Consumers Perception, Purchase Intention and Actual Purchase Behavior of Organic Food Products

Review of Integrative Business & Economics Research

Chiew Shi Wee
Mohd Shoki Bin Md. Ariff*
Norhayati Zakuan
Muhammad Naquib Mohd Tajudin
Universiti Teknologi Malaysia, Malaysia
Email: m-shoki@utm.my

Khalid Ismail
Universiti Pendidikan Sultan Idris, Malaysia

Nawawi Ishak
Lembaga Tabung Haji, Malaysia

ABSTRACT

The green concept and the developing of organic food are still in the infant stage in Malaysia. Therefore, there is a need to gain knowledge about the consumer's behavior towards organic food products. Specifically, this study attempts to examine consumer's perception, purchase intentions and actual purchase behavior and the interrelationship between them in the context of organic food products. Based on the Theory of Planned Behavior, the five steps of consumer decision making process and previous researches on organic foods , 18 items of four dimensions were constructed to measure the consumer's perception towards organic food, 6 items were used to measure their purchase intention and six items were engaged to determine the actual purchase behavior of consumers. Data was collected in supermarkets and surrounding areas in the district of Kluang, Johor, Malaysia. A total of 288 completed questionnaires were gathered, representing 96% response rate, using convenient sampling method. The result indicated that intention to purchase organic food was significantly influenced by the consumer's perception of safety, health, environmental factors and animal welfare of the products. Surprisingly, there was no significant effect of consumers' perceived quality of organic food products on their intention to purchase the products. Actual purchase behavior of organic food products was significantly affected by the purchase intention of the products. Significant means differences were observed in the purchase intention of organic food products according to the respondents' gender, age, income level, education level and residence area. Theoretically, this study supported the view of consumers' perception towards organic food products will influence their behavioral intention and then lead to the actual purchase of the products. The findings proposed useful information to organic marketers to help them develop effective marketing strategies to convince organic-concerned segment to purchase the organic food products and to enhance the pro-environmental purchasing behavior in Malaysia.

Key words: Theory of Planned Behavior, Consumer's perception, Purchase intention, Actual purchase behavior, Organic food products.

1. Introduction

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Interest in organically produced products is growing throughout the world in response to concerns about conventional agriculture practices, food safety, human health concerns, animal welfare considerations and concerns about the environment. The demand for organic food products is dramatically rising in Malaysia as the population becomes more affluent and more educated about health and wellness issues, leading to greater consciousness in food choices. Studies performed by Cheah (2009) found that increased demands of organic food are found in the Malaysian market. Nevertheless, The Malaysian Agricultural Research and Development Institute (MARDI) which spearheads efforts to modernize the country's agricultural sector stated that the local organic food industry is still very small source. Further, more than sixty percent of organic food products are imported and these are required to carry a reliable label of "certified organic" from the exporting countries source. Therefore, it is important to carry out researches on understanding consumer's perception and organic food-related purchasing and consumption behavior to help organic producers enhance the development of organic foods in Malaysian market.

In general, green or organic foods refer to foods that are safe to be consumed, are of fine quality, are concerned with humane animal treatment, are nutritious foods and are produced under the principle of sustainable development (Liu, 2003). A green consumer is defined as consumers who are conscious of and interested in ecological issues (Soonthonsmai, 2007). They perceived and believed that all products and services have environmental impact and their initiative is to reduce the damage as much as possible. They were also willing to change their purchasing and consumption behavior to a more environmental friendly way and are willing to pay more for the products. However, an individual concerned about the environment does not necessarily behave nor purchase in a green way. Ohtomo and Hirose (2007) found that people who are environmentally conscious do not necessarily behave pro-environmentally; for example, people might throw rubbish away when most people around them do so (reactive process, as opposed to intentional decision making). Whilst most consumers have a positive attitude towards buying organic products (Saba and Messina, 2003), they are often constrained by some barriers. There are several factors contributing to the lack of organic food purchase by consumers; the main constraints to purchase organic foods are high price premiums, availability and to a lesser extent, lack of information, lack of trust in organic certification schemes and quality (Thompson, 1998). According to Gottschalk and Leistner (2013) the first criterion that plays a significant role when it comes to buying organic products is the consideration of price. Thus, it is necessary to explore how consumers' perceived organic food products and their behavioral intention and actual purchase behavior towards the product.

Consumer's intention of organic foods is the first step in developing demand for organic food products. In the five step of consumer decision making process (Armstrong and Kotler, 2010), consumers pass through all the stages when considering to purchase a product, in this case, organic food products. In the second stage, i.e. Information search of the decision making process, their Information search is linked to the perception because it is about presenting information to customer that will create awareness and attention so that customer are aware of and pay attention to what is available, where to buy it, and why they should buy it (Armstrong and Kotler, 2010).How they perceived and believed the information of products will have influence on them in the next stages, i.e. evaluation of alternatives and purchase decision. Theory of Planned Behavior, developed by Ajzen (1991) has been applied to studies of the relation among beliefs, attitudes, behavioral intention and behavior in various fields such as healthcare, information systems, advertising, etc. (Ajzen, 1991, Stern, 2005, Koger & Deborah, 2010). However, use of this theory in this area, such as behavioral intention and use behavior of consumers towards organic food products, especially in

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Malaysian context is limited. As this study involved safety, health, environmental factors and animal welfare of the products, validating the use of the planned behavior theory in relation to organic food products is interesting to research.

Several studies agreed on the socio-demographic profile of organic food buyers. The proportion of people consuming organic food has been found to rise with an increase in income (Torjusen et al., 2001) and tend to be more highly educated than non-organic consumers (Lockie et al., 2002; Storstad and Bjorkhaug, 2003).One of the reasons for growing demand of organic foods is the increasing number of consumer concerns about the conventional food production (Van Loo, My Nguyen Hoang, Pieniak, & Verbeke, 2013). However, some researchers also indicate that socio-demographic and personality indicators have had only limited success in profiling consumers according to their pro-environmental purchasing behavior. For example, Thompson and Kidwell (1998) stated that age, gender, and having a college degree just had little impact on a shopper's decision to buy organic food. Due to inconsistent agreement between previous researchers, it is significant to explore the influences of socio-demographic roles on the purchase intention of organic food products.

Since it is important to study purchasing and consumption behavior of consumers towards organic food products and there are limited researches investigating the appropriateness of applying Theory of Planned Behavior in this area as well as in the Malaysian context, this research developed the research questions as follows: (i) What are the effects of consumer's perception of organic food products on their purchase intention?; (ii) How consumers' purchase intention influence their actual purchase?; and (iii) Does consumers' purchase intention of organic food products vary according to their demographic variables?

2. Literature Review

2.1 Organic Food Products – Consumption Trend and the Need to Examine Consumers' Perception, Behavioral Intention and Actual Purchase Behavior in Malaysia

Researches examining behavioral related of consumers in organic food products have been conducted worldwide. Table 1 presents past researches in this area adapted of Dimitrova et al. (2010). The review of past researches in organic foods led to the following issues:

- Most studies explored customs and tradition of organic food buyers and detected that they have significant impact on purchase behavior. However, based, on the five step of consumer decision making process (Armstrong and Kotler, 2010), search information (the second step of the process) and interpretation of the information gathered will be influenced by consumers' perception. Theory of Planned Behavior (TPB) (Ajzen, 1991) stresses in the link between beliefs and behavior, however, consumers' judgment on attributes of organic food products will be influenced by their perception. Researches also examine consumer's attitudes and actual organic choice, however, the TPB stated actual use behavior is a result of intention, and therefore, behavioral intention should precede the use behavior. Thus, examining how consumers' perceived organic food products, behavioral intention and use behavior is necessary.
- Consumers perceived organic products were compared to conventional products, and trait was examined, as behavior indicators towards the products. However, consumers judge and make purchase decision is mostly influence by their perception, and therefore, how they perceive the products is important to research.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

- According to the 9th Malaysia Plan (2006-2010), the use of chemical and hazardous substances showed an increased particularly in the agricultural sector. The amount of

Table 1: Overview of the previous studies in term of main objectives, findings and products/practices related to this research.

Author (year) & products	Main objectives	Main findings
Magnusson et al., (2001) Organic foods: milk, meat, potatoes and bread.	To gain knowledge about Swedish consumers perceptions of organic foods.	Majority-Positive attitudes toward buying organic food, but low intention to choose them; Small proportion of regular purchasers; Most important food purchase criterion- good taste, least important- "organic produced", Most common beliefs about organics- healthier, more expensive; Price is a major obstacle to purchasing organic food. Habits- another explanation of the low purchases.
Makatouni (2002) Organic food	Explore beliefs and attitudes of organic food buyers and detect their impact on purchase behavior.	Organic food perceived as a means of achieving individual and social values- human, animal and environment centered; The health related factor (responsibility for health and well-being for self and the family) is the main motivation for purchasing organic food.
Fotopoulos & Krystallis (2002) Organic food	Examine consumer's attitudes and actual organic choice; Analyze the organic aware non-users by identifying organic products rejection reasons and potential organic buyers cluster.	Main reasons for not purchasing-low availability; low variety of fresh organic products; high price (though decreasing importance); satisfaction with conventional food; Personality variables (ethnocentric tendency/tradition; look for convenience); lack of confidence in advertising campaigns-mistrust; Food safety concern; Exploratory buying behavior.
Magnusson et al., (2003) Organic foods: milk, meat, potatoes and bread.	Investigate the important of perceived environmental, animal welfare and human health consequences of organic food purchase for consumers' attitudes and self-reported purchase of organic foods.	Health is the most predictor of attitudes; purchase intention and frequency; Environmental concern- also often stated motive for purchasing organic food; Egoistic motives (health concern) are stronger than altruistic motives (environmental concern and animal welfare). Eating behavior is resistant to change, characterized by affective, non-cognitive components.
Padel & Foster (2005) Organic food (dairies; fruit and vegetables; cereal products; meat)	Explore the core motivation values that underlie consumers purchasing decision of organic food.	Main motives for buying-health consciousness; well-being and quality of life, environmental and animal welfare concern ("better for the environment"); food as "enjoyment"; Barriers-price; lack of information/knowledge-lack of confidence; visual product quality and presentation; lack of availability; mistrust in the organic food in supermarkets; eating habit and convenience needs.
Hughner et al., (2007) Organic food	To review and synthesize the research concerned with identifying organic consumers, and to identify the reasons why consumers purchase and fail to purchase organic food.	Generally favorable attitudes, but low level of actual purchasing. Motives for purchase organic food-health concern; better taste(perceived higher quality); environmental and animal welfare concern; concern over food safety; Hindrances to purchasing-high prices (WTP); lack of availability; skepticism towards organic food label (distrust); insufficient marketing ; satisfaction with conventional food.
Lea & Worsley (2008) Organic products; meat; food packing; recycling	Examines the prevalence of Australian's food – related environmental beliefs and behaviors.	Decrease use of packaging by food manufacturers seen as the most important item to help environmental, while lower meat consumption- least important; Use of organic products-the least common food- related behavior; Consumers perceive the health –related benefits of organic foods, but the price premium and lack of availability act as strong barriers.
Mondelaers et al., (2009) Organic fresh vegetables (carrots)	Whether consumers perceive organic products as healthier as and more environmentally friendly than conventional products; and whether consumers consider health traits more important than environment traits.	Undesirable health related issues (concerning food safety) trigger stronger response than desirable traits (nutrition benefits); consumers classify organic products among others quality niche products; Purchase intention is mainly based upon quality traits, not the organic name; Price is the main barrier for users and light users to increase purchase; The organic label is, in general, associated more with health and environmental quality traits.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

fertilizers used had increased from 2.2 million tons in 2001 to 4.0 million tons in 2004. Through Skim Akreditasi Ladang Malaysia (SLAM) and Skim Organik Malaysia (SOM), the government has introduced better farming practices to reduce the use of chemicals and hazardous substances. Further, Malaysians is encouraged to use more organic related products, and this will create a steady and sustain demand for the products. However, awareness of the importance of environment and organic related products is insufficient, and therefore, examining behavioral intention of consumers towards the products is crucial.

Thus, there is a need to carry out more researches investigating consumers' perception towards the products in Malaysia, as well as to examine the use of Theory of Planned Behavior in assessing behavioral intention and actual purchase behavior in this area.

2.1 Theoretical Consideration

Generally, in considering purchasing organic food products, consumers pass through five step of consumer decision making process which is need recognition, information search, evaluation of alternatives, purchase decision, and post purchase behavior (Armstrong and Kotler, 2010).The buyers usually will recognize a problem or need when they sense a difference between his or her actual state and some desired state. For example, a person who has been ill for some time, may realized a need and look or be motivated for a healthier choice of product such as an organic product. In this stage, they will search information related to the organic food products and this process is linked to the perception in term of selecting the information and assigned a meaning to them. Subsequently, this will lead to how they perceived the products. Perception is one of the psychological factors that can influence consumer purchase behavior, and it is the process by which an individual selects, organizes and interprets the information he or she receives from the environment (Sheth et al., 2004). What consumer thinks will affect their action, buying habits, and so forth, thus, perception has strategic implications for marketers because consumers build decisions based on what they perceive rather than on the basic of objective reality (Schiffman and Kanuk, 2010). After acquiring sufficient information, consumers will identify a set of determinant attributes to use to compare between others alternatives. For instance, a consumer may look for attributes such as cost, features and values before purchasing an organic product and use these product attributes or others factors to evaluate the criteria. Hence, their perception and believe on the relative importance of organic food products attributes as compared to those of non-organic may influence them to purchase the organic products. In general, consumers during their decision-making process rely on different product attributes before deciding whether to buy or consume the organic food products. After purchasing the product, the consumer will be satisfied or dissatisfied with their purchase and will engage in post purchase behavior.

Theory of Planned Behavior (Ajzen, 1991) stresses in the link between beliefs and behavior and it has been applied to studies of the relation among beliefs, attitudes, behavioral intention and behavior. Behavioral intention is an indication of an individual's readiness to perform a given behavior, is based on attitude toward the behavior, subjective norm, and perceived behavioral control, and it is assumed to be an immediate antecedent of behavior (Ajzen, 1991, Wikepedia, 2010).Behavior is an individual's observable response in a given situation with respect to a given target (Ajzen, 1991, Wikepedia, 2010). Ajzen (1991) said a behavior is a function of compatible intentions and perceptions of behavioral control. The Theory of Planned Behavior is presented in Figure 1, and it is used in this study to examine consumers' behavioral intention and purchasing behavior towards organic food products. These behaviors are examined in term of how consumers' perceived of safety, health, environmental factors and animal welfare, and quality of the organic food products, as discussed in the five steps consumer decision making process (Armstrong and Kotler, 2010).

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

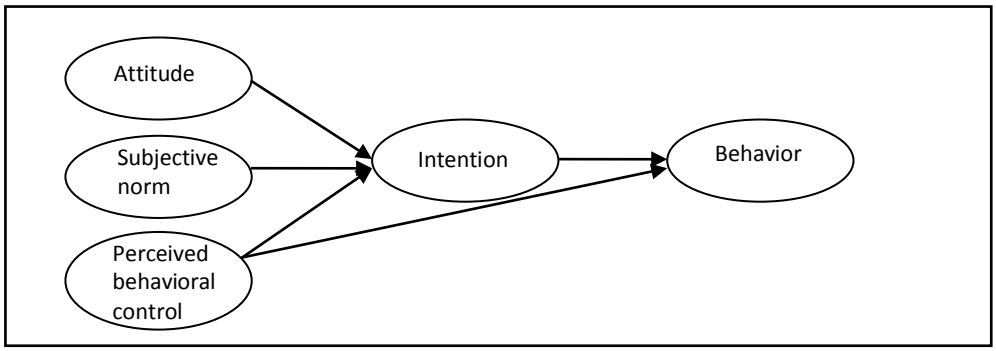

Figure 1: Theory of Planned Behavior (TPB); Source: Ajzen (1991)

In general, organic production emphasizes the use of renewable resources, conservation of energy and resources, and preservation of the environment, without the use of synthetic fertilizers and pesticides. Therefore, organically produced food is generally regarded as healthier, safer, better tasting and more nutritious than conventionally produced food (Krystallis and Chryssohoidis, 2005). It is also typically perceived as product without chemicals that is not intensively produced and is grown as natural (Williams and Hammit, 2001). This has been reflected in an increasing demand for organic produce, which is perceived as less damaging to the environment and healthier than conventionally grown foods (Schifferstein & Oude Ophuis, 1998).While, in case of domesticated animals it is natural for the consumers to think that an improvement in the animal rearing technique will consequence in a better, healthier, safer food and reduced the environment issues and improve animal welfare (Passille and Rushen, 2005). Previous studies showed that consumers perceive organic food as of higher quality, safer and fresher (e.g. Thompson & Kidwell, 1998; Schifferstein & Oude Ophuis, 1998). Normally, people buy organic food because organic food is seen as healthier, more nutritious and safer, no chemicals are used, organic farming is kinder to the environment, and quality better than conventional food (Fotopoulos and Krystallis, 2002; Wier and Calverly, 2002). Kareklas, Carlson, and Muehling (2014) expect that consumers' beliefs that organic farming is less harmful to the environment will positively impacttheir organic food–related attitudes and purchase intentions. Thus, perception would influence the intention to purchase organic products, so it is necessary to examine which of the variables give the strongest effects.

Basically, purchase intention represent to what consumers think they will buy (Blackwell et.al, 2001). According to Brown (2003), consumer with intentions to buy certain product will exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying. Consumer's intention of purchasing organic foods is the first step in developing demand for organic food products. However, intention do not necessarily equate with actual purchasing. According to Niessen & Hamm (2008), there is a big gap between stated and actual buying behavior in the case of organic food. The results in their study showed that 50% of consumers say they buy organic products, but in reality only 15% buy what they say. Since there are few researchers investigating the actual purchase behavior in the context of organic food products, it is significant to explore the consumer actual purchasing behavior in this study.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Demographic drive certain wants and needs. Segmenting potential consumer through their demographic factor will help marketers to be successful in targeting their potential customers. So, it is not surprising that socio-demographics have been the most widely used variable for profiling purpose. Indeed, there are some socio-demographic differences in organic food beliefs and consumption behavior. For instance, Grunert and Juhl (1995) reported that young consumers are more likely to buy organic food. These outcomes can be explained by the notion that older consumers are characteristically more conservative in trying out new products compared to their more audacious younger cohorts (Govindasamy and Italia 1999). However, Geen and Firth (2006) concluded that committed organic consumers tend to be older than the average population in the UK. Shafi and Madhavaiah (2013) emphasized on the facts that affect the consumer decision making process on purchasing imported health food products, in specific demographic effects such as education, income, gender and marital status. Hence, it is necessary to examine the impact of consumer's demographic characteristic on purchase intention since there might be some socio-demographic differences in organic food acceptance and consumption behavior.

2.2 The Research Model and Hypotheses

Given the preceding discussion, Figure 2 depicts the proposed framework of the study.

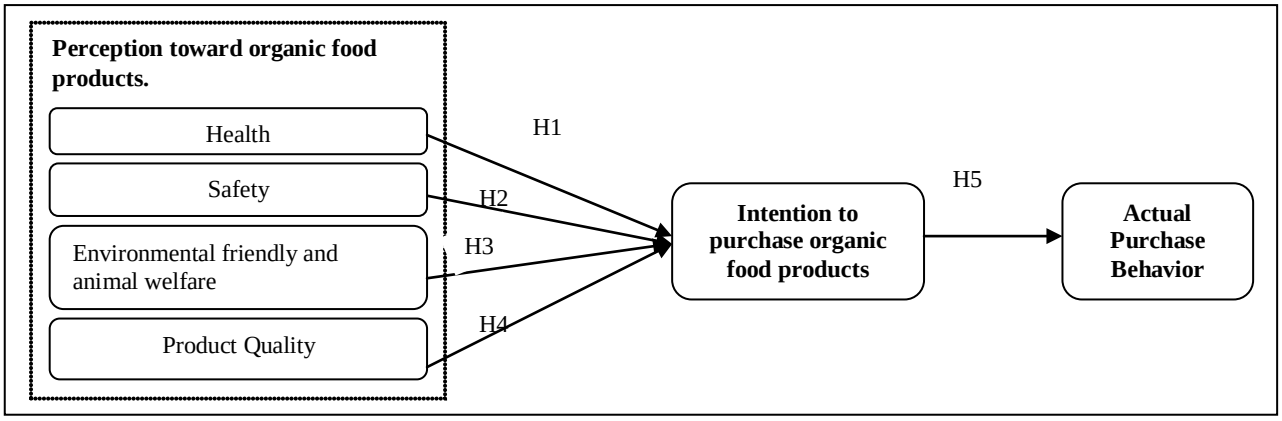

Figure 2: The research model

Empirical evidence has shown that intention to buy organic products is influenced by consumer's perception. For instance, Krissoff (1998) reported that consumers purchase organic products because of a perception that such products are safer, healthier and more environmentally friendly than conventionally produced alternatives. Health concern appears as the most important reason for purchasing and consuming organic food (Wandel and Bugge, 1997; Padel and Foster, 2005 and Michaelidou et al., 2008). Likewise, Roitner-Schobesberger et al., (2008) found that health consciousness was a main reason to purchase organic food in Thailand, particularly when consumers are concerned with residues from synthetic chemicals used in agriculture. Molyneaux (2007) supports the positive relationship between heath consciousness and organic purchasing. So, H1 is proposed:

H1: *Perceived health of organic food products will positively affect the purchase intention.*

Food safety issues have driven consumers to seek for safer foods whose qualities and attributes are guaranteed (Lockie et al., 2004). In fact, food safety was highlighted as a motive for purchasing organic food (Padel and Foster, 2005). Williams and Hammitt (2001) found that consumers believe organically grown produce poses fewer risk to consumer than

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

conventional products. Krystallis, Fotopoulos & Zotos, (2006) also found that organic produce buyers are concerned about the safety of foods in that they are willing to sacrifice money in return. Therefore, perceived safety of organic food products and its positive effect on behavior intention towards the product is proposed, i.e. H2.

H2: *Perceived safety of organic food products will positively affect the purchase intention.*

The increase of the environmental consciousness has had a thoughtful effect on consumer behavior, with the green product market expanding at a remarkable rate (Bhaskaran, Polonsky, Cary & Fernandez, 2006). It can be found that there has been an increasing consumer demand for agricultural produce obtained by means of processes having less impact on the environment, especially for organic produce (Chinnici et al., 2002). According to (Harper and Makatouni 2002), animal welfare has become an important component of consumer motivation to purchase products from organic farms which claiming to provide animal-friendly living conditions for farm animals. In fact, environmental and animal rights issues had a strong influence over attitudes and behavior intention towards organic food (Honkanen, Verplanken & Olsen, 2006). Hence, environmental concern remains one of the reasons of organic purchasing intention, therefore, H3 is proposed:

H3: *Perceived environmental friendly and animal welfare of organic food products will positively affect purchase intention.*

Perceived quality of organic food by consumers is becoming increasingly important to its rapid consumption Magnusson et al, 2001 and Padel et al., 2005). Most consumers purchase organic products because of a perception that these products have unique (and in some cases superior) attributes compared to conventionally grown alternatives (Vindigni, Janssen & Jager, 2002). So, H4 is proposed:

H4: *Perceived quality of organic food products will positively affect the purchase intention.*

Intention is the cognitive representation of a person's readiness to perform a given behavior, and the best predictor of behavior is intention. According to the Theory of Reason Action, the stronger the intention of an individual to perform a particular behavior, the greater the particular behavior will be performed (Ajzen, 1991). According to Brown (2003), consumer with intentions to buy certain product will exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying. Results of studies has supported that the path from intentions of buying organic food to the actual buying behavior is positive and significant (e.g. Saba and Messina, 2003; Tarkiainen and Sundqvist, 2005; Thøgersen, 2007). Alternatively, Thøgersen (2007) found that uncertainty about organic food has a direct negative impact on the intention to buy organic food and also a negative impact on the translation from intention to purchase organic food into the actual purchase itself. Based on this evidence, the H5 hypothesis is proposed:
H5: *Intention to buy organic food products is positively and significantly affects the actual buying behavior of the products.*

In addition, the consumer's buying behavior may also be influenced by socio demographic profiles. Previous research has found a significant relation between consumer's demographic variables and the consumption of organic food products.

- In term of gender, Magnusson et al. (2001), Lockie et al. (2004) and Lea and Worsley (2005) have found that a higher proportion of women than men hold

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

positive attitudes towards organic food. At the same time, Stobbelaar et al. (2007) find that adolescent girls are more positive towards organic products than boys.

- Cranfield and Magnusson (2003) also noted that younger consumers are more likely to pay over 6% in higher premiums to ensure food products are pesticide free. Further, Rimal, Moon & Balasubramanian (2005) find that older respondents were less likely to buy organic foods than younger respondents. Nevertheless, it is also of interest to note the contradictory findings of Misra et al. (1991) that older individuals may be willing to deviate and switch to organic food products due to health-related reasons. Geen and Firth (2006) find that in the UK, committed organic consumers tend to be older than the average population. While, Mintel (2000) reported that the most common purchasers of organic vegetables in the UK are 45-54 year olds. Also, Lockie *et al*. (2006) find organic food consumption does not differ across age categories.
- In food industry, many marketers segmenting their markets based on income. Usually, household income has a significant positive correlation with organic food purchases. For example, Underhill and Figueroa (1996), Thompson and Kidwell (1998), and Cranfield and Magnusson (2003) have consistently shown that wealthier households are more likely to spend, and even spend more on organic food products. Besides that, it is also interesting to note the contrasting findings of Byrne, Toensmeyer, German & Muller (1991) that income is inversely related to food safety concerns. This suggests that affluent consumers may be more confident of the safety of food supply or are less concerned about pesticide residue risk due to the higher premium paid for the products (Govindasamy and Italia 1999).
- For educational level, O'Donovan and McCarthy (2002) stated that individuals with higher education level generally are more likely to purchase organic food than others people. Although there is a numerous research find a positive relation between education and organic food consumption (Cunningham, 2002; O'Donovan and McCarthy, 2002), while others find a negative relation (Wilkins and Hillers, 1994; Thompson and Kidwell, 1998). Lea and Worsley (2005) find that the impact of education on organic food beliefs is smallest. Also, Arbindra et al. (2005) found that the level of education has no statistically significant influence on organic food purchase patterns. This could be due to the fact that more highly educated consumers may either feel that no particular food-safety problem exists or expect better quality and safer food products without having to pay extra for it.
- Furthermore, Underhill and Figueroa (1996) and Connor and Douglas (2001) suggest that urbanites are more likely to purchase organic food products compared to those in the rural areas. Two possible reasons exist for this outcome. First and foremost, urban localities have a wider array of organic food products shopping establishments compared to rural locales. Marketing channels are also better established in urban areas. Second, rural residents may live a more traditional lifestyle and have a greater affinity to produce food for their own consumption, thus lowering the likelihood of acquiring commercial organic food products.

Thus, the following H6 – H10 hypotheses are proposed:

H6: *There is a significant difference between gender variable towards purchase intention of the organic food products.*
H7: *There is a significant difference between age variable towards purchase intention of the organic food products.*

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

H8: *There is a significant difference between income variable towards purchase intention of the organic food products.*
H9: *There is a significant difference between education variable towards purchase intention of the organic food products.*
H10: *There is a significant difference between residence area variable towards purchase intention of the organic food products.*

3. Methodology

3.1 Measurement and Sampling Procedure

The descriptive survey using questionnaire was employed in this study to examine how consumers' perceived organic food products affect their behavior intention to purchase the products. The section A of the questionnaire inquires some demographic data of the respondents. The development of the Section B, C and D was based on the following:

- 18 questions were developed in the section B to get respondent's views on various aspects of organic food products. Specifically, four items for measuring consumers' perceived health of organic food products were adapted from Emma Lea & Tony Worsley (2005) and Golnaz et.al, (2011), four items for perceived safety of the product (Golnaz et.al, (2011), six items of perceived environmental friendly and animal welfare (Golnaz et.al. 2011, and Phuah et.al. 2011) and four questions of perceived quality of the product (Kulikovski and Agolli (2010).
- Six items of behavioral intention to purchase organic food products were constructed based on the studies of Mohd. Rizaimyet. al, (2010) and Phuah et.al. (2011).
- Six items to measure respondents' actual purchasing behavior were adapted from the work of Kaman Lee (2009).

All items were measured using 5-point Likert scale (1 is low and 5 is high). The survey was conducted via mall-intercept personal survey. The respondents were selected randomly in the supermarkets in the district of Kluang and its surrounding areas for 2 weeks. Prior to the data collection, the availability of organic food products within these locations was confirmed. According to Hill (1998), in multivariate research the sample size required should be 5 to 10 time of variables for 10% and 5% margin error. In this study, the number of total questions in the developed questionnaire was 30 and therefore the number of samples should be 300 for 5% margin error. Only 288 sets of questionnaires were fully answered and completed by the respondents. The response rate for the questionnaire was 96%.

3.2 Validity and reliability Assessment

For consumers' perceived of organic products, the first round of Exploratory Factor Analysis (EFA) using Principal Component extraction and Varimax rotation performed yielded four dimensions (KMO score of 0.880, Bartlett's Test $p=0.000$ ($p<0.05$). The factor loading for all the 17 proposed items is above 0.5, however one item of perceived quality, i.e. 'Organic food products are tastier and more freshness than conventional food' was below 0.5. Therefore, it was removed from further data analysis.The second round EFA performed on the remaining 17 items and the results confirmed that all the remaining items were accepted with factor loading more than 0.5 with four dimensions extracted. Further, the Confirmatory Factor Analysis confirmed the four dimensions of consumers' perceived organic food products, with total Varian explained of 72.993%, as presented in Table 2. The KMO measure of sampling adequacy tests for behavioral intention and actual purchase behavior were 0.868 and 0.902 respectively (Bartlett's Test $p=0.000$ ($p<0.05$). As can be seen in Table 3 and 4, all items of behavioral intention and actual purchase behavior were accepted based

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

on factor loading of 0.5, with one component extracted for each variable. The total Varian explained for behavioral intention was of 67.638% and 81.968% for actual purchase behavior.

Table 2: The results of Rotated Component Matrix[a] for perception of organic food products

Perception of organic food products	Component			
	1	2	3	4
Health				
Organic food products contain more vitamin and mineral.	.093	.280	.849	.049
Growing food organically and naturally is better for health.	.167	.088	.884	.098
Organic food products are healthier than conventional food because it produces without preservatives or artificial color.	.128	.152	.794	.048
Choosing organic food products are good for ensure our health.	.158	.297	.699	.053
Safety				
Organic farming is the most convincing way of food safety.	.269	.844	.209	-.058
Organic food products are safer to eat.	.245	.850	.229	-.048
Organic food products are chemical free.	.207	.809	.176	.060
Organic produce can reduce the food poisoning risk.	.254	.787	.230	.045
Environmental friendly and animal welfare				
Organic farming is friendliness to the environment.	.737	.357	.178	.035
Organic farming can prevent the contamination and pollution of soil, air, water and food supply.	.849	.161	.205	.056
Organic farming uses less energy.	.860	.169	.155	.092
Organic farming can protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.	.818	.186	.165	.013
Organic farming treats animals humanely.	.839	.167	.083	.044
Organic farming always considers the animal well-being.	.772	.168	.-012	.122
Quality				
Organic food products have superior quality.	.116	.053	.012	.787
Organic food products are more quality than conventional food.	.018	.-006	.054	.854
Organic produce are of better quality and less associated with health risks.	.074	.-040	.114	.749
Total variation explained	72.993%			
Cronbach's Alpha	0.898			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.884			
Barlett's Test of Sphericity: Approc. Chi-Square D.F. Significance	 3150.488 136 .000			

For reliability analysis, as can be seen in Table 2,3 and 4, all the Cronbach's Alpha results were above 0.7. For consumer perceived organic food products, the Cronbach's Alpha scores were 0.869 (perceived health), 0.907 (Safety), 0.922 (Environmental friendly and animal welfare) and 0.721 (perceived quality of organic food products). Thus, all dimensions of perceived organic food products, behavior intention and actual purchase behavior of the products were valid and reliable for further inferential analyses.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Table 3: The results of Component Matrix[a]for intention of organic food products

Purchase intention of organic food products	Component
	1
I would buy organic food products in the near future.	.801
I plan to buy organic food products in regular basics.	.836
I intend to buy organic food products for my long term health benefits.	.815
I intend to buy organic food products because they are more concern about food safety.	.837
I intend to buy organic food products because they are more environmentally friendly.	.823
I intend to buy organic food products because I am concerned about animal welfare.	.822
Total variation explained	67.638
Cronbach's Alpha	0.903
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.868
Barlett's Test of Sphericity: Approc. Chi-Square D.F. Significance	 1045.718 15 .000

Table 4: The results of Component Matrix[a]for actual purchase behaviour of organic food products

Actual purchase behaviour of organic food products	Component
	1
I often buy organic food products.	.915
I often buy organic food products on regular basics.	.941
I often buy organic food products because they are more environmentally friendly.	.896
I often buy organic food products that against animal-testing.	.922
I often buy organic food products that are safety to consume.	.921
I often buy organic food products for my health.	.833
Total variation explained	81.968
Cronbach's Alpha	0.952
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.902
Barlett's Test of Sphericity: Approc. Chi-Square D.F. Significance	 1909.131 15 .000

4.Results

4.1 Demographic Analysis of the Respondents

Descriptive analysis was used to describe the socio demographic profile of the respondents. In this study, most of the respondents are females 171 (59.4%) as compared to male 117 (40.6%) and the numbers of respondents from urban and rural areas are 184 person (63.9%) and 104 person (36.1%) respectively. Majority of the respondents was under the category of 20-40 years old (39.6%), followed by 40-60 years old (27.4%), below 20 years old (19.1%) and above 60 years old (13.9%). In terms of income distribution,20.8 percent of the respondents earned less than RM1000 per month and 19.8 percent of the respondents have an income between RM1001-RM2000. Furthermore, 26.7 percent of the respondents have an income between RM2001-RM3000,21.2 percent of the respondents belong to the income group of RM3001-RM4000 and a smaller percentage of respondents (11.5%) have income above RM4001.The education of the respondents is categorized into six categories. 17 percent of the respondents are below SPM level, 29.5 percent are SPM holders, 13.2 percent of respondents have a college diploma, 19.1 percent of the respondents graduated with a bachelor's degree, 10.8 percent had completed a master's degree and 10.4 percent are PhD holders.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

4.2 The effects of consumer's perception of organic food products on their purchase intention.

Table 5 provides result of the Multiple Regression Analysis on the effect of consumers' perceived organic food products on their intention to purchase the products. The result indicated that perceived safety of organic food products (β =0.196, t3.577,p<.001), health (β =0.132, t2.098, p<.05) and environmental friendly and animal welfare (β =0.107, t1.997, p<.05) significantly influenced intention to purchase. The highest effect on the purchase intention is perceived safety of the organic products (β =0.196, t3.577,p<.001). However, perceived quality of organic food products was not significant. Hence, hypotheses 1 – 3 are accepted, and hypothesis 4 is rejected.

Table 5: Result of Multiple Regression Analysis on the effect of consumers' perceived organic food products and behavioral intention to purchase the products

Coefficients						
Parameter	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	Beta	Std. Error	β			
(Constant)	2.405	0.247		9.753	0.000	
Health	0.116	0.063	0.132*	2.098	0.037	1.347
Safety	0.120	0.055	0.196**	3.577	0.000	1.605
Environmental friendly and animal welfare	0.070	0.053	0.107*	1.997	0.047	1.394
F-Value=19.372	R= 0.412		Rsquare (R2)= 0.170			

Note: * p<0.05; ** p<0.01

4.3 The effect of consumers' intention to purchase organic food products on their actual purchase.

Simple Regression test was performed to examine the effect of purchase intention and actual purchase behavior of organic food products. As showed in Table 6, purchase intention was significantly related to actual purchase behavior (β =0.295, t2.187,p<.001).This indicates consumers who have intentions to buy the products will exhibit actual buying behavior of purchasing the products. Therefore, H5 was supported.

Table 6: Result of Regression Analysis on the effect of consumers' intention to purchase organic food products and actual purchase

Coefficients						
Parameter	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	Beta	Std. Error	β			
(Constant)	1.945	0.256		8.153	0.000	
Purchase intention	0.106	0.072	0.295**	2.187	0.000	1.000
F-Value=65.712						
R= 0.398						
Rsquare (R2)= 0.165						

Note: ** p<0.01

4.4 Differences in the consumers' purchase intention of organic food products according to their demographic variables

In this study, Independent t-Test was used to identify the significant differences in the purchase intention of organic food products according to the gender. Based on Table 7, the P-

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

value (0.143)of the Levene's Test for gender was more than 0.05 which indicates that the variance is not heterogeneous. Hence, t-test for equal variance was used in this study. As a rule of thumb, 2-tailed significance (0.036) that is less than 0.05 suggests that the difference is statistically significant. According to the equal variance assumed, the differences in the mean of 3.9758 and 4.1404 with the standard deviation of 0.6283 and 0.4839 for both gender on purchase intention was significant. Therefore, it can be said that both male and female have significant differences in their purchase intention towards organic food products. Thus, H6 was supported.

Table 7: Independent t-Test for Gender

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.155	**.143**	-2.103	286	**.036**	-.16457	.07825	-.31858	-.01055
Equal variances not assumed			-2.075	237.44	.039	-.16457	.07930	-.32079	-.00834

One-Way ANOVA test results in Table 8 (i) shows that respondent's age (F=7.877; Sig. = 0.000), had the significant impact on the purchase intention of organic food products. Therefore, H7 was supported. Based on the results of LSD Test for respondent's age group in 8 (ii), the age group of 40-60 years old had statistically significant higher score on purchase intention of organic food products than others age group.

Table 8 (ii): ANOVA Test for Respondent's age group

Purchase intention	Sum of Squares	df	Mean Square	F	Sig
Between Groups	9.489	3	3.163	7.877	.000**
Within Groups	114.039	284	.402		
Total	123.528	287			

Table 8 (ii): LSD Test for Respondent's age group

Dependent Variable	**Respondent's age**		**Mean Difference (I-J)**	**Sig.**
	(I)	(J)		
Purchase intention	40-60 years old	Below 20 years old	0.45562**	0.000
		20-40 years old	0.34257**	0.000
		60 years old and above	0.45032**	0.000

Note: * p<0.05; ** p<0.01

Results in Table 9 (i) shows that respondent's age monthly income (F=9.480; Sig. = 0.000) had the significant impact on the purchase intention of organic food products. Therefore H8 was supported. The results of LSD Test for respondent's monthly income in Table 9(ii) showed that respondents who have income level higher than RM3000 per month had statistically significant higher score on purchase intention of organic food products than respondents from those lower than RM3000 per month.

Table 8 (ii): ANOVA Test for Respondent's monthly income

Purchase intention	Sum of Squares	df	Mean Square	F	Sig
Between Groups	14.597	4	3.649	9.480	.000*

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Within Groups	108.931	283	.385		
Total	113.528	287			

Table 9 (i): LSD Test for Respondent's monthly income

Dependent Variable	**Respondent's monthly income**		**Mean Difference (I-J)**	**Sig.**
	(I)	(J)		
Purchase intention	RM3001-RM4000	Less than RM1000	0.49982**	0.000
		RM1001-RM2000	0.43783**	0.000
		RM2001-RM3000	0.34859*	0.001
	RM4001 and above	Less than RM1000	0.61515**	0.000
		RM1001-RM2000	0.55316**	0.000
		RM2001-RM3000	0.46392**	0.000

Note: * p<0.05; ** p<0.01

Based on Table 10 (i), results shows that respondent's education level (F=6.290; Sig. = 0.000) had significant impact on the purchase intention of organic food products. Therefore, H9 was supported. Furthermore, the results of LSD Test for respondent's education level in Table 10 (ii) indicated that respondents who hold degree and master had statistically significant higher score on purchase intention of organic food products than respondents who possess SPM qualification. Meanwhile, PhD holders had statistically significant higher score on purchase intention than of other group of respondents.

Table 10 (ii): ANOVA Test for Respondent's education level

Purchase intention	Sum of Squares	df	Mean Square	F	Sig
Between Groups	12.394	5	2.479	6.290	.000*
Within Groups	111.134	282	.394		
Total	123.528	287			

Table 10 (ii): LSD Test for Respondent's education level

Dependent Variable	**Respondent's education level**		**Mean Difference (I-J)**	**Sig.**
	(I)	(J)		
Purchase intention	Degree or equivalent	Below SPM	0.30353*	0.014
		SPM or equivalent	0.28396 *	0.009
	Master or equivalent	Below SPM	0.33070*	0.022
		SPM or equivalent	0.31113*	0.019
	PhD or equivalent	Below SPM	0.66565**	0.000
		SPM or equivalent	0.64608**	0.000
		Diploma or equivalent	0.51053*	0.001
		Degree or equivalent	0.36212*	0.012
		Master or equivalent	0.33495*	0.038

Note: * p<0.05; ** p<0.01

Moreover, Independent t-Test was also used to identify the significant differences in the purchase intention of organic food products according to the residence area. The P-value (0.074) of the Levene's Test for residence area in Table 11 was more than 0.05 indicated that the variance is not heterogeneous and hence the t-test for equal variance was used in this study. The 2-tailed significance for residence area (0.018) was less than 0.05 suggests that the difference is statistically significant. According to the equal variance assumed, the differences in the mean of 4.1422 and 3.9519 with the standard deviation of 0.67313 and 0.60903 for both residence areas on purchase intention were significant. It shows that both urban and rural have the significant differences in their purchase intention towards organic food products. Hence, H10 was accepted.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

Table 6 (2): Independent t-Test for Residence area

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	3.211	**.074**	2.383	286	**.018**	.19029	.07984	.03315	.34743
Equal variances not assumed			2.451	232.069	.015	.19029	.07765	.03730	.34327

5.0 **Discussion**

The result of the study highlighted that consumers' perceived organic food products did affect their intention to purchase the products. The result indicated that safety (β =0.196) had the greater effect on purchase intention in the context of organic food products followed by health (β =0.132) and environmental friendly and animal welfare (β =0.107). The significant effect of perceived health (Kyrikopolous and van Dijks, 1997), safety (Fagerli and Wandel, 1999) and environmental concern (Crosby, Gill and Taylor, 1981) on purchase intention suggests that consumers are willing to purchase organic food products because they perceived the products are more environmental friendly, safe and good for their health. In this study, safety has been found as the major motive of purchase intention of organic food products. The results are consistent with earlier studies which suggested that food safety as a reason for consuming organic food products (Schifferstein & Oude Ophuis, 1998 and Padel and Foster, 2005). Lockie et al., (2002) found that people buy organic products because they perceive them by not carrying any pesticide residues and to better for their health. Although environmental friendly and animal welfare had the least effect on the purchase intention, it's existence cannot be neglected.The environmental friendly (consumer) behavior is often characterized as ethical or moral behavior, driven by the social norms and the moral considerations (Pál, 2012). Surprisingly, the relationship between perceptions of quality and purchase intentions is not significant. This finding was contradict with the research carried out by previous researcher, where the perceived quality of organic food by consumers becoming increasingly important to its rapid consumption (Olson 1977, Magnusson *et al*, 2001 and Padel *et al*, 2005). The result of this research confirmed that safety is an important objective for consumers buying organic food products. In addition, health consciousness, environmental friendly and animal welfare consideration also serve as drivers for consumption of organic food products. Therefore, it is important for marketers of organic food products to incorporate these objective and drivers in their promotional materials to convince consumers to purchase the products.

In this study, purchase intention is positively affect the probability of a customer decision that he/she will buy organic food products. This finding is consistent with what being proposed in Theory of Planned Behavior (Ajzen, 1991) and the work of Brown (2003) who stated that consumer with intentions to buy certain product will exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

For marketer of organic food products, this finding suggests that promoting buyer's intention to buy the products is necessary, because this will lead them purchasing the products.

This study highlights that significant differences in the consumers purchase intention exist in the context of organic food products. Specifically,

- The differences in the purchase intention were observed based on gender and residence area. In term of gender, organic products buyers tend to be women and they tend to be the primary food shoppers of a household and may be more aware of organic food issues, compared to men. Besides, Underhill & Figueroa (1996) and Connor & Douglas (2001) had stated that urbanites are more likely to consume organic food products compared to those in the rural areas.
- The differences in the purchase intention were also significant according to consumer background of age, education and income. In term of age, the research result shows that older consumers are more likely to purchase organic food. This finding was supported by Misra et al. (1991) which stated that older individuals may be willing to deviate and switch to organic food products due to health-related reasons. Further, a significant effect of income on organic food purchases highlighted that wealthier households are more likely to spend, and even spend more on organic food products (Underhill and Figueroa (1996), Thompson and Kidwell (1998), and Cranfield and Magnusson (2003). In addition, the evidence of significant difference in the purchase intention based on education was highlighted by Jolly (1991), who found that among consumers who purchase organic products, those with university degrees were willing to pay the most for the products.

6. Conclusion

As a conclusion, perception of consumers is important in the purchase decision of organic food consumption. How consumers perceived the organic food products is crucial because this will determine their intention to buy and consume the products. Subsequently, this will lead to the actual behavior of purchasing the product. However, variables of price, taste, etc. of the organic food products, and consumer beliefs of extended Theory of Planned Behavior (Ajzen, 2006) were not tested in this study. This means that the research results may not cover all aspects of the consumer conception toward organic food products. Since consumer's perception towards organic food products affect their intention to purchase the product, it is wise to further investigate more in this area. In addition, future research should focus on the similar study by extending the scope to all states in Malaysia in order to obtain a more reliable and accurate research result. The analysis on how organic food buyers perceived the products should also be carried out as compared to non-buyers and users of the products.

References

[1] Ajzen I., 1991. The theory of planned behavior. Org Behav Hum Decision Processes 50, 179-211.
[2] Ajzen, I. (2006).
[3] (Armstrong and Kotler, 2010) Principle of Marketing. Prentice Hall, 2010
[4] Brown, M. (2003). Buying or browsing? An exploration of shopping orientations and online purchase intention. European Journal of Marketing, 37(11/12), 1666-1684.
[5] Blackwell, R. D., Miniard, R. D., & Engel, P. W. (2001). Consumer behavior. New York: Harcourt College Publishers.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

[6] Cheah, C.M., 2009. A study on consumers green purchasing intention. Masters Thesis, College of Business, University Utara Malaysia, Malaysia.
[7] Connor, R., and L. Douglas. 2001. Applied consumer science: Consumer attitudes to organic foods. *Nutritionand Food Science* 31 (4/5): 254–258.
[8] Cranfield,J.A., and E.Magnusson. 2003. Canadian consumers' willingness-to-pay for pesticide free food products: An ordered probit analysis. *International Food and Agribusiness Management Review* 6(4):14–30.
[9] Crosby, L.A., J.D. Gill, and J.R. Taylor (1981), "Consumer voter behaviour in the passage of the Michigan Container Law", Journal of marketing, Vo.45, pp.349-35.
[10] Cunningham, R. (2001) *The organic consumer profile: Not only who you think it is!* (Alberta: Strategic Information Services Unit, Agriculture, Food and Rural Development).
[11] Emma Lea, Tony Worsley, (2005) "Australians' organic food beliefs, demographics and values", British Food Journal, Vol. 107 Iss: 11, pp.855 – 869.
[12] Fagerli, R.A. and Wandel, M. (1999), "Gender differences in opinions and practices with regard to a 'healthy diet'", Appetite, Vol. 32 No. 2, pp. 171-90.
[13] Fotopoulos, Christos and George Chryssochoidis. (2000) "Factors Affecting the Decision to Purchase Organic Food" *Journal of Euro marketing*, Vol. 9,3. pp.44.
[14] Fotopoulos, C. and Krystallis, A. (2002), "Organic product avoidance: reasons for rejection and potential buyers' identification in a countrywide survey", British Food Journal, Vol. 104 Nos 3/5, pp. 233-60.
[15] Geen, N. and Firth, C. (2006), "The committed organic consumer", paper presented at Joint Organic Congress, Odense.
[16] Gottschalk, Ingrid, & Leistner, Tabea. (2013). Consumer reactions to the availability of organic food in discount supermarkets. *International Journal of Consumer Studies, 37*(2), 136-142. doi: 10.1111/j.1470-6431.2012.01101.x
[17] Golnaz, R., Zainalabidin Mohammed and Mad Nasir Shamsudin. (2011). Malaysian Consumer's Perception towards Purchasing Organically Produce Vegetables.*2nd International Conference on Business and Economic Research* (2nd ICBER 2011) Proceeding.
[18] Govindasamy R. and J. Italia, 1999. Predicting willingness-to-pay a premium for organically grown fresh produce. Journal of Food Distribution Research. 30, 44-53.
[19] Grunert, S. and Juhl, J.H. (1995), "Values, environmental attitudes, and buying of organic foods", Journal of Economic Psychology, Vol. 16 No. 1, pp. 39-62.
[20] Hill R.R. (1998). Analytical comparison of optimization problem generation methodologies. Proceedings of 30th conference on winter simulation.Pg 609- 616.
[21] Jolly, D.A. (1991), "Differences between buyers and nonbuyers of organic produce and willingness to pay organic price premiums", Journal of Agribusiness, Vol. 9 No. 1, pp. 97-111.
[22] Kareklas, Ioannis, Carlson, Jeffrey R., & Muehling, Darrel D. (2014). "I Eat Organic for My Benefit and Yours": Egoistic and Altruistic Considerations for Purchasing Organic Food and Their Implications for Advertising Strategists. *Journal of Advertising, 43*(1), 18-32. doi: 10.1080/00913367.2013.799450
[23] Kaman, L. (2009). "Gender differences in Hong Kong adolescent consumers' green purchasing behavior". Journal of Consumer Marketing. Vol. 26 Iss: 2, pp.87 – 96.
[24] Koger, Susan & Deborah Du Nann Winter. *The Psychology of Environmental Problems*. New York: Psychology Press, 2010.
[25] Kulikovski, V. and Agolli, M. (2011). Drivers of Organic Food Consumption in Greece. International Hellenic University. pp 51.
[26] Krissoff, B., 1998. Emergence of U.S. organic agriculture - can we compete? American Journal of Agricultural Economics. 80(5): 1130-1133.
[27] Kyriakopoulos, K. and van Dijk, G. (1997) "Post-purchase intentions for organic foodstuff: A conceptual framework based on the perception of product value." *Journal of International Food and Agribusiness Marketing* 9(3):Pp,1-19
[28] Lockie, S., Lyons, K., Lawrence, G. and Mummery, K. (2002), "Eating "green": motivations behind organic food consumption in Australia", Sociologia Ruralis, Vol. 42 No. 1, pp. 23-40.
[29] Liu Li Juan. (2003). Enhancing sustainable development through developing green food: China's option. Retrieved 25 November, 2010 from http://www.unctad.org/trade_env/test1/meetings/bangkok4/chinaPPT.pdf
[30] Misra, S. K., C. L. Huang, and S. L. Ott. 1991. Consumer willingness to pay for pesticide-free fresh produce. *Western Journal of Agricultural Economics* 16 (2):218–227.
[31] Magnusson, M.K., Arvola, A., KoivistoHursti, U-K.,A ° berg, L. and Sjo¨de´n, P-O. (2001), "Attitudes towards organic foods among Swedish consumers", British Food Journal, Vol. 103 No. 3, pp. 209-26.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

[32] Mohd Rizaimy Shaharudin; Jacqueline JunikaPani; Suhardi Wan Mansor&Shamsul Jamel Elias/ Cross-cultural Communication Vol.6 No.2 2010
[33] Niessen, J. & Hamm, U. (2008). Identifying the gap between stated and actual buying behaviour on organic products based on consumer panel data. *Cultivating the Future Based on Science: 2nd Conference of the International Society of Organic Agriculture Research ISOFAR*, Modena, Italy, June 18-20, 2008.
[34] O'Donovan, P. and McCarthy, M. 2002. Irish consumer preference for organic meat.*British Food Journal*. 104(3/4/5): 353-370.
[35] Ohtomo, S. and Hirose, Y. (2007), "The dual-process of reactive and intentional decision-making involved in ecofriendly behaviour", Journal of Environmental Psychology, Vol. 27 No. 2, pp. 117-25.
[36] Olson, J. C. (1977). Price as an informational cue: e.ects in product evaluation. In A. G. Woodside, J. N. Sheth, & P. D. Bennet, Consumer and industrial buying behaviour (pp. 267±286). New York: North-Holland Publishers.
[37] Padel, S., Foster, C., (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107 (8), pp. 606 – 625.
[38] Passillé, A.M. and Rushen, J. Food safety and environmental issues in animal Welfare. Rev. sci. tech. Off. int. Epiz., 2005, 24 (2): 757-766.
[39] Pál, Zsuzsa. (2012). The interdependency of ecological and health issues in the choice of organic foods. *Annalsof the University of Oradea, Economic Science Series, 21*(1), 1187-1192.
[40] Phuah, K.T., Golnaz, R., Zainalabidin Mohamed and Mad Nasir Shamsudin.(2011). Consumers's awareness and consumption intention towards green food. International conference on management (ICM) proceeding.
[41] Saba, A. & Messina, F. (2003) Attitudes towards organic foods and risk/benefit perception associated with pesticides. *Food Quality and Preference*, 14, 637–645.
[42] Schifferstein, H. N. J. and P.A.M. Oude Ophuis, 1998. Health-related determinants of organic food consumption in the Netherlands. Food Quality and Preference, 9, 119–133.
[43] Shafi, S., & Madhavaiah, C. C. (2013). The Influence of Brand Equity on Consumer Buying Behaviour of Organic Foods in India.*Journal Of Marketing & Communication*, 9(2), 44-51.
[44] Soonthonsmai,V., 2007. Environmental or green marketing as global competitive edge: Concept, synthesis and implication. EABR (Business) and ETLC (Teaching) Conference Proceeding. Venice, Italy.
[45] Storstad, O. and Bjorkhaug, H. (2003), "Foundations of production and consumption of organic food in Norway: common attitudes among farmers and consumers", Agriculture and Human Values, Vol. 20, pp. 151-63.
[46] Tarkiainen, A., & Sundqvist, S. (2005) Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107 (11), 808-822.
[47] THØGERSEN, J. (2007) Consumer decision-making with regard to organic food products. IN VAZ, M. T. D. N., VAZ, P., NIJKAMP, P. & RASTOIN, J. L. (Eds.) *Traditional Food Production Facing Sustainability: A European Challenge; Ashgate.*
[48] Thompson, G.D., 1998. Consumer demand for organic foods: what we know and what we need to know. American Journal of Agricultural Economics, 80, 1113-1118.
[49] Thompson, G.D., & Kidwell, J. (1998). Explaining the choice of organic produce, cosmetic defects, prices and consumer preferences. *American Journal of Agricultural Economics, 80*(2), 277-287.
[50] Torjusen, H., Lieblien, G., Wandel, M. and Francis, C.A. (2001), "Food system orientation and quality perception among consumers and producers of organic food in Hedmark County", Norway, Food Quality and Preference, Vol. 12, pp. 207-16.
[51] Underhill, S. E., and E. E. Figueroa. 1996. Consumer preferences for non-conventionally grown produce. *Journal of Food Distribution Research* 27 (2): 56–66.
[52] Van Loo, Ellen J., My Nguyen Hoang, Diem, Pieniak, Zuzanna, & Verbeke, Wim. (2013). Consumer attitudes, knowledge, and consumption of organic yogurt. Journal of Dairy Science, 96(4), 2118-2129. doi: 10.3168/jds.2012-6262
[53] Wier, M. and Calverley, C. 2002. Market potential for organic foods in Europe. British Food Journal. 104(1): 45-62
[54] Williams, P. R. D., and J.K. Hammit, 2001. Perceived risks of conventional and organic produce: pesticides, pathogens, and natural toxins. Risk Analysis, 21, 319–330.
[55] Stern, P.C. (2005). "Understanding individuals' environmentally significant behavior", Environmental Law Reporter: News and Analysis, 35, 10785–10790
[56] Schiffman, L. G., & Kanuk, L. L. (2010). Consumer behavior. 9th Edition .International. Inc.: Prentice-Hall

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)

[57] Sheth, J. N., Mittal, B., Newman, B. I., & Sheth, J. N. (2004). Customer behavior: A managerial perspective. Thomson/South-Western.
[58] Dimitrova, B., & Rosenbloom, B. (2010). Standardization versus adaptation in global markets: is channel strategy different?. Journal of Marketing Channels,17(2), 157-176.
[59] Wandel, M., & Bugge, A. (1997). Environmental concern in consumer evaluation of food quality. Food quality and preference, 8(1), 19-26.
[60] Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food.British Food Journal, 107(8), 606-625.
[61] Roitner-Schobesberger, B., Darnhofer, I., Somsook, S., & Vogl, C. R. (2008). Consumer perceptions of organic foods in Bangkok, Thailand. Food policy,33(2), 112-121.
[62] Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. International Journal of Consumer Studies, 32(2), 163-170.
[63] 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.
[64] Bhaskaran, S., Polonsky, M., Cary, J., & Fernandez, S. (2006). Environmentally sustainable food production and marketing: opportunity or hype?. British food journal, 108(8), 677-690.
[65] McEachern, M. G., & Willock, J. (2004). Producers and consumers of organic meat: a focus on attitudes and motivations. British Food Journal, 106(7), 534-552.
[66] Thøgersen, J. (2007). Det er meget godt som det er... er det ikke. Oslo, Novus.
[67] Lea, E., & Worsley, T. (2005). Australians' organic food beliefs, demographics and values. British food journal, 107(11), 855-869.
[68] Stobbelaar, D. J., Casimir, G., Borghuis, J., Marks, I., Meijer, L., & Zebeda, S. (2007). Adolescents' attitudes towards organic food: a survey of 15-to 16-year old school children. International Journal of Consumer Studies, 31(4), 349-356.
[69] Cranfield, J. A., & Magnusson, E. (2003). Canadian consumers' willingness to pay for pesticide-free food products: An ordered probit analysis. International Food and Agribusiness Management Review, 6(4), 13-30.
[70] Rimal, A. P., Moon, W., & Balasubramanian, S. (2005). Agro-biotechnology and organic food purchase in the United Kingdom. British Food Journal, 107(2), 84-97.
[71] Byrne, P. J., Toensmeyer, U. C., German, C. L., & Muller, H. R. (1991). Analysis of consumer attitudes toward organic produce and purchase likelihood.Journal of Food Distribution Research, 22(2), 49-62.
[72] Govindasamy, R., & Italia, J. (1999). Predicting willingness-to-pay a premium for organically grown fresh produce. Journal of Food Distribution Research, 30, 44-53.
[73] Magnusson, M. K., Arvola, A., Hursti, U. K. K., Åberg, L., & Sjödén, P. O. (2001). Attitudes towards organic foods among Swedish consumers. British food journal, 103(3), 209-227.
[74] Vindigni, G., Janssen, M. A., & Jager, W. (2002). Organic food consumption: a multi-theoretical framework of consumer decision making. British Food Journal,104(8), 624-642.
[75] Molyneaux, M. (2007). changing face of organic consumers. Food technology.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM)