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MSc Management

Master Thesis

**Attitudes and intention  
toward organic cosmetics in Greece:  
an exploratory study**

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## **Abstract**

**Purpose** – The aim of this paper is to examine the effect of environmental consciousness, health consciousness, appearance consciousness, ecoliteracy and interpersonal influence on consumers' attitudes toward organic cosmetics in Greece. The relationship between attitude and intention toward purchasing organic cosmetics is also investigated.

**Design/methodology/approach** – This paper is based on results of a self – administered questionnaire survey conducted on a sample of 100 Greek consumers. The data collected were analyzed with SPSS 19.0 and regression analysis was used to test the relationships among the variables.

**Findings** – The results indicate that environmental consciousness and informational influence are important predictors of attitude toward organic products. Health consciousness, appearance consciousness and ecoliteracy, on the other hand, appear to have an insignificant impact on attitude. Attitude emerged as a positive and important predictor of intention to purchase organic cosmetics.

**Research limitations** – The sample contained only consumers living in an urban city and further research should seek to explore a larger and geographically more diversified sample of consumers.

**Practical implications** – This study suggests that marketers should develop more effective marketing strategies, by communicating the environmental benefits of organic cosmetics. The use of endorsements could also contribute to improving marketing communication initiatives.

**Originality/value** – This study provides valuable insight into Greek consumer behavior regarding organic cosmetics by examining the factors that influence consumers' attitudes toward buying organic cosmetics and consumers' intention toward purchasing the products. Prior research concerning attitude and intention toward buying organic products in Greece is limited.

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## 1. INTRODUCTION

Environmental degradation and awareness of the destruction of natural resources are rising issues in the last decades. Surveys and opinion polls globally, reveal an increasing concern of people about environmental problems. Furthermore, consumers are becoming increasingly aware of the impact of consumption of everyday products on the environment. As a result, the issue of environmental protection has created eco-friendly consumption, called “green consumerism” (Moisander, 2007). Green consumerism can be described as being a multifaceted concept, including protection and preservation of the environment, pollution decrease, animal welfare, species preservation and responsible use of non-renewable resources (McEachern and McClean, 2002). As the issue of environmental protection has been raised, consumers have translated their environmental concern into actively demanding and purchasing green products. Evidence suggests that an increasing number of people are becoming more environmentally responsible in terms of their personal habits and lifestyles and are looking for green products (Stone et al., 1995; Starch, 1996). As a result of the growing number of green consumers, marketers are targeting the green market segment. From this global shift to green products, the cosmetics industry could not be excluded. More and more companies in the personal care products sector are turning to organic ingredients to win over environmentally conscious consumers. According to Camilla Kay, beauty director at IPC's In Style magazine, there's a growing number of environmentally conscious consumers who care about their lifestyle choices, from the food they eat to the beauty products they buy. Jennifer McKinley, president and co-founder of Cor, claims that the trend to use organic ingredients is here to stay since people care about what they put on their body, into their body and into their environment (*Brand strategy*, July 2008, p.p.14-15). D'Souza et al. (2006) suggest that consumers' environmental concern may be a key factor in the marketing of cosmetic products.

Until recently, the literature provided little understanding of the determinants and consequences of attitudes toward organic products of Greek consumers. Although the rapid growth in sales of organic products, and particularly personal care products, has intrigued researchers' interests, the majority of the existing research on the organic cosmetics context has dealt with marketing strategies rather than consumer behavior. A deep understanding of consumer behavior for this product category is necessary to

devise effective marketing strategies. Moreover, although there are numerous studies on consumer's attitudes and green purchase behavior, these studies have focused primarily on organic food products (Wandel and Bugge, 1997; Schifferstein and Oude Ophuis, 1998; Magnusson et al., 2001; Padel and Foster, 2005; Mei-Fang, 2009), while few of them were conducted in Greece (Chrysohoidis and Krystallis, 2005; Tsakiridou, et al., 2008). Thus there is currently an imbalance between the growing use of organic cosmetics in the marketplace and the limited research attention focused on this product category. Therefore, the primary objective of this study is to examine Greek consumers' attitudes toward organic cosmetics.

Several reasons affecting consumer behavior have been proposed by existing literature, most of them falling into two broad categories consisting of egoistic and altruistic motives. Environmental concern, health concern, appearance consciousness, environmental knowledge and interpersonal influence are among the usually examined factors that influence attitude and intention toward organic purchases. However the mixed findings provided by previous studies, highlight the necessity for further research in this field. Environmental consciousness, for example, has emerged as a significant predictor of attitude in a number of studies (Roberts and Bacon, 1997; Straughan and Roberts, 1999; Chan, 2001; Paladino, 2005, Mostafa, 2007; Essoussi and Zahaf, 2008; Ishaswini and Datta, 2011). In contrast to this stream of research Hines et al. (1987) suggested that this relation is low to moderate. Extensive research highlights health consciousness as the most important factor influencing attitude toward organic products (Wandel and Bugge, 1997; Schifferstein and Oude Ophuis, 1998; Magnusson et al., 2001; Padel and Foster, 2005; Chen, 2009). Contradictory are the findings of Michaelidou and Hassan (2008) and Kim and Chung (2011). Appearance consciousness was also found to be an important determinant of attitude toward organic personal care products (Kim and Chung, 2011). However, the role of this factor as an antecedent of attitude has not been explored yet in the Greek context, despite its contribution in predicting attitude in other contexts. Empirical findings for the impact of ecoliteracy on green purchase behavior are also mixed. Studies such as those by Geller (1981), Maloney and Ward (1973), Muller and Taylor (1991) claim that it has little impact on environmentally friendly behavior, while others report a positive association between environmental knowledge and ecological behavior (Vining and Ebreo, 1990; Chan and Yam, 1995; Chan, 1999). Contradictory are the

results regarding interpersonal influence. Bearden et al. (1989) and Stafford and Cocanougher (1977) suggest that interpersonal influence is a major impact on attitude formation, in contrast to what Cheah and Phau (2011) found. Despite its contribution in explaining attitude in similar contexts, the role of this factor as a predictor of attitude has not been explored yet in the organic cosmetics context. Finally, several studies have asserted the positive relationship between consumers' attitudes and intentions for green purchasing in multiple contexts (Roberts and Bacon, 1997; Kalafatis et al., 1999; Chan, 2001; Magnusson et al., 2001; Mostafa, 2007; Cheah and Phau, 2011). Therefore, it would be very interesting to verify this result in the organic cosmetics context.

These gaps in the literature show that our understanding of the role of factors that affect attitude and behavior toward organic products is still underdeveloped.

To explore consumers' intention to purchase organic cosmetics in Greece, this study empirically tests a conceptual model. First, it investigates the impact of the five antecedents derived from the literature, which are (a) environmental consciousness, (b) health consciousness, (c) appearance consciousness, (d) ecoliteracy and (e) interpersonal influence, on the dependent variable of attitude toward organic cosmetics. Second, it investigates the relationship between attitude and consumers' intention to buy organic cosmetics.

The paper opens with a definition of the term "organic cosmetics", a brief history of organic cosmetics and an overview of the literature on organic products and consumer behavior. The second part proposes the framework model and develops the research hypotheses. The third part describes the methodology used for our survey, the sample and the way the questionnaire was built and structured and refers the sources used for the literature findings. The fourth part presents the statistical analysis of the responses given, including reliability test and regression analysis. The final part concludes with a discussion of the implications of the findings, limitations and directions for further research.



## **2. LITERATURE REVIEW**

### **2.1. Definition of organic cosmetics**

The term organic is currently used to describe various sustainable agricultural and food items, cosmetics, bath and body care products, beverages, toys, furniture, textiles, mattresses and many other products. In the most basic of definitions, according to the Merriam-Webster's dictionary, organic means “Relating to, or derived from living organisms” (<http://www.merriam-webster.com/dictionary/organic>). According to Essoussi and Zahaf (2008), the term organic is rooted in “bio” from Greek “bios” which means life or way of living. Scientifically, organic means any substance that contains carbon. But when we refer organic with respect to consumer goods, the meaning is different. When it comes to food, the definition of organic is totally clear, thanks to the USDA’s (United States Department of Agriculture) National Organic Program standards that define how organic food is grown, raised, processed and sold. However, when it comes to cosmetics, body care, or personal care products, the definitions are not so clear since FDA (U.S. Food and Drug Administration) does not define or regulate the term organic (<http://usdaorganicskincare.com>). Organic cosmetics can be defined as cosmetic products that are made with organic ingredients, without the use of harsh chemicals like pesticides, fungicides, herbicides, and fertilizers ([http://green.wikia.com/wiki/Organic\\_cosmetics](http://green.wikia.com/wiki/Organic_cosmetics)). According to the Merriam-Webster's dictionary, “organic produce” refers to products produced by using feed or fertilizer of plant or animal origin without the use of chemically formulated fertilizers, growth stimulants, antibiotics or pesticides (<http://www.merriam-webster.com/dictionary/organic>). In the current study organic cosmetics are defined according to the definition of Merriam-Webster's dictionary.

### **2.2. History of organic cosmetics**

Organic cosmetics have a very long history since they were used in ancient times. There is mention of cosmetics in the Bible. Traditions from ancient times prove that people of various cultures knew the usefulness of organic cosmetic ingredients. Egyptians believed in the adage “cleanliness is next to godliness”, so they came up with various products and cosmetics not just to keep clean but also to look good. The Egyptians during Queen Cleopatra’s time were experts in organic makeup products.

Additionally, most of these products had a therapeutic, antiseptic and medical value to them. Juice, seeds, flowers and plants, olive oil, honey, eggs, myrrh, incense, frankincense could be found in the extensive list of organic ingredients for ancient cosmetics (<http://www.natural-organic-cosmetics.com>). However, history has recorded a multitude of cases wherein very popular and widely used beauty products contained harmful substances and dangerous chemicals such as arsenic, formaldehyde, mercury and lead. Even after all the research that proves these substances are dangerous, they are still used to a small degree in modern mainstream cosmetics. Furthermore, the modern cosmetics industry uses a wide range of other chemicals such as parabens, petrochemicals, sodium lauryl sulphate, artificial colours and preservatives. There is no doubt that long-term exposure to such chemicals may cause many health related problems like cancer, dermatitis and other allergies (<http://www.naturallysafe.com>). This created the need of an alternative, which led to the creation of cosmetics that used only natural, herbal and organic ingredients. People have become conscious of the dangerous chemicals being used in the ordinary cosmetics and turn to organic products. Gradually organic cosmetics seem to win more and more fans over their conventional counterparts, thus the organic cosmetic market has grown considerably.

### **2.3 Organic cosmetics in Greece**

A large variety of organic cosmetic products is available in the Greek market. Greek consumers have access to these products through a wide distribution channel which includes pharmacies, beauty stores and supermarkets, or online shops. Some widely known international companies that offer cosmetics, skin, body and hair care products with certified organic ingredients, available in the Greek market, are the following: Neal's Yard Remedies, L'Occitane, Aveda, Lavera, The Body Shop, Dr.Hauschka, NVEY Le Maquillage, Green People, Yves Rocher, etc. Greek companies that operate in the organic cosmetics sector are Korres, Apivita, Mastic Spa, BIOselect, Biotheque, Olivellenic, Fresh Line, Olivera Cosmetics and many others. Figure 1 reports the corporate websites of the previously mentioned companies.

**Figure 1**

<b>Greek companies</b>	<b>International companies</b>
<a href="http://www.korres.com">www.korres.com</a>	<a href="http://www.nealsyardremedies.com">www.nealsyardremedies.com</a>
<a href="http://www.apivita.com">www.apivita.com</a>	<a href="http://www.loccitane.fr">www.loccitane.fr</a>
<a href="http://www.masticspa.com">www.masticspa.com</a>	<a href="http://www.aveda.com">www.aveda.com</a>
<a href="http://www.freshline.gr">www.freshline.gr</a>	<a href="http://www.lavera.com">www.lavera.com</a>
<a href="http://www.biotheque.gr">www.biotheque.gr</a>	<a href="http://www.thebodyshop.co.uk">www.thebodyshop.co.uk</a>
<a href="http://www.bioselect.gr">www.bioselect.gr</a>	<a href="http://www.drhauschka.com">www.drhauschka.com</a>
<a href="http://www.olivellenic.nl">www.olivellenic.nl</a>	<a href="http://www.nveymakeup.com">www.nveymakeup.com</a>
<a href="http://www.olivera-cosmetics.com">www.olivera-cosmetics.com</a>	<a href="http://www.greenpeople.co.uk">www.greenpeople.co.uk</a>
	<a href="http://www.yvesrocher.ca">www.yvesrocher.ca</a>

#### **2.4. Consumer purchase behavior in organic products**

From the mid-1980s onwards, research into consumer behavior and the environment focuses on getting a better understanding of the motives of environmentally friendly behavior (Shrum et al, 1995; Straughan and Roberts, 1999; Laroche et al., 2001). The theory of reasoned action (TRA), proposed by Fishbein and Ajzen (1980), has been extensively utilized by research in the field of social behavior and intention to predict and realize the motivational impacts on behavior. According to TRA, an individual's behavior is driven by behavioral intention while behavioral intention is driven by the combination of two factors, attitude and subjective norm. In reality, behavioral intention is an immediate antecedent of performing actual behavior and is also a function of beliefs about probability that performing a behavior will cause a specific outcome (Ajzen and Fishbein, 1975). In terms of this study, TRA is appropriate to marketers and organizations attempting to identify proper strategies to direct consumers' attitude and influence their purchase behavior in choosing organic products.

Various reasons that can potentially influence behavior toward organic products have been proposed within the literature, from studies in the, Europe, UK, North

America, Asia and Australia. Most of the studies focus on organic food consumption. Concern for health (Wandel and Bugge, 1997; Magnusson et al., 2001; Chrysohoidis and Krystallis, 2005; Chen, 2009), environmental concern (Schifferstein and Oude Ophuis, 1998; Laroche et al., 2001; Tsakiridou, et al., 2008; Kim and Chung, 2011), environmental knowledge (Chan and Yam, 1995; Cheah and Phau, 2011), quality or safety (Michaelidou and Hassan, 2008), personal values (Laroche et al., 2001; Cheah and Phau, 2011), previous experience (Roddy et al., 1996), interpersonal influence (Bandura, 1986; Cheah and Phau, 2011) and appearance considerations (Kim and Chung, 2011) are some of the factors identified. The socio-demographic profile has also received much attention (Straughan and Roberts, 1999; Laroche et al., 2001) and seems to affect consumer attitude and purchase behavior toward organic products. Attitudes toward organics are mainly influenced by age, gender, income, level of education and the presence of children in the household (Wandel and Bugge, 1997; Magnusson et al., 2001). However, many authors agree that demographics are not such a useful and reliable profiling method and are less important than knowledge, values and attitudes in explaining consumer eco-friendly behavior (Straughan and Roberts, 1999; Chan, 1999).

Health consciousness is found to be the primary motive to organic purchases (Magnusson et al., 2001; Padel and Foster, 2005; Tsakiridou, et al., 2008; Chen, 2009). Environmental consciousness, although not a priority issue, is a factor that affects consumption of organic products (Schifferstein and Oude Ophuis, 1998; Tsakiridou, et al., 2008; Kim and Chung, 2011). Appearance consciousness is found to be an important predictor of consumers' attitudes toward organic personal care products (Kim and Chung, 2011). Numerous studies have examined the effects of ecoliteracy on green purchase attitudes. The findings indicate that, if an individual is knowledgeable about environmental issues, promotes favorable attitudes toward green products (Chan, 2001; Mostafa, 2007; Cheah and Phau 2011). Finally, interpersonal influence has proven to be an important influential factor of behavior (Bearden et al., 1989). Based on the above findings, this study is going to examine the influence of these five factors on consumers' attitudes, in the context of organic cosmetic products. Further, the relationship between attitude and intention toward buying organic cosmetics is examined. Figure 2 presents a summary of the relative studies, reporting the authors, the year of publication, the factors examined and the findings.

**Figure 2**

<b>AUTHORS</b>	<b>YEAR</b>	<b>CONTEXT</b>	<b>FACTORS EXAMINED</b>	<b>IMPACT ON ATTITUDE</b>	<b>IMPORTANT PREDICTOR</b>
<b>Wandel &amp; Bugge</b>	1997	Organic food (Norway)	Health concern Environmental concern	Positive Positive	Yes Yes
<b>Schifferstein &amp; Oude Ophuis,</b>	1998	Organic food (Netherlands)	Health consciousness Environmental concern	Positive Positive	Yes Yes
<b>Laroche et al.</b>	2001	Eco-friendly products (North America)	Ecoliteracy	Neutral	No
<b>Chan</b>	2001	Green products (China)	Environmental knowledge Environmental concern	Positive Positive	Yes Yes
<b>Chryssohoidis &amp; Krystallis</b>	2005	Organic food (Greece)	Health consciousness Environmental consciousness	Positive Positive	Yes Yes
<b>Mostafa</b>	2007	Green products (Egypt)	Environmental knowledge Environmental concern	Positive Positive	Yes Yes
<b>Tsakiridou et al.</b>	2008	Organic products (Greece)	Health concern Environmental concern	Positive Positive	Yes Yes
<b>Michaelidou &amp; Hassan</b>	2008	Organic food (UK)	Health consciousness	Positive	No
<b>Chen</b>	2009	Organic food (Taiwan)	Health consciousness Environmental concern	Positive Positive	Yes Yes
<b>Kim &amp; Chung</b>	2011	Organic personal care products (USA)	Health consciousness Environmental consciousness Appearance consciousness	Neutral Positive Positive	No Yes Yes
<b>Cheah &amp; Phau</b>	2011	Eco-friendly products (Australia)	Environmental knowledge Interpersonal influence (normative susceptibility)	Positive Negative	Yes Yes

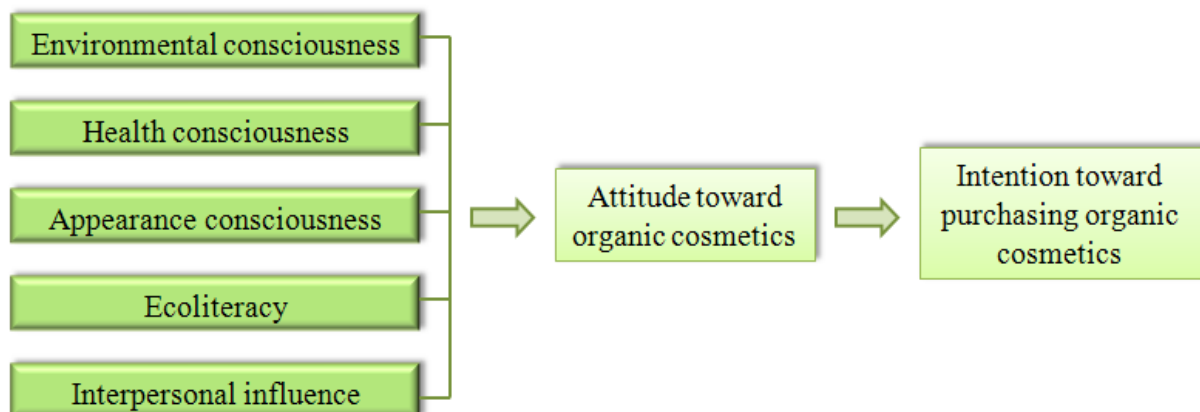
### 3. PROPOSED FRAMEWORK MODEL AND HYPOTHESES DEVELOPMENT

#### 3.1. Proposed model

With reference to the foregoing literature review, a conceptual model is proposed in Figure 3 to explain Greek consumers' purchase behavior toward organic cosmetics. The model draws much input from the literature aforementioned. Specifically, this study considers consumer values (environmental consciousness, health consciousness and appearance consciousness) as antecedents of attitude. Furthermore, an individual's ecoliteracy and interpersonal influence are considered as affecting his/her attitudes toward organic cosmetics. Finally, attitudes toward organic cosmetics are hypothesized to influence intention toward purchasing organic cosmetics.

The selection of these specific antecedents is primarily based on the inconsistency of previous studies' findings. For instance, as mentioned previously in the introduction, extant research highlights ecoliteracy, environmental and health consciousness as important predictors of attitude and intention toward organic products, whereas contradictory findings show that the relationships are insignificant. On the other hand, the impact of appearance consciousness has not been examined yet in the Greek context, while the role of interpersonal relationship as a motive that affects attitude has not been explored yet in the organic cosmetics context. In order to fill these research gaps the following conceptual framework model is proposed.

*Figure 3 Proposed model*



### **3.2. Consumer Values and Attitude**

The term value has been defined as “the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml, 1988, p. 14). It is also defined as a belief about desirable end states (Rokeach, 1973). Attitudes are largely based on values which are considered to be more stable than attitudes and act as their building blocks (Eagly and Chaiken, 1995). The current study expects that individuals with different value systems will shape different attitudes toward organic cosmetics because one’s values are guiding principles in one’s life (Rokeach, 1973). Therefore, values can influence the formation of consumers’ behavior by guiding them to look for objects that satisfy their values (Poortinga et al., 2004). Since organic products are commonly viewed as encouraging a healthy lifestyle, explained by the acronym LOHAS (Lifestyles of Health and Sustainability) (Essoussi and Zahaf, 2008), some similarities in consumers’ purchase behaviors are expected to exist between organic food and organic cosmetics. Some differences are also expected since eating food and using cosmetics are distinct consumption behaviors. Relevant literature suggests that health and environmental consciousness affect attitudes toward purchasing organic food (Chrysohoidis and Krystallis, 2005), whereas studies on health care context show that people use these products to manage their appearances (Marcoux, 2000).

The current study considers three consumer values that may affect attitudes toward buying organic cosmetics: 1) environmental consciousness, 2) health consciousness, and 3) appearance consciousness.

#### **3.2.1. Environmental Consciousness**

Environmental consciousness represents one’s degree of emotional attachment to environmental issues (Benton, 1994). Schultz (2000) suggested that environmental concerns involve three correlated factors: concern for the self (egoistic), concern for other people (altruistic) and for the biosphere (biospheric). Environmental consciousness guides people to make buying decisions that are more eco-friendly (Peattie, 2001). Environmentally conscious people are willing to change their purchasing behaviors in order to improve the environment (Chase, 1991). According to Prothero and McDonagh (1992), cosmetics and toiletries industry has developed organic products produced without the use of pesticides, synthetic chemicals, or

animal testing, in order to face consumers' increasing concerns regarding environmental destruction from harmful substances and animal testing of ingredients and products. Environmental concern exerts a strong influence on consumers' attitudes and behavior toward green products (Roberts and Bacon, 1997; Straughan and Roberts, 1999; Chan, 2001; Paladino, 2005, Mostafa, 2007; Essoussi and Zahaf, 2008; Ishaswini and Datta, 2011).

In a number of studies environmental consciousness is a strong motive for consumers and seems to affect organic food purchases (Wandel and Bugge, 1997; Schifferstein and Oude Ophuis, 1998; Tsakiridou, et al., 2008; Chen, 2009). In the context of personal care products, Kim and Chung (2011) found that environmental consciousness is an important factor in predicting consumers' attitudes toward organic products. Translating these results into the context of organic cosmetics, these findings would suggest that environmental consciousness is a determinant of attitudes toward organic cosmetics. Thus:

H1. Environmental consciousness will positively influence attitude toward buying organic cosmetics.

### **3.2.2. Health Consciousness**

Health consciousness assesses the readiness of an individual to undertake healthy actions (Becker et al., 1977). Health conscious consumers care about their state of well-being and are motivated to maintain or improve a healthy life (Kraft and Goodell, 1993; Newsom et al., 2005). Such individuals tend to be aware of nutrition and physical fitness (Kraft and Goodell, 1993). In the context of cosmetics purchases, health conscious consumers may consider whether a product is safe to body and skin. Therefore, they may be more concerned and involved with the types of ingredients of the product than consumers with low health consciousness (Johri and Sahasakmontri, 1998). However, the research of Kim and Chung (2011) indicated that health consciousness was the least important factor in predicting consumers' attitudes toward organic personal care products. Similarly, Michaelidou and Hassan (2008) found health consciousness to be the least important motive shaping green attitudes. On the other hand, according to the relevant literature on organic food consumption, it appears that health consciousness influences attitudes toward buying organic food (Chrysohoidis and Krystallis, 2005). An increasing number of studies highlights



concerns for one's health as the predominant motive for explaining attitude, intention and purchase of organic food (Wandel and Bugge, 1997; Schifferstein and Oude Ophuis, 1998; Magnusson et al., 2001; Padel and Foster, 2005; Chen, 2009). Consumers have become more health conscious and healthiness has become an important criterion for food purchases (Magnusson et al., 2001). According to a recent study of Tsakiridou et al. (2008), aiming to identify consumers' attitudes and behavior toward organic products in Greece, health consciousness is a strong motivating factor in organics' perceptions, attitudes and consumption. Another research conducted in Lithuania, investigating the eco-friendly food products consumer profile, found that the majority of the respondents attributed themselves to the group of health fanatics according to their motives (Banytė et al., 2010). Based on the above findings the following hypothesis is put forward:

H2. Health consciousness will positively influence attitude toward buying organic cosmetics.

### **3.2.3. Appearance Consciousness**

Consumption of personal care products is a buying behavior that satisfies an individual's need for beauty and care of his/her appearance (Todd, 2004). According to Lee and Lee (1997) appearance consciousness is the driving force that leads people to be interested in clothing and cosmetics that express or differentiate their images. Personal care products influence consumers' appearances and people use such products to manage their appearances (Marcoux, 2000). People who try to improve their general appearance and desire to keep a youthful look ask for organic, chemical-free cosmetics and health care products. A recent study of Kim and Chung (2011) highlights the importance of appearance consciousness as a predictor of consumers' attitudes toward organic personal care products. Viewed in this light, it may be inferred that:

H3. Appearance consciousness will positively influence attitude toward buying organic cosmetics

### **3.3. Ecoliteracy**

Ecoliteracy or environmental knowledge can be defined as "a general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems" (Fryxell and Lo, 2003, p. 45). Environmental knowledge evolves in two

forms: the first occurs while educating the consumer on the general impact of the product on the environment, and the other occurs when the consumer already knows that the product itself is produced in an environmentally friendly way (D'Souza et al., 2006). According to Moseley (2000), there are three stages of environmental knowledge or literacy: the first stage is nominal environmental literacy, which means that consumer is able to recognize many basic environmental terms but does not understand the issues in depth in order to cause specific purchase behavior. The second stage, functional environmental literacy, characterizes consumers who understand the basic meaning of environmental issues and are able to use that knowledge while communicating with other people. Finally, operational environmental literacy is the third stage, where people can gather, interpret, evaluate and analyze data about environmental issues and take them into account in their purchasing behavior. Ecoliteracy was developed by Laroche et al. (1996) to measure the respondent's ability to identify or define a number of environmentally-related concepts, symbols and behaviors. It has been found to be correlated with some attitudes and behavior toward the environment. According to their survey, an individual's knowledge about the environment plays a multiple role in influencing his/ her behavior. It provides the subject with knowledge about issues and helps form attitudes and intentions through the belief system.

However, empirical findings for the influence of consumers' ecoliteracy on their green purchase behavior are contradictory. Studies such as those by Geller (1981), Maloney and Ward (1973), Muller and Taylor (1991) claim that it has little effect on environmentally friendly behavior, while others report a positive association between environmental knowledge and ecological behavior (Vining and Ebreo, 1990; Chan and Yam, 1995; Chan, 1999). Laroche et al. (2001) in their study on segmentation of consumers who were willing to pay more for environmentally friendly products concluded that ecoliteracy was not a good predictor of consumers' willingness to pay more for environmentally friendly products. In a similar vein, Rahbar and Wahid (2010) in their study on the effect of environmental protection and knowledge on actual purchase behavior found that environmental knowledge is not a major impact. Such mixed empirical findings suggest a more complex relationship between ecoliteracy and behavior (Chan, R., 1999). As Cohen (1973) and Arbuthnot and Lingg (1975) pointed out, environmental knowledge may act as mediating variable for

environmental attitudes and behavior. Cohen (1973) found that students, who were given more environmental knowledge, had different attitudes toward the environment, as compared with students of low environmental knowledge. Davis (1993) has also concluded that knowledge of environmental issues can lead to positive ecological attitudes, while Synodinos (1990) proposed that “more positive attitudes may result by increasing knowledge about environmental issues” (p.168). Consistent with the previous studies are the findings of Chan (2001), indicating a positive relationship between knowledge and attitudes toward green purchases. More recently, Mostafa (2007), investigating the influence of values and psychological factors on the green purchase behavior of Egyptian consumers, observed that perceived environmental knowledge was a good predictor of eco-friendly attitudes and behaviors. The positive and significant relationship between knowledge and green purchase attitudes supports previous research (Stern, 1992; Pierce et al., 1999). Finally, Cheah and Phau (2011) suggested that if an individual has ecoliteracy promotes favorable attitudes toward green products. Thus:

H4. Ecoliteracy will positively influence attitude toward buying organic cosmetics.

### **3.4. Interpersonal Influence**

Interpersonal influence primarily consists of the effect of acting to convince, persuade or influence other people for the purpose of having a specific outcome. Numerous articles of psychological and consumer research have asserted the existence of interpersonal influence upon individual decision processes (Kassarjian and Robertson, 1981; Bandura, 1977). An important determinant of one’s behavior is the influence of others (Bearden *et al.*, 1989). Indicative of this belief is the use of attractive spokespersons endorsing products. Stafford and Cohanougher (1977) suggested that, in order to fully understand consumer behavior, consideration should be given to the effects of interpersonal influence on development of attitudes, values, norms, aspirations and purchase behavior. According to Bandura (1977), verbal persuasion is widely used as a mode of influencing human attitude and behavior, because of its ease and ready availability. Deutsch and Gerard (1955) stated that interpersonal influence is expressed through either normative or informational influences. Normative influence can be defined as the tendency to conform to others’ expectations (Burnkrant and Cousineau, 1975), while informational influence is

defined as the tendency to accept information from other people as evidence about reality (Deutsch and Gerard, 1955). Social environments like family, friends and peers (normative susceptibility) strongly affect purchasing decisions that involve green products. Interpersonal relationships between opinion leaders and professionals may have a substantial effect on similar attitudes toward green purchasing decisions (informational susceptibility) (Bandura, 1986). Thus, the following hypothesis is proposed:

H5. Interpersonal influence will positively influence attitude toward buying organic cosmetics.

### **3.5. Attitude**

Attitude toward a behavior can be defined as “combination of affective, behavioral and cognitive reactions toward an object,” (Ibrahim, 2002, p. 532). Ajzen (1985) defines attitude as “the individual’s positive or negative feelings about performing a behavior”. According to Ajzen (1985), one is more likely to adopt a certain behavior when he/she has a positive attitude toward the behavior. The theory of reasoned action (TRA), proposed by Fishbein and Ajzen (1980) shows a linkage between attitude and behavior. This theory has widely been used by research in the field of social behavior and intention, to predict the motivational impacts on behavior. TRA has been referenced to this study also due to its relevance to the corresponding content. Numerous studies have asserted the positive relationship between consumers’ attitudes and intentions for green purchasing in multiple contexts (Roberts and Bacon, 1997; Kalafatis et al., 1999; Chan, 2001; Magnusson et al., 2001; Mostafa, 2007; Cheah and Phau, 2011). A recent study of Kim and Chung (2011) on the personal care context suggests that a positive attitude toward buying organic personal care products is significantly correlated with purchase intention. It may be assumed that:

H6. Consumers’ attitude toward buying organic cosmetics will have a positive influence on their intentions to buy organic cosmetics.

## **4. METHODOLOGY**

### **4.1. Data collection and sample**

Survey data were collected from a convenience sample of 100 citizens living in a major city in north Greece, namely Thessaloniki (capital city of Macedonia), by means of a self-administered questionnaire survey. A structured questionnaire was used because of its usefulness in large-scale surveys. It is a positivist research method that includes high number of respondents and low level of involvement of the researcher. Structured questionnaires are based on closed questions, with predefined answers, that produce data which can be analyzed quantitatively for patterns and trends. The current study employed structured questionnaires in order to identify respondents' opinions, attitudes and intentions toward organic cosmetics. Therefore, it is the most appropriate method to explore the causal relationships between the variables.

The main advantage of using structured questionnaires is related to the efficient use of time. This method offers to the researcher the opportunity to contact a large number of respondents easily, quickly and efficiently. When closed questions are used, the process of creating, coding and interpreting the questionnaires is relatively easy and quick. Furthermore, this method of research is highly reliable, since a questionnaire is easy to standardize. All respondents are asked the same questions in the same way, so the researcher can be sure that everyone answers exactly the same questions. A structured questionnaire also allows the researcher to examine a relatively large sample, so results may be more generalizable, while findings can be compared with those of relevant studies. The disadvantages, on the other hand, of structured questionnaires are primarily associated with cases where the researcher is not present, such as postal questionnaires. In such cases it is difficult for the researcher to know whether or not respondents have properly understood the questions, while there is a possibility of low response rates.

Although English was initially used to develop the survey questionnaire, it was subsequently translated into Greek to facilitate respondents' understanding. The purpose of the study was described and anonymity of participants was emphasized in the cover letter. The survey was conducted during September 2011.

## **4.2. Measurement Instrument**

To assess attitudes toward organic cosmetics, a questionnaire of 56 items was developed. The questionnaire consisted of three sections of established scales and a section on demographic information. Section A consisted of items measuring environmental, health and appearance consciousness. Environmental consciousness was measured using a fifteen-item scale adapted from Dunlap et al. (2000). An eleven-point scale was used to measure health consciousness based on Oude Ophuis (1989). Seven appearance consciousness items were adapted from Carr et al. (2000). Section B consisted of five items measuring ecoliteracy adapted from Ellen et al. (1997), and a consumer interpersonal influence scale adapted from Bearden et al. (1989). The twelve items used reflected two correlated dimensions of susceptibility to interpersonal influence. The first eight items reflected the normative influence, while the rest four items reflected informational influence. Section C consisted of three items measuring attitudes toward organic cosmetics adapted from Taylor and Todd (1995) and three items measuring intention toward organic cosmetics adapted from Michaelidou and Hassan (2008). All the responses were measured on a five-point Likert scale, with 1 = “strongly disagree” and 5 = “strongly agree”. The last section consisted of basic demographic data such as sex, age, income level, marital status and education level. This part also collected information about the frequency of purchasing organic products. The detailed questionnaire is enclosed in the appendices.

## **4.3. Statistical tools for data analysis**

In performing the statistical analysis of the gathered data, SPSS software has been applied, because of its ability to extensively analyze quantitative data. The statistical analysis for this study comprises basic descriptive statistics, such as means and percentages in addition to reliability test and linear regression. The latter one aims to reveal the relationships among the variables.

The following chapter will discuss the results of the survey in details.

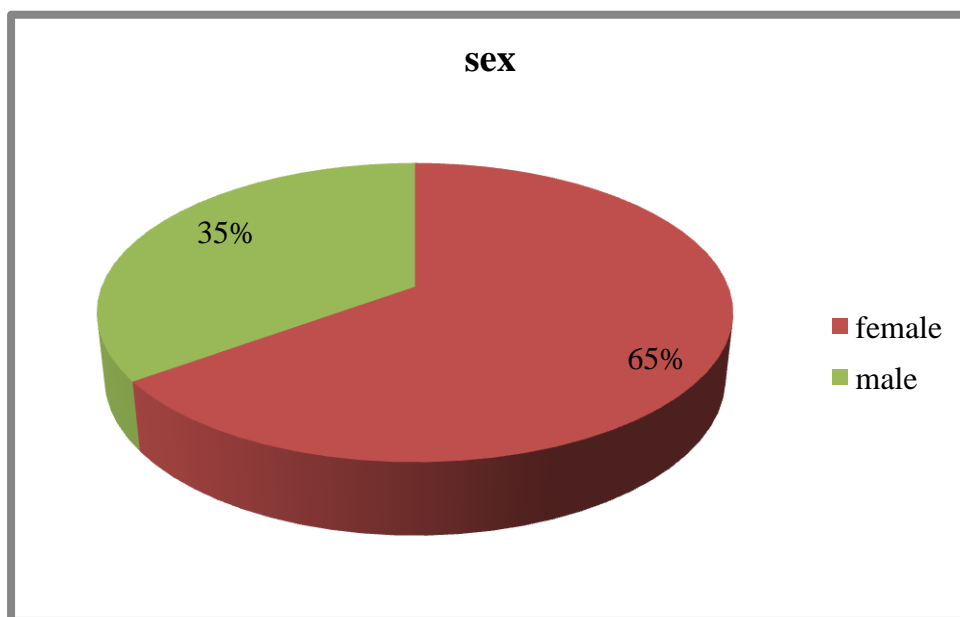
## 5. RESULTS

### 5.1. Demographics of the sample

There was collected a total of 100 complete and usable questionnaires through the survey. An overview of the demographic information generated, based on the results provided by the respondents, will be further explained.

The sample comprised 65 women (65%) and 35 men (35%). A convenience sample was employed, due to the fact that women are more interested in organic cosmetics, they are heavy users of cosmetics in general and they invest much time and effort in improving the way they look. Moreover, women are more motivated than men to answer the questionnaire because they are highly engaged in purchasing cosmetics and personal care products.

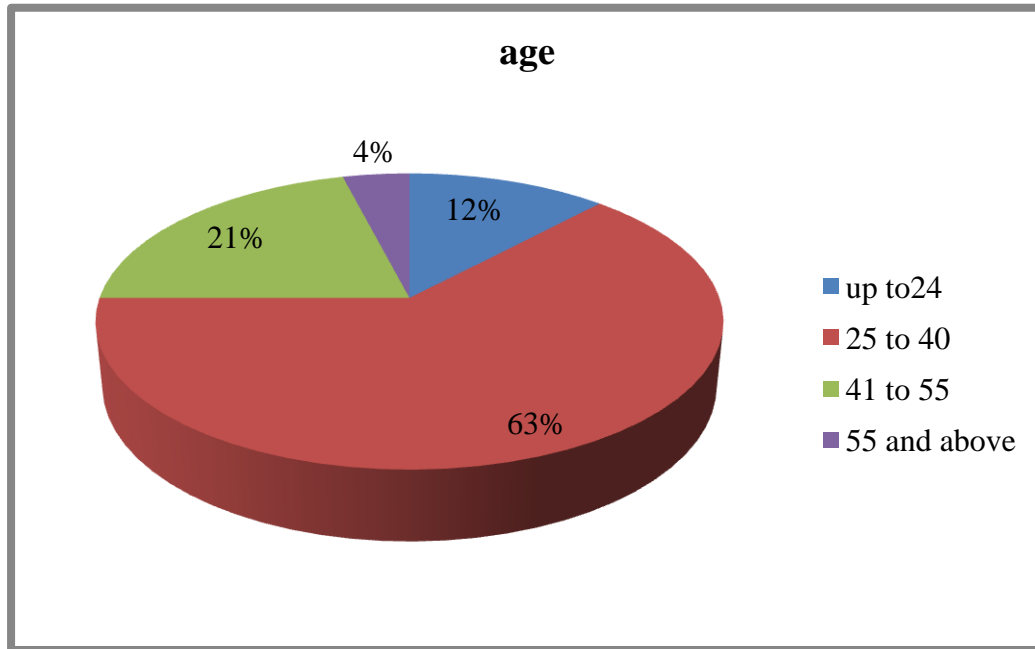
*Figure 4 Sex results*



There was a wide distribution of age range, with the majority of the respondents being aged between 25 and 40 years, with 63% falling into this range. 21% of the respondents were between 41 and 55 while just 4% were 55 and above. Taking into consideration that people belonging in the age group of 25 - 40 years old have the tendency to put much emphasis on their general appearance, they are expected to be regular purchasers of cosmetic products. On the other hand, older and very young

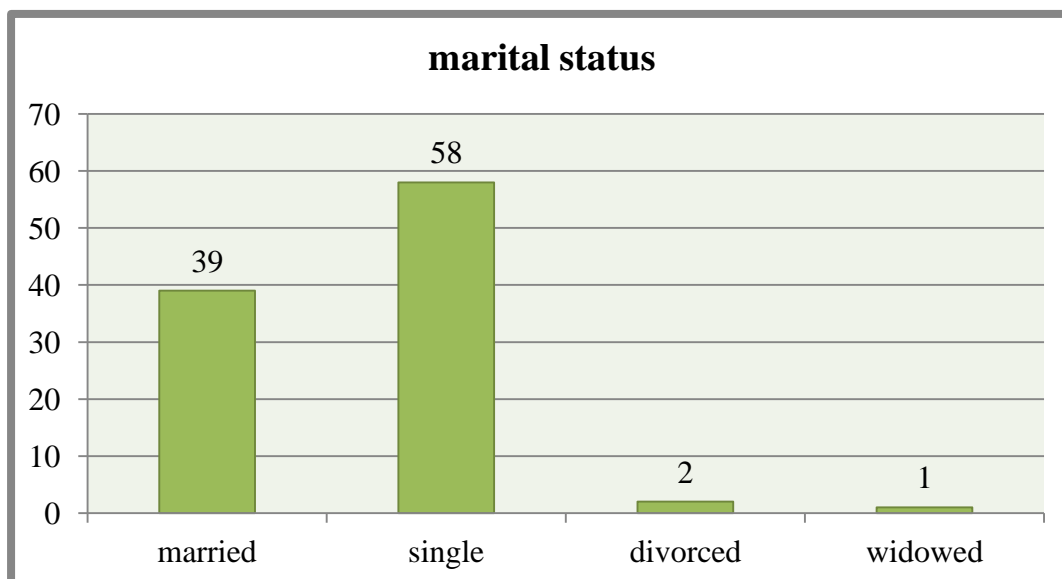
people having different priorities do not usually undertake actions like improving their appearance and seem to be indifferent to organic cosmetics.

**Figure 5 Age results**



Regarding marital status, 39 respondents were married, with the majority (n=58) being single. Singles, in general, have more free time to spend for themselves compared to married people. That is because they do not usually have family responsibilities, so they tend to devote more time taking care of, and enhancing their appearance. Therefore they are more interested in purchasing cosmetics.

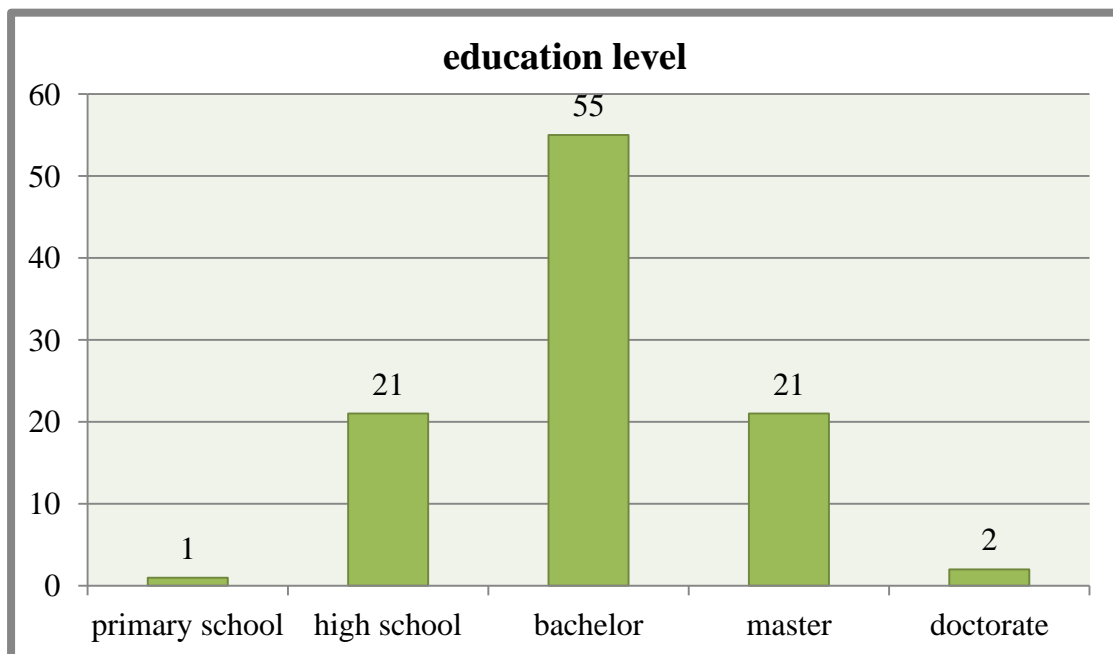
**Figure 6 Marital status results**





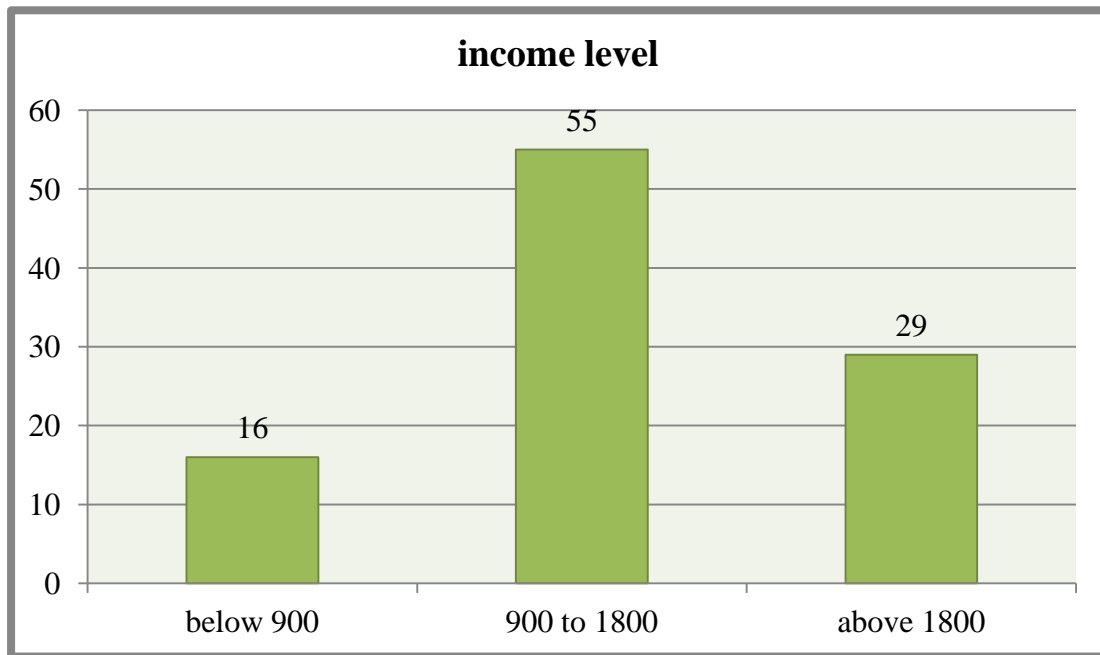
In terms of education level, 21% of the respondents had finished High School, equal to those having a master's degree, while the majority (55%) had a bachelor's degree. Clearly, therefore, most of the respondents were highly educated. These individuals were more likely to be aware and conscious of environmental and health issues and have organic product purchase experience, thus supporting the reliability of the data. People of a higher education level, in general, have a greater understanding of the topic under investigation, a better ability of perceiving the significance of their collaboration, thus they were more prompt to fill in the questionnaires than those less educated.

**Figure 7 Education level results**



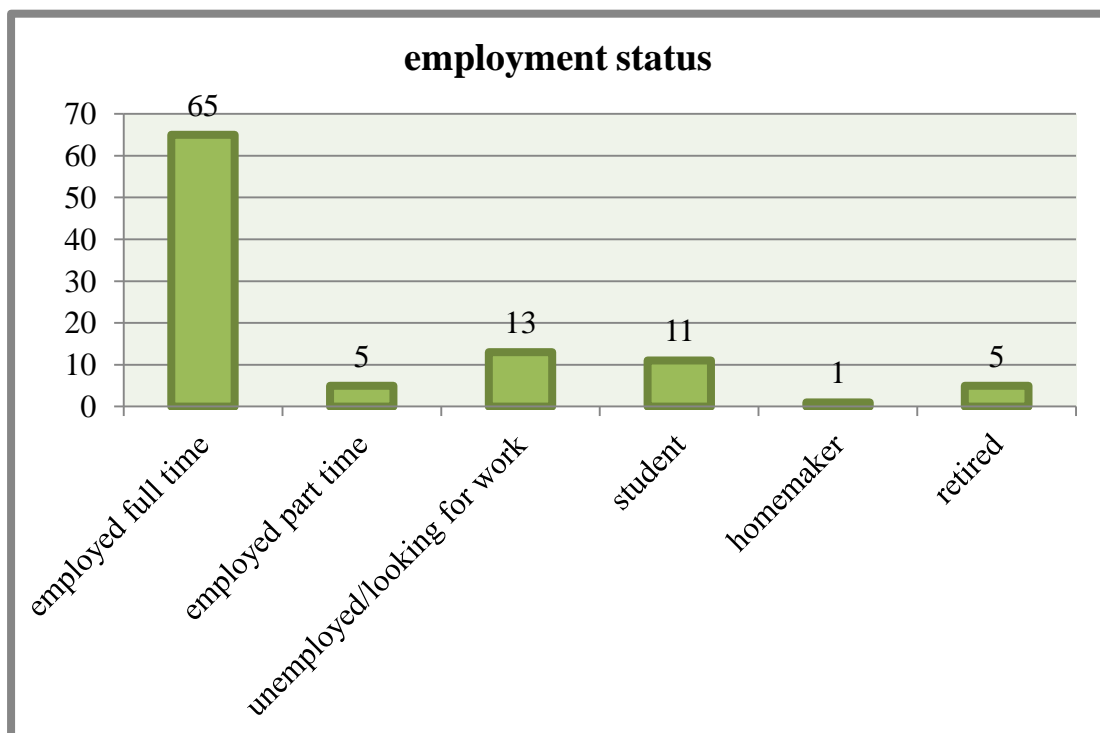
Regarding the average monthly household income, the vast majority (55%) has a budget ranging from 900 to 1800 euro, a rather smaller percentage (29%) receives an income that goes beyond 1800 euro on a monthly basis and 16% has a budget that does not exceed 900 euro. Taking into account the current situation in Greece, this sample is representative of the whole population. Furthermore, organic cosmetics are generally perceived as more expensive than their conventional counterparts, so consumers belonging to the low income level were likely to be uninterested in organic products.

**Figure 8 Average monthly household income results**



Respondents were asked about their current employment status as well. The vast majority (65%) are employed full time, while 13% are unemployed or are looking for work. It is probable that employed people, who receive a stable income, are more willing to pay an extra amount of money to acquire organic products.

**Figure 9 Current employment status results**



After establishing the demographics of the sample, respondents' frequency of purchasing organic products was established.

**Figure 10 Frequency of purchase of organic products**

	<b>n</b>
<b>5-7 times in a week</b>	3
<b>1-2 times in a week</b>	19
<b>2-3 times in a month</b>	11
<b>Once in a month</b>	25
<b>Less than once in a month</b>	42

The results were clearly widely distributed, however the majority (n=42) purchased organic products less than once in a month. A total of 33 respondents were regular purchasers of organic products (2-3 times in a month or more frequently). This is an expected outcome, since organic is a relatively new concept in the Greek market. Greek consumers appear to be unwilling to buy organic products, due to the perception that organic products are generally more expensive than the conventional ones.

## **5.2. Reliability test (Cronbach Alpha)**

Before analyzing the results statistical tests were conducted on the data to ensure its reliability. To test for reliability the Cronbach Alpha was calculated for each of the five constructs. Figure 11 reports the Cronbach Alpha values for each scale. The reliabilities were 0.790 for environmental consciousness scale, 0.817 for health consciousness scale, 0.798 for appearance consciousness scale, 0.716 for ecoliteracy scale and 0.884 for interpersonal influence scale, respectively. The minimum acceptable reliability coefficient was set at 0.7. The alpha values found for the scales were all above 0.7, therefore, a high reliability characterizes the five constructs. The detailed reliability test is enclosed in the appendices.

*Figure 11 Cronbach Alpha Results*

<b>Variable</b>	<b>Cronbach Alpha</b>
<b>Environmental consciousness</b>	0.790
<b>Health consciousness</b>	0.817
<b>Appearance consciousness</b>	0.798
<b>Ecoliteracy</b>	0.716
<b>Interpersonal influence</b>	0.884

### 5.3. Descriptive statistics

Having complied with the generally accepted requirements for data reliability, investigating the results of the data was the next step. The average of the individual questions in each question set was computed to provide one single variable construct, in order to test each variable and measure its effect on attitudes. Each question set was merged together and averaged in order to reveal respondents mean reply to each variable tested. The following figure presents the minimum and maximum value, the mean answers, which stated the relative importance of each variable to consumers, and the standard deviation.

*Figure 12 Descriptive statistics*

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Environmental consciousness</b>	100	3	5	4.21	0.316
<b>Health consciousness</b>	100	2	5	3.12	0.549
<b>Appearance consciousness</b>	100	1	4	2.48	0.690
<b>Ecoliteracy</b>	100	1	4	3.09	0.613
<b>Interpersonal influence</b>	100	1	4	2.40	0.658
▪ <b>Normative susceptibility</b>	100	1	5	1.99	0.773

▪ <b>Informational susceptibility</b>	100	1	5	3.29	0.814
<b>Attitude toward organic cosmetics</b>	100	1	5	3.83	0.732
<b>Intention toward purchasing organic cosmetics</b>	100	1	5	2.76	1.016

The mean is a measure of central tendency and is defined as the arithmetic average of a set of data. The mean of each variable shows the respondents' attitudes toward each one of them. The standard deviation is a measure of the dispersion of a set of data from its mean. A high standard deviation indicates that the data points are spread out over a large range of values. In the figure above the standard deviation, which reflects the size of the range of answers, is relatively low and shows a close convergence of opinions.

**Environmental consciousness:** Overall environmental consciousness represented the highest mean score of 4.21 from all tested variables. This indicates that environment is a generally concerning issue for the respondents. Questions report that people tend to believe that human actions have created serious environmental problems. This variable reports the lowest standard deviation being the only one with a deviation below 0.316.

**Health consciousness:** With a mean score of 3.12, people generally have a positive attitude toward their health. They are concerned about preserving and protecting their health status. In particular, they are concerned about their state of well being by engaging themselves in healthy behaviors, such as eating as healthy as possible.

**Appearance consciousness:** Respondents tend to be indifferent regarding their appearance, as indicated by a mean score of 2.48. Most consumers are not concerned about their appearance or do not feel distressed when others make remarks about their appearance.

Ecoliteracy: A mean score of 3.09 indicates that consumers are quite knowledgeable about recycling and other environmental issues. Many people believe that they know more about recycling than the average person, and how to select environmentally safe products and packages.

Interpersonal influence: Interpersonal influence reported a low mean score of 2.40. Clearly this shows that the social influences of peers, families or influential bodies are not able to affect respondents' purchasing decisions. However, by dividing interpersonal influence into its two correlated dimensions, namely normative susceptibility to interpersonal influence and informational susceptibility to interpersonal influence, the results are totally different. Informational influence, in particular, represented the second highest mean score of 3.29, revealing that people are generally influenced by others' opinions, especially by opinion leaders, professionals and people that they trust. Questions report that consumers have the tendency to consult other people and ask their family or friends about a product when they have little experience with it. This variable registered the highest standard deviation, but it is not high enough to reveal a wide range of opinions. On the other hand, normative susceptibility to interpersonal influence reported the lowest mean score of 1.99 out of all variables tested. The responses reveal that consumers do not care about purchasing products that others will approve of or do not achieve a sense of belonging by purchasing the same products and brands that others purchase. This means that interpersonal influence from peers and norms does not have a significant effect on consumers' purchases.

Further, the mean and standard deviation of the dependent variables was calculated. In particular:

Attitude toward organic cosmetics: The mean score of 3.83 indicates that the respondents have a positive attitude toward organic cosmetics. Asked whether they liked the idea of purchasing organic cosmetics, consumers had clearly a favorable attitude.

Intention toward purchasing organic cosmetics: With a mean score of 2.76, consumers are not likely to purchase organic cosmetics. Most of them stated that they do not intend to buy organic cosmetics within the next fortnight.

#### 5.4. Hypotheses testing

To test the hypotheses linear regression was run for each factor in order to assess the impact of the 5 independent variables (environmental consciousness, health consciousness, appearance consciousness, ecoliteracy and interpersonal influence) on the dependent variable (attitude toward organic cosmetics). To estimate the direct effects of each single independent variable on the dependent variable, the standardized regression coefficients, often called beta were used. The beta coefficient represents the amount of change in the dependent variable that is associated with a change of one unit in the independent variable. The sign indicates the relationship between the variables. If the regression coefficient is positive, then there is a positive relationship between the variables, while, if this value is negative, then there is a negative relationship. Figure 13 summarizes the results of the linear regression analysis, providing beta values and significance levels for each variable.

*Figure 13 Regression coefficients*

VARIABLES		BETA	SIGNIFICANCE
INDEPENDENT	DEPENDENT		
<b>Environmental consciousness</b>	Attitude	0.202	0.044
<b>Health consciousness</b>	Attitude	-0.031	0.760
<b>Appearance consciousness</b>	Attitude	-0.124	0.220
<b>Ecoliteracy</b>	Attitude	0.028	0.784
<b>Interpersonal influence</b>			
▪ <b>Normative susceptibility</b>	Attitude	-0.174	0.083
▪ <b>Informational susceptibility</b>	Attitude	0.203	0.043

## **Environmental Consciousness**

Environmental consciousness emerged as the second most significant predictor of attitude toward buying organic cosmetics. With a beta of 0.202, environmental consciousness is clearly among the most important factors influencing positively attitude toward buying organic cosmetics. This finding highlights that respondents' attitudes toward organic cosmetics are critically formed from their concern over environmental degradation and destruction of natural resources, thus the findings support H1. The reason of this relationship can be that environmentally conscious people use products that have a positive impact on the welfare of the environment. As a result, they may shape positive attitudes toward organic cosmetics because they feel that by using these environmentally friendly products they protect the environment. The result is consistent with what other similar studies have uncovered (Roberts and Bacon, 1997; Straughan and Roberts, 1999; Schifferstein and Oude Ophuis, 1998; Chan, 2001; Mostafa, 2007; Tsakiridou, et al., 2008, Essoussi and Zahaf, 2008; Ishaswini and Datta, 2011, Kim and Chung, 2011).

## **Health Consciousness**

Health consciousness was not found an important predictor of attitude toward organic cosmetics. This reveals that respondents' favorable attitude toward buying organic cosmetics is not formed from their concern over health issues. This could be in part related to the fact that most people associate health mainly with nutrition and physical activities, rather than with their external appearance and consumption of cosmetic products. Therefore H2 is rejected and discarded from the model. This result mirrors those of Michaelidou and Hassan (2008) and Kim and Chung (2011).

## **Appearance consciousness**

With a significance level of 0.220, appearance consciousness cannot be statistically shown to have an impact on attitude toward organic cosmetics. This outcome is probably related to the fact that consumers in Greece are not adequately informed about the benefits of organic cosmetics. The finding is contradictory to results of previous studies, such as that of Kim and Chung (2011), which highlights the importance of appearance consciousness as a predictor of consumers' attitudes toward organic personal care products. As a result, appearance consciousness variable is not a strong influence within the overall model and H3 is rejected.



## **Ecoliteracy**

The outcome of the analysis showed that ecoliteracy is not associated at all with attitude toward organic cosmetics. It was found to be statistically insignificant reaching a significance level of 0.784. Although Greek consumers surveyed reported a high level of knowledge about recycling and other environmental issues (mean= 3.09), the statistical analysis showed that the majority did not translate this into positive attitudes toward buying organic cosmetics. Thus, H4 is rejected. This may be in part related to the lack of education about the environmental benefits of organic products. A greater awareness of benefits may motivate Greek consumers to purchase organic products or at least lessen their consumption of conventional products. This outcome echoes previous results in other studies such as Geller (1981), Maloney and Ward (1973), Muller and Taylor (1991), Rahbar and Wahid (2010).

## **Interpersonal influence**

### **a) Normative susceptibility**

Normative susceptibility was found to be a statistically significant predictor of attitude toward organic cosmetics. However it must be noticed that the relative influence here is significant only at a 0.10 level. The beta coefficient of  $-0.174$  indicates that normative susceptibility is a negative predictor of attitude. Consumers who care about purchasing products that others will approve of or achieve a sense of belonging by purchasing the same products and brands that others purchase, show a lower degree of tendency to shape positive attitudes toward purchasing organic cosmetics. A possible explanation of this relationship could be that people who are easily affected by their social environment tend to depend their purchases on others' opinions and choices. As far as conventional cosmetics are more widely used than organic cosmetics, it is expected that highly influenced Greek consumers would not buy organics. This result is in line with that of Cheah and Phau (2011).

### **b) Informational susceptibility**

On the other hand, informational susceptibility was found to have the greatest level of significance registering 0.043 with the highest beta coefficient of 0.203. This clearly shows that consumers who consult other people and ask their family's or friends' opinion before purchasing a product tend to have favorable attitudes toward organic cosmetics. Consumers who incline to consult their friends, and seek

information before buying a new product are more likely to be aware of the benefits of organic products, thus the likelihood of shaping positive attitude seems to be greater. This result is contradictory to what Cheah and Phau (2011) had found but echoes previous results in other studies such as by Bearden et al., (1989) and Stafford and Cocanougher (1977).

Therefore, the findings only partially support H5.

In addition, this study includes linear regression analysis to test the relationship between attitude toward organic cosmetics and intention toward purchasing organic cosmetics. Figure 14 provides the results of the linear regression analysis.

*Figure 14 Regression coefficient*

VARIABLES		BETA	SIGNIFICANCE
INDEPENDENT	DEPENDENT		
<b>Attitude toward organic cosmetics</b>	Intention toward buying organic cosmetics	0.305	0.002

Positive attitude toward organic cosmetics was found to be a driver in pushing Greek consumers to buy organic cosmetics. With a beta of 0.305 and a significance level of 0.002 attitude emerged as a positive and important predictor of intention to purchase organic cosmetics. The finding confirms the hypothesis that consumers' favorable attitude toward buying organic cosmetics will have a positive influence on their intentions to buy organic cosmetics, supporting H6. The result reflects those of previous studies by Roberts and Bacon (1997), Kalafatis et al. (1999), Magnusson et al. (2001), Chan (2001), Mostafa (2007), Cheah and Phau (2011) and Kim and Chung (2011).

The following figure summarizes the results, reporting the accepted hypotheses.

*Figure 15 Accepted hypotheses*

<b>VARIABLES</b>	<b>HYPOTHESES</b>	<b>SUPPORTING STUDIES</b>
<b>Environmental consciousness</b>	H1	Roberts & Bacon (1997) Straughan & Roberts (1999) Schifferstein & Oude Ophuis (1998) Chan (2001) Mostafa (2007) Tsakiridou et al. (2008) Essoussi & Zahaf (2008) Ishaswini & Datta (2011) Kim & Chung (2011).
<b>Interpersonal influence</b>	H5 (partially accepted)	Bearden et al. (1989) Stafford & Cocanougher (1977).
<b>Attitude toward organic cosmetics</b>	H6	Roberts & Bacon (1997) Kalafatis et al. (1999) Magnusson et al. (2001) Mostafa (2007) Cheah & Phau (2011) Kim & Chung (2011).

## 6. CONCLUSIONS

This study is one of the first to examine the attitudes and intention toward organic cosmetics of Greek consumers. The main objective of the present study was to provide useful insights into various important antecedents of attitude toward organic cosmetics. In doing so a conceptual framework model has been proposed and a number of hypotheses has been developed. In particular, five factors have been proposed as the antecedents of attitude, namely environmental consciousness, health consciousness, appearance consciousness, ecoliteracy and interpersonal influence. It was found that not all of these factors have a positive influence on consumer attitude toward organic cosmetics. The findings report that there are two determinants of attitude toward purchasing organic cosmetics, and specifically environmental consciousness and interpersonal influence. On the other hand, health consciousness, appearance consciousness and ecoliteracy appear to have no significant influence on attitude formation.

A number of results that were found to be of particular interest, or that substantially deviated from the hypotheses are going to be briefly addressed.

Environmental consciousness emerged as one of the most important factors determining attitude toward organic cosmetics. This result is in line with what other similar studies have uncovered (Roberts and Bacon, 1997; Straughan and Roberts, 1999; Schifferstein and Oude Ophuis, 1998; Chan, 2001; Mostafa, 2007; Tsakiridou, et al., 2008; Essoussi and Zahaf, 2008; IshaSwini and Datta, 2011; Kim and Chung, 2011). As reflected by the mean score of environmental consciousness, Greek consumers are actually not as environmentally apathetic as some people may believe. Overall, this finding indicates that eco-conscious consumers are more likely to develop positive attitude toward organic cosmetics. Environmental consciousness should be evoked to help consumers cultivate a more positive attitude toward organic cosmetics. Marketers and advertisers should, therefore, communicate that purchasing organic cosmetics can have an important impact on the welfare of the environment. These perceived benefits should be highlighted when marketing organic cosmetics and personal care products to consumers. Marketers could encourage positive attitudes and behaviors of environmentally conscious consumers through properly targeted advertising campaigns.

Extensive research highlights health consciousness as the most important factor influencing attitude toward organic products (Wandel and Bugge, 1997; Schifferstein and Oude Ophuis, 1998; Magnusson et al., 2001; Padel and Foster, 2005; Chen, 2009). In contrast to this stream of research and in line with Michaelidou and Hassan (2008) and Kim and Chung (2011), findings in this study present health consciousness as an insignificant factor that does not exert an important influential power on attitude toward organic cosmetics. Unlike previous studies, this result may suggest that although consumers are alert to changes in their health and responsible for their state of well being, they do not associate benefits, like health preservation, with organic cosmetics consumption. Most people associate health mainly with nutrition and physical activities, rather than with their external appearance and consumption of cosmetic products.

Appearance consciousness was also found to be a statistically insignificant factor, a contradictory finding to what other researchers have reported (Kim and Chung, 2011). This is in part related to the lack of information regarding the beneficial attributes of organic cosmetics, since the term “organic cosmetics” is relatively new in the Greek context.

Health and appearance consciousness are usually perceived as factors that bring personal benefits to the individual. In other words, organic cosmetics consumption brings positive consequences to the individual, like improved state of well-being, improved general appearance and protection of general health. The findings reflect that the impact of egoistic motives, like health and appearance consciousness, on attitude toward organic cosmetics, may be declining, while altruistic motives, that show wider societal considerations, such as environmental concern, currently show an increasing importance in attitude formation in the organic cosmetics context. It is clear, therefore, that future research should move away from egoistic motives and focus more on altruistic motives that may be more relevant in explaining organic consumption.

The data also demonstrated that there is no significant relationship between ecoliteracy and attitude toward purchasing organic cosmetics. Although respondents had a high level of environmental knowledge (mean = 3.09), they did not translate this into positive attitude toward organic cosmetics. This result corresponds to a number of findings in previous studies, such as those by Geller (1981), Maloney and

Ward (1973), Muller and Taylor (1991), Laroche et al. (2001), and Rahbar and Wahid (2010). According to Moseley's (2000) three stages of environmental knowledge or literacy, Greek consumers are still in the first stage, the nominal environmental literacy, which means that they know basic environmental terms but do not understand the issues in depth in order to cause specific purchase behavior. The insignificant relationship between consumers' ecoliteracy and attitude is a cause for concern. Attitude toward organic cosmetics is not affected by the ability to distinguish between organic and conventional products. This finding is in part related to the lack of education about the environmental benefits of organic products and raises the need for marketers and businesses to disseminate information or educate consumers better about the types of environmental benefits that organic products offer. The Body Shop, for example, through info cards, videos and window displays throughout its stores tries to inform its customers about the environmental and social impacts of their buying decisions. It also informs people about the company's natural and organic ingredients, environmentally-friendly manufacturing, and policy of purchasing from developing countries. Clearly, a greater awareness of ecological benefits may motivate consumers to purchase organic products or at least lessen their consumption of conventional products.

Attitude toward purchasing organic cosmetics is found to be determined by environmental consciousness rather than by ecoliteracy. This finding provides further insights into how one's affective responses toward environmental issues and cognitive understanding of environmental issues determine his/her attitude toward organic cosmetics. Clearly, attitudes are affected significantly by environmental consciousness, while they are not influenced by environmental knowledge. These findings highlight the need for the marketers to use emotional rather than cognitive appeals in order to cause the relevant attitudinal changes.

Normative susceptibility to interpersonal influence was found to exert a negative impact on attitude toward organic cosmetics, result that mirrors that of Cheah and Phau (2011). Informational susceptibility, on the other hand, emerged as the most important predictor of attitude toward organic cosmetics, influencing positively attitudes. The finding is contradictory to what Cheah and Phau (2011) had found but is in accordance with previous results in other studies such as by Bearden et al. (1989) and Stafford and Cocanougher (1977). The outcome indicates that consumers who

tend to consult their friends, and seek information before buying a new product are more likely to be aware of the benefits of organic products, thus the likelihood of shaping positive attitude is greater. This finding could assist marketers to formulate appropriate and efficient marketing strategies for organic cosmetics. The use of endorsements, for example, could contribute to improving marketing communication initiatives. Another important consideration is the use of attractive spokespersons endorsing organic products. Businesses should use spokespeople or endorsers to support their products not just because of their popularity or status, but because of their ability to bond with the product image and the target audience.

The relationship between attitude and intention to purchase organic cosmetics is significant and positive, highlighting that consumers with favorable attitudes toward organic cosmetics are more likely to purchase such products, therefore, more likely to convert positive attitudes into buying habits. This is consistent with what other studies have uncovered (Roberts and Bacon, 1997; Kalafatis et al., 1999; Chan, 2001; Magnusson et al., 2001; Mostafa, 2007; Cheah and Phau, 2011). A recent study of Kim and Chung (2011) on the personal care context suggests that a positive attitude toward buying organic personal care products significantly affects purchase intention. The above findings can facilitate the formulation of effective communication strategies and initiatives. Marketers and advertisers should communicate that purchasing organic cosmetics can have an important impact on the welfare of the environment. They should also adopt environmentally conscious product strategies, such as eco-friendly product packaging, features, quality, labeling, in order to encourage the purchase of organic cosmetics. Furthermore, both government and organic companies should work more closely together to establish organic certification standards. The lack of a formal definition of organic cosmetics, and of strictly defined or uniform standards for organic labeling has led to confusion, uncertainty and skepticism among consumers about buying organic cosmetics. Many manufacturers are misleading when it comes to cosmetic labels. They may, for example, use the word "organic" in its scientific meaning of "containing carbon.", or they mislead consumers by listing organic ingredients first, burying down on the labeling synthetic and chemical ingredients that actually make the core of the product. Thus, consistent regulatory measures may increase consumer confidence in organic

cosmetics and motivate them to shape more positive attitudes toward organic cosmetics in the near future.

In conclusion, previous studies provide mixed results about the impact of motives on attitude and intention toward purchasing organic products. Research has reported both significant and insignificant relationships, indicating that our in-depth understanding of the impact of motives on organic consumption remains to some extent elusive. The current study, by simultaneously modeling environmental consciousness, health consciousness, appearance consciousness, ecoliteracy and interpersonal influence as predictors of attitude and intention toward purchasing organic cosmetics, provides useful insights into various important antecedents of organic purchase behavior of Greek consumers. The findings indicate that environmental consciousness and informational influence are the most important predictors of attitude toward organic cosmetics, while attitude has a significant and positive impact on consumers' willingness to buy organic cosmetics. These insights may provide a basis for further research into behavior toward organic products.



## **7. LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH**

This study has several limitations, which are areas to consider for further research.

First, one important limitation of this study is the data collection that was conducted in one single location, Thessaloniki, which is the second largest city in Greece. As a result, the sample contained only consumers living in an urban city, not taking into account the situation in other geographic areas. In addition, the limitation of the relatively small sample size highlights the necessity to extend this research to a larger and geographically more diversified sample of consumers.

Second, the antecedent constructs included in the conceptual framework may not be exhaustive. Other variables, related to attitude formation, such as past experiences, value orientation, social norms are areas to consider for future research. Factors like perceived product necessity, product involvement, perceived quality or pricing concepts, that may moderate the impact of attitudinal tendencies, are worthy of examination. The extension of the research to a much wider range of behavioral indicators could produce more interesting and reliable findings.

Third, this study is based on a cross-sectional rather than on a longitudinal perspective, which limits the information on the long-term effect of the factors in the model. This means that much emphasis has been put on observing consumers' behavior rather than observing changes in consumers' behavior. It could be more interesting to study changes in consumers' behavior over a long-term horizon.

Fourth, the present research is based on self-reported answers to measure consumers' attitudes toward organic cosmetics. Although such self-reports usually represent good approximations of actual behavior, they have some limitations. Socially desirable past behaviors are often over-reported, while less desirable past behaviors are often under-reported. Therefore, future research should consider the potential effects of social desirability bias on respondents' answers.

Finally, for the purpose of this study, a quantitative approach was adopted to identify attitudes toward organic cosmetics. Although the use of quantitative methods is considered valuable in examining relationships between variables, it is considered to be weak when trying to explore the reasons for the relationships (Chisnall, 1997).

As a result, using qualitative along with quantitative methods is recommended in future studies, to further examine relationships among the variables.

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## APPENDICES

### Appendix 1: Questionnaire

#### QUESTIONNAIRE

##### *SUBJECT: GREEK CONSUMERS' ATTITUDES TOWARDS ORGANIC COSMETICS*

The International Hellenic University under the MSc in Management program is conducting a research about Greek consumers' attitudes towards organic cosmetics. We would like your participation in the anonymous completion of this questionnaire in order to conduct marketing based conclusions.

Please respond honestly to the above questions, stressing that no one will know the identity of the research participants.

**Thank you for your cooperation**

#### PART A

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	We are approaching the limit of the number of people the earth can support.	1	2	3	4	5
2	The earth has plenty of natural resources if we just learn to develop them.	1	2	3	4	5
3	The earth is like a spaceship with only limited room and resources.	1	2	3	4	5
4	Humans have the right to modify the natural environment to suit their	1	2	3	4	5

	needs.	
5	Plants and animals have as much right as humans to exist.	1 2 3 4 5
6	Humans were meant to rule over the rest of the nature.	1 2 3 4 5
7	When humans interfere with nature it often produces disastrous consequences.	1 2 3 4 5
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations.	1 2 3 4 5
9	The balance of nature is very delicate and easily upset.	1 2 3 4 5
10	Human ingenuity will ensure that we do not make the earth unlivable.	1 2 3 4 5
11	Despite our special abilities, humans are still subject to the laws of nature.	1 2 3 4 5
12	Humans will eventually learn enough about how nature works to be able to control it.	1 2 3 4 5
13	Humans are severely abusing the environment.	1 2 3 4 5
14	The so-called ecological crisis facing humankind has been greatly exaggerated.	1 2 3 4 5
15	If things continue on their present course, we will soon experience a major ecological catastrophe.	1 2 3 4 5

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I have the impression that I sacrifice a lot for my health.	1 2 3 4 5
2	I consider myself very health conscious.	1 2 3 4 5
3	I am prepared to leave a lot, to eat as healthy as possible.	1 2 3 4 5
4	I think that I take health into account a lot in my life.	1 2 3 4 5
5	I think it is important to know well how to eat healthy.	1 2 3 4 5

6	My health is so valuable to me that I am prepared to sacrifice many things for it.	1 2 3 4 5
7	I have the impression that other people pay more attention to their health than I do.	1 2 3 4 5
8	I do not continually ask myself whether something is good for me.	1 2 3 4 5
9	I really don't think often about whether everything I do is healthy.	1 2 3 4 5
10	I don't want to ask myself all the time whether the things I eat are good for me.	1 2 3 4 5
11	I often dwell on my health.	1 2 3 4 5

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I feel distressed when others make remarks about my appearance.	1 2 3 4 5
2	I believe that I am made to feel unattractive.	1 2 3 4 5
3	I feel distressed when others stare at me.	1 2 3 4 5
4	It hurts me when others comment my appearance.	1 2 3 4 5
5	I feel distressed when I see myself in a mirror/window.	1 2 3 4 5
6	I feel distressed when I meet strangers.	1 2 3 4 5
7	I usually avoid being photographed.	1 2 3 4 5

## **PART B**

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I know that I buy products and packages that are environmentally safe.	1 2 3 4 5
2	I know more about recycling than the average person.	1 2 3 4 5
3	I know how to select products and packages that reduce the amount of waste ending up in landfills.	1 2 3 4 5
4	I understand the environmental phrases and symbols on product package.	1 2 3 4 5
5	I am very knowledgeable about environmental issues.	1 2 3 4 5

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I rarely purchase the latest fashion styles until I am sure my friends approve of them.	1 2 3 4 5
2	It is important that others like the products and brands I buy.	1 2 3 4 5
3	When buying products, I generally purchase those brands that I think others will approve of.	1 2 3 4 5
4	If other people can see me using a product, I often purchase the brand they expect me to buy.	1 2 3 4 5
5	I like to know what brands and products make good impressions on others.	1 2 3 4 5
6	I achieve a sense of belonging by purchasing the same products and brands that others purchase.	1 2 3 4 5
7	If I want to be like someone, I often try to buy the same brands that they buy.	1 2 3 4 5
8	I often identify with other people by purchasing the same products and brands they purchase.	1 2 3 4 5
9	To make sure I buy the right product or brand, I often observe what others are buying and using.	1 2 3 4 5
10	If I have little experience with a product, I often ask my friends about the product.	1 2 3 4 5

11	I often consult other people to help choose the best alternative available from a product class.	1	2	3	4	5
12	I frequently gather information from friends or family about a product before I buy.	1	2	3	4	5

**PART C**

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I like the idea of purchasing organic cosmetics.	1	2	3	4	5
2	Purchasing organic cosmetics is a good idea.	1	2	3	4	5
3	I have a favorable attitude toward purchasing organic cosmetics.	1	2	3	4	5

Please read the following statements and circle the number that represents your degree of agreement/disagreement with them (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

1	I intend to purchase organic cosmetics within the next fortnight.	1	2	3	4	5
2	I want to purchase organic cosmetics within the next fortnight.	1	2	3	4	5
3	How likely is it that you will purchase organic cosmetics within the next fortnight? (1= not at all likely; 5= very likely)	1	2	3	4	5

## **PART D**

### **DEMOGRAPHIC DATA**

**Sex:** Male  Female

**Age:** up to 24

25 to 40 years

41 to 55 years

55 and above

**Marital status:** Married  Single  Divorced  Widowed

**Education level:** Primary school diploma

High school diploma

Bachelor's degree

Master's degree

Doctorate

**Average monthly**

**household income:** Below 900 €

Between 900 and 1800 €

Above 1800 €

**Current employment status:** Employed full time

Employed part time

Unemployed / Looking for work

Student

Homemaker

Retired

**Frequency of purchase**

**of organic products:** 5 – 7 times in a week

1 – 2 times in a week

2 – 3 times in a month

Once in a month

Less than once in a month



## Appendix 2: Reliability Test Results

Scale: Environmental consciousness

### Reliability Statistics

Cronbach's Alpha	N of Items
,790	15

Scale: Health consciousness

### Reliability Statistics

Cronbach's Alpha	N of Items
,817	11

Scale: Appearance consciousness

### Reliability Statistics

Cronbach's Alpha	N of Items
,798	7

Scale: Ecoliteracy

### Reliability Statistics

Cronbach's Alpha	N of Items
,716	5

Scale: Interpersonal influence

### Reliability Statistics

Cronbach's Alpha	N of Items
,884	12

### Appendix 3: Descriptive statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
environmental consciousness	100	3	5	4,21	,316
health consciousness	100	2	5	3,12	,549
appearance consciousness	100	1	4	2,48	,690
ecoliteracy	100	1	4	3,09	,613
interpersonal influence	100	1	4	2,40	,658
normative influence	100	1	5	1,99	,773
informational influence	100	1	5	3,29	,814
attitude toward organic cosmetics	100	1	5	3,83	,732
intention toward organic cosmetics	100	1	5	2,76	1,016
Valid N (listwise)	100				

## Appendix 4: Regression Results

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	environmental consciousness	.	Enter

a. All requested variables entered.

b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,202 <sup>a</sup>	,041	,031	,720

a. Predictors: (Constant), environmental consciousness

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,168	1	2,168	4,179	,044 <sup>a</sup>
	Residual	50,832	98	,519		
	Total	53,000	99			

a. Predictors: (Constant), environmental consciousness

b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,858	,969		1,919	,058
	environmental consciousness	,469	,229	,202	2,044	,044

a. Dependent Variable: attitude toward organic cosmetics

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	health consciousness	.	Enter

- a. All requested variables entered.  
 b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,031 <sup>a</sup>	,001	-,009	,735

- a. Predictors: (Constant), health consciousness

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,051	1	,051	,093	,760 <sup>a</sup>
	Residual	52,949	98	,540		
	Total	53,000	99			

- a. Predictors: (Constant), health consciousness  
 b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,962	,426		9,289	,000
	health consciousness	-,041	,135	-,031	-,306	,760

- a. Dependent Variable: attitude toward organic cosmetics

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	appearance consciousness	.	Enter

a. All requested variables entered.

b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,124 <sup>a</sup>	,015	,005	,730

a. Predictors: (Constant), appearance consciousness

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,813	1	,813	1,527	,220 <sup>a</sup>
	Residual	52,187	98	,533		
	Total	53,000	99			

a. Predictors: (Constant), appearance consciousness

b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,159	,274		15,191	,000
	appearance consciousness	-,131	,106	-,124	-1,236	,220

a. Dependent Variable: attitude toward organic cosmetics

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	ecoliteracy <sup>a</sup>	.	Enter

a. All requested variables entered.

b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,028 <sup>a</sup>	,001	-,009	,735

a. Predictors: (Constant), ecoliteracy

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,041	1	,041	,076	,784 <sup>a</sup>
	Residual	52,959	98	,540		
	Total	53,000	99			

a. Predictors: (Constant), ecoliteracy

b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,731	,379		9,843	,000
	ecoliteracy	,033	,120	,028	,275	,784

a. Dependent Variable: attitude toward organic cosmetics

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	informational influence	.	Enter

- a. All requested variables entered.  
 b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,203 <sup>a</sup>	,041	,031	,720

- a. Predictors: (Constant), informational influence

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,182	1	2,182	4,207	,043 <sup>a</sup>
	Residual	50,818	98	,519		
	Total	53,000	99			

- a. Predictors: (Constant), informational influence  
 b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,234	,301		10,738	,000
	informational influence	,182	,089	,203	2,051	,043

- a. Dependent Variable: attitude toward organic cosmetics

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	normative influence	.	Enter

a. All requested variables entered.

b. Dependent Variable: attitude toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,174 <sup>a</sup>	,030	,020	,724

a. Predictors: (Constant), normative influence

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,605	1	1,605	3,061	,083 <sup>a</sup>
	Residual	51,395	98	,524		
	Total	53,000	99			

a. Predictors: (Constant), normative influence

b. Dependent Variable: attitude toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,161	,201		20,702	,000
	normative influence	-,165	,094	-,174	-1,750	,083

a. Dependent Variable: attitude toward organic cosmetics



**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	attitude toward organic cosmetics	.	Enter

- a. All requested variables entered.  
 b. Dependent Variable: intention toward organic cosmetics

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,305 <sup>a</sup>	,093	,084	,973

- a. Predictors: (Constant), attitude toward organic cosmetics

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,505	1	9,505	10,044	,002 <sup>a</sup>
	Residual	92,735	98	,946		
	Total	102,240	99			

- a. Predictors: (Constant), attitude toward organic cosmetics  
 b. Dependent Variable: intention toward organic cosmetics

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,137	,521		2,180	,032
	attitude toward organic cosmetics	,423	,134	,305	3,169	,002

- a. Dependent Variable: intention toward organic cosmetics