Exploring the Consumption of Organic Foods in the United Arab Emirates

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Abstract
The objectives of this study were to determine the extent of organic food consumption in the United Arab Emirates (UAE), examine the consumers' perceptions of the effects of organic foods on human health and the environment, and investigate the factors that limit the consumption of organic foods. Five hundred questionnaires were randomly distributed to communities in the UAE from October to December 2013, and 266 questionnaires were completed and returned giving us a response rate of 53%. Our findings indicated that organic food is more recognized among the youth. Furthermore, organic fish, fruits, and chocolates are consumed more than other types of organic foods. Health and environmental awareness are the main reasons that people consume organic foods. Moreover, the development of society, an individual's social level and peers, and advertisements encourage people to buy organic foods by presenting the consumption of organic foods as a new trendy lifestyle that generates a type of prestige. Conversely, cost, availability, shelf life, taste, and a lack of knowledge are the main factors that limit the consumption of organic foods. We recommend that organic foods should be highlighted more through research, media, lectures, and health campaigns to enhance the public’s knowledge of organic foods. Moreover, we believe that the cost of organic foods could be reduced by increasing the number of standard local organic food farms throughout the UAE.

Keywords
organic foods, organic farming, green environment, conventional foods

Introduction
Organic farming is considered a green revolution throughout the world, that is, ecosystem-friendly, because organic agriculture enhances the use of renewable resources, which minimizes pollution of the air, soil, and water for future generations (Food and Agriculture Organization [FAO], 2013; Morgera, Caro, & Durán, 2012). Moreover, it has been reported that organic foods are more beneficial to human health than conventional foods (Gold, 2007; Holden, 2000; Huber, Rembialkowska, Średnicka, Bügel, & Van de Vijver, 2011; Oliveira et al., 2013). For these reasons, the demand for organic foods has grown rapidly in many nations with increasing consumer awareness over the last few years. According to a report in 2013 by the Agricultural Marketing Resource Center of the United States Department of Agriculture (USDA), U.S. organic exports expanded to nearly US$450 million in 2012 (Agricultural Marketing Resource Center, 2014). However, the U.S. organic food market is projected to grow 14% from 2013 to 2018 (Daniells, 2014). In Canada, the organic market grew to US$3.7 billion in 2012 (MacKinnon, 2013), and the organic market in China is expected to rise to US$3.6 to US$8.7 million by 2015 (Lagos, Scott, Rasmussen, Bugang, & Chen, 2010). In 2009, the Middle East market consultancy firm Orient Planet stated that the organic food market of the Gulf Cooperation Council (GCC) was estimated at US$300 million, and in 2009, Saudi Arabia was responsible for 90% of the total GCC organic food market, an estimated US$270 million (GCC Food Industry Report, 2013). In regard to this trade, the United Arab Emirates (UAE) has also established a strong backbone for its organic farming, and the UAE government has played a vital role in enhancing and encouraging local organic farming, which has helped to reduce carbon footprint (Malek, 2013b). The number of organic farms in the UAE has risen from a few individual farms in 2004 covering only 5 hectares to farms covering 218 hectares in 2007, and in 2013, a total of 40 organic farms covering 3,920 hectares were present. Three farms out of the 40 are organic animal farms, and the

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rest grow organic crops. The organic crop farms produce 62 organic crops, including cucumbers, lettuces, potatoes, tomatoes, carrots, cabbage, cauliflower, bell pepper, chili pepper, muskmelon, parsley, mint, arugula, dill, coriander, spinach, dates, eggplants, and so on (Al Serkal, 2013; UAE Ministry of Environment and Water website, 2013).

Moreover, the UAE government focuses a lot of attention on the quality of local organic foods. Therefore, the ministry of environment and water visits certified organic farms twice a year to ascertain the quality of the farming, analyze the soil, and verify the absence of pesticides (Malek, 2013a). Organic foods have been developing tremendously in the UAE, and people have positive attitudes toward them. Most citizens who consume organic foods regularly have reported that organic foods enhance their ability to work, improve digestion, and elevate their energy level (Swan, 2013). In fact, progress in the growth and utilization of organic foods has led to some restaurants specializing in cooking organic foods, establishing their own farms in the UAE, and selling their fresh products in local organic markets. Despite the rapid growth in organic farms and the increase in organic food consumption in the UAE, there is still a large segment of consumers who prefer to consume conventional foods (non-organic foods) for a variety of reasons. To understand the consumers’ viewpoints and their knowledge of organic foods, we conducted this study. We investigated the extent of organic food consumption, the consumers’ perceptions of the effects of organic foods on human health, and the environment and the factors that limit the consumption of organic foods in the UAE.

In view of our research objectives, the following research questions guided our data collection:

**Research Question 1:** To what extent do respondents prefer organic foods to conventional foods in the UAE?

**Research Question 2:** What are respondents’ viewpoints on the impacts of organic foods on human health and the environment in the UAE?

**Research Question 3:** What are the factors that hinder or limit persons’ consumption of organic foods in the UAE?

**Research Question 4:** What means can enhance consumers’ perceptions of organic foods in the UAE?

### Research Methods

A cross-sectional research study was conducted from October to December, 2013, and the quantitative data analysis method of the survey samples was used. Hence, we designed a questionnaire (see the appendix) using closed-ended questions with different formats (Walliman, 2006). The questionnaire had two parts: demographic characteristics of the respondents and viewpoints of organic foods of the respondents. The questionnaire included three variables in the consumers’ perception section: health, environments, and social factors. However, the questions in the viewpoints section covered the research objectives and assessed the research questions. To examine the quality and measure the validity of the questionnaire, we submitted the first draft to three members of the research committee of the College of Education at the American University in the Emirates (AUE). They reviewed the contents of the questionnaire and examined the consistency of the questionnaire items in regard to the research objectives. We revised the questionnaire based on our colleagues’ feedback, and it was sent to two other colleagues at the College of Business Administration at the AUE who also provided feedback. Then, the questionnaire was further revised. The questionnaire was also submitted to the AUE management office to obtain approval to distribute it to the members of the AUE community, as part of this work was carried out in the AUE. We used a random sampling technique and distributed 500 questionnaires in different Emirates such as Dubai, Abu Dhabi, Sharjah, Ajman, and Umm Al Quwain. The questionnaires were distributed randomly in the AUE and to the researchers’ colleagues at their workplaces and to their family members, relatives, friends, and neighbors; the potential respondents had a variety of educational backgrounds and a wide age range. Of the 500 distributed questionnaires, only 266 were completed and returned giving us a response rate of 53%. The collected data of the 53% respondents were divided into two categories: 211 respondents (79.3%) had heard about organic foods and 55 respondents (20.7%) had not. We analyzed the data descriptively only for those who knew about organic foods using Statistics Package for Social Sciences software (SPSS program, version 20). The data are presented in tables and charts in the results section.

### Results

The demographic data of the respondents are shown in Table 1.

Table 1 describes the 211 respondents who had heard about organic foods; 64.5% of the respondents were males and 35.5% were females. The highest percentage of respondents who were familiar with organic foods, 55.5%, was in the age group of 16 to 25 years. The majority of the respondents (58.8%) reported that they eat meat and vegetables, and very few respondents were vegetarian. Meanwhile, 83.4% of the respondents stated that they like to eat fruits and vegetables.

To answer the first research question (To what extent do respondents prefer organic foods to conventional foods in the UAE?), data from the 211 respondents who had heard about organic foods are presented in Figures 1 to 6.

Figures 1 and 2 show that 88.6% of the respondents had tasted organic foods, and 83.9% of them knew the differences between organic and conventional foods.

As shown in Figures 3 and 4, the percentage of respondents who preferred organic foods over conventional foods was 60.7%. In addition, 29.4% of the respondents had been
interested in organic foods for more than 3 years, and 28.4% had been interested in organic foods for less than 1 year. Figure 5 shows that 30.8% of the respondents consume organic foods once a month, and approximately 21% spend money weekly to buy organic foods. Thus, the consumption of organic foods needs to be promoted. Therefore, to answer the second research question, we discussed some factors that might limit organic food consumption in the UAE.

Figure 6 shows that fishes, fruits, and chocolates are the types of organic foods that the respondents consumed regularly. It is important for us as researchers to understand the consumers’ perceptions of the effects of organic foods on human health, the environment, and UAE communities. Therefore, the results of the second research question (What are respondents’ viewpoints of organic food impacts in the UAE?) are presented in Tables 2, 3, and 4.
As shown in Table 2, the highest percentage of respondents agrees that organic foods are more useful for the environment than conventional foods. Most of the respondents are aware that organic farming and their products help conserve water and are beneficial to animals, soils, and the climate because organic foods are free of chemicals. Eating organic animals is healthier for consumers than eating conventionally raised animals because organic animals are never given hormones or unnecessary antibiotics.

As illustrated in Table 3, more than 70% of the respondents agree that eating organic foods is healthier for consumers than eating conventional foods.

As presented in Table 4, more than 60% of the respondents agree that eating organic foods is a type of new trendy lifestyle that has appeared recently in the society.

Another key goal of this study was to determine the factors that hinder or limit persons’ consumption of organic foods in the UAE. Thus, the respondents’ opinions are articulated in Table 5.

Although most of the respondents were familiar with organic foods and know the benefits of them for human health and the environment, they consume these foods only once a month. Thus, for the third research question, we tried to determine the factors that limit organic food consumption in the UAE. Table 5 shows that 64% of the respondents believe organic foods have a short shelf life, and this may limit the usage of organic foods. The public’s knowledge of organic foods was considered inadequate by 65.9% of the respondents, and some of the respondents did not know the benefits of organic foods or the meaning of the term organic food. Another factor that we hypothesized which may hinder organic food consumption is that most people believe no difference exists between organic and conventional foods in regard to the amount of nutrients they contain. This was supported by the data, as 60.2% of the respondents agreed that conventional foods provide all required nutrients. Although the main factor that hinders organic food consumption is its cost, the majority of respondents disagreed that buying organic foods is a waste of money; thus, while they know organic foods are expensive, they also seem to be aware of their benefits. Furthermore, 67.3% of the participants attributed the limited consumption of organic foods to a lack of pervasive availability. In addition, 57.3% of the respondents do not think that organic foods are completely free of chemicals; this opinion may be due to inadequate knowledge regarding organic foods. Furthermore, 54.5% of the respondents do not prefer the taste of organic foods.

To answer the fourth research question (What means can enhance consumers’ perceptions of organic foods in the UAE?), we proposed several possible means for enhancing consumers’ perceptions of organic foods in the questionnaire, and the participants responded accordingly (Table 6).

As illustrated in Table 6, more than 80% of the respondents agree on the suggestion to develop organic food consumption in the UAE. The highest percentage of respondents agreed that developing and promoting the consumption of organic foods could be accomplished through many means, such as media, press, lectures, presentations, increasing the number of organic food restaurants, stores, and canteens that sell organic foods in malls, schools, and universities. Along with the aforementioned suggestions and to enhance the education and awareness, the topic of nutrition and health, especially organic foods, could be included in the schools’ curriculum to build healthy habits of our future generations.

**Figure 3.** Which type of foods do you prefer?

**Figure 4.** How long have you been interested in organic foods?
Figure 5. How often do you consume organic foods?

![Bar graph showing frequency of organic food consumption]

Table 2. The Consumers’ Perceptions of the Impacts of Organic Foods on the Environment.

| Consumers’ perceptions of organic foods                                      | % Agree | % Disagree | % I do not know |
|----------------------------------------------------------------------------|---------|------------|----------------|
| Organic foods are safer to the environment than other conventional foods.   | 84.3    | 6.2        | 9.5            |
| Organic foods are completely pesticide and fertilizer free.                | 65.9    | 14.2       | 19.9           |
| Organic foods do not contain genetically modified organisms.              | 69.2    | 15.2       | 15.6           |
| Organic farming improves soil structure, builds healthy soil, and reduces soil erosion. | 69.2 | 9.5 | 20.9 |
| Organic farming protects and conserves water resources.                    | 65.9    | 13.7       | 20.4           |
| Organic farming combats climate changes.                                   | 59.2    | 10.9       | 29.9           |
| Organic animals are not given any hormones or unnecessary antibiotics.     | 72.0    | 10.4       | 17.5           |

Figure 6. What types of organic foods do you consume regularly?

![Bar graph showing types of organic foods]

Table 3. The Consumers’ Perceptions of the Impacts of Organic Foods on Human Health.

| Consumers’ perceptions of organic foods                                      | % Agree | % Disagree | % I do not know |
|----------------------------------------------------------------------------|---------|------------|----------------|
| Organic foods reduce health risks more than conventional foods.             | 73.0    | 13.7       | 13.3           |
| Organic foods prevent people from becoming overweight and obese.           | 73.0    | 11.8       | 15.2           |
| Organic foods build strong future generations.                              | 74.4    | 13.3       | 12.3           |
Table 4. The Social Impacts of Organic Foods.

| Consumers’ perceptions of organic foods                                      | % Agree | % Disagree | % I do not know |
|----------------------------------------------------------------------------|---------|------------|----------------|
| Buying organic foods indicates that one is changing his or her lifestyle.  | 64.0    | 20.9       | 15.2           |
| Buying organic foods suggests a type of social prestige.                   | 63.0    | 20.4       | 16.6           |
| People may buy organic foods as the result of influence by family/friends. | 63.5    | 19.0       | 17.5           |
| Buying organic foods may be strongly influenced by advertisements.        | 65.4    | 20.9       | 13.7           |
| Buying organic foods may be influenced by the need to follow a trend.     | 63.5    | 18.0       | 18.5           |

Table 5. Different Reasons for Limiting the Consumption of Organic Foods in the UAE.

| Reasons for limiting the consumption of organic foods                     | % Agree | % Disagree |
|----------------------------------------------------------------------------|---------|------------|
| Organic foods have shorter life span than other conventional foods.        | 64.0    | 36.0       |
| Inadequate knowledge about organic foods.                                  | 65.9    | 34.1       |
| The conventional foods provide me the required nutrients.                 | 60.2    | 39.8       |
| Buying organic foods is a waste of money.                                 | 40.8    | 59.2       |
| Organic foods are expensive.                                              | 64.5    | 35.5       |
| Organic foods are not available everywhere.                               | 67.3    | 32.7       |
| I do not think that organic foods are totally free from chemicals.        | 57.3    | 42.7       |
| I do not like the taste of organic foods.                                 | 54.5    | 45.5       |

Table 6. Suggestions to Enhance Consumers’ Perceptions of Organic Foods in the UAE.

| Suggestions to enhance consumers’ perceptions of organic foods             | % Agree | % Disagree |
|----------------------------------------------------------------------------|---------|------------|
| Reduce the cost of organic foods.                                         | 86.7    | 13.3       |
| Increase advertisements of organic foods through the media.              | 83.4    | 16.6       |
| Encourage awareness organic foods campaigns.                             | 81.5    | 18.5       |
| The topic of organic foods should be included in the schools’ curriculum.| 81.0    | 19.0       |
| Increase the numbers of restaurants and stores of organic foods in malls and universities. | 83.9 | 16.1 |

Note. UAE = United Arab Emirates.

Discussion

In this study, we explored consumers’ perceptions of organic foods in the UAE. The demographic data of our respondents showed that the younger generation prefers organic foods more than elderly individuals due to the development of a new lifestyle and knowledge and awareness of healthy and environmentally friendly foods. We believe that education and awareness are the main means that can be used to enhance the demand for organic foods. Other studies have shown that the regular consumption of organic foods has increased among females and individuals with high levels of education, income, and social class (McIntosh, Acuff, Christensen, & Hale, 1994; Padel & Foster, 2005; Stobelaar et al., 2006; Torjusen, Lieblein, Wandel, & Francis, 2001).

In this study, we found that the majority of respondents had positive attitudes toward organic foods and agreed that organic farming is safer for the environment than conventional foods because it does not use pesticides, fertilizers, hormones, and antibiotics as stated by the USDA Agricultural Marketing Service (2014). In agreement with previous studies (Baldwin, 2006; Gattinger et al., 2012; Scialabba & Hattam, 2002; Shafie & Rennie, 2012), around 60% of the respondents in our study were aware of the positive impacts of organic farming on the environment: combating climate change, improving soil structure, and saving water resources by reducing the contamination of water with chemicals. Even though organic foods benefit human health, reduce environmental pollution, and have higher nutritive value than conventional foods, taste is the main factor that influences organic food consumption (Shafie & Rennie, 2012). In previous studies, the majority of respondents were not sure whether organic foods are completely free of chemicals and pesticides (Brennan & Kuri, 2002; Lea & Worsley, 2005). This is in line with our results, which indicated that one of the barriers to the consumption of organic foods is the belief that organic foods are not completely free of chemicals (57.3%). Baker, Benbrook, Groth, and Benbrook (2002) examined pesticide residues in organic food and found that it contains only one third of the pesticides found in conventional food. It is
important to read the labels on certified organic foods, such as USDA Organic, European Union, Australian, and Canadian labels, and the labels vary by country. The percentages of organic ingredients in certified organic foods are indicated on the label. For example, 100% indicates that the food is made of 100% organic ingredients or is completely organic, while 70% means that the product contains at least 70% organic ingredients (Paul, Kemp, & Segal, 2013; USDA National Organic Program/Agricultural Marketing Service Report, 2012). In addition to the perception of the benefits of organic foods on the environment, many literatures have stated that organic foods are safer and healthier than conventional foods and this drives people to consume them. According to the literature, organic foods reduce the risk of diabetes, high blood pressure, obesity, cancer, and so on (Bradbury et al., 2014; Crinnion, 2010; My-Health-Question.info, 2013; Paul et al., 2013; Stevens, 2010). However, the debate over whether organic foods are more nutritious is ongoing. There are very few studies that showed valid comparisons of organic and conventional food in terms of nutritive value (Arrey, 2011; Crinnion, 2010; Huber et al., 2011; Magkos, Arvaniti, & Zampelas, 2003). Organic fruits and vegetables can synthesize polyphenolic antioxidants up to 50% more than conventional foods (Winter & Davis, 2006). Crinnion (2010) noted that organic foods, except for wheat, oats, and wine, have high amounts of these phytochemical antioxidants (anthocyanins, flavonoids, and carotenoids). High amounts of vitamins, such as vitamin C, and minerals, such as iron, magnesium, phosphorus, and zinc, are a main factor in motivating people to purchase organic foods (Crinnion, 2010; Naspetti & Zanoli, 2006). Magkos et al. (2003) noted that organic potatoes and leafy vegetables contain more ascorbic acids, and some vegetables and cereal crops have high protein contents.

In addition to the human health and environmental impacts of organic foods, we also examined social factors that influence organic food consumption, including a changing lifestyle, advertisements, peers, and social class. The majority of participants agreed that organic food consumption is a type of social prestige and a change in lifestyle that can motivate people to buy organic foods. In addition, our data indicate that organic food consumption is stimulated by advertisements, friends, and trend. Our results are consistent with Vermeir and Verbeke (2006) who found that organic food consumption can be increased by raising social pressure from peers and the availability of organic foods. Although the participants in our study had tasted and had been interested in organic food for around 3 years, this did not correlate strongly with consumption behavior. It is apparent from our results that most organic food consumers only eat organic foods once a month. However, the participants highlighted some factors that limit organic food consumption, such as short shelf life, inadequate knowledge, cost, availability, and taste. The cost of organic food is 20% to 100% more than that of conventional foods (Al Serkal, 2013). Accordingly, if a family consists of more than five persons with a limited family income, the family members cannot afford to buy organic foods every week. Furthermore, 67.3% of the participants attributed the limited consumption of organic foods to a lack of pervasive availability. Thus, the results of this study underscore the need for organic farming to be promoted across all of the UAE.

Approximately 54% of the participants in this study attributed the limitation of organic food consumption to its taste; they stated that they do not prefer the taste of organic foods. However, this parameter is dependent on satisfaction, consumer sensory quality, and the quality of each type of food. Likewise, Bourn and Prescott (2002) attributed the better taste of organic fruits and vegetables compared with conventional products to a variety of sensory qualities. Correspondingly, Fillon and Araz (2002) found that organic orange juice has a better taste than conventional orange juice, while there is no difference between the taste of organic and conventional milk. In agreement with the results of previous studies (Lea & Worsley, 2005; Shafie & Rennie, 2012), we found that cost and lack of availability are other deterrents that limit organic food consumption. Moreover, O’Donovan and McCarthy (2002) examined the perceptions of organic meat of Irish consumers; they found that food safety, human health, environment, pollution, quality, and value are the most important factors leading to the purchase of organic meat, while socio-economic level and availability are key barriers to the consumption of organic meat. Last, based on our results concerning consumer perception of organic foods in the UAE, we made some suggestions for ways to enhance organic food consumption. More than 80% of the respondents agreed that consumption of organic foods could be increased by conducting awareness campaigns, using media outlets and advertisements, reducing cost, adding organic food information to school curricula, and increasing the availability of organic foods in restaurants in malls, schools, and universities.

Conclusions and Recommendations

In summary, people, especially the young, are becoming more aware of organic foods and how they can positively affect their health and environment. Most of the participants in this study prefer organic foods over conventional foods and consume fish, fruits, and chocolates more than other types of organic foods. Most of the participants agree on the importance of organic foods for human health and the environment or buy organic foods as part of a new trendy lifestyle or to obtain a type of prestige due to the development of society; however, most participants only consume organic foods once a month. Furthermore, there are many gaps in knowledge on the subject of organic foods that need to be filled. Therefore, we recommend further studies on organic foods, and a thorough analysis to ascertain the nutrient compositions of organic foods should be conducted. Furthermore, the new nutrition trend needs to be highlighted more through
academic research, and more health programs should be accessible to people in all levels of society for people of all ages through the media, radio, press, lectures, and health campaigns. These awareness programs would clarify any doubt on the concept of organic food farming its products. Likewise, the number of organic restaurants, canteens, and stores in malls, universities, and schools should be increased to build healthy communities and reduce the consumption of unhealthy fast foods and reduce unhealthy habits.

More standard organic farms need to be established to produce different and safe organic products with a low cost. This is also needed to make organic foods available to all consumers, regardless of their income. Finally, further studies are needed to determine the relationship between family income and intention to buy organic foods. Moreover, future studies need to cover more areas in the UAE, including organic farms, shops, and restaurants, to obtain extensive data from the viewpoints of the sellers and buyers of organic foods. This information could be used to help spread the selling of organic foods in local markets. We should also survey customers in organic shops and restaurants to assess their perceptions of organic foods.

Appendix

Exploring the Consumption of Organic Foods in the UAE

Dear respondents,

You are invited to participate in our survey. This study is conducted to find out your views of organic foods. Your participation in this study is completely voluntary. So please respond to the questions as honest as possible. All the data will be used for the purpose of this research alone. Thank you very much for your time and support.

Part 1: Personal information

1. Gender:
   - [ ] Male
   - [ ] Female

2. Age:
   - [ ] 16-25
   - [ ] 26-35
   - [ ] 36-45
   - [ ] 46-55
   - [ ] 56-65
   - [ ] 66 and above

3. Where do you live?

   - [ ] Abu Dhabi
   - [ ] Dubai
   - [ ] Sharjah
   - [ ] Ajman
   - [ ] Umm Al Quwain
   - [ ] Ras Al Khaimah
   - [ ] Fujairah

4. Educational qualification:
   - [ ] High school
   - [ ] Diploma
   - [ ] Bachelor
   - [ ] Master
   - [ ] PhD

5. Are you?
   - [ ] Vegan (no meat, fish, eggs, dairy products, and all other animal-derived ingredients)
   - [ ] Lacto-ovo vegetarian
   - [ ] Ovo-vegetarian
   - [ ] Non-vegetarian

6. Do you like eating fruits and vegetables?  
   - [ ] Yes
   - [ ] No
   - [ ] Sometimes

7. Have you heard about organic foods?  
   - [ ] Yes
   - [ ] No

If you select No, no need to compete the survey. Thank you.
Part 2: Viewpoints about organic foods

1. Have you tasted organic foods before?  
☐ Yes  
☐ No

2. Do you know the differences between the organic and conventional foods?  
☐ Yes  
☐ No

3. Which types of foods do you prefer?  
☐ Organic foods  
☐ Conventional foods

4. What types of organic foods do you consume regularly?  
☐ Vegetables  
☐ Fruits  
☐ Herbs  
☐ Juices  
☐ Cereals and cereal products  
☐ Dairy products  
☐ Baby foods  
☐ Chocolates  
☐ Meat  
☐ Fish  
☐ Chicken

5. How long have you been interested in organic foods?  
☐ Less than 1 year  
☐ 1 year  
☐ 2 years  
☐ 3 years  
☐ More than 3 years

6. How often do you consume organic products regularly?  
☐ 4-5 times a week  
☐ 2-3 times a week  
☐ once a week  
☐ once a month  
☐ 2-3 times a month

7. What are your perceptions of organic foods?

| Consumers’ perceptions of organic foods | Agree | Disagree | I do not know |
|----------------------------------------|-------|----------|---------------|
| Organic foods are safer to the environment than other conventional foods. |       |          |               |
| Organic foods are completely pesticides and fertilizers free. |       |          |               |
| Organic foods do not contain genetically modified organisms. |       |          |               |
| Organic farming improves soil structures, builds healthy soil, and reduces soil erosion. |       |          |               |
| Organic farming protects and conserves water resources. |       |          |               |
| Organic farming combats climate changes. |       |          |               |
| The organic animals are not given any hormones or unnecessary antibiotics. |       |          |               |
| Organic foods reduce health risks more than other conventional foods. |       |          |               |
| Organic foods prevent people from becoming overweight and obese. |       |          |               |
| Organic foods build strong future generations. |       |          |               |
| Buying organic foods indicates that one is changing his or her lifestyle. |       |          |               |
| Buying organic foods suggests a type of social prestige. |       |          |               |
| People may buy organic foods as the result of influence by family/friends. |       |          |               |
| Buying organic foods may be strongly influenced by the advertisements. |       |          |               |
| Buying organic foods may be influenced by the need to follow a trend. |       |          |               |

8. What are the reasons that limit your consumption of organic foods?

| Reasons | Agree | Disagree |
|---------|-------|----------|
| Organic foods have shorter life span than other conventional foods. |       |          |
| Inadequate knowledge about organic foods. |       |          |
| The conventional foods provide me the required nutrients. |       |          |
| Buying organic foods is a waste of money. |       |          |
| Organic foods are expensive. |       |          |
| Organic foods are not available everywhere. |       |          |
| I do not think that organic foods are totally free from the chemicals. |       |          |
| I do not like the taste of organic foods. |       |          |
9. What are your suggestions to encourage and enhance consumers’ perceptions of organic foods?

| Suggestion                                                                 | Agree | Disagree |
|----------------------------------------------------------------------------|-------|----------|
| Reduce the cost of organic foods.                                          |       |          |
| Increase advertisements of organic foods through the media.                |       |          |
| Encourage awareness through organic foods campaigns.                       |       |          |
| The topic of organic foods should be included in the schools’ curriculum.  |       |          |
| Increase the numbers of organic foods’ restaurants and stores of organic foods in malls and universities. |       |          |

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