International Journal of Business and Management
www.ccsenet.org/ijbm
Vol. 5, No. 2
February 2010

Organic Food: A Study on Demographic Characteristics and Factors Influencing Purchase Intentions among Consumers in Klang Valley, Malaysia

Siti Nor Bayaah Ahmad
Faculty of Business Administration, Department of Marketing
Tun Abdul Razak University (UNITAR)
Kelana Jaya, Malaysia
E-mail: ctnor11@unitar.edu.my
Nurita Juhdi
Faculty of Business Administration, Department of Management
Tun Abdul Razak University (UNITAR)
Kelana Jaya, Malaysia
E-mail: nurita@unitar.edu.my

Abstract

This study attempted to gain knowledge about consumers' intention to purchase organic food products and their demographic characteristics. Data were collected in supermarkets within 3 different areas in Klang Valley, Malaysia using mall-intercept approach. A total of 177 respondents were generated. The data obtained from the survey were analyzed using chi-square test, ANOVA, correlation analysis and multiple linear regression tests. Result indicated that the intention to purchase organic products were heavily influenced by the perception on organic product worth of purchase and the belief on the safety and health aspect of the product. Respondents were divided into organic buyers and non-buyers categories. Among the organic buyers majority consumers believed organic food to be healthier, tastier and better for environment compared to conventional food.

Keywords: Malaysia, Organic Foods, Purchase Intention, Environmental friendly, Demographics

1. Introduction

The increase of the environmental consciousness has had a thoughtful effect on consumer behaviour, with the green product market expanding at a remarkable rate (Aini et al., 2003). Therefore, in the past decades there has been an increased of production and consumption of organically-produced products which is seen as having less impact to the environment. In December 2000, the National Organic Standards Board of the U.S. Department of Agriculture (USDA) established a national standard for the term "organic." Organic food, defined by how it cannot be made rather than how it can be made, must be produced without the use of sewer-sludge fertilizers, most synthetic fertilizers and pesticides, genetic engineering (biotechnology), growth hormones, irradiation and antibiotics. A variety of agricultural products can be produced organically, including produce of grains, meat, dairy, eggs, and processed food products. "Organic" does not mean "natural." There is no legal definition as to what constitutes a "natural" food. However, the food industry uses the term "natural" to indicate that a food has been minimally processed and is preservative-free. Natural foods can include organic foods, but not all natural foods are organic.

It is highly important to examine the underlying factors that might influence the tendency of consumer to purchase organic food products. Such research is believed could help to formulate a strong market communication and policy strategies in order to influence behaviour toward organic food. As most researches were conducted in developed countries, there might be some socio-demographic differences in organic food acceptance and consumption behaviour. According to Lockie et al. (2002) the proportion of people consuming organic food products may increase as they experience a rise in income and normally organic food consumers are among those with high education level compared to non-organic consumers.

This study seeks to examine factors that might influence the people's intention to purchase organic products. It also aims to analyze the demographic characteristics of the respondents by looking at their buying pattern towards organic

products, types and volume of organic products consumed, common places to shop for the products as well as other characteristics that may provide better picture about the consumers within Klang Vallev in Malaysia.

1.1 Objective of Study

This objective of this study is generally to understand the attitude of local consumers on their intention towards buying organic food product. These consumers are among those who have experience consuming or buying organic products and those who never purchase any organic products. Specifically the study aims to:

a. report the descriptive analysis on the respondents' demographic characteristics in regard to organic products;

b. examine factors that influence purchase intention of organic food among consumers

The ultimate goal was to better understand consumer motivations for buying organic food products so that organic producers could develop more effective strategic marketing planning. The results could be used for the marketing planning of organic food products to enable proper marketing strategies, a proper sales channel and promotion to be targeted to these groups of consumers.

2. Literature Review

Researches on consumers' attitude towards the use of chemical substance in agriculture were explored as early as in 1965 (Bearler and Willits, 1968). This marked the beginning of the era when human beings were becoming more concerned with preserving the environment. However, given the need to expand the production in agricultural sector to ensure continuous supply of food, the use of pesticides and other chemical substance is hard to resist. Perhaps, green product industry could be deemed as the ideal solution to this problem. The growth of organic agriculture is seen as part of the emerging marketing trends where consumers demand to know what benefits a food could deliver before making a purchasing decision. Given the various factors that influence the intention to purchase organic products, it is necessary to examine which of the factors give the strongest effects.

2.1 Belief on the Safety and Health Aspects of Organic Products

Research related to consumer attitudes and preferences for organic products is very unnoticeable (Chinnici et al., 2002). Results of studies confirmed that consumers have positive attitudes towards organic products where one of the most common mentioned reason for purchasing organic products was it is perceived as healthier than conventional alternatives (Chinnici et al., 2002; Harper and Makatouni, 2002). Consumers do not always buy sustainable products as consequences of environmental concern or to benefit the community or due to personal beliefs but mainly to give priority to health (Vermeir and Verbeke, 2004). Based on the previous evidence that implies the positive relationship between people's belief that organic product is good for their safety and health, the following hypothesis is forwarded:

Hypothesis 1: The more people believe that consuming organic products as safe and healthy, the higher their intention to purchase organic products.

2.2 Belief on the Friendliness of Organic Products to the Environment

In Malaysia, as reported in its 9th Malaysia Plan (2006), the use of chemical and hazardous substances showed an increase, particularly in the agricultural sector. The volume of fertilizers used increased from 2.2 million tones in 2001 to 4.0 million tones in 2004. Through Skim Akreditasi Ladang Malaysia (SLAM) and Skim Organik Malaysia (SOM), government has introduced better farming practices to reduce the use of chemicals and hazardous substances. Given the high awareness on preserving the environment, consumers welcome any efforts that seek to apply environmental friendly farming practices. Consumers are getting more concerned with the consumption of chemical substance used in farming and as contended by Crosby, Gill and Taylor (1981), environmental concern is a strong attitude towards preserving the environment. Given the high concern, the behavioural intention of consumers is somehow influenced. Based on this evidence, the hypothesis is proposed:

Hypothesis 2: The more people believe that organic product farming as environmental friendly, the higher their intention to purchase the products.

2.3 Perception of Organic Product Worth of Purchase

In the international literature one can find a large body of research regarding consumers' willingness to pay for environmental friendliness and/or quality/safety in food production (Harris et al., 2000; Goldman et al., 1991; Lea et al., 2005) as well as for non-food products (Laroche et al., 1996). Perhaps the most convincing evidence supporting the growth of ecologically favourable consumer behaviour is the increasing number of individuals who are willing to pay more for environmentally friendly products (M.harris, 2007). Some researchers have found that organic food consumers are less likely to consider price as important compared to whose consumers who don't and never purchase organic products before (Yiridoe, et al, 2005). It thus expected that price could be one factor that influences people's intention to consume organic product. The following hypothesis is therefore forwarded:

Hypothesis 3: The more people perceive the worth of buying organic products, the higher the intention to purchase the products.

2.4 Availability of Organic Product Information

Empirical evidence shows that consumer's difficulty in locating environmentally directed products is partly due to lack of information (Brown 2003). Several studies have identified that lack of organic food availability in store is considered as one of the barriers to consumer purchase (Beardworth et.al., 2002; Davies, 1995). Market maven are defined as "individuals who have information about many kinds of products, place to shop and other facets of market and initiate discussion with consumers and respond to requests form consumers about market information" (Feick and Price 1987). Interaction between consumers with positive believe and attitude and high market mavenship and high product availability might create a favourable attitude towards purchase behaviour, which would result in a stronger intention to purchase leading to a higher purchase of organic food products. The argument has led to the formation of the following hypothesis:

Hypothesis 4: The more information that people have about organic products, the higher the intention to purchase the products.

This paper presents the results conducted with buyers who come and purchases at specified supermarket which is certain to sell organic food. Again, to be highlighted the objective of this paper is to gain knowledge about consumers' attitude towards organic food products. To that end, attitude, knowledge on government action, perception towards organic food, belief about organic food, knowledge of organic food product availability and intention of buying organic food were studied with a sample of 177 respondents.

3. Research Design

3.1 Sample for the Study and the Measurement Instruments

The survey was conducted using mall-intercept personal survey. Potential respondents were approached while they were shopping in supermarkets located in 3 different locations within Klang Valley. Prior to the data collection, the availability of organic food product within these locations was confirmed. The respondents were requested to fill up the questionnaire and to return it back immediately to the researcher. As a result, a total of 177 questionnaires were collected. The questionnaire was designed especially to elicit consumers' buying pattern and their views on organic products. The first section asked the respondents' frequency in buying organic product, shopping places, the type of organic products bought and the reasons for buying. Some of the items used in this section were adapted from Batt et al., (1999), Brown (2003). The next section asked on the respondents views on various aspects of organic products. The items in this section were measured using 5-point Likert scale (1 is low and 5 is high). Most items used in this section were adapted from (Davies, 1995). Other items in the questionnaire were developed by the researchers based on the consumers' buying behaviour in Malaysia.

3.2 Data Analyses

The data obtained from the survey were factor analyzed in order to summarize the large number of items into smaller underlying factors. A factor analysis using Principal Component extraction was performed. The factor analysis output is reported in Table 1.

<< Insert Table 1>>

Based on the factor analysis output, the factors were labelled after some items were deleted in order to reach the minimum coefficient alpha of 0.7. In order to test the hypotheses, Pearson correlation tests were used using SPSS package version 15.0.

4. Analyses of Findings

4.1 Demographic Analysis of the Respondents

One hundred and seventy seven respondents participated in the survey. Majority were female (63.8%) and their ages ranged between 18 to 50 years and above. The mean of age for the sample was 35.5 years old. The sample was predominantly Malays (46.3%) followed Chinese (34.5%), Indians (11.3%) and the remaining 7.3% were from other races. Most respondents (38.4%) were married with kids and 88.1% indicated that they have no chronic illnesses. Table 2 demonstrated the summary of sample demographics. Two questions on chronic illness were asked at the end of the demographic questionnaire section. It was found that 11.4% of the respondents were diagnosed with chronic illness and the remaining 88.6% were not. The other part of the section asking the respondents on chronic illness among family members and result identified that 44.3% of the respondents' family members has a history of suffering from chronic illness.

<<Insert Table 2>>

4.2 Demographic Analysis of the Respondents in Organic Products Consumption

The respondents were asked to indicate their food buying behaviour related to organic foods. Category 1, 2 and 3 (refer to Table 3) are those who never bought (non users) any of organic products and they made up 50.3% of the sample. It somehow signified that the sample contained about equal number of organic product users and non users. Table 3 showed the summary of the whole category.

There were 6 six categories of consumers and the first three groups of respondents; Category 1 - those who have not bought organic food and not thinking of buying organic food; Category 2 - those who have not bought organic food and thinking of buying in the near future; and finally Category 3 - those who have not bought organic food and plan to buy in the next 30 days. The first 3 categories were regarded as non-buyers of organic products. Category 4 are among those who used to buy organic food but no more now, Category 5 are those who buy organic food but not regularly and finally Category 6 are those who buy organic food on regular basis.

<<Insert Table 3>>

Based on survey question asking whether respondents and family members do suffer from chronic illness, our analyses suggested that there is significant differences with regard to regular buyer response (category 6), where 85.7% of them claim to buy organic food regularly due to history of family members to suffer from chronic illness (χ^2= 5.149, df= 1, p=0.29). Similar significant results were found with 58.3% respondents of category 4 (used to buy organic food, but no longer buy them and planned to buy again in the future, χ^2= 5.515, df= 1, p=0.15) and respondents who never bought organic food but thinking to buy in the near future (category 2) indicated significant results with their responses towards family member history of suffering chronic illness (χ^2= 6.963, df= 1, p=0.06). The only significant differences with regard to respondents own experience of suffering from chronic illness was found among consumer who used to buy organic food, but no longer buy them and planned to buy again in the future (Category 4) (χ^2= 3.503, df= 1, p=0.058).

4.3 Type of Organic Products Consumed

In order to examine the volume and type of organic products consumed, respondents in Categories 4, 5 and 6 (refer to Table 4) were further examined their level of organic product consumption. Their buying pattern is examined by looking at the type and volume of products that they bought in every shopping trip. The respondents were asked to report the portion of products that they buy which were organic and non-organic. The measurement used was in percentage; 1) below 50% products bought were organic or 2) above 50% products bought were organic. Table 4 gives the summary of buying score of organic food products among those in Category 4, 5 and 6.

<<Insert Table 4>>

4.4 Places to Shop for Organic Products

Organic products were mainly bought by organic food buyers from conventional markets followed by natural and whole food supermarket (Figure 1). Only 3 respondents indicated that they bought their supply straight from the farmers and remaining 85 respondents has no experience at all with the places of buying organic food products.

<<Insert Figure 1>>

4.5 Consumer Perception and Knowledge Related to Organic Products

On top of asking respondent on how much (more or less than 50%) would they spend in buying organic food products, respondents were also asked on the reasons that influences their decision to buying organic food. The reasons for all four favourite categories of organic food product were shown in the table 5. Most of the respondents reported that they choose to buy organic food products because they perceived organic food as very healthy, fresher and natural. Some demographic characteristics and buying behaviour of consumers influence their attitude towards organic products. This is consistent with the previous study (Pearson, 2002) which indicated that quality, taste, freshness, healthy diet, family preferences and habits are the most important food-choice factors. Harper and Makatouni (2002) also demonstrated that the top five important attributes for fresh meat in UK are freshness, quality, taste, healthiness and free of hormones.

<<Insert Table 5>>

Using ANOVA it showed that there is significant interaction effects (p=0.02) between influence of knowledge on government action towards respondents according to gender. The effect is depending on the role of government in supporting local agricultural sector as well as keeping the food supply safer. When respondents were asked to indicate their level of knowledge or familiarity on government action and role related to agricultural production, 26% claimed to be very sure that they are very knowledgeable on the issues related to environment. In addition to that 31.6% respondents also claimed to be very sure on the action taken by government in controlling the pollution (Table 6 and 7). About 9% of respondents claimed that they are not knowledgeable at all about the environment issue as well as the action taken by government in controlling the pollution (11.3%).

<< Insert Table 6>>

<< Insert Table 7>>

4.6 Price Willingness and Purchase Intention in the Future

Respondents were asked to indicate if they are willing to pay a higher price for organic food products and how much extra are they willing to pay whether less than half, more than half or more than 100% of the conventional food price. Of the respondents only 6.8% (n=12) are willing to pay more than 100% of the conventional product price, 46.3% (n=82) are willing to pay more than half of the conventional product price and 44.6% (n=79) are willing to pay only less than the price charged for conventional produce product. However, with regards to respondents willingness to buy more of organic food if it is cost less in the future, 76.8% or 136 respondents exhibit their willingness to buy more and only 6.8% (n=12) do not want to buy more of organic food product in the future if it costs less. A significant probability of future purchases of organic food product was indicated with their type of occupation (p=0.11).

<<Insert Figure 2>>

4.7 Pearson Correlation Tests Analysis

Pearson correlation tests were used to examine the individual relationships between the independent variables (perception on organic product worth of purchase, belief on the friendliness of organic products to the environment, belief on the safety and health aspects of organic products and availability of organic product information) and the dependent variable (intention to purchase organic products). The tests indicated that 3 independent variables (all except for availability of organic product information) were significantly related to intention to buy organic products. However, the strength of the relationships varies from weak to strong. Table 8 showed the summary results.

<<Insert Table 8>>

4.8 Multiple Linear Regression Analysis

Multiple linear regression (MLR) tests using standard regression method were subsequently conducted to find which determinants that could explain the intention to purchase organic food products according to their level of importance. Before the results of the analysis were discussed, the assumptions o MLR was first investigated. Based on the exhibits in Figure 3 and 4, the expected patterns for non-violation of the assumptions were found. The results of the investigation seemed to support the use of MLR as an appropriate statistical analysis for this study.

<<Insert Figure 3>>

<<Insert Figure 4>>

<<Insert Table 9>>

<<Insert Table 10>>

Table 10 provides result of the MLR analysis. Based on the results, the overall MLR model with four predictors of perception on organic product worth of purchase, belief on the friendliness of organic products to the environment, belief on the safety and health aspects of organic products and availability of organic product information have worked well in explaining the variation in intention to purchase organic products (F=11.151; d.f. =5; p=.000). From Table 11, perception on organic product worth of purchase was found to exert significant positive influence on intention to purchase organic products (t=4.708; p=0.000; β=0.361). Similar effect was also found in the other dependent variable; belief on the safety and health aspects of organic products. The relationship of the variable to intention to purchase organic products was positive and significant (t=2.232; p=0.027; β=0.166). The proportion of explained variance as measured by R-Squared for the regression is 25.3% as depicted in Table 9. The beta values given in Table 11 seemed to indicate perception on organic product worth of purchase (β=0.361) as more important predictor of intention to purchase organic products than belief on the safety and health aspects of organic products (β=0.166). The other dependent variables were not found to be significantly related to intention to purchase organic products.

<<Insert Table 11>>

5. Discussions and Conclusion

It can be concluded that many of respondents are unable to answer the questions on stage of changes towards organic food. This may be due to misunderstanding of what was being asked and also due to unable to remember purchases which they may have forgotten. Other reasons could be that respondents were answering questions without serious focus which could happen to any number of questions. When groups of people were clustered together based on their buying score, this may resulted in the blending of two people who have some real differences but given small numbers this is unlikely noticeable.

Similarly, those who had experienced with organic food but has stopped buying for quite sometimes with those who never had experienced before may have real differences. When consumer decided whether to buy organic or not, it clearly involved a complex set of factors that cannot easily be interpreted. In Malaysia, the organic food is considered at

the introductory stage where not all many people are aware about. The interest to conduct this study is to have better understanding among urban Malaysian consumers' choice of food products. This helps to distinguishes shoppers at different point including those who buy no organic food. Many studies indicated that one major factor that considered to be the barrier to organic food consumption is its price (Fotopoulos and Krystallis, 2002; McEachern and McClean, 2002). In this present study, women were more likely than men to agree that they would purchase more organic foods if they were less expensive and more available. As mentioned by Beardworth et al. (2002) this is commonly assumed the role of women and the household food purchasers and "gatekeepers".

Consumers perceived organic food contain health benefits contribute as an important attributes in this study. Most respondent among buyers of organic food believed that organic food is healthier compared to conventional grown food. This is consistent with previous study (Chinnici et al., 2002; Pearson, 2002) that discovered health and the natural content of food have been found to be essential in food choices of organic consumers. In this study respondents also perceived that organic food products as environmentally friendly contribute, which accord with previous research that found out that environmental concerns and perceived environmental benefits are related to positive organic food attitudes (Harper and Makatouni, 2002 and Lockie at al., 2002).

Given the broad range of possible factors that influences organic food decision making, there are others that might considered as barriers to organic food consumption among Malaysian instead of price. For instance, knowledge on organic food as well as action taken by the government either to inform or to create awareness has not reach the satisfactory level in encouraging sustainable consumption with organic food. Therefore, knowing how consumer perceived organic food product by understanding the reasons of buying would probably help the marketers of organic food to establish a proper communication message. Hopefully the intended message would be appealing for consumers who fall within the same category of buyers who exhibit their interest towards organic food products. In addition, education of consumers must become one of the first objectives for organic producers. An important task is to increase the consumers' knowledge what organic products are all about and how to differentiate it in the market place. Research also showed that some group of consumers (category 4, 5 and 6) have more positive attitude toward organic products and they exhibit an increase willingness to pay higher prices for these products. For such reason, marketing strategies for organic food product must be targeted towards those segments of consumers most appreciative of the positive attributes of organic food.

References

9th Malaysia Plan. (2006-2010). chapter 22.

Aini, M.S., Fakhru'l-Razi., A. Laily, P., & Jariah, M. (2003). Environmental concerns, knowledge and practices gap among Malaysian teachers. *International Journal of Sustainability in Higher Education*, Vol. 4 No. 4, pp. 305 – 313.

Batt, P.J., & Giblett, M. (1999), A pilot stidy of consumer attitudes to organic fresh fruits and vegetables in Western Asutralia. *Food Australia*, Vol 51, pp.549-550.

Beardworth, A., Brynan, A. leil, T., Goode, J., Haslam, C., & Haslam, E. (2002). Women, men and food: the significant of gender for nutritional attitudes and choices. *British Food Journal*, Vol. 104 No. 7, pp. 470-91.

Bearler, R.C., & Willits, F.K. (1968). Worries and non-worries among consumers about farmers use of pesticides. *Journal of consumer Affairs*, Vol. 2 pp. 189

Brown, C. (2003). Consumers' preferences for locally produced food: A study in Southeast Missouri. *American Journal of Alternative Agriculture*, Vol.18, pp. 213-224

Chinnici, G., D'Amico, M., & Pecorino, B. (2002). A multivariate statistical analysis on the consumers of organic products. *British Food Journal*, pp. 187-199.

Crosby, L.A., J.D. Gill., & J.R. Taylor (1981). Consumer voter behaviour in the passage of the Michigan Container Law. *Journal of marketing*, Vo.45, pp.349-354

Davies, A., Titterington, A.J., & Cochrane, C. (1995). Who buys organic food? A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), 17-23.

Feick, L. F., & L.L., Price (1987). The market maven: A diffuser of marketplace information. *Journal of Marketing*, Vol.51, pp. 83-97

Fotopoulus, C., & Krystallis, A. (2002). Organic product avoidance: reasons for rejection and potential buyers' identification in a countrywide survey. *British Food Journal*, Vol. 104, No 3/4/5, pp. 233-60

Goldman, B.J., & Clancy, K.C. (1991). A survey of Organic Produce Purchases and Related Attitudes of Food Cooperative Shoppers. *American Journal of Alternative Agriculture*, Vol. 6, pp. 89-95

Harper, G.C., & Makatouni, A. (2002). Consumer perception of organic food productions and farm animal welfare. *British Food Journal*, Vol.104, pp. 287-299

Harris, B., Burress, D., & Eicher, S. (2000). *Demand for local and organic produce: a brief review of the literature. Report No.254A*. University of Kansas: Institute for Public Policy and Business Research.

Laroche M., Toffoli, R., Kim, C., & Ad Muller, T.E. (1996). The influence of culture in pro-environment knowledge, attitude and behaviors: a Canadian perspective. *Advances in Consumer Research*, Vol. 23, pp. 53 – 62.

Lea, E., & Worsley, T. (2005). Australians' organic food beliefs, demographics and values. *British Food Journal*, Vol.11 pp. 855-869.

Lockie, S., Lyons, K., Lawrence, G., & Mummery, K. (2002). Eating "green": motivations behind organic food consumption in Australia. *Sociologia Ruralis*, Vol.42, No. 1, pp. 23-40.

M. Harris, Susan. (2007). Does sustainability sell? Market responses to sustainability certification. *Management of Environmental Quality: An International Journal*, Vol. 18 No. 1, pp. 50 – 60.

M. Harris, Susan. (2007). Green Tick: an example of sustainability certification of goods and services. *Management of Environmental Quality: An International Journal*, Vol. 18 No. 2, pp. 167 – 178.

McEachern, M.G., & Willock, J. (2004). Producers and consumers of organic meat: a focus on attitude and motivations. *British Food Journal*, Vo. 7, pp. 534-552

McEachern, M.G., & McClean, P. (2002). Organic purchasing motivations and attitudes: are they ethical?. *International Journal of Consumer Studies*, Vol.26 No. 2, pp.85-92

Pearson, D. (2002). Marketing organic food: who buys it and what do they purchase? *Food Australia*, Vol. 54 No.1, pp. 31-4

Vermeir, Iris., & Verbeke, Wim. (2004). Sustainable Food Consumption: Exploring the Consumer Attitude-Behavior gap. working paper.

Yiridoe, E.K., Bonti-Ankomah, S., & Martin, R.C. (2005). Comparison of consumers perceptions and preferences toward organic versus conventionally produced foods: A review and update of the literature. *Renewable Agriculture and Food System*, Vol.20, pp.193-205

Table 1. Rotated Component Matrix for All Items

Factors and items	**Factor loading**
Factor 1: Intention to Purchase Organic Products	
Eigenvalues: 6.554	
Cumulative Variance Explained: 23.789 per cent	
Cronbach's Coefficient Alpha: 0.912	
I would buy OP* if it uses less energy	**.847**
I would buy OP if I know that the farming is environmental friendly	**.833**
I would buy OP if animal on organic farming are treated better	**.798**
I would buy OP if it is more nutritious	**.787**
I would buy OP if it is safer to eat	**.770**
I would buy OP if I can trust it is really organic	**.754**
I would buy OPs if I can get them more conveniently	**.725**
I would still buy OP if it costs more that conventional ones**	.631
Factor 2: Perception of Organic Product Worth of Purchase	
Eigenvalues: 2.54	
Cumulative Variance Explained: 33.452 per cent	
Cronbach's Coefficient Alpha: 0.746	
I would buy OP because it is worth buying	**.781**
I would buy OP because buying it helps preserve the environment	**.682**

I would buy OP because it is higher quality than conventional products	**.599**
I search for info on the OP whereabouts from internet**	.496
Factor 3: Belief on the Friendliness of Organic Products to the Environment	
Eigenvalues:1.801	
Cumulative Variance Explained: 42.948 per cent	
Cronbach's Coefficient Alpha: 0.735	
Organic farming is better to environment	**.796**
Organic farming uses less energy	**.783**
I can trust OP labels that indicates its friendliness to the environment	**.684**
Factor 4: Belief on the Safety and Health Aspects of Organic Products	
Eigenvalues:1.688	
Cumulative Variance Explained: 51.524 per cent	
Cronbach's Coefficient Alpha: 0.756	
Growing food organically is better for health and safety	**.844**
OP is safer to eat	**.829**
Factor 6: Availability of Organic Product Information	
Eigenvalues:1.083	
Cumulative Variance Explained: 68.091 per cent	
Cronbach's Coefficient Alpha: 0.745	
It is easy to locate shops with wide range of OP	**.878**
I know where to buy OP based on promotion in media	**.864**

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

*__Notes__: OP stands for organic products

**Items were deleted from the factor due to low inter-item correlations

*** Labels of factors: Factor 1 (Intention to Purchase OP), Factor 2 (Perception of Organic Product Worth of Purchase), Factor 3 (Belief on the Friendliness of Organic Products to the Environment), Factor 4 (Belief on the Safety and Health Aspects of Organic Products, Factor 5 was dropped from further analysis due to low Cronbach's coefficient alpha, Factor 6 (Availability of Organic Product Information)

Table 2. Demographic Profile of Respondents (n=177)

Items	Number	Percentage (%)
Gender		
Male	63	35.6
Female	113	63.8
Ethnicity		
Malay	82	46.3
Chinese	61	34.5
Indians	20	11.3
Others	13	7.3
Age		
18-24	25	14.1
25-30	35	19.8
31-40	67	37.9
41-50	34	19.2
51 and above	15	8.5
Marital Status		
Single	67	37.9
Married	34	19.2
Married with kids	68	38.4
Level of Education		
Diploma	37	20.9
Bachelor	56	31.6
Master	39	22.0
PhD	4	2.3
Professional	10	5.6
Suffered form chronic Illness		
Yes	20	11.3
No	156	88.1
Family suffered from chronic illness		
Yes	78	44.1
No	98	55.4

Table 3. Categories of Respondents According to Their Organic Products Consumption

Categories	Frequencies	%	Consumer Type
Category 1: I have never bought organic foods and I am not thinking about buying organic foods now	36	20.3	Non buyer
Category 2: I have never bought organic foods and I am thinking about buying organic foods sometimes in the near future	49	27.7	Non buyer
Category 3: I have never bought organic foods and I am definitely planning to buy organic foods in the future	4	2.3	Non buyer
Category 4: I used to buy organic foods, but I no longer buy them, I might start buying them again	33	18.6	Started again buyers
Category 5: I buy organic foods, but not regularly	46	26	Occasional buyer
Category 6: I buy organic foods on most trips to marketplace	7	4	Regular buyer

Table 4. Buying Score of Organic Products among Buyers in Categories 4, 5 and 6

Types of Organic Food	Purchased of > 50%	Purchased of < 50%
Rice, grain, cereal or bakery products	22% (n=39)	7.5% (n=31)
Organic fruits and vegetables	21.5% (n=38)	22.6% (n=40)
Organic dairy products	15.8% (n=20)	17.5% (n=31)
Organic meat, poultry or eggs	20.8% (n=37)	19.7% (n=35)

Table 5. Perception towards organic food products

Reasons of Buying	n	%
Organic fruits and vegetables		
Healthier	61	34.5
Less chemical in production	51	28.8
Natural	50	28.2
Fresher	48	27.1
Environmentally friendly	34	19.2
Family influence	22	12.4
Organic Dairy products		
Less chemical in production	22	12.4
Healthier	35	19.8
Fresher	25	14.1
Natural	27	15.3
Rice, grain, cereal or bakery products		

Less chemical	29	16.4
Healthier	47	26.6
Fresher	24	13.6
Environmentally friendly	23	13.0
natural	44	24.9
Organic meat, poultry or eggs		
Protecting animal welfare	23	13
Healthier	43	24.3
Fresher	29	16.4
Environmentally friendly	23	13
natural	30	16.9

Table 6. Awareness about Environmental Issues

Level of Awareness	Frequency	Percent	Cumulative Percent
Not at all	16	9.0	9.0
Somewhat	115	65.0	74.0
Very	46	26.0	100.0
Total	177	100.0	

Table 7. Knowledge about Government Role in Controlling Pollution

Level of Knowledge	Frequency	Percent	Cumulative Percent
Not at all	20	11.3	11.3
Somewhat	101	57.1	68.4
Very	56	31.6	100.0
Total	177	100.0	

Table 8. Hypotheses Tests using Pearson Correlations

Hypothesis	r-value	p-value	Results
Hypothesis 1: The more people believe that consuming organic products as safe and healthy, the higher their intention to purchase organic products.	.302	.000	Supported
Hypothesis 2: The more people believe that organic product farming as environmental friendly, the higher their intention to purchase the products.	.320	000	Supported
Hypothesis 3: The more people perceive the worth of buying organic products, the higher the intention to purchase the products.	.453	.000	Supported
Hypothesis 4: The more information that people have about organic products, the higher the intention to purchase the products.	.041	.295	Not Supported

Table 9. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503(a)	.253	.230	.59851

a Predictors: (Constant SAFETY_HEALTH, PRODUCT_INFO, ENVIRONT_FRIENDLY,PERCEIVED_WORTH

b Dependent Variable: INTENTION_TO_PURCHASE

Table 10. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.973	5	3.995	11.151	.000(a)
	Residual	59.106	165	.358		
	Total	79.079	170			

a Predictors: (Constant), SAFETY_HEALTH, PRODUCT_INFO, ENVIRONT_FRIENDLY, PERCEIVED_WORTH

b Dependent Variable: INTENTION_TO_PURCHASE

Table 11. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.876	.374		5.019	.000
	PERCEIVED_WORTH	.334	.071	.361	4.708	.000
	ENVIRONT_FRIENDLY	.152	.068	.166	2.232	.027
	SAFETY_HEALTH	.113	.072	.118	1.575	.117
	PRODUCT_INFO	-.012	.052	-.016	-.231	.818

a Dependent Variable: INTENTION_TO_PURCHASE

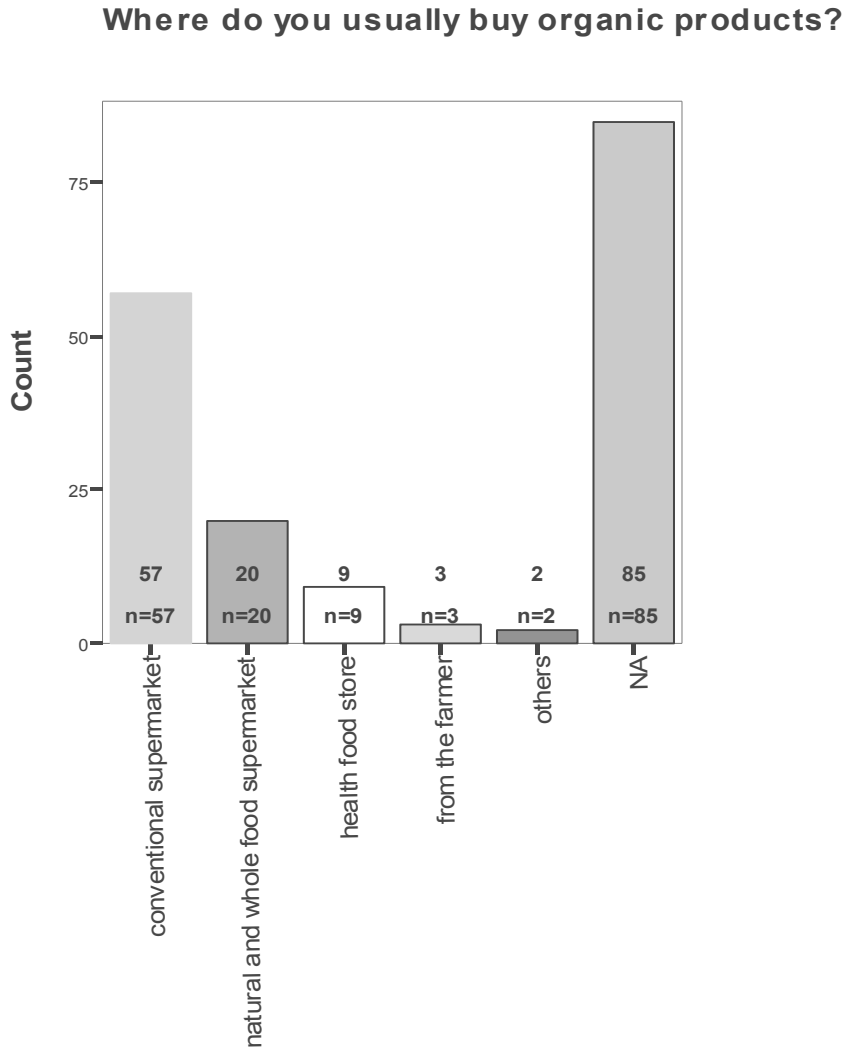

Figure 1. Common Places to Shop for Organic Products

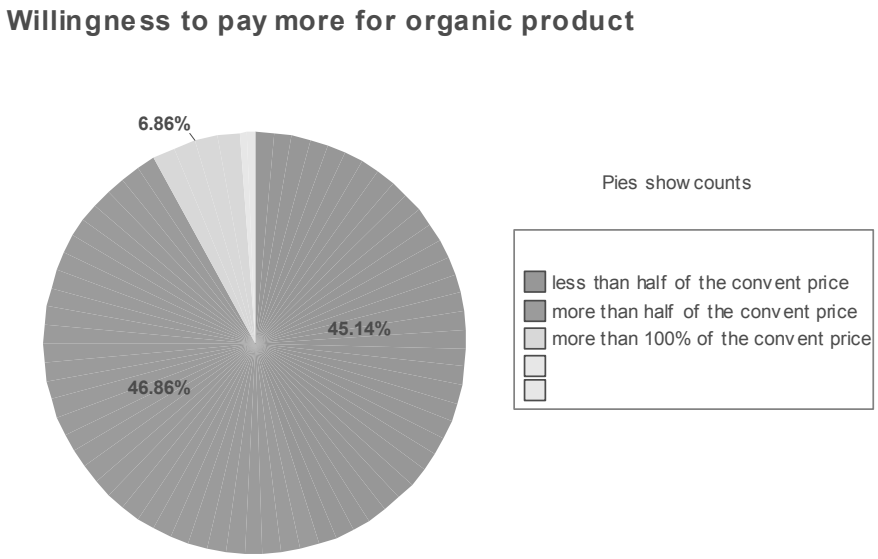

Figure 2. Consumers willingness to pay for organic products

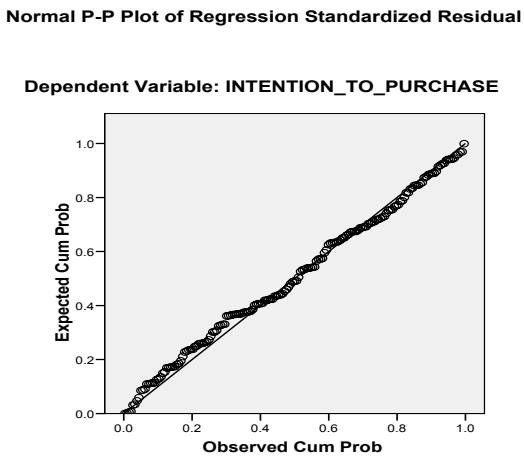

Figure 3. Normal P-P Plot

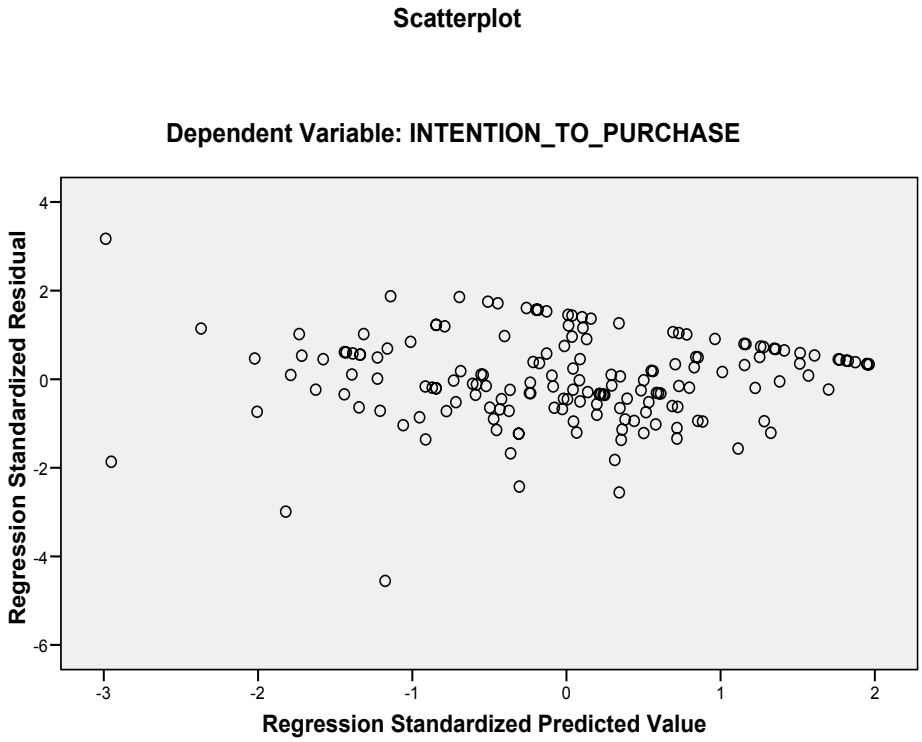

Figure 4. Scatter Plot