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## RESEARCH ARTICLE

## Do We Know Organic Food Consumers? The Personal and Social Determinants of Organic Food Consumption

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### Abstract

The main aim of this study is determining which consumption motives and personal and social factors affect organic food buying decisions. Ajzen's Planned Behavior Theory (TPB) is used to explain consumers' organic food selection behaviors. In addition, the moderating role of uncertainty about organic foods and the mediating role of the price of organic foods were tested. Data were gathered via a survey of consumers of organic foods in Turkey. The research model was tested by Structural Equation Modeling (SEM) via Smart PLS3. The findings showed that consumptions motives of healthiness, easiness, mood, and convenience-price of organic foods motivate consumers to buy organic foods. In addition, environmental concern and negative emotions influence on attitudes towards organic foods and purchase intentions. On the other hand, subjective norms and self-monitoring do not influence attitudes towards organic foods and subsequent purchase intentions. Uncertainty has a moderating effect on the relationship between attitudes and purchase intentions whereas price has no mediating effect on the relationship between attitudes and purchase intentions.

### Keywords

Organic food • Consumption motivations • Environmental concern • Consumption emotions

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## **Do We Know Organic Food Consumers? The Personal and Social Determinants of Organic Food Consumption**

Demand for organic foods is continuously increasing as an increasing number of people wish to consume more natural foods. Organics foods are differentiated products from common conventional foods because they have distinctive characteristics (Sashi and Stern, 1995; Chryssochoidis, 2000); Yin et al., 2010. The term “organic food” refers to food products that are produced without artificial fertilizers, insecticides, synthetic hormones or artificial coloring (Fotopoulos, 1996; Chen, 2009; Shaharudin et al., 2010; Aertsens et al., 2011; Goh, 2011; Ruiz de Maya et al., 2011). Consumer interest in organic foods has increased due to the effects of pesticides on health and the environment as well as due to genetically modified organisms (GMOs), and other non-natural substances used to increase agricultural production (Teng and Lu, 2016). Consumers’ have positive attitudes toward organic foods in that they perceive them to be healthier, harmless, and less destructive to the environment than traditionally grown foods (Mondelaers et al., 2009; Daniells, 2014). On the other hand, most consumers do not have reliable information about the characteristics of organic foods and always have suspicions about the ingredients of organic foods, although they are generally considered to be reliable foods. Consumers cannot be sure of the quality of an organic product after purchase or consumption. Thus, it is vital that they trust credence goods. Consumers therefore seek trustworthy clues, such as authorized third-party certifications (for example USDA or TKB) whereas they do not trust other certifying organizations. In short, although demand for organic foods is growing, there is simultaneously doubt about organic foods ingredients and attributes. Therefore, if consumer perceptions about the characteristics of organic foods, such as credibility, can be determined, this will enable consumer attitudes towards organic food to be understood, thereby explaining organic food consumption behaviors.

Previous studies have found that, organic foods are believed to be more nourishing, healthier, and safer, with their. Safety and positive influence on human health being major reasons for purchasing them (Zanoli and Naspetti, 2002; Fotopoulos et al., 2003; Lea and Worsley, 2005; Hughner et al., 2007). Various researchers have evaluated the personal and environmental factors influencing the purchase of organic foods, including human-animal-environment centered values, and health-related variables (Hutchins and Greenhalgh, 1995; Nielsen et al, 1998; Lindeman and Väänänen, 2000; Squires et al., 2001; Harper and Makatouni, 2002; McEachern and Willock, 2004; Lea and Worsley, 2008; Hasselbach and Roosen, 2015; Tung et al., 2015).

Consumers’ organic food buying behavior has been studied by from various theoretical perspectives. Ajzen’s The Theory of Planned Behavior Theory (TPB) was mostly used to determine consumers’ food selection behaviors. (e.g., Chen, 2007; Verdurme and Viaene, 2003; Bredahl, 2001) while the. TPB is useful for explaining a wide range of individual behaviors and intentions (Lee et al., 2014), including consumption of organic products

(Gracia and De Magistris, 2007; Gotschi et al., 2007; Lee et al., 2014; Zagata, 2012). TPB explains a wide range of human behaviors based on behavioral intentions (BI), which is the central stage of the TPB. It is determined by three motivational factors: (1) the attitude of the person to participate in the behavior; (2) the degree of social pressure felt by the person concerned with the behavior (subjective norm); and (3) the degree of individual controllability of the behavior (perceived behavioral control [PBC]) (Lee et al., 2015). This study adopted the, TPB to investigate consumers intentions to purchase organic foods.

## **Literature Review and Research Hypotheses**

### **Organic Food Consumption Motivations**

Motivation is the driving force within individuals that compels them to act. If a consumer is motivated, she or he is ready to act or engage in a goal-oriented activity. Motivation is an inner state of arousal with triggered energy directed to achieving a goal (Schiffman et al., 2010: 88). Motivation therefore precedes behavior and directs it in a specific direction by initiating, guiding, and maintaining goal-oriented behaviors. To understand consumer behavior requires understanding the motives that drive the behavior. As mentioned before, several studies have investigated consumer attitudes towards organic foods and subsequent buying behavior (Roininen et al., 1999; Makatouni, 2002; Zanolli and Naspetti, 2002; Fotopoulos et al., 2003; Lea and Worsley, 2005; Padel, et al., 2005; Vermeir and Verbeke, 2006; Lea and Worsley, 2008); Darsono et al., 2018.

Consumer food choice behavior is a complex process that is influenced by many factors, such as consumer-related issues (mood, personality, lifestyle), food-related issues (sensory characteristics of taste, odor, texture, etc.; price, healthiness), and social-cultural factors (ethical-environmental concern) (Prescott et al., 2002; Eertmans et al., 2005; Wądołowska et al., 2008; Honkanen and Frewer, 2009; Machín et al., 2014).

Asraf Mohd-Any et al., (2014) claim that food choice motives are affected by both external (life source and influencers) and internal (personal system) factors. Internal values include personal value negotiation and habits. Price, sensory delights, convenience, health, and quality are also important factors choosing organic foods, while emotions also influence consumer decisions. External factors, such as social norms, the economic situation, social roles, physical surroundings, and people's previous experiences, influence organic food choices. In sum, many researchers agree that food choices are determined by three main groups of factors. These are;

- Product-related factors (taste, aroma, packaging, convenience, nutrient content, etc.)
- Person-related factors (age, gender, personality, experience, satiety, hunger, etc.),
- Environment-related factors (price, income, traditions, beliefs, norms, fashion, society, etc.) (Wądołowska et al., 2008; Oellingrath et al., 2013).

Regarding the motives that mostly drive consumers to buy organic foods several factors have been identified, such as health, and safety (Fotopoulos et al., 2003; Hughner et al. 2007; Cerjak et al. 2010; Hamzaoui-Essoussi and Zahaf, 2012; Shafie and Rennie, 2012; Truong et al., 2012; Çabuk et al., 2014; Wee et al., 2014; Pham et al., 2018; Lian and Yoong, 2019), naturalness, and appearance (Yiridoe et al. 2005; Winter and Davis, 2006).

Lockie and colleagues (2002) developed a scale to measure consumer motives to buy organic foods, which was used by Steptoe et al. (1995) as the Food Choice Questionnaire (FCQ), which aims to determine the relative importance of different factors on consumers from different populations (Machín et al., 2014:314). Their aim was to develop a comprehensive measure to define green consumer groups. This scale has been widely used to measure organic food consumption behaviors, showing that health, sensory characteristics, naturalness of food, and environmental protection issues are the most important organic food consumption motives (Lockie et al., 2004; Chen, 2007; Honkanen and Frewer, 2009; Żakowska -Biemans and Renko, 2011; Januszevska et al., 2011; Roos et al., 2012; Dowd and Burke, 2013; Schleenbecker and Hamm, 2013; Hasselbach and Roosen, 2015; Lee et al., 2015; Sautron et al., 2015; Wang et al., 2015; Hsu et al., 2016; Teng and Lu, 2016).

Several studies have found that health concern is a primary motivational factor for buying organic food (Lockie et al. 2002; Magnusson et al. 2003; Ureña et al., 2007; de Magistris and Gracia, 2008; Pohjanheimo et al., 2010; Januszevska et al., 2011; Vyth et al., 2012; Dowd and Burke, 2013; Russell et al., 2015; Hilverda et al., 2016; Bryla, 2016).; Asif et al., 2018; Goetzke et al., 2014; Eisinger-Watzl et al., 2015; Hansen et al., 2018). Health motivation indicates the individual's determination to live healthily (Mardon et al., 2015). Health is one of the most significant factors underlying organic food purchasing due to increasing health consciousness, consumer focus on food safety and quality, and avoidance of harmful additives and chemicals (Wier and Calverley, 2002).

Price is another important factor given the expense of organic foods (Żakowska-Biemans and Renko, 2011; Bryla, 2016). Aygen, 2012; Buder et al., 2014; Bryla, 2016; Aschemann-Witzel and Zielke, 2017; Nguyen et al., 2019). Although consumers are willing to purchase environmentally-friendly products, they are unwilling to pay high prices (Chang et al., 2015). Furthermore, these motivational factors are related to high-quality food intake among adult consumers (Roos et al., 2012). In addition to price, low availability and satisfaction, lack of trust, and poor perceived value prevent consumers buying organic food (Davies et al., 1995; Żakowska-Biemans and Renko, 2011; Hilverda et al., 2016; Misra and Singh, 2016). McEachern and Mc Clean (2002) find that taste is another important factor.

Consumer food choices are not just related to food-based issues; rather, many factors affect organic food choice behavior. These include sensory features, individual factors, and environmental, cultural, and social influences. Food choices also reflect personality and

lifestyles. Other important factors are altruistic motives, especially environmental protection and animal welfare. However, the relative importance of these motives may vary depending on consumer segment and culture (Honkanen and Frewer, 2009). For example, weight control, convenience, familiarity, healthiness, and natural content are important factors for European consumers (Wang et al., 2015). Sensory motives are also important factors in Europe, along with price, health, and environmental issues. Ethical and environmental motives are relatively important in organic food buying (Honkanen and Frewer, 2009). In addition, research in Europe and the USA shows that most important food choice motives among adults are taste, health, price, and convenience (Kontinen et al., 2013).

Based on this literature, the present study investigates the following motivating factors: mood, sensory appeal, convenience, natural content, health, price, weight, and familiarity. These factors are studied to test hypothesis

*H1: Organic food motives influence attitudes towards organic foods.*

## **Environmental Concern**

Environmental problems are gradually increasing worldwide, including global warming, ozone layer depletion, water, noise, and light pollution, acid rain, and desertification. Environmental concern, which includes protection of the environment, has been defined as “the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution” (Dunlap and Jones, 2002: 482). Because environmental problems are the result of human activities, consumption, and production patterns, environmental quality depends on human knowledge, attitudes, values, and social practices (Mat Said et al., 2003).

Kinnear et al. (1974), summarize the following characteristics of consumers who are concerned about environmental matters. These environmental consumers;

- Perceive activity towards environmental pollution is excessive,
- Are open to new ideas,
- Investigate how products are produced,
- Satisfy their curiosity,
- Seeking personal security.

Today's consumers are more concerned about the environment. Due to increasing consciousness of environmental concerns, individuals have begun to prefer natural products (Thieme et al., 2015; Bertrandias and Elgaied-Gambier, 2014). This environmental concern is based on emotionally-oriented behavior, and is an important factor for making existing behavior more environmentally friendly (Wang and Myint, 2016).

Environmental concern does not just relate to the attributes of a purchase decision. Rather, it consists of consumer emotions towards many different green issues (Newton et al., 2015). Strong environmental concern makes consumers willing to purchase environmentally-friendly products (Chang et al., 2015; Franzen and Meyer, 2010). It is correlated with beliefs about humanity's ability to disrupt the natural balance, the existence of growth limits for human societies, and doubts about the right of humanity to dominate the rest of nature (Verhoef, 2005: 251). Environmental concern is the proactive intention of individuals to protect the environment (Paladino and Ng, 2013). That is, environmental concern is a socially accepted norm that affects consumer choices (Bertrandias and Elgaaied-Gambier, 2014). Kim and colleagues claim that environmental concern is related both to selfless and altruistic human values as the individual performs these behaviors of protecting the natural environment with little thought for their own benefits. In other words, attitudes toward the environment depend on the self, other people, or the biosphere (Wesley Schultz, 2001; Kim et al., 2012). Choosing organic foods shows a consumer's concern for others and the common welfare (Yadav, 2016). Generally, it refers to a persuasive attribute that represents a person's worries, concerns, likes, and dislikes about the environment (Bhatt and Bhatt, 2015: 48).

As mentioned above, environmental concern is a direct and important determinant of specific behaviors (Verhoef, 2005; Lee et al., 2015). However, Mainieri et al. (1997) argue that consumers do not change their behavior according to their environmental concerns while Bamberg (2003) found that environmental concern has no significant influence on behavioral intentions or behavior. In contrast, Kim and Choi (2005) found that environmental concern does direct affect green purchasing behavior.

Consumers' environmental concern has many consequences, such as deciding to buy certain products and services, as well as the rejection of other products and services (Bertrandias and Elgaaied-Gambier, 2014). Environmental concern is related to environmentally conscious behavior, environmental behaviors, willingness to participate in environmental activities, and paying higher prices for environmental products (Verhoef, 2005; Kim et al., 2012). Specifically, it provides a strong motive for purchasing organic food products (Chen, 2007; Hughner et al. 2007; Smith and Paladino, 2010; Cerjak et al. 2010; Lee et al., 2015; Monier-Dilhan and Bergès, 2016).

As a pro-environmental attitude, environmental concern is one of the most important motives for purchasing organic foods (Magnusson et al., 2003; Fujii, 2006; Mondelaers et al. 2009; Tang et al., 2014). Environmental concern not only increases green purchasing intentions but also makes consumers more satisfied with such purchases (Hopper and Nielsen, 1991; Keesling and Kaynama, 2003). Environmental concern can thus make individuals' behavior more environmentally friendly (Paladino and Ng, 2013). That is, environmentally-friendly behaviors and purchase intentions are correlated (Bertrandias and

Elgaaied-Gambier, 2014). This leads to the second hypothesis of the present study:

*H2: Environmental concern affects attitudes towards organic foods.*

### **Subjective Norm**

Subjective norms, which are also known as social norms, are perceptions about the nature and content of widespread emotions and thoughts (Verhoef, 2005; Wang, 2014). They also represent normative behavioral beliefs and the motivation to adhere to these beliefs (Kaiser, 2006). A subjective norm is defined as “perceived social pressure to perform or not perform the behavior” (Tarkiainen and Sundqvist, 2005; Ruiz de Maya et al., 2011; Wang, 2014; Suh et al., 2015; Lee et al., 2015; Yadav and Pathak, 2016). Thus, it refers to external social pressure (Wang and Myint, 2016), which is perceived as an important factor determining attitudes and behaviors. A subjective norm includes beliefs influenced by reference groups (such as family members or friends) who influence the individual regarding performing or not performing the behavior (Teng and Wang, 2015). Therefore, subjective norms affect both individual intentions and behaviors (Paladino and Ng, 2013). Individuals comply with subjective norms because they want to avoid reactions and pressures from their reference groups (Wang, 2014; Lee et al., 2015). Thus, subjective norms influence attitudes and intention to buy organic food (Chang, 1998; Tarkiainen and Sundqvist, 2005; Numraktrakul et al., 2012; Irianto, 2015; Paul et al., 2016; Chu, 2018). They are therefore an important factor in organic food purchase intentions and environmentally conscious consumption. A subjective norm decreases risk perception of a consumer, which increases their tendency to purchase (Paladino and Ng, 2013). According to Armitage and Conner (2001), there is a connection between subjective norms and intention. More specifically, Chen (2007) claims that, if subjective norms regarding organic products are positive, then intentions to buy them will increase. Relevant subjective norms also increase recycling intentions, and purchases of sustainable and environmentally friendly products (Wang, 2014). This leads to the third hypothesis:

*H3: Subjective norms influence attitudes towards organic foods.*

### **Consumption Emotions**

According to Laros and Steenkamp (2005), emotion is the power that describes consumer behavior. Emotions emerge in line with an individual’s subjective assessments and reflect the inner world of that individual (White, 2010: 382). They therefore provide the basic motivations for evaluating products and product choices (Chaudhuri, 1997). Consumption emotions, specifically, are a set of emotions that are elicited during product usage or consumption experiences (Mattila and Ro, 2008; Han et al., 2010). These emotions are crucial for the shopping experience. The positive and negative emotions experienced before and after the moment of purchase directly influence the consumer’s perception, evaluation,



and behavior (Chaudhuri, 1997; Argan et al., 2014). In other words, consumption emotions are responses to the consumption of products that affect the next consumption experience (Richins, 1997; Phillips and Baumgartner, 2002). There is rising interest in assessing emotions to understand consumer behavior better, with measurement of emotional response to food and beverages being seen as a valuable source of information for marketing strategists. Emotional data provide valuable information about products, such as to reveal previously unidentified aspects of sensory profiles and product attributes (Kenney and Adhikari, 2016).

Emotions affect human eating behavior in terms of food choices, quantity, and frequency of meals. These behaviors depend on many different variables, not just physiological needs. Generally, individual eating behavior is affected by changes in emotional state. Consumers have many options to buy or eat food, with price, health, convenience, and taste being prominent variables. In addition, affect-focused and environmental motives play significant roles (Verhoef, 2005; Onwezen, 2015). Various emotions, like anger, fear, sadness, and joy, influence food choices and eating. Emotional stress has an especially strong effect on food consumption. These different emotions may increase or decrease eating due to mood changes (Gibson, 2006; Macht, 2008; Köster and Mojet, 2015).

There are many emotional distinctions, of which the most common is between negative and positive emotions (Verhoef, 2005; Onwezen, 2015). According to Lyman (1982), healthy foods are consumed in association with positive emotions whereas junk food is consumed with negative emotions. Patel and Schlundt (2001) also found that positive and negative emotions influence the meals that are eaten, with positive emotions having a stronger impact on food consumption than negative emotions. Macht (1999) report that anger increases impulsive eating whereas joy increases hedonic eating habits. Both these emotions influence eating more strongly than sadness and fear. Studies on consumption emotions show that negative emotions increase impulsive eating and junk food while decreasing food pleasantness. Conversely, positive emotions make consumers perceive organic food as more appealing and become more eager to consume healthy foods (Macht, 2008; Köster and Mojet, 2015). These findings lead to the following three hypotheses.

*H4a: Consumption emotions influence attitudes towards organic foods.*

*H4b: Positive emotions influence attitudes towards organic foods.*

*H4c: Negative emotions influence attitudes towards organic foods.*

### **Self-monitoring**

The concept of self-monitoring was introduced by Snyder (1974), who defined it as “the degree to which individuals observe the situations and behaviors in their surroundings and



controls their behaviors accordingly” (Graeff, 1996; Aaker, 1999; O’Cass and McEwen, 2004). According to O’Cass, it “reflects the degree to which an individual monitors, and controls self-presentation in accord with social cues” (2001:47), which helps the individual make useful social comparisons. There are two types of self-monitoring: high and low (Kjeldal, 2003: 354). High self-monitoring is expressed as social pattern adaptation. Such people monitor social cues very carefully and avoid exhibiting other behaviors, controlling their self-presentation according to the people. They therefore exhibit both social and interpersonal responsive behaviors, as well trying to be the “right person in the right place at the right time.” Conversely, low self-monitoring people do not control their self-presentation. They believe that their behavior reflects themselves, their attitudes, their qualities, and their emotions (Graeff, 1996; Harnish and Bridges, 2006). They therefore behave without being influenced by their environment, and do not want to change themselves according to social cues and patterns of behavior. Instead, they do what they want. That is, they do not pay attention to social norms and the social self (Hogg et al., 2000; O’Cass, 2001; O’Cass and McEwen, 2004). While high-level self-monitoring individuals prefer to buy prestigious and famous products, low self-monitoring individuals prefer products with more functional qualities, and tend to believe that generic brands are at least as good as other brands (Browne and Kaldenberg, 1997).

Based on the literature, we aimed to investigate self-monitoring influences on organic food choices to identify the relevant motivational and psychographic variables to understand organic food consumption better. Self-monitoring behaviors include dietary intake, physical activities, weight control, and the individual’s conscious behavior (Helsel et al., 2007; Burke et al., 2011). This leads to the following research hypothesis

*H5: Self-monitoring influences attitudes toward organic foods.*

### **Attitudes and Purchasing Intentions**

Attitudes and behaviors play a major role in determining consumer behaviors. An attitude is a psychological structure formed by consciousness, values, and emotions (Al-Swidi et al., 2014). Attitudes determine the consumer’s final decision at the point of purchase. If an attitude towards the behavior of consuming organic products is affirmative, then the individual’s intention to buy will increase. Therefore, a consumer’s purchasing behaviors regarding organic products can be accurately estimated from their attitudes (Lee and Goudeau, 2014). Generally, consumers have a positive attitude toward sustainable products and their consumption. Environmental-focused consumer groups care about ecological packaging, product origin, and buying ecological organic foods because they think such products’ taste, quality, safety, and freshness are more beneficial to human health (Vermeir and Verbeke, 2006).

Research on attitudes towards organic products shows that the most important factors explaining consumer decision-making are attitudes towards organic food characteristics and the environment. Thus, if consumers have a positive attitude towards eco-friendly issues, they also have a positive attitude towards purchasing organic products. Consumer motivations provide other important factors for buying organic products. Several studies have found that environmentally friendly attitudes lead to green behaviors and ecological consumption (Paladino and Ng, 2013).

Many studies on attitudes and the consumption of organic products show that health (McEachern and Willock, 2004; Padel, et al., 2005; Chen, 2007; Kulikovski and Agolli, 2010; Denver and Christensen, 2015; Tung et al., 2015; Hsu et al., 2016; Aschemann-Witzel et al., 2013; Mie et al., 2017; Oroian et al., 2017; Petljak et al., 2017; Singh and Verma, 2017), animal welfare (Lindeman and Väänänen, 2000; de Boer et al., 2007; Lu et al., 2010; Hasselbach and Roosen, 2015; Escobar- López et al., 2017) environmental consciousness and attitudes (Thøgersen and Zhou, 2012; Irianto, 2015; Nedra et al., 2015; Lee, 2016 ), taste (Millock et al., 2004; Aertsens et al., 2009; Suh, et al., 2012; Lee and Goudeau, 2014), environmental concern (Salleh et al., 2010; Anburaj, 2015; Fernandes et al., 2012; Lee et al., 2015; Nedra et al., 2015; Petrescu and Petrescu-Mag, 2015; Uma and Selvam, 2017; Sharma and Singhvi, 2018), and ecological motives and attitudes towards organic food (Honkanen et al., 2006) affect attitudes and intention of purchasing organic products (Van Loo et al., 2010; Basha et al., 2015; Teng and Wang, 2015; Lee and Yun, 2015; Yazdanpanah and Forouzani, 2015; Zhu, 2018; Žibret et al., 2018; Hsu et al., 2019; Wang et al., 2019). There is a positive relationship between organic product consumption or purchasing and attitudes in that positive attitudes are related to organic product purchases. In addition, level of interest in the environment is one of the most important factors determining attitude and intention to purchase (Aertsens et al., 2009). This leads to the following hypothesis.

*H6: Attitudes towards organic foods have an effect on affect organic food purchase intentions.*

## **Uncertainty**

Uncertainty is defined as the lack of information, low knowledge, and lack of trust in the organic certification process (Aertsens et al., 2009). Uncertainty is the absence of information (Daft and Lengel, 1986).

Uncertainty is a condition where current information deviates from the ideal knowledge of the consumer (Shiu et al., 2011). Gunasti and Ross, (2009) claim that lack of knowledge increases uncertainty. Consumers feel uncertainty in several situations, specifically lack of technical expertise, inability to control the basic requirements for distinguishing organic

foods and the absence of chemical components in organic food production compared to traditional products (Teng and Lu, 2016). Shiu and colleagues identified several uncertainty effects on behavior: “the amount, content, and sequence of information input are expected to impact on the formation, development, and change of such higher-order processes as beliefs, attitudes, evaluations, images, impressions, and intention” (Shiu et al., 2011).

Uncertainty about the natural environment refers to changes in environmental components, when an individual has no knowledge of the various states of nature (Lipshitz and Strauss, 1997; Koufteros et al., 2005).

The uncertainty level of the consumer has an essential impact on organic product consumption. Uncertainty about the organic products can change the purchase decision of the consumer whereas the consumer has willingness to buy organic food (Teng and Lu, 2016). This leads to the following hypothesis.

*H7: Uncertainty moderates the relationship between organic food attitudes and purchase intentions.*

### **Price of organic foods**

Price is a value that will purchase a finite quantity, weight, or another measure of a good or service (Businessdictionary). It plays an important and complex role in consumer evaluation of a product, as well being perceived as a sign of quality by consumers (Marian et al., 2014: 53; Liang, 2016). Price is always accepted as an indicator of product quality and value, and is defined as “what is given up or sacrificed to obtain a product” (Zeithaml, 1988: 10).

Organic food studies have focused on the price of organic foods because of their higher prices, particularly consumers’ willingness to pay for organic foods (de Magistris and Gracia, 2008). If consumers have a high awareness of environmental protection and organic food, they willingly accept higher prices (Liang, 2016). Organic products are generally more exclusive than conventional foods for several reasons. First, their supply is less than demand. Second, the greater labor inputs per unit of output make production costs higher. Third, comparatively small quantities of organic foods increase the costs of post-harvest handling. Relatively small volumes of organic foods increase costs while the marketing and distribution chains for organic products are less efficient than those for traditional foods (<http://www.fao.org/organicag/oa-faq/oa-faq5/en/>).

The other important issue is that organic foods are generally considered within the good credence category. That is, consumers cannot be sure about organic production; i.e. which attributes differentiate organic foods from conventional foods (Moser et al., 2011; Janssen and Hamm, 2012). In addition to this suspicion, the high price of organic foods increases

negative attitudes towards buying intentions (Lea and Worsley, 2005). The higher price of organic foods and the uncertainty about the product has been a major barrier for consumers (Davies et al., 1995; Fotopoulos and Krystallis, 2002; Chinnici et al., 2002; O'Donovan and McCarthy, 2002; Zanolli and Naspetti, 2002; Hughner et al., 2007, Hoek et al., 2017).; Xie et al., 2015). However, some studies have found that price has less effect once consumers start to buy organic food. If their experiences increase organic food buying behavior, then organic food buying will become a lifestyle (Krystallis and Chryssohoidis, 2005; Marian et al., 2014). Consumers are also willing to pay a higher price premium if the product has a label from a trustworthy organization (like the USDA organic logo) (Mondelaers et al., 2009; Van Loo et al., 2011; Janssen and Hamm; 2012). Some authors have clustered organic food markets to identify different subgroups of organic consumers according to their willingness to pay the price premium or see the price as a deterrent (Williams and Hammitt, 2000; Cicia et al., 2002; Tarkiainen and Sundqvist, 2005; de Magistris and Gracia, 2008; Gifford and Bernard, 2011; Thøgersen and Zhou, 2012). This leads to the following hypothesis:

*H8: Organic food price levels mediate the relationship between organic food attitudes and organic food purchase intentions.*

## **Methodology**

### **Research Model**

This study investigated the effects of several personal and social factors on purchasing intentions regarding organic foods. According to the literature, organic food consumption has different attributes. To determine factors affecting organic food buying behaviors and the variables underlying this relationship, uncertainty about organic food attributes as moderator and organic food prices levels are were included as a mediator variables, respectively. The research model developed based on this research aim is shown in Figure 1.

### **Data collection**

The data was gathered via a web-based survey using convenience sampling from members of ETO (Ecological Agriculture Organization) and Orguder (Organic Product Producers and Industrialists Association), which are both members of IFOAM (International Federation of Organic Agriculture Movements). IFOAM is a worldwide umbrella organization for the organic agriculture movement. The survey was sent to these organizations, who forwarded it their members. Of 285 questionnaires returned, 264 had complete data for further analysis.

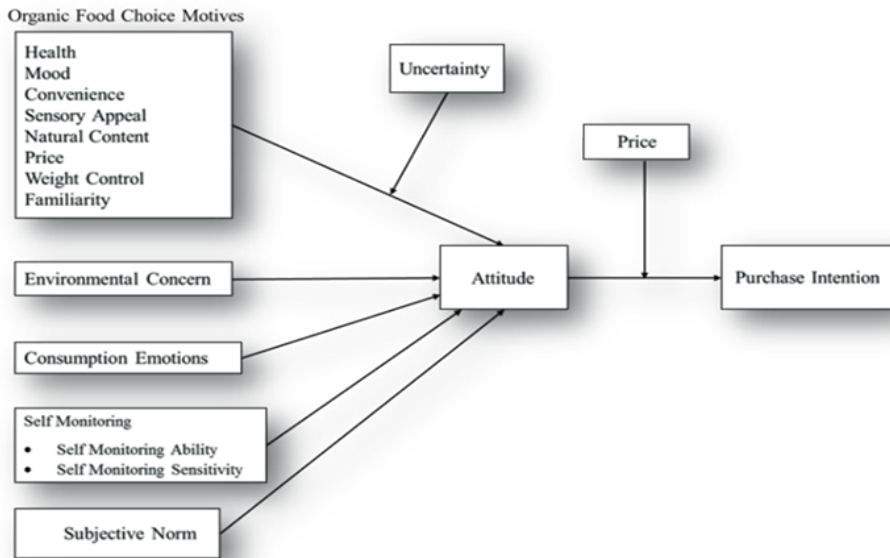


Figure 1. Research Model

## Measurements

We divided the input variables that affect consumers' organic food buying intentions (independent variables) into two groups: personal and social factors. The personal factors were motives related to organic food choice behavior, environmental concern, consumption emotions, and feelings of uncertainty. The social factors were self-monitoring and subjective norms. Purchasing intention was the output variable. While most consumers have a positive attitude towards organic foods, they generally cost more than conventional foods, which may suppress purchase intentions. It was therefore assumed that organic food price levels mediate between attitudes and buying intentions. Another important point is that most consumers lack reliable information about the quality of organic foods, so they are always suspicious about the ingredients. Thus, despite their positive attitudes towards organic foods, the uncertainty about organic food attributes may weaken their purchase intentions (Teng and Lu, 2016). Accordingly, it was assumed that uncertainty about organic foods plays a moderator role in buying intentions.

The organic food choice motives scale was based on the original FCQ (Steptoe et al., 1995), although not all the original FCM items were included in this study. Specifically, whereas the FCQ assesses nine food choice motives (health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, and ethical concern), the present study omitted ethical concern (Schleenbecker and Hamm, 2013).

The environmental concern and subjective norm scales was adapted from Yadav and Pathak (2016), while the Laros and Steenkamp (2005) consumptions emotions scale was used to measure the consumers' emotions towards organic foods. The purchase intention and uncertainty scales were adapted from Teng and Lu (2016) while the self-monitoring scale was adapted from O'Cass (2000). The attitudes towards organic foods scale was adapted from Chen, M. (2009). This scale has 9 items forming two subscales, of which 6 are affirmative items, such as "Organic products are healthier", whereas 3 are negative, such as "Organic products are worse than conventional food".

Most constructs were measured using a five-point Likert scale, with "1" indicating "strongly disagree" and "5" indicating "strongly agree". However, the consumption emotions scale was measured on a seven-point interval scale, with "1" indicating "strongly do not feel" and "7" indicating "strongly feel". Organic food price levels were measured by the following question: "How much do you think you will pay when buying organic food products?" Respondents were asked to choose one of the following price percentages (compared to traditional food products): 10% more, 20% more, or 30% more).

SPSS 20.0 and Smart PLS3 statistical programs were employed to analyze the data through descriptive statistics and SEM (Structural Equation Modelling). Because the sample size was small and non-normally distributed, Smart PLS3 was used to test the hypotheses. The Kolmogorov-Smirnov normality test results are presented in Appendix A.

## Findings

### Demographic and Organic Food Consumption Behaviours

The majority of respondents are female, married, 26-33 years of age, have university-level education. 52, 2 % of the participants buy organic foods on occasion, 28, 8 % of buy always, and 13, 7% of buy seldom. Participants are asked in which food category they prefer and buy organic foods; the results are in Table 1.

Table 1.  
*Organic food/foods categories bought by participants*

Food categories	Frequency	Percent
Vegetable-fruit	119	52,4
Meat and meat products	45	19,8
Milk and milk products	43	18,9
Dry legume	59	26,0
Bakery	52	22,9
Dried fruits and nuts	46	20,3
Hot and cold beverages	40	17,6

Table 2.  
*Organic Food Price Rate*

Organic Food Price Rates	Frequency	Percent
Same as regular foods	41	18,1
%10 more	75	33,2
%20 more	57	25,2
%30 more	19	8,4
%40 more	16	7,1
%50 and over	16	7,1

The consistently higher prices of organic foods was an obstacle for these consumers. Table 2 summarizes how much more consumers were willing to pay for organic foods.

The table 2 shows that over half of respondents were willing to pay between and 10 and 20% more.

## Hypotheses Testing

Before testing the research model, an exploratory factor analysis was conducted to explore the appropriateness of the construct of FCMs for this Turkish sample. Principal component analysis (PCA) with varimax rotation was used.

Table 3.  
*FCMs factor analysis*

Variables	Factor Loadings	% of Variance	Eigenvalue	Cronbach Alpha
<b>Factor1: Health</b>		12,476	3,743	,881
1.Organic food contains a lot of vitamins and minerals.	,821			
2.Organic food keeps me healthy.	,798			
3.Organic food is nutritious.	,647			
4.Organic food is high in protein.	,606			
5.Organic food is good for my skin/teeth/hair/ nails etc.	,520			
21. Organic food tastes good.	,504			
22. Organic food contains no additives.	,530			
<b>Factor2: Weight control</b>		11,956	3,587	,852
27. Organic food is good value for money.	,658			
28. Organic food is low in calories.	,745			
29.Organic food helps me control my weight.	,780			
30. Organic food is low in fat.	,716			
31. Organic food is what I usually eat.	,734			
32. Organic food is familiar	,684			



Variables	Factor Loadings	% of Variance	Eigenvalue	Cronbach Alpha
<b>Factor3: Easiness</b>		10,045	3,013	,761
6. Organic food is high in fiber and roughage.	,646			
7. Organic food helps me cope with stress.	,800			
15. Organic food takes no time to prepare.	,678			
<b>Factor4: Sensory Appeal</b>		9,683	2,905	,823
18. Organic food smells nice.	,676			
19. Organic food looks nice.	,799			
20. Organic food has a pleasant texture.	,712			
<b>Factor5: Mood</b>		9,013	2,704	,824
11. Organic food cheers me up.	,581			
12. Organic food makes me feel good.	,755			
13. Organic food is easy to prepare.	,858			
14. Organic food can be cooked very simply.	,810			
<b>Factor6: Relaxing</b>		7,832	2,350	,800
8. Organic food helps me to cope with life.	,743			
9. Organic food helps me relax.	,649			
10. Organic food keeps me awake/alert.	,644			
<b>Factor7: Convenience and price</b>		7,748	2,324	,706
16. Organic can be bought in shops close to where I live or work.	,611			
17. Organic food is easily available in shops and supermarkets.	,751			
25. Organic food is not expensive.	,696			
26. Organic food is cheap.	,757			

In this study, the FCM items formed 7 factors with 30 items (after deleting 3 items) whereas the initial scale had 8 factors. The familiarity dimension was excluded, with its items falling under other factors. Total variance explained was 68.601% while the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.856, and Bartlett's Test of Sphericity was statistically significant (3860.632: df: 435, sig: 000).

In the second step, the research model was tested. The path model is shown in Figure 2.

Table 4

*R Square and model fit summery*

	R Square	Adjusted R Square
Positive Attitude	0,424	0,413
Purchase Intentions	0,413	0,407
negative attitude	0,259	0,245
	<b>Saturated Model</b>	<b>Estimated Model</b>
SRMR	0,098	0,104
d_ULS	4,476	5,057
d_G	1,198	1,225
Chi-Square	1.455,655	1.476,075
NFI	0,611	0,606

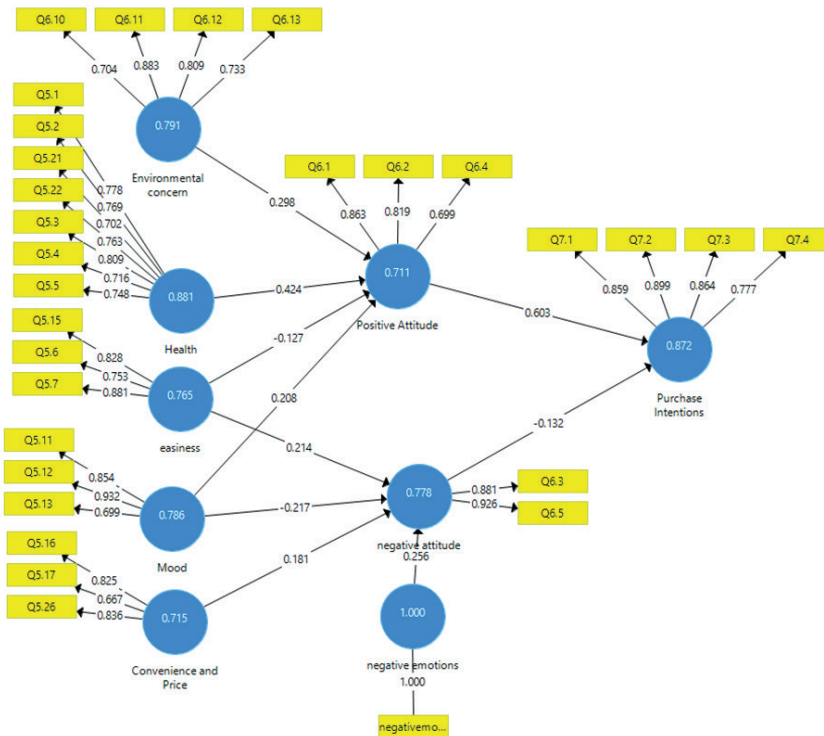


Figure 2. Research Model

The figure shows that four motives, along with health and mood, had positive effects on positive attitudes towards organic foods whereas easiness had a negative effect. That is, organic food buyers thought that organic foods are healthy and help their mood, i.e. feeling better, although it is not easy to prepare them. Easiness and convenience-price had positive effects on negative attitudes towards organic foods. That is, consumers with negative attitudes towards organic foods (because they believe they are fake and worse than conventional foods) also believe that their prices are unreasonable and that they cannot be purchased or prepared easily. Mood has a negative effect on negative attitudes towards organic foods in that consumers with negative attitudes towards organic foods believe that these foods do not help them feel better.

Thus, H1 (Organic food motives influence attitudes towards organic foods) was confirmed.

According to Figure 2, environmental concern affects positive attitudes toward organic foods. Therefore, H2 was confirmed. Likewise, negative emotions influenced negative attitudes towards organic foods. Therefore, H4a (Negative emotions have an influence on attitudes towards organic foods) was confirmed. On the other hand, self-monitoring,

Table 5.

*Path Coefficient and T Values*

	<b>Original Sample (O)</b>	<b>T Statistics</b>	<b>P Values</b>
Convenience and Price -> Negative Attitude	0,181	3,086	0,002
Environmental concern -> Positive Attitude	0,298	4,634	0,000
Health -> Positive Attitude	0,424	6,848	0,000
Mood -> Positive Attitude	0,208	3,364	0,001
Mood -> negative attitude	-0,217	3,773	0,000
Positive Attitude -> Purchase Intentions	0,603	11,252	0,000
easiness -> Positive Attitude	-0,127	2,017	0,044
easiness -> negative attitude	0,214	3,767	0,000
negative attitude -> Purchase Intentions	-0,132	2,540	0,011
negative emotions -> negative attitude	0,256	4,640	0,000

subjective norms and positive consumption emotions had no effects on attitudes towards organic foods. Thus H3, H4a, and H5 were rejected. Model fit values, R squared, coefficients, t values and Construct Reliability and Validity are shown in tables 4, 5, and 6 respectively

All factors in the research model were reliable and valid. The  $Q^2$  value (Stone-Geisser's  $Q^2$  value), used as a criterion of predictive accuracy, examines the predictive relevance of latent variables in the PLS path model, obtained using the blindfolding procedure (Stone, 1974; Geisser, 1974). A  $Q^2$  value larger than zero for a specific endogenous latent variable indicates the PLS path model has predictive relevance for this construct (Hair et al. 2017). As Table 6 shows, all endogenous variables had predictive relevance in the model.

As discussed earlier, even if consumers are willing to buy organic food, their uncertainty about the products affects organic product consumption. Organic food ingredients or production conditions are mostly confusing for consumers, so they hesitate to choose organic food and even give up their buying decisions. Thus, it was assumed that because uncertainty

Table 6

*Research Model Construct Reliability, Validity, and Q2*

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	$Q^2$ (=1-SSE/ SSO)
Convenience and Price	0,715	0,729	0,822	0,609	
Environmental Concern	0,791	0,819	0,865	0,617	
Health	0,881	0,890	0,903	0,571	
Mood	0,786	0,894	0,871	0,695	
Positive Attitude	0,711	0,736	0,838	0,635	0,247
Purchase Intentions	0,872	0,875	0,913	0,724	0,279
Easiness	0,765	0,797	0,862	0,676	
Negative attitude	0,778	0,805	0,899	0,816	0,192
Negative emotions	1,000	1,000	1,000	1,000	

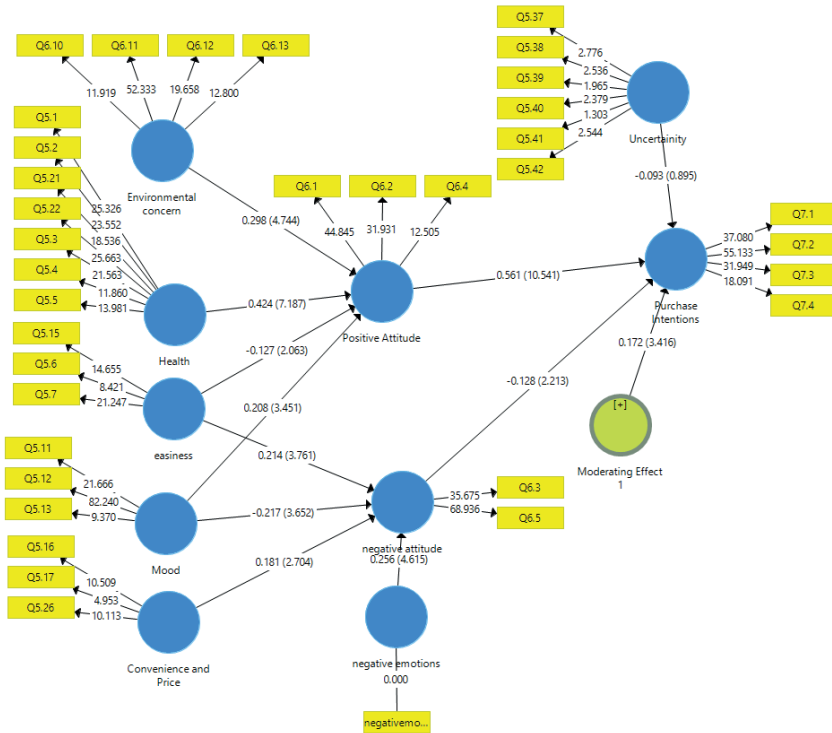


Figure 3. Moderating Effect of the Uncertainty

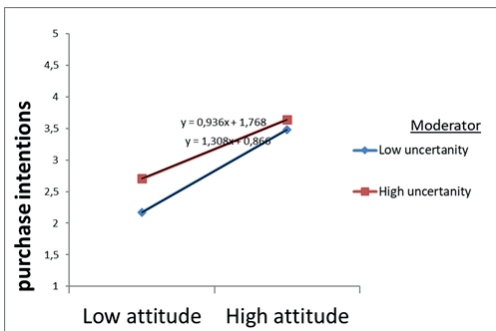


Figure 4. Moderating effect of Uncertainty

about organic foods makes attitudes towards organic foods less positive, it has a moderating effect on organic food motives. Figure 3 shows this moderating effect of uncertainty, including the path coefficients and t values.

Figure 3 shows that uncertainty did indeed have a moderating effect on the relationship between positive attitude towards organic foods and purchasing intention. Uncertainty

Table 7.

*Mediating Effect of Price*

Mediator effect	Coefficients	T value	p-value
Price - Attitude	-0,036	0,513	,608
Purchase Intentions - Price	0,009	0,189	,850

dampened the positive relationship between attitude and purchase intention, as seen in Figure 4. However, it had no moderating effect on the relationship between negative attitude and purchase intention.

Thus, H7 (Uncertainty moderates the relationship between food choice motives and organic food attitude) was confirmed.

To test the mediating effect of price, the method proposed by Baron and Kenny (1986) was used. According to this method, three conditions should be met. First, the independent variable must affect the mediator variable. Second, there must be a significant relationship between the dependent variable and mediator variable. Third, the effect of the independent variable on the dependent variable must be less in the third equation than in the second. In other words, when the independent variable and the mediator variable are included in the analysis together, the effect of the independent variable on the dependent variable must be reduced or zero (Preacher and Andrew, 2004). In this study, there was no mediating effect of price on attitude and organic food purchase intention tested. The findings are shown in Table 7.

## Discussion and Conclusions

This study examined the effect of organic food choice motives, and personal and social factors on purchasing intentions regarding organic food consumption. It also tested the moderating role of uncertainty and the mediating role of the price of the organic foods. The findings showed that consumers buy organic foods because they believe they are healthy, easy to prepare, easy to get, are reasonably priced, and help improve their mood. Thus, consumers think that organic food is beneficial for both their body and mind. Organic foods are easy to find and prepare while the price has no effect on the decision to choose organic foods. These findings support previous studies claiming that the price becomes less important once consumers start to buy organic food as their experience increases and organic food buying become a lifestyle (Krystallis and Chrysosoidis, 2005; Marian et al., 2014).

This study tested the role of subjective norms, environmental concern, consumption emotions, and self-monitoring. Subjective norms, self-monitoring, and positive emotions have no effect on holding an attitude towards organic foods, suggesting that social groups have no impact on consumer decisions regarding organic food consumption. That is, organic food consumption is not related to group-oriented decision-making processes and unrelated to conspicuous consumption. Instead, consumers want to buy organic food products to

satisfy their psychological and physical needs. In short, organic food oriented consumption is related to self-enhancement decisions rather than reference group-centered.

Another finding is that environmental concern and organic food buying are positively related. That is, consumers who are aware about and interested in environmental issues choose the organic foods more. Considering environmental concern from a wide perspective, Yadav (2016) argues that environmental concern is connected to altruistic human values. Individuals perform these behaviors of protecting the natural environment with little thought of benefits for themselves. Thus, choosing organic food products shows concern for others and the common welfare. This assumption is supported by our findings.

Regarding consumption emotions, negative emotions are associated with negative attitudes towards organic foods. Consumption emotions are an indicator of organic foods consumption (Richins, 1997; Phillips and Baumgartner, 2002). The findings in the present study confirm that uncertainty has a moderating effect. Specifically, if consumers believe that organic foods are fraudulent or worse than conventional foods then they have negative feelings like anger, fear and sadness about these products.

According to the literature, consumers do not have enough knowledge about organic food ingredients or farming conditions, which is the main reason why they lack confidence in organic food consumption. Our study showed that uncertainty also has a moderator effect on the relationship between a positive attitude towards organic foods and purchase intentions. That is, if the consumer has some doubts about organic food ingredients or lacks information about them then their purchase intention decreases despite their positive attitudes towards organic foods.

The main contribution of this study is that several authors have claimed that consumers' food choices are related to many factors – not just food-based issues. Social factors or ethical properties, such as environmental protection, affect organic food choosing behavior (Chen, 2007; Schleenbecker and Hamm, 2013; Lee et al., 2015). This claim is confirmed by the findings of this study, which showed that consumers choose organic foods according to both food-based issues and personal factors. This indicates that organic food consumption should be evaluated from a wider perspective as purchase intentions are both food-related (health, natural content, convenience, familiarity) and personal (mood, health, convenience, and consumption emotions). The following section discusses some implications for both academicians and business.

## **Implications**

While a healthy life has always been important for human beings, consumer tendencies are currently becoming more health consciousness so that consumers now want to more natural foods. At the very least, they do not want to eat foods that include growth hormones,

antibiotics or pesticides. Yet, the matter is not just about consuming more natural and healthier but also increasing the quality of life through eating natural healthy foods. We therefore have several recommendations for companies to emphasize organic consumption. The motives driving the consumer towards organic food consumption are health consciousness and supporting an inner world with natural foods. Moreover, they want buying and preparing organic foods to be easy. Thus, companies who want to reach organic food consumers should emphasize both health issues and mood issues. Consumers feel good when they consume organic foods because they believe that feeding the body naturally also feeds the soul. Messages that point out how organic foods can produce good feelings, physically and mentally, can attract consumers.

Consumers' organic food buying behavior does not relate just to food-based issues. It is the same as other buying behaviors. In that, in their decision-making process, consumers reflect all attributes of being a consumer. Thus, companies should evaluate this process in terms of all relevant factors, including social, personal or situational ones. As this study demonstrated, emotions influence consumers when they are deciding to buy organic foods. That is, consumers are not just following utilitarian expectations. Rather, they are also expecting hedonic value from their organic food consumption decisions. Consequently, developing marketing strategies and communicating with consumers as just rational problem solvers is incorrect. According to these findings, consumers decide with their emotions, and are also affected by their social group. If other people in their social environment buy organic food consistently, this behavior will spread to them through modeling. Thus, it would be advantageous for companies to spread a positive attitude towards organic foods behavior through the help of social and reference groups.

While the price of organic foods is always important for consumers, their high cost is already well known. As a result, conscious organic food consumers pay attention to other issues than price, such as environmental protection and sustainable agriculture. Nevertheless, they also do not want to pay extreme prices so a premium of 10-20% may be affordable. The sensory appeal of organic foods is important for the consumer too. They want natural, hormone or pesticide-free foods, but at the same time the taste, smell and look of organic foods are also critical for consumers. Companies should therefore be aware of the importance of the consumers' sensory perceptions.

Convenience is another motivating factor for consumers. If they can buy and prepare organic foods easily then they consume more. Consequently, although intensive distribution is the costliest distribution strategy, selective or intensive distribution may be preferable given the demand for organic foods in the market and of the durability of organic food. Consumers can also lack knowledge about how to prepare or cook organic foods so information on the packages, programs or ads could support consumers.



## **Limitations**

The major limitations of this study are that it did not focus on any specific product category and had a relatively small sample size. The aim was to test which motives drive the consumer to buy organic foods, and the effect of social and personal factors on buying decisions. The reason for the small sample size is that the study was conducted with just organic food consumers. This means that the results cannot be applied to specific product categories or generalized to all organic food consumers.

## **Future Research**

The aim of this study was to investigate the effects of social, personal and food-related factors on organic food buying behavior, given that consumers' buying decisions are affected by many different factors. Although organic food consumption is regarded as a health-related or environment-focused decision, like other buying decisions, hedonic and utilitarian benefits, and several social-personal factors may play a role. Thus, future research should also investigate the effects of consumer personality, lifestyle and social-cultural factors.

This study focused on organic food buyers so future studies can also investigate the attitudes and decision making of consumers who do not buy organic foods in order to understand the underlying reasons why.

The all kind of organic foods indicated in this study regardless their category like vegetable, meat, milk etc.. Finally, regarding consumer motives and attitudes for different organic food categories, future research can consider one specific category of organic foods and perhaps compare this to other organic food categories in terms of motives or buying intentions.

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## Appendix A

### Kolmogorov-Simirnov Test

Variables	Test statistics	P
Health	1.525	.019
Mood	1,038	.231
Convenience	1,166	.132
Sensory Appeal	1,168	.131
Natural Context	2.222	.000
Weight control	2.163	.000
Familiarity	1.419	.036
Subjective norms	2.025	.001
Uncertainty	1.130	.156
Attitude	1.1969	.001
Environmental Concern	2.129	.000
Purchase intention	2.392	.000
Self-Monitoring	0.963	.312

### References

- Aaker, J.L. (1999). The Malleable Self: The Role of Self-Expression in Persuasion. *Journal of Marketing Research*, 36(1), 45-57.
- Aertsens, J. van Huylenbroeck, G., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal Determinants of Organic Food Consumption: A Review. *British Food Journal*, 111(10), 1140-1167.
- Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J., & Van Huylenbroeck, G. (2011). The Influence of Subjective and Objective Knowledge on Attitude, Motivations and Consumption of Organic Food. *British Food Journal*, 113(11), 1353-1378.
- Al-Swidi, A., Mohammed Rafiul Huque, S., Haroon Hafeez, M., & Noor Mohd Shariff, M. (2014). The Role of Subjective Norms in Theory of Planned Behavior in the Context of Organic Food Consumption. *British Food Journal*, 116(10), 1561-1580.
- Anburaj, R. (2015). Detoxification of Hexavalent Chromium. *Journal of Chemical and Pharmaceutical Research*, 7(5), 805-810.
- Argan, M.T., Argan, M., & Akyıldız, M. (2014). Dimensions of Consumption Emotions: Turkish Consumers' Experiences. *Journal of Marketing and Management*, 5(1), 136-145.
- Armitage, C.J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A Meta- Analytic Review. *British Journal of Social Psychology*, 40, 471-499.
- Aschemann-Witzel, J., Maroscheck, N., & Hamm, U. (2013). Are Organic Consumers Preferring or Avoiding Foods with Nutrition and Health Claims? *Food Quality and Preference*, 30(1), 68-76.
- Aschemann-Witzel, J., & Zielke, S. (2017). Can't Buy Me Green? A Review of Consumer Perceptions of and Behavior toward The Price of Organic Food. *Journal of Consumer Affairs*, 51(1), 211-251.
- Asif, M., Xuhui, W., Nasiri, A., & Ayyub, S. (2018). Determinant Factors Influencing Organic Food Purchase Intention and the Moderating Role of Awareness: A Comparative Analysis. *Food Quality and Preference*, 63, 144-150.

- Asraf Mohd-Any, A., Shahnaz Mahdzan, N., & Siang Cher, C. (2014). Food Choice Motives of Different Ethnicities and the Foodies Segment in Kuala Lumpur. *British Food Journal*, 116(12), 1879-1896.
- Aygen, F. G. (2012). Attitudes and Behavior of Turkish Consumers with Respect to Organic Foods. *International Journal of Business and Social Science*, 3(18), 262-273.
- Bamberg, S. (2003). How Does Environmental Concern Influence Specific Environmentally Related Behaviors? A New Answer to an Old Question. *Journal of Environmental Psychology*, 23(1), 21-32.
- Basha, M. B., Mason, C., Shamsudin, M. F., Hussain, H. I., & Salem, M. A. (2015). Consumers Attitude towards Organic Food. *Procedia Economics and Finance*, 31, 444- 452.
- Bertrandias, L., & Elgaaied-Gambier, L. (2014). Others' Environmental Concern as a Social Determinant of Green Buying. *Journal of Consumer Marketing*, 31(6/7), 417-429.
- Bhatt, R., & Bhatt, K. (2015). Analyzing Psychographic Factors Affecting Green Purchase Intention. *Journal of Contemporary Research in Management*, 10(1), 45-55.
- Buder, F., Feldmann, C., & Hamm, U. (2014). Why Regular Buyers of Organic Food Still Buy Many Conventional Products: Product-Specific Purchase Barriers for Organic Food Consumers. *British Food Journal*, 116(3), 390-404.
- Burke, L. E., Wang, J., & Sevick, M. A. (2011). Self-Monitoring in Weight Loss: A Systematic Review of the Literature. *J Am Diet Assoc*, 111(1), 92-102.
- Businessdictionary. <http://www.businessdictionary.com/> Accessed 21 October 2016.
- Bredahl, L. (2001). Determinants of Consumer Attitudes and Purchase Intentions with Regard to Genetically Modified Foods Results of a Cross-National Survey. *Journal of Consumer Policy*, 24, 23-61.
- Browne, B.A., & Kaldenberg, D.O. (1997). Conceptualizing Self-Monitoring: Links to Materialism and Product Involvement. *Journal of Consumer Marketing*, 14(1), 31-44.
- Bryla, P. (2016). Organic Food Consumption in Poland: Motives and Barriers. *Appetite*, 105,737-746.
- Cerjak, M., Mesić, Ž., Kopic, M., Kovačić, D., & Markovina, J. (2010). What Motivates Consumers to Buy Organic Food: Comparison of Croatia, Bosnia Herzegovina, and Slovenia. *Journal of Food Products Marketing*, 16(3), 278-292.
- Chang, M.K. (1998). Predicting Unethical Behavior: A Comparison of the Theory of Reasoned Action of the Theory of Planned Behavior. *Journal of Business Ethics*, 17, 1825-1834.
- Chang, H. Zhangb, L., & Xie, G.X. (2015). Message Framing in Green Advertising: The Effect of Construal Level and Consumer Environmental Concern. *International Journal of Advertising*, 34(1), 158-176.
- Chaudhuri, A. (1997). Consumption Emotion and Perceived Risk: A Macro-Analytic Approach. *Journal of Business Research*, 39, 81-92.
- Chen, M.F. (2007). Consumer Attitudes and Purchase Intentions in Relation to Organic Foods in Taiwan: Moderating Effects of Food-Related Personality Traits. *Food Quality and Preference*, 18, 1008-1021.
- Chen, M. F. (2009). Attitude toward Organic Foods Among Taiwanese as Related to Health Consciousness, Environmental Attitudes, and the Mediating Effects of a Healthy Lifestyle. *British Food Journal*,111(2), 165-178.
- Chinnici, G. D'Amico, M. & Pecorino, B. (2002). A Multivariate Statistical Analysis on the Consumers of Organic Products. *British Food Journal*, 104(3/4/5), 187-199.
- Chrysochoidis, G. (2000). Repercussions of Consumer Confusion for Late Introduced Differentiated Products. *European Journal of Marketing*, 34(5/6), 705-722.

- Chu, K. (2018). Mediating Influences of Attitude on Internal and External Factors Influencing Consumers' Intention to Purchase Organic Foods in China. *Sustainability*, 10(12), 4690, 1-15.
- Cicia, G. Del Giudice, T., & Scarpa, R. (2002). Consumers' Perception of Quality in Organic Food. *British Food Journal*, 104(3/4/5), 200-213.
- Çabuk, S., Tanrikulu, C., & Gelibolu, L. (2014). Understanding Organic Food Consumption: Attitude as A Mediator. *International Journal of Consumer Studies*, 38(4), 337-345.
- Daft, R.L. & Lengel, R.H. (1986). Organizational Information Requirements, Media Richness and Structural Design. *Management Science*, 32(5), 554-571.
- Daniells, S. (2014). "US Organic Food Market to Grow 14% from 2013-18" <http://www.foodnavigatorusa.com/Markets/US-organic-food-market-to-grow-14-from-2013-18> Accessed 27 October 2016.
- Darsono, N., Yahya, A., Muzammil, A., Musnadi, S., Anwar, C., & Irawati, W. (2018). Consumer Actual Purchase Behavior for Organic Products in Aceh, Indonesia. *Advances in Social Science, Education and Humanities Research*, volume 292 In *1st Aceh Global Conference (AGC 2018)*. Atlantis Press, 265-275.
- Davies, A., Titterington, A. J., & Cochrane, C. (1995). Who Buys Organic Food? *British Food Journal*, 97(10),17-23.
- de Boer, J., Hoogland, C. T., & Boersema, J. J. (2007). Towards More Sustainable Food Choices: Value Priorities and Motivational Orientations. *Food Quality and Preference*, 18(7), 985-996.
- de Magistris, T., & Gracia, A. (2008). The Decision to Buy Organic Food Products in Southern Italy. *British Food Journal*, 110(9), 929-947.
- Denver, S., & Christensen, T. (2015). Organic Food and Health Concerns: A Dietary Approach Using Observed Data. *NJAS - Wageningen Journal of Life Sciences*, 74, 9-15.
- Dowd, K., & Burke, K. J. (2013). The Influence of Ethical Values and Food Choice Motivations on Intentions to Purchase Sustainably Sourced Foods. *Appetite*, 69, 137-144.
- Dunlap, R. & Jones, R. (2002). Environmental Concern: Conceptual and Measurement Issues. In Dunlap and Michelson (Ed), *Handbook of Environmental Sociology*, Greenwood Press, London, 482-542.
- Eertmans, A., Victoir, A., Vansant, G., & Van den Bergh, O. (2005). Food-Related Personality Traits, Food Choice Motives and Food Intake: Mediator and Moderator Relationships. *Food Quality and Preference*, 16(8), 714-726.
- Eisinger-Watzl, M., Wittig, F., Heuer, T., & Hoffmann, I. (2015). Customers Purchasing Organic Food-Do They Live Healthier? Results of the German National Nutrition Survey II. *European Journal of Nutrition & Food Safety*, 59-71.
- Escobar-López, S. Y., Espinoza-Ortega, A., Vizcarra-Bordi, I., & Thomé-Ortiz, H. (2017). The Consumer of Food Products in Organic Markets of Central Mexico. *British Food Journal*, 119(3), 558-574.
- Fernandes, V. C., Domingues, V. F., de Freitas, V., Delerue-Matos, C., & Mateus, N. (2012). Strawberries from Integrated Pest Management and Organic Farming: Phenolic Composition and Antioxidant Properties. *Food Chemistry*, 134(4), 1926-1931.
- Food and Agriculture Organization of the United Nations. <http://www.fao.org/organicag/oa-faq/oa-faq5/en/>. Accessed 23 October 2016.
- Fotopoulos, C. (1996). Strategic Planning for Expansion of the Market for Organic Products. *Agricoltura-Mediterranea*, 126, 260-269.
- Fotopoulos, C. & Krystallis, A. (2002). Organic Product Avoidance. *British Food Journal*, 104(3/4/5), 233-260.

- Fotopoulos, C., Krystallis, A., & Ness, M. (2003). Wine Produced By Organic Grapes in Greece: Using Means-End Chains Analysis to Reveal Organic Buyers' Purchasing Motives in Comparison to Non-Buyers. *Food Quality and Preference, 14*, 549-566.
- Franzen, A., & Meyer, R. (2010). Environmental Attitudes in Cross-National Perspective: A Multilevel Analysis of the ISSP 1993 and 2000. *European Sociological Review, 26*(2), 219-234.
- Fujii, S. (2006). Environmental Concern, Attitude toward Frugality, and Ease of Behavior as Determinants of Pro-Environmental Behavior Intentions. *Journal of Environmental Psychology, 26*(4), 262-268.
- Geisser, S. (1974). A Predictive Approach to the Random Effect Model. *Biometrika 61*(1), 101-107.
- Global Organic Trade Guide. <http://www.globalorganictrade.com/country/turkey>. Accessed 17 October 2016.
- Gibson, E. L. (2006). Emotional Influences on Food Choice: Sensory, Physiological and Psychological Pathways. *Physiology & Behavior, 89*(1), 53-61.
- Gifford, K., & Bernard, J. C. (2011). The Effect of Information on Consumers' Willingness to Pay for Natural and Organic Chicken. *International Journal of Consumer Studies, 35*(3), 282-289.
- Gunasti, K., & Ross, W. T. (2009). How Inferences about Missing Attributes Decrease the Tendency to Defer Choice and Increase Purchase Probability. *Journal of Consumer Research, 35*(5), 823-837.
- Goetzke, B., Nitzko, S., & Spiller, A. (2014). Consumption of Organic and Functional Food. A Matter of Well-Being and Health? *Appetite, 77*, 96-105.
- Goh, K. M. (2011). Greater Mitigation of Climate Change By Organic Than Conventional Agriculture: A Review. *Biological Agriculture & Horticulture, 27*(2), 205-229.
- Graeff, T.R. (1996). Image Congruence Effects on Product Evaluations: The Role of Self-Monitoring and Public/Private Consumption. *Psychology & Marketing, 13*(5), 481- 499.
- Hair, J., Hollingsworth, C.L, Randolph, A.B., & Chong, A.Y.L (2017). An Updated and Expanded Assessment of PLS-SEM in information Systems Research. *Industrial Management & Data Systems, 117*(3), 442-458.
- Hamzaoui-Essoussi, L., & Zahaf, M. (2012). Canadian Organic Food Consumers' Profile and Their Willingness to Pay Premium Prices. *Journal of International Food & Agribusiness Marketing, 24*(1), 1-21.
- Han, H., Hsu, L.-T., & Sheu, C. (2010). Application of the Theory of Planned Behavior to Green Hotel Choice: Testing the Effect of Environmentally Friendly Activities. *Tourism Management, 31*(3), 325-334.
- Hansen, T., Sørensen, M. I., & Eriksen, M. L. R. (2018). How the Interplay between Consumer Motivations and Values Influences Organic Food Identity and Behavior. *Food Policy, 74*, 39-52.
- Harnish, R.J., & Bridges, K.R. (2006). Social Influence: The Role of Self-Monitoring When Making Social Comparisons. *Psychology & Marketing, 23*(11), 961-973.
- Harper, G. C. & Makatouni, A. (2002). Consumer Perception of Organic Food Production and Farm Animal Welfare. *British Food Journal, 104*(3/4/5), 287-299.
- Hartman Group. <http://www.hartman-group.com/hartbeat/334/where-organic-ends-and-natural-begins>. Accessed 19 October 2016.
- Hasselbach, J. L., & Roosen, J. (2015). Consumer Heterogeneity in the Willingness to Pay for Local and Organic Food. *Journal of Food Products Marketing, 21*(6), 608-625.

- Helsel, D. L., Jakicic, J. M., & Otto, A. D. (2007). Comparison of Techniques for Self-Monitoring Eating and Exercise Behaviors on Weight Loss in a Correspondence-Based Intervention. *J Am Diet Assoc*, 107(10), 1807-1810.
- Hilverda, F., Jurgens, M., & Kuttschreuter, M. (2016). Word Associations With “Organic”: What Do Consumers Think of? *British Food Journal*, 118(12), 2931-2948.
- Hoek, A. C., Pearson, D., James, S. W., Lawrence, M. A., & Friel, S. (2017). Shrinking the Food-Print: A Qualitative Study into Consumer Perceptions, Experiences, and Attitudes towards Healthy and Environmentally Friendly Food Behaviors. *Appetite*, 108, 117-131.
- Hogg, M. K., Cox, A. J., & Keeling, K. (2000). The Impact of Self-Monitoring on Image Congruence and Product/Brand Evaluation. *European Journal of Marketing*, 34(5/6), 641-667.
- Honkanen, P., Verplanken, B., & Olsen, S. O. (2006). Ethical Values and Motives Driving Organic Food Choice. *Journal of Consumer Behaviour*, 5(5), 420-430.
- Honkanen, P., & Frewer, L. (2009). Russian Consumers’ Motives for Food Choice. *Appetite*, 52(2), 363-371.
- Hopper, J.R. & Nielsen, J.C. (1991). Recycling as Altruistic Behavior: Normative and Behavioral Strategies to Expand Participation in a Community Recycling Program. *Environment and Behavior*, 23(2), 195-220.
- Hsu, S.Y., Chang, C.C., & Lin, T. T. (2016). An Analysis of Purchase Intentions toward Organic Food on Health Consciousness and Food Safety With/Under Structural Equation Modeling. *British Food Journal*, 118(1), 200-216.
- Hsu, S. Y., Chang, C. C., & Lin, T. T. (2019). Triple Bottom Line Model and Food Safety in Organic Food and Conventional Food in Affecting Perceived Value and Purchase Intentions. *British Food Journal*, 121(2), 333-346.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who Are Organic Food Consumers? A Compilation and Review of Why People Purchase Organic Food. *Journal of Consumer Behaviour*, 6(2/3), 94-110.
- Hutchins, R. K. & Greenhalgh, L. A. (1995). Organic Confusion: Sustaining Competitive Advantage. *Nutrition & Food Science*, 95(6), 11-14.
- Irianto, H. (2015). Consumers’ Attitude and Intention towards Organic Food Purchase: An Extension of the Theory of Planned Behavior in a Gender Perspective. *International Journal of Management, Economics, and Social Sciences*, 4(1),17-31.
- Januszewska, R., Pieniak, Z., & Verbeke, W. (2011). Food Choice Questionnaire Revisited in Four Countries. Does It Still Measure the Same? *Appetite*, 57(1), 94-98.
- Janssen, M. & Hamm, U. (2012). Product Labeling in the Market for Organic Food: Consume Preferences and Willingness-to-Pay for Different Organic Certification Logos. *Food Quality and Preference*, 25(1), 9-22.
- Kaiser, F. G. (2006). A Moral Extension of the Theory of Planned Behavior: Norms and Anticipated Feelings of Regret in Conservationism. *Personality and Individual Differences*, 41(1), 71-81.
- Keesling, G., & Kaynama, S. A. (2003). An Exploratory Investigation of the Ecologically Conscious Consumer’s Efforts to Control Water Contamination: Lawn Care and the Use of Nitrogen Fertilizers and Pesticides. *Journal of Marketing Theory and Practice*, 11(1), 52-61.
- Kenney, E., & Adhikari, K. (2016). Recent Developments in Identifying and Quantifying Emotions During Food Consumption. *J Sci Food Agric*, 96(11), 3627-3630.

- Kim, Y. & Choi, S. M. (2005). Antecedents of Green Purchase Behavior: An Examination of Collectivism, Environmental Concern, and PCE. *Advances in Consumer Research*, 32, 592–599.
- Kim, H. Lee, E. J., & Hur, W. M. (2012). The Normative Social Influence on Eco-Friendly Consumer Behavior: The Moderating Effect of Environmental Marketing Claims. *Clothing and Textiles Research Journal*, 30(1), 4-18.
- Kinnear, T.C. Taylor, J.R., & Ahmed, S.A. (1974). Ecologically Concerned Consumers: Who Are They? *Journal of Marketing*, 38(2), 20-24.
- Kjeldal, S. (2003). Self-monitoring and Consumer Behavior. *The Qualitative Report*, 18(3),353-376.
- Konttinen, H. Sarlio-Lahteenkorva, S., Silventoinen, K., Mannisto, S., & Haukkala, A. (2013). Socio-Economic Disparities in the Consumption of Vegetables, Fruit and Energy-Dense Foods: The Role of Motive Priorities. *Public Health Nutrition*, 16(5), 873-882.
- Koufteros, X. Vonderembse, M., & Jayaram, J. (2005). Internal and External Integration for Product Development: The Contingency Effects of Uncertainty Equivocality and Platform Strategy. *Decision Sciences*, 36(1), 97-133.
- Köster, E. P. & Mojet, J. (2015). From Mood to Food and from Food to Mood: A Psychological Perspective on the Measurement of Food-Related Emotions in Consumer Research. *Food Research International*, 76, 180-191.
- Kulikowski, V. & Agolli, M. (2010). Drivers of Organic Food Consumption in Greece. *International Hellenic University*. 1-65.
- Krystallis, A. & Chrysosoidis, G. (2005). Consumers' Willingness to Pay for Organic Food. *British Food Journal*, 107(5), 320-343.
- Laros, F. J. M. & Steenkamp, J.-B. E. M. (2005). Emotions in Consumer Behavior: A Hierarchical Approach. *Journal of Business Research*, 58(10), 1437-1445.
- Lea, E. & Worsley, T. (2005). Australians' Organic Food Beliefs, Demographics and Values. *British Food Journal*, 107(11), 855-869.
- Lea, E. & Worsley, A. (2008). Australian Consumers' Food-Related Environmental Beliefs and Behaviours. *Appetite*, 50(2-3), 207-214.
- Lee, H.J., & Goudeau, C. (2014). Consumers' Beliefs, Attitudes, and Loyalty in Purchasing Organic Foods. *British Food Journal*, 116(6), 918-930.
- Lee, K. H., Bonn, M. A., & Cho, M. (2015). Consumer Motives for Purchasing Organic Coffee. *International Journal of Contemporary Hospitality Management*, 27(6), 1157-1180.
- Lee, H. J., & Yun, Z. S. (2015). Consumers' Perceptions of Organic Food Attributes and Cognitive and Affective Attitudes as Determinants of Their Purchase Intentions toward Organic Food. *Food Quality and Preference*, 39, 259-267.
- Lee, H.J. (2016). Individual and Situational Determinants of U.S. Consumers' Buying Behavior of Organic Foods. *Journal of International Food & Agribusiness Marketing*, 28(2), 117-131.
- Lian, S. B., & Yoong, L. C. (2019). Assessing the Young Consumers' Motives and Purchase Behavior for Organic Food: An Empirical Evidence from a Developing Nation. *International Journal of Academic Research in Business and Social Sciences*, 9(1), 69-87.
- Liang, R.D. (2016). Predicting Intentions to Purchase Organic Food: The Moderating Effects of Organic Food Prices. *British Food Journal*, 118(1), 183-199.



- Lindeman, M., & Väänänen, M. (2000). Measurement of Ethical Food Choice Motives. *Appetite*, 34, 55-59.
- Lipshitz, R & Strauss, O. (1997). Coping with Uncertainty: A Naturalistic Decision-Making Analysis. *Organizational Behavior and Human Decision Processes*, 69(2), 149-163.
- Lockie, S., Lyons, K., Lawrence, G., & Mummery, K. (2002). Eating 'Green': Motivations Behind Organic Food Consumption in Australia. *Sociologia Ruralis*, 42(1), 23-40.
- Lockie, S., Lyons, K., Lawrence, G., & Grice, J. (2004). Choosing Organics: A Path Analysis of Factors Underlying the Selection of Organic Food among Australian Consumers. *Appetite*, 43(2), 135-146.
- Lu, C. D., Gangyi, X., & Kawas, J. R. (2010). Organic Goat Production, Processing and Marketing: Opportunities, Challenges and Outlook. *Small Ruminant Research*, 89(2-3), 102-109.
- Lyman, B. (1982). The Nutritional Values and Food Group Characteristics of Foods Preferred During Various Emotions. *The Journal of Psychology*, 112(1), 121-127.
- Machín, L. Giménez, A., Vidal, L., & Ares, G. (2014). Influence of Context on Motives Underlying Food Choice. *Journal of Sensory Studies*, 29(5), 313-324.
- Macht, M. (1999). Characteristics of Eating in Anger, Fear, Sadness and Joy. *Appetite*, 33, 129-139.
- Macht, M. (2008). How Emotions Affect Eating: A Five-Way Model. *Appetite*, 50(1), 1-11.
- Magnusson, M. K., Arvola, A., Koivisto Hursti, U. K., Åberg, L., & Sjäöden, P. O. (2001). Attitudes towards Organic Foods among Swedish Consumers. *British Food Journal*, 103(3), 209-227.
- Magnusson, M. K. Arvola, A., Hursti, U.-K. K., Åberg, L., & Sjäöden, P.-O. (2003). Choice of Organic Foods Is Related to Perceived Consequences for Human Health and to Environmentally Friendly Behaviour. *Appetite*, 40(2), 109-117.
- Makatouni, A. (2002). What Motivates Consumers to Buy Organic Food in the UK? *British Food Journal*, 104(3/4/5), 345-352.
- Mainieri, T., Barnett, E. G., Valdero, T. R., Unipan, J. B., & Oskamp, S. (1997). Green Buying: The Influence of Environmental Concern on Consumer Behavior. *The Journal of Social Psychology*, 137(2), 189-204.
- Mardon, J., Thiel, E., Laniau, M., Sijtsma, S., Zimmermann, K., & Barjolle, D. (2015). Motives Underlying Food Consumption in the Western Balkans: Consumers' Profiles and Public Health Strategies. *Int J Public Health*, 60(5), 517-526.
- Marian, L., Chrysochou, P., Krystallis, A., & Thøgersen, J. (2014). The Role of Price as a Product Attribute in the Organic Food Context: An Exploration Based on Actual Purchase Data. *Food Quality and Preference*, 37, 52-60.
- Mattila, A. S., & Ro, H. (2008). Discrete Negative Emotions and Customer Dissatisfaction Responses in a Casual Restaurant Setting. *Journal of Hospitality & Tourism Research*, 32(1), 89-107.
- Mat Said, A., Ahmadun, F. I. R., Hj. Paim, L., & Masud, J. (2003). Environmental Concerns, Knowledge and Practices Gap Among Malaysian Teachers. *International Journal of Sustainability in Higher Education*, 4(4), 305-313.
- McEachern, M.G., & McClean, P. (2002). Organic Purchasing Motivations and Attitudes: Are They Ethical? *International Journal of Consumer Studies*, 26(2), 85-92.
- McEachern, M. G., & Willock, J. (2004). Producers and Consumers of Organic Meat. *British Food Journal*, 106(7), 534-552.

- Mie, A., Andersen, H. R., Gunnarsson, S., Kahl, J., Kesse-Guyot, E., Rembialkowska, E., Quaglio, G., & Grandjean, P. (2017). Human Health Implications of Organic Food and Organic Agriculture: A Comprehensive Review. *Environmental Health*, 16(1), 111, 1-22.
- Millock, K., Wier, M., & Andersen, L.M. (2004). Consumer's Demand for Organic Foods- Attitudes, Value and Purchasing Behaviour. *XIII Annual Conference of European Association of Environmental and Resource Economics*, June 25–28, Budapest, Hungary.
- Misra, R., & Singh, D. (2016). An Analysis of Factors Affecting Growth of Organic Food. *British Food Journal*, 118(9),2308-2325.
- Mondelaers, K., van Huylenbroek, G., Verbeke, W., & Van Huylenbroeck, G. (2009). Importance of Health and Environment as Quality Traits in the Buying Decision of Organic Products. *British Food Journal*, 111(10), 1120-1139.
- Monier-Dilhan, S., & Bergès, F. (2016). Consumers' Motivations Driving Organic Demand: Between Self-Interest and Sustainability. *Agricultural and Resource Economics Review*, 45(3), 522-538.
- Moser, J. S., Schroder, H. S., Heeter, C., Moran, T. P., & Lee, Y. H. (2011). Mind Your Errors: Evidence for a Neural Mechanism Linking Growth Mind-Set to Adaptive Posterror Adjustments. *Psychological Science*, 22(12),1484-1489.
- Nedra, B.A., Demetris Vrontis, D. M. C. P., Sharma, S., & Dakhli, A. (2015). Perception and Motivation to Purchase Organic Products in Mediterranean Countries. *Journal of Research in Marketing and Entrepreneurship*, 17(1), 67-90.
- Newton, J. D., Tsarenko, Y., Ferraro, C., & Sands, S. (2015). Environmental Concern an Environmental Purchase Intentions: The Mediating Role of Learning Strategy. *Journal of Business Research*, 68(9), 1974-1981.
- Nguyen, H. V., Nguyen, N., Nguyen, B. K., Lobo, A., & Vu, P. A. (2019). Organic Food Purchases in an Emerging Market: The Influence of Consumers' Personal Factors and Green Marketing Practices of Food Stores. *International Journal of Environmental Research and Public Health*, 16(6), 1037, 1-17.
- Nielsen, N.A., Bech-Larsen, T., & Grunert, K.G. (1998). Consumer Purchase Motives and Product Perceptions: A Laddering Study on Vegetable Oil in Three Countries. *Food Quality and Preference*, 9(6), 455-466.
- Numraktrakul, P., Ngarmyarn, A., & Panichpathom, S. (2012). Factors Affecting Green Housing Purchase. *17th International Business Research Conference*. 7-8 June 2012, Toronto, Canada.
- O'Cass, A. (2000). A Psychometric Evaluation of a Revised Version of the Lennox and Wolfe Revised Self-Monitoring Scale. *Psychology & Marketing*, 17(5), 397-419.
- O'Cass, A. (2001). Consumer Self-monitoring, Materialism and Involvement in Fashion Clothing. *Australasian Marketing Journal*, 9(1), 46-60.
- O'Cass, A., & McEven, H. (2004). Exploring Consumer Status and Conspicuous Consumption. *Journal of Consumer Behavior*, 4(1), 25-39.
- O'Donovan, P., & McCarthy, M. (2002). Irish Consumer Preference for Organic Meat. *British Food Journal*, 104(3/4/5), 353-370.
- Oellingrath, I. M., Hersleth, M., & Svendsen, M. V. (2013). Association between Parental Motives for Food Choice and Eating Patterns Of 12- To 13-Year-Old Norwegian Children. *Public Health Nutrition*, 16(11), 2023-2031.

- Onwezen, M. C. (2015). I Did Good, and We Did Bad: The Impact of Collective Versus Private Emotions a Pro-environmental Food Consumption. *Food Research International*, 76, 261-268.
- Organic Food Associate [http://ota.com/sites/default/files/indexed\\_files/OTA\\_StateofIndustry\\_2016.pdf](http://ota.com/sites/default/files/indexed_files/OTA_StateofIndustry_2016.pdf)  
Accessed 17 October 2016.
- Oroian, C., Safirescu, C., Harun, R., Chiciudean, G., Arion, F., Muresan, I., & Bordeanu, B. (2017). Consumers' Attitudes towards Organic Products and Sustainable Development: A Case Study of Romania. *Sustainability*, 9(9), 1559, 1-14.
- Padel, S., McEachern, M., & Foster, C. (2005). Exploring the Gap Between Attitudes and Behaviour. *British Food Journal*, 107(8), 606-625.
- Paladino, A., & Ng, S. (2013). An Examination of the Influences on 'Green' Mobile Phone Purchases Among Young Business Students: An Empirical Analysis. *Environmental Education Research*, 19(1), 118-145.
- Patel, K. A., & Schlundt, D. G. (2001). Impact of Moods and Social Context on Eating Behavior. *Appetite* (2001), 36, 111-118.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting Green Product Consumption Using Theory of Planned Behavior and Reasoned Action. *Journal of Retailing and Consumer Services*, 29, 123-134.
- Petljak, K., Štulec, I., & Renko, S. (2017). Consumers' willingness to Pay More for Organic Food in Croatia. *Ekonomski vjesnik/Econviews-Review of Contemporary Business, Entrepreneurship and Economic Issues*, 30(2), 441-455.
- Petrescu, D., & Petrescu-Mag, R. (2015). Organic Food Perception: Fad, or Healthy and Environmentally Friendly? A Case on Romanian Consumers. *Sustainability*, 7(9), 12017-12031.
- Pham, T. H., Nguyen, T. N., Phan, T. T. H., & Nguyen, N. T. (2018). Evaluating the Purchase Behaviour of Organic Food by Young Consumers in an Emerging Market Economy. *Journal of Strategic Marketing*, 1-17.
- Phillips, D. M., & Baumgartner, H. (2002). The Role of Consumption Emotions in the Satisfaction Response. *Journal of Consumer Psychology*, 12(3), 243-252.
- Pohjanheimo, T., Paasovaara, R., Luomala, H., & Sandell, M. (2010). Food Choice Motives and Bread Liking of Consumers Embracing Hedonistic and Traditional Values. *Appetite*, 54(1), 170-180.
- Preacher C. J. & Andrew F. H. (2004). SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models Behavior Research Methods. *Instruments, & Computers*, 36 (4), 717-731.
- Prescott, J., Young, O., O'Neil, L., Yau, N. J. N., & Stevens, R. (2002). Motives for Food Choice: A Comparison of Consumers from Japan, Taiwan, Malaysia And New Zealand. *Food Quality and Preference*, 13, 489-495.
- Richins, M.K. (1997). Measuring Emotions in the Consumption Experience. *Journal of Consumer Research*, 24(2), 127-146.
- Roininen, K., Lähteenmäki, L., & Tuorila, H. (1999). Quantification of Consumer Attitudes to Health and Hedonic Characteristics of Foods. *Appetite*, 33, 71-88.
- Roos, E., Lehto, R., & Ray, C. (2012). Parental Family Food Choice Motives and Children's Food Intake. *Food Quality and Preference*, 24(1), 85-91.
- Ruiz de Maya, S., López-López, I., & Munuera, J. L. (2011). Organic Food Consumption in Europe: International Segmentation Based on Value System Differences. *Ecological Economics*, 70(10), 1767-1775.

- Russell, C. G., Worsley, A., & Liem, D. G. (2015). Parents' Food Choice Motives and Their Associations with Children's Food Preferences. *Public Health Nutrition*, 18(6), 1018-1027.
- Shaharudin, M. R., Pani, J. J., Mansor, S. W., & Elias, S. J. (2010). Purchase Intention of Organic Food; Perceived Value Overview. *Canadian Social Science*, 6(1), 70-79.
- Salleh, M. M., Ali, S. M., Harun, E. H., Jalil, M. A., & Shaharudin, M. R. (2010). Consumer's Perception and Purchase Intentions towards Organic Food Products: Exploring Attitude Among Academician. *Canadian Social Science*, 6(6), 119-129.
- Sashi, C.M., & Stern, L.V. (1995). Product Differentiation and Market Performance in Producer Good Industries. *Journal of Business Research*, 33, 115-127.
- Sautron, V., Péneau, S., Camilleri, G. M., Muller, L., Ruffieux, B., Hercberg, S., & Méjean, C. (2015). Validity of a questionnaire measuring motives for choosing foods including sustainable concerns. *Appetite*, 87, 90-97.
- Schleenbecker, R., & Hamm, U. (2013). Consumers' Perception of Organic Product Characteristics. A Review. *Appetite*, 71, 420-429.
- Schiffman, L.G., Kanuk, L.L., & Wisenblit, J. (2010). *Consumer Behavior*. Pearson Prentice Hall, London.
- Shafie, F. A., & Rennie, D. (2012). Consumer Perceptions towards Organic Food. *Procedia-Social and Behavioral Sciences*, 49, 360-367.
- Sharma, N., & Singhvi, R. (2018). Consumers Perception and Behaviour towards Organic Food: A Systematic Review of Literature. *Journal of Pharmacognosy and Phytochemistry*, 7(2), 2152-2155.
- Shiu, E. M. K., Walsh, G., Hassan, L. M., & Shaw, D. (2011). Consumer Uncertainty Re-Visited. *Psychology and Marketing*, 28(6), 584-607.
- Smith, S., & Paladino, A. (2010). Eating Clean and Green? Investigating Consumer Motivations towards the Purchase of Organic Food. *Australasian Marketing Journal (AMJ)*, 18(2), 93-104.
- Snyder, M. (1974). Self-monitoring of Expressive Behavior. *Journal of Personality and Social Psychology*, 30(4), 526-537.
- Singh, A., & Verma, P. (2017). Factors Influencing Indian Consumers' Actual Buying Behaviour towards Organic Food Products. *Journal of Cleaner Production*, 167, 473-483.
- Squires, L., Juric, B., & Bettina Cornwell, T. (2001). The Level of Market Development and Intensity of Organic Food Consumption: A Cross-Cultural Study of Danish and New Zealand Consumers. *Journal of Consumer Marketing*, 18(5), 392-409.
- Stone, M. (1974). Cross-Validatory Choice and Assessment of Statistical Predictions. *Journal of the Royal Statistical Society, Series B (Methodological)*, 111-147.
- Stephoe, A., Pollard, T. M., & Wardle, J. (1995). The Development of a Measure of the Motives Underlying the Selection of Food: The Food Choice Questionnaire. *Appetite*, 25, 267-284.
- Suh, B. W., Eves, A., & Lumbers, M. (2012). Consumers' Attitude and Understanding of Organic Food: The Case of South Korea. *Journal of Foodservice Business Research*, 15(1), 49-63.
- Suh, B. W., Eves, A., & Lumbers, M. (2015). Developing a Model of Organic Food Choice Behavior. *Social Behavior and Personality: an international journal*, 43(2), 217-230.
- Tang, Y., Wang, X., & Lu, P. (2014). Chinese Consumer Attitude and Purchase Intent towards Green Products. *Asia-Pacific Journal of Business Administration*, 6(2), 84-96.

- Tarkiainen, A., & Sundqvist, S. (2005). Subjective Norms, Attitudes, and Intentions of Finnish Consumers in Buying Organic Food. *British Food Journal*, 107(11), 808-822.
- Teng, C.-C., & Wang, Y.-M. (2015). Decisional Factors Are Driving Organic Food Consumption. *British Food Journal*, 117(3), 1066-1081.
- Teng, C. C., & Lu, C. H. (2016). Organic Food Consumption in Taiwan: Motives, Involvement, and Purchase Intention Under the Moderating Role of Uncertainty. *Appetite*, 105, 95-105.
- Thieme, J., Royne, M. B., Jha, S., Levy, M., & Barnes McEntee, W. (2015). Factors Affecting the Relationship between Environmental Concern and Behaviors. *Marketing Intelligence & Planning*, 33(5), 675-690.
- Thøgersen, J., & Zhou, Y. (2012). Chinese Consumers' Adoption of a 'Green' Innovation the Case of Organic Food. *Journal of Marketing Management*, 28(3/4), 313-333.
- Truong, T. T., Yap, M. H., & Ineson, E. M. (2012). Potential Vietnamese Consumers' Perceptions of Organic Foods. *British Food Journal*, 114(4), 529-543.
- Tung, S.-J., Tsay, J. C., & Lin, M.-C. (2015). Life Course, Diet-Related Identity and Consumer Choice of Organic Food in Taiwan. *British Food Journal*, 117(2), 688-704.
- Uma, R., & Selvam, V. (2017). Consumer's Attitude towards Organic Food Products buying Decision in Vellore City: Structural Equation Modeling—Using Partial Least Square (SEM-PLS) approach. *Research Journal of Pharmacy and Technology*, 10(12), 4333-4338.
- Ureña, F., Bernabéu, R., & Olmeda, M. (2007). Women, Men, and Organic Food: Differences in Their Attitudes and Willingness to Pay. A Spanish Case Study. *International Journal of Consumer Studies*, 32, 18-26.
- Van Loo, E., Caputo, V., Nayga, R. M., Jr., Meullenet, J. F., Crandall, P. G., & Ricke, S. C. (2010). Effect of Organic Poultry Purchase Frequency on Consumer Attitudes toward Organic Poultry Meat. *Journal of Food Science*, 75(7), S384-397.
- Van Loo, E. J., Caputo, V., Nayga, R. M., Meullenet, J.-F., & Ricke, S. C. (2011). Consumers' Willingness to Pay for Organic Chicken Breast: Evidence from the Choice Experiment. *Food Quality and Preference*, 22(7), 603-613.
- Verdurme, A., & Viaene, J. (2003). Consumer Beliefs and Attitude towards Genetically Modified Food: Basis for Segmentation and Implication for Communication. *Agribusiness*, 19, 91-113.
- Verhoef, P. C. (2005). Explaining Purchases of Organic Meat By Dutch Consumers. *European Review of Agricultural Economics*, 32(2), 245-267.
- Vermeir, I., & Verbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap. *Journal of Agricultural and Environmental Ethics*, 19(2), 169-194.
- Vyth, E. L., Van Der Meer, E. W., Seidell, J. C., & Steenhuis, I. H. (2012). A Nutrition Labeling Intervention in Worksite Cafeterias: An Implementation Evaluation Across Two Large Catering Companies in the Netherlands. *Health Promot Int*, 27(2), 230-237.
- Wądołowska, L., Babicz-Zielińska, E., & Czarnocińska, J. (2008). Food Choice Models and Their Relation with Food Preferences and Eating Frequency in the Polish Population: POFPRES Study. *Food Policy*, 33(2), 122-134.
- Wang, S.T. (2014). Consumer Characteristics and Social Influence Factors on Green Purchasing Intentions. *Marketing Intelligence & Planning*, 32(7), 738-753.
- Wang, O., De Steur, H., Gellynck, X., & Verbeke, W. (2015). Motives for Consumer Choice of Traditional Food and European Food in Mainland China. *Appetite*, 87, 143-151.

- Wang, C., & Myint, S. (2016). Environmental Concerns of Deforestation in Myanmar 2001–2010. *Remote Sensing*, 8(9), 728.
- Wang, X., Pacho, F., Liu, J., & Kajungiro, R. (2019). Factors Influencing Organic Food Purchase Intention in Tanzania and Kenya and the Moderating Role of Knowledge. *Sustainability*, 11(1), 209, 1-18.
- Wee, C. S., Ariff, M. S. B. M., Zakuan, N., Tajudin, M. N. M., Ismail, K., & Ishak, N. (2014). Consumers Perception, Purchase Intention and Actual Purchase Behavior of Organic Food Products. *Review of Integrative Business and Economics Research*, 3(2), 378.
- Wesley Schultz, P. (2001). The Structure of Environmental Concern: Concern for Self, Other People, and the Biosphere. *Journal of Environmental Psychology*, 21(4), 327-339.
- White, C. J. (2010). The Impact of Emotions on Service Quality, Satisfaction, and Positive Word-of-Mouth Intentions Over Time. *Journal of Marketing Management*, 26(5/6), 381-394.
- Wier, M., & Calverley, C. (2002). The Market Potential for Organic Foods in Europe. *British Food Journal*, 104(1), 45-62.
- Williams, P.R.D., & Hammitt, J.K. (2000). A Comparison of Organic and Conventional Fresh Produce Buyers in the Boston Area. *Risk Analysis*, 20(5), 735-746.
- Winter, C. K., & Davis, S. F. (2006). Organic Foods. *Journal of Food Science*, 71(9), 117-124.
- Xie, B., Wang, L., Yang, H., Wang, Y., & Zhang, M. (2015). Consumer Perceptions and Attitudes of Organic Food Products in Eastern China. *British Food Journal*, 117(3), 1105-1121.
- Yadav, R. (2016). Altruistic or Egoistic: Which Value Promotes Organic Food Consumption Among Young Consumers? A Study in the Context of a Developing Nation. *Journal of Retailing and Consumer Services*, 33, 92-97.
- Yadav, R., & Pathak, G. S. (2016). Intention to Purchase Organic Food Among Young Consumers: Evidences from a Developing Nation. *Appetite*, 96, 122-128.
- Yazdanpanah, M., & Forouzani, M. (2015). Application of the Theory of Planned Behaviour to Predict Iranian Students' Intention to Purchase Organic Food. *Journal of Cleaner Production*, 107, 342-352.
- Yin, S., Wu, L., Du, L., & Chen, M. (2010). Consumers' Purchase Intention of Organic Food in China. *Journal of the Science of Food and Agriculture*, 90(8), 1361-1367.
- Yiridoe, E. K., Bonti-Ankomah, S., & Martin, R. C. (2005). Comparison of Consumer Perceptions and Preference toward Organic Versus Conventionally Produced Foods: A Re-View and Update of the Literature. *Renewable Agriculture and Food Systems*, 20(4), 193-205.
- Żakowska-Biemans, S., & Renko, S. (2011). Polish Consumer Food Choices and Beliefs about Organic Food. *British Food Journal*, 113(1), 122-137.
- Zanoli, R., & Naspetti, S. (2002). Consumer Motivations in the Purchase of Organic Food. *British Food Journal*, 104(8), 643-653.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52(3), 2–22.
- Zhu, Y. (2018). Using the Theory of Planned Behavior to Investigate What Influences Chinese Intention to Purchase Organic Food. *China-USA Business Review*, 17(6), 324-333.
- Žibret, M., Hafner-Fink, M., & Kline, M. (2018). Testing an Extended Model of Organic Food Purchasing Behaviour. *Teorija in Praksa*, 55(1), 180-226.