, Bologna, pp.10-15.

16. Kasl, Stanislav V., and Sidney Cobb., 1966, “Health Behavior, Illness Behavior, and Sick Role Behavior”, Archives of Environmental Health 12 (February): 246-266.

17. Kavallaris, P., 1998, “The Market of Organic Products”, Proceedings of Conference “Organic Farming”, Kalamata, April 2-3, 113-125.

18. Kraft, Frederick B., and Phillips W. Goodell., 1993, “Identifying the Health Conscious Consumer”, Journal of Health Care Marketing, Fall, pp. 18-25.

19. Krystallis, A., Fotopoulos, C. & Zotos, G., 2006, “Organic consumers profile and their willingness to pay (wtp) for selected organic food products in Greece.”, Journal of International Consumer Marketing, 19 (1), 87-97

20. Krystallis, A., Vassallo, M., Chryssohoidis, G. and Perrea, T., 2008, "Societal and individualistic drivers as predictors of organic purchasing revealed through a portrait value questionnaire (PVQ)-based inventory", Journal of Consumer Behaviour, Vol. 7, pp. 164-187.

21. Kyriakopoulos, K. & Oude Ophuis, A.M., 1997, “A Pre-Purchase Model of Consumer Choice of Biological Foodstuff”, Journal of International Food and Agribusiness Marketing, 8(4): 37-53.

22. Kyriakopoulos, K., & van Dijk, G., 1997, “Post purchase intention for organic foodstuff: a conceptual framework based on the perception of product value”, Journal of International Food & Agri-Business Marketing, 9(3), pp. 1–19.

23. Laroche, M., Bergeron J. and Barbaro-Forleo, G., 2001., “Targeting consumers who are willing to pay more for environmentally friendly products”, Journal of Consumer marketing, Vol 18, No. 6, pp.503-20

24. Larue, B., West, G.E., Gendron, C., & Lambert, R., 2004, “Consumer response to functional foods produced by conventional, organic, or genetic manipulation”, Agribusiness, 20(2), 155-166.

25. Lockie, S., K. Mummery., 2002, “Eating Green: Motivations behind organic food consumption in Australia”, Sociologia Ruralis 42:23-40

26. Lu C, Bravo R, Caltabiano LM, Irish RM, Weerasekera G, Barr DB, 2005, “The presence of dialkylphosphates in fresh fruit juices: implication for organophosphorus pesticide exposure and risk assessments J”, Toxicol Environ Health, 68:209–227.

27. Magkos, F., Arvaniti, F., & Zampelas, A., 2003, “Organic food: nutritious food or food for thought? A review of evidence.”, International Journal of Food Sciences and Nutrition, 54(5), 357-371.

28. Magkos, F., Arvaniti, F., & Zampelas, A., 2006, “Organic food: buying more safety or just peace of mind? A critical review of the literature.”, Critical Reviews in Food Science and Nutrition, 46, 23-56.

29. Mead, P.S., Slutsker, L., and Dietz, V., 1999, “ Food-related illness and death in the United States”, Emerg Infect Dis. 5:607-625.

30. Michaelidou, N., and Louise M, H., 2008, “The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food”, International Journal of Consumer Studies 32:163-170.

31. Michelsen, J., 2001a, “Recent development and political acceptance of organic farming in Europe”, Sociologia Ruralis, 41/1: 3-20.

32. Millock, K., Hansen, L.G., Wier, M., Andersen, L.M., 2002, “Willingness to Pay for Organic Foods: A Comparison between Survey Data and Panel Data from Denmark”, http://www.orgprints.org/73/ (accessed 2007-09-29), 25 p.

33. Moorman, Christine, and Matulich, Erika, 1993, “A Model of Consumers’ Preventive Health Behaviors: The Role of Health Motivation and Health Ability”, Journal of Consumer Research, 20 (September): 208-228.

34. Organic Trade Association. (2006a). OTA’s 2006 manufacturer survey overview.

35. Padel, S., & Foster, C., 2005, “Exploring the gap between attitudes and behaviour. Understanding why consumers buy or do not buy organic food.”, British Food Journal, 107(8), 606-625.

36. Padel, S., et al., 2007, “Balancing and integrating basic values in the development of organic regulations and standards: proposal for a procedure using case studies of conflicting areas (Report)”, Danish Research Centre for Organic Food and Farming (DARCOF)

37. Sandalidou, E., Siskos, Y., and Baourakis, G., 2002, “Customers’ perspectives on the quality of organic olive oil in Greece-A satisfaction evaluation approach.”, British Food Journal, 104(3-5):391-406.

38. Sekkas, F., 1995, “A new production of inarguable quality and origin”, Food and Beverages Fair, Thessaloniki, Greek Ministry of Agriculture, Dept. of Agr. Extension.

39. Sgouros, S., 1999, “The development of biological agriculture”, DIO Journal for ecological agriculture., 9-January, February, March-pp 29-40

40. Smissen, N. van der, “Organic Farming in Greece 2001”, Organic Europe

41. Tanneeru, M., 2006, “Organic food, green products go mainstream”, http://www.cnn.com/2006/US/10/03/buying.green/index.html

42. Thorgersen, J. & Olander, F., 2006, “The dynamic interaction of personal norms and environment-friendly buying behavior: a panel study”, Journal of Applied Social Psychology, 36:758-1780

43. Tovey, H., 1997, “Food, Environmentalism and Rural Sociology: On the Organic Farming movement in Ireland”, Sociologia Ruralis, 37(1), 21-37

44. Vassiliou, A., Lampkin, N., Foster, C., Padel, S., 1999, Greece. In: Lampkin, N., Foster, C., Padel, S. The Policy and Regulatory Environment for Organic Farming in Europe: Country Reports. Universitat Hohenheim, Hohenheim, Germany.

45. Wansink, B., & Kim, J., 2002, “The marketing battle over genetically modified foods: False assumptions about consumer behavior”, American Behavioral Scientist, 44(8), 1405-17

46. Willer, H., Klicher, L. (eds.), 2009, “The World of Organic Agriculture. Statistics and Emerging Trends 2009”, IFOAM, Bonn, FiBL, ITC, Geneva, 2009.

47. Wollen, A., 2003, “An organic misconception?”, Food Processing (November), p. 10.

48. Zanoli, R., and Naspetti, S., 2002, “Consumer motivations in the purchase of organic food”, British Food Journal; 104, 8/9;pp.643

49. Zotos Y., Amou, P., Tsakiridou, E., 1999, “Marketing organically produced food products in Greece.”

Electronic References

1. http://www.ota.com/pics/documents/The_Organic_Industry_Flyer.pdf
Organic Trade Association. (2006c). The organic industry flyer

2. http://www.ams.usda.gov/nop
USDA National Organic Program. (2007)

3. http://www.nutraingredientsusa. com/news/ng.asp?n=71313-mintel-organic organic-food-natural

4. Soil Association Web site. (2007). Get the facts http://www.soilassociation.org/

10. Appendix

10.1 Questionaire in English

International Hellenic University

Research: Consumers' willingness to buy organic products in Greece

Dimitriadis N. Efstratios

Purpose of Research

Data collection will take about 10 minutes. We would be happy to forward to you the results of our survey.

Confidentiality and Privacy and

Data collection and processing of the information provided will be in accordance with the Greek regulations and safeguards legislation for the protection of personal data (L 2472/97).

QUESTIONNAIRE ON CONSUMERS' WILLINGNESS TO BUY ORGANIC PRODUCTS IN GREECE

I. What is the frequency with which you buy any of the following organic products? For each of the following options are given grades 1 to 7, where 1: Never 7: Very likely, the other numbers reflect intermediate grades. Choose the ratings that match your selection.

	Never						Very Likely
Fruits	1	2	3	4	5	6	7
Vegetables	1	2	3	4	5	6	7
Meat	1	2	3	4	5	6	7
Milk	1	2	3	4	5	6	7
Cheese	1	2	3	4	5	6	7
Yogurt	1	2	3	4	5	6	7
Bread	1	2	3	4	5	6	7
Alcohol	1	2	3	4	5	6	7
Poultry	1	2	3	4	5	6	7
Eggs	1	2	3	4	5	6	7
Sweets	1	2	3	4	5	6	7
Snack	1	2	3	4	5	6	7
Olives	1	2	3	4	5	6	7
Olive Oil	1	2	3	4	5	6	7
Rice	1	2	3	4	5	6	7
Pulses	1	2	3	4	5	6	7
Sugar	1	2	3	4	5	6	7
Cosmetics	1	2	3	4	5	6	7
Detergents	1	2	3	4	5	6	7
Household cleaners	1	2	3	4	5	6	7
Napkins	1	2	3	4	5	6	7
Other. Please specify	1	2	3	4	5	6	7

II. When did you start buying organic food products?

- o Last week
- o A few weeks ago
- o A month ago
- o Half a year ago
- o A year ago
- o Other.Please specify……

III. For each of the following statements, give grades 1 to 7, where 1: Strongly disagree and 7: strongly agree with the other numbers reflect intermediate grades. Choose the ratings that match your selection.

	Never						Very Likely
I try to maintain a balanced diet.	1	2	3	4	5	6	7
I consume organic products as they are healthier than conventional ones.	1	2	3	4	5	6	7
Organic products are safe for human health.	1	2	3	4	5	6	7
Organic products contain no chemicals and toxic residues.	1	2	3	4	5	6	7
Buying organic products enhances environmental protection.	1	2	3	4	5	6	7
Organic products are produced without the excessive use of natural resources.	1	2	3	4	5	6	7
Organic products are of high quality.	1	2	3	4	5	6	7
Organic products are of higher quality than conventional ones.	1	2	3	4	5	6	7
Organic products are fresher than conventional ones.	1	2	3	4	5	6	7
Organic products taste better than conventional ones.	1	2	3	4	5	6	7
I am willing to spend money on buying organic products.	1	2	3	4	5	6	7
There is a selling point for organic products near where I live.	1	2	3	4	5	6	7
I am pleased with the variety of organic products in the domestic market.	1	2	3	4	5	6	7
I easily cover my daily needs for organic products in the domestic market.	1	2	3	4	5	6	7
I prefer Greek organic products rather than imported ones.	1	2	3	4	5	6	7
Buying Greek originated organic products helps the local economy.	1	2	3	4	5	6	7
The Greek organic food products are of higher quality than imported ones.	1	2	3	4	5	6	7
There is transparency in the certification process of organics.	1	2	3	4	5	6	7
The presence of organic label makes me feel more confident about what I buy.	1	2	3	4	5	6	7
I buy only certified organic food products.	1	2	3	4	5	6	7

1. **Sex**
   - Female
   - Male

2. **What is your age?**

   - Under 24
   - 25-34
   - 35-44
   - 45-54
   - 55-64
   - Over 65

3. **What is your educational level?**
   - Primary School
   - High School
   - Bachelor Degree
   - Postgraduate Degree (Ms.c)
   - Doctorate (PhD)
   - Other. Please specify……

4. **How often do you personally do the household shopping?**

   - Daily
   - Few times a week
   - Few times a month
   - O Several times a year
   - O Never

5. **What is your monthly income?**
   - Up to 750€
   - 750-1499€
   - 1500€ - 2499€
   - O 2500€ - 3999€
   - O Over 4.000€

6.

   a. **How many children are in your family?**

      - None
      - 1 – 2
      - O There are 3 - 4
      - O More than 4

   b. **Ages of Children**

      - Until 6 years
      - 7 – 10
      - 11 – 13
      - O 14 – 17
      - O 18 +

7. **Where do you live?**
   - In an area up to 5.000 residents (Village)
   - In an area from 5.000 to 20.000 residents (Town)
   - In an area from 20.000 to 100.000 residents (City)
   - In an area over 100.0000 residents (Big city)

Thank you for your time!

10.2 Questionaire in Greek

INTERNATIONAL HELLENIC UNIVERSITY

ΔΙΕΘΝΕΣ ΠΑΝΕΠΙΣΤΗΜΙΟ ΕΛΛΑΔΑΣ (ΔΙΠΑΕ)

Έρευνα: Η πρόθεση των καταναλωτών να αγοράσουν βιολογικά προϊόντα στην Ελλάδα

Δημητριάδης Ν. Ευστράτιος

Σκοπός της Έρευνας

Η συλλογή στοιχείων θα γίνει με το παρόν ερωτηματολόγιο για το οποίο θα χρειαστείτε περίπου 10 λεπτά. Θα χαρούμε να σας προωθήσουμε τα αποτελέσματα της έρευνας μας.

Εμπιστευτικότητα και Προστασία Προσωπικών Δεδομένων

Η συλλογή και επεξεργασία των πληροφοριών που παρέχεται πραγματοποιείται σύμφωνα με τις ρυθμίσεις και τις εγγυήσεις της νομοθεσίας για την προστασία των δεδομένων προσωπικού χαρακτήρα (Ν. 2472/97 όπως ισχύει).

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΠΡΟΘΕΣΗΣ ΚΑΤΑΝΑΛΩΤΗ ΝΑ ΑΓΟΡΑΣΕΙ ΒΙΟΛΟΓΙΚΑ ΠΡΟΙΟΝΤΑ ΣΤΗΝ ΕΛΛΑΔΑ

I. Ποια είναι η συχνότητα με την οποία αγοράζετε κάποια από τα παρακάτω βιολογικά προϊόντα; Για κάθε μια από τις παρακάτω επιλογές, δίνονται οι διαβαθμίσεις 1 μέχρι 7, όπου 1: Ποτέ και 7: Πολύ πιθανόν, ενώ οι υπόλοιποι αριθμοί εκφράζουν ενδιάμεσες διαβαθμίσεις. Επιλέξτε την διαβάθμιση που ταιριάζει με την επιλογή σας.

	Ποτέ						**Πολύ πιθανό**
Φρούτα	1	2	3	4	5	6	7
Λαχανικά	1	2	3	4	5	6	7
Κρέας	1	2	3	4	5	6	7
Γάλα	1	2	3	4	5	6	7
Τυρί	1	2	3	4	5	6	7
Γιαούρτι	1	2	3	4	5	6	7
Ψωμί	1	2	3	4	5	6	7
Αλκοόλ	1	2	3	4	5	6	7
Πουλερικά	1	2	3	4	5	6	7
Αυγά	1	2	3	4	5	6	7
Γλυκά	1	2	3	4	5	6	7
Σνακ	1	2	3	4	5	6	7
Ελιές	1	2	3	4	5	6	7
Λάδι	1	2	3	4	5	6	7
Ρύζι	1	2	3	4	5	6	7
Όσπρια	1	2	3	4	5	6	7
Ζάχαρη	1	2	3	4	5	6	7
Καλλυντικά	1	2	3	4	5	6	7
Απορρυπαντικά	1	2	3	4	5	6	7
Καθαριστικά για το σπίτι	1	2	3	4	5	6	7
Χαρτοπετσέτες	1	2	3	4	5	6	7
Άλλο. Προσδιορίστε	1	2	3	4	5	6	7

II. Πότε ξεκινήσατε να αγοράζετε βιολογικά προϊόντα;

- ○ Την προηγούμενη εβδομάδα
- ○ Μερικές εβδομάδες πριν
- ○ Πριν ένα μήνα
- ○ Πριν μισό χρόνο
- ○ Πριν έναν χρόνο
- ○ Άλλο. Προσδιορίστε.....

III. **Για κάθε μια από τις παρακάτω δηλώσεις, δίνονται οι διαβαθμίσεις 1 μέχρι 7, όπου 1: απόλυτα διαφωνώ και 7: απόλυτα συμφωνώ, ενώ οι υπόλοιποι αριθμοί εκφράζουν ενδιάμεσες διαβαθμίσεις. Επιλέξτε την διαβάθμιση που ταιριάζει με την επιλογή σας.**

		Απόλυτα Διαφωνώ						Απόλυτα Συμφωνώ
1.	**Προσπαθώ να διατηρήσω μια ισορροπημένη διατροφή.**	1	2	3	4	5	6	7
2.	**Καταναλώνω βιολογικά προϊόντα γιατί είναι πιο υγιεινά**	1	2	3	4	5	6	7
3.	**Τα βιολογικά προϊόντα είναι ασφαλή για την υγεία.**	1	2	3	4	5	6	7
4.	**Τα βιολογικά προϊόντα δεν περιέχουν χημικά κατάλοιπα.**	1	2	3	4	5	6	7
5.	**Αγοράζοντας βιολογικά προϊόντα προστατεύω το περιβάλλον**	1	2	3	4	5	6	7
6.	**Τα βιολογικά παράγονται χωρίς να επιβαρύνονται οι φυσικοί πόροι.**	1	2	3	4	5	6	7
7.	**Τα βιολογικά προϊόντα είναι υψηλής ποιότητας.**	1	2	3	4	5	6	7
8.	**Τα βιολογικά προϊόντα είναι πιο πλούσια σε θρεπτικά στοιχεία**	1	2	3	4	5	6	7
9.	**Τα βιολογικά προϊόντα είναι πιο φρέσκα από τα συμβατικά.**	1	2	3	4	5	6	7
10.	**Τα βιολογικά προϊόντα είναι πιο νόστιμα από τα συμβατικά.**	1	2	3	4	5	6	7
11.	**Είμαι πρόθυμος να διαθέσω περισσότερα χρήματα για βιολογικά προϊόντα.**	1	2	3	4	5	6	7
12.	**Πωλούνται βιολογικά προϊόντα κοντά στην περιοχή που μένω.**	1	2	3	4	5	6	7
13.	**Είμαι ευχαριστημένος από την ποικιλία βιολογικών προϊόντων**	1	2	3	4	5	6	7
14.	**Καλύπτω τις καθημερινές μου ανάγκες για βιολογικά προϊόντα**	1	2	3	4	5	6	7
15.	**Προτιμώ τα Ελληνικά βιολογικά σε από τα αντίστοιχα εισαγόμενα.**	1	2	3	4	5	6	7
16.	**Αγοράζοντας Ελληνικά βιολογικά στηρίζω την τοπική οικονομία.**	1	2	3	4	5	6	7
17.	**Τα Ελληνικά βιολογικά είναι ανώτερης ποιότητας από τα ξένα**	1	2	3	4	5	6	7
18.	**Επικρατεί διαφάνεια στη πιστοποίηση των βιολογικών.**	1	2	3	4	5	6	7
19.	**Η παρουσία βιολογικής ετικέτας με κάνει και νιώθω πιο σίγουρος**	1	2	3	4	5	6	7
20.	**Αγοράζω μόνο πιστοποιημένα οργανικά προϊόντα.**	1	2	3	4	5	6	7

1. Φύλο

- ○ Γυναίκα
- ○ Άνδρας

2. Ποια είναι η ηλικία σας;

- ○ Κάτω από 24
- ○ 25 έως 34
- ○ 35 έως 44
- ○ 45 έως 54
- ○ 55 έως 64
- ○ Πάνω από 65

3. Ποιο είναι το μορφωτικό σας επίπεδο;

- ○ Πρωτοβάθμια Εκπαίδευση (Απολυτήριο Δημοτικού)
- ○ Δευτεροβάθμια Εκπαίδευση (Απολυτήριο Λυκείου)
- ○ Τριτοβάθμια Εκπαίδευση (Πτυχίο ΑΕΙ/ΤΕΙ)
- ○ Κάτοχος μεταπτυχιακού τίτλου σπουδών (Ms.c)
- ○ Κάτοχος διδακτορικού διπλώματος
- ○ Άλλο (παρακαλούμε προσδιορίστε)

4. Πόσο συχνά εσείς προσωπικά πραγματοποιείτε τα ψώνια του σπιτιού;

- ○ Καθημερινά
- ○ μερικές φορές την εβδομάδα
- ○ μερικές φορές τον μήνα
- Ο Μερικές φορές τον χρόνο
- Ο Ποτέ

5. Ποιο είναι το μηνιαίο εισόδημά σας;

- ○ Έως 750€
- ○ 750-1499€
- ○ 1500€ - 2499€
- Ο 2500€ - 3999€
- Ο Πάνω από 4.000€

6.

a. Πόσα παιδιά υπάρχουν στην οικογένειά σας;

- ○ Δεν υπάρχουν
- ○ 1 – 2
- Ο 3 - 4
- Ο Περισσότερα από 4

b. Ηλικίες Παιδιών

- ○ Μέχρι 6 χρονών
- ○ 7 – 10 (Δημοτικό)
- ○ 11 – 13 (Γυμνάσιο)
- Ο 14 – 17 (Λύκειο)
- Ο 18+ (Ενήλικα)

7. Πού κατοικείτε;

- ○ Έως 5.000 κατοίκους (Χωριό)
- ○ Από 5.000 έως 20.000 κατοίκους (Κωμόπολη)
- ○ Από 20.000 έως 100.000 κατοίκους (Πόλη)
- ○ Από 100.0000 (Μεγάλη πόλη)

Ευχαριστώ για τον χρόνο σας!