The effect of demographic factors on consumer intention to purchase organic products in the Klang Valley: An empirical study

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Abstract

The global market for organic food has developed significantly in the past decade. The organic food industry in Malaysia is getting wider, even though the domestic market remains relatively small. The main purpose of this study is to investigate the effect of demographic factors towards purchase intention of organic food. A total of 150 completed questionnaires was collected via convenience sampling from customers of a shopping-mall in Malaysia's Klang Valley. Five demographic variables were used in this study, including gender, age, level of income, level of education and presence of children in the household. The findings revealed that, gender, age, level of education did have significant impacts on the consumer intention to buy organic food. These findings will appeal to those interested in consumer behaviour regarding organic food consumption and the continued development of Malaysia's organic food industry.

Keywords: demographic factors, organic food consumption, organic food industry, organic products, purchase intention, urban consumers

Introduction

Awareness of the destruction of natural resources has raised the issue of environmental protection, which in turn has created eco-friendly consumption called "green consumerism" (Moisander, 2007). Since consumers pay more attention to the rise of environmental protection activities and the impact of pollutions, consumer environmentalism becomes more popular throughout the world (McIntosh, 1991). As a result, consumers are more willing to purchase green products that are organic and not harmful to the environment (Chen, 2010; Lee et al., 2014).

As green products have gained popularity in the market, more consumers have looked for greener products (Nimse et al., 2007). According to Taiwan Food and Fertilizer Technology Centre (FFTC) Report (2001), it is estimated that the market of organic products is valued at more than USD1 billion in Asia and mostly accounted by the Japanese market. The market of organic products is also expanding to new emerging markets such as China, India, Korea, Singapore and Malaysia (FFTC, 2001).

The rapid growth of organic product development in Malaysia is influenced by the high demand from local markets. At present, the organic industry in Malaysia is estimated to be worth more than RM800 million (Siti Nor Bayaah & Nurita, 2010). According to the Department of Agriculture, the total of land area planted with organic crops was 131 hectares in 2001, this statistic has increased to 963 hectares in 2007 (SOEL-FiBL Survey, 2007). The growth of organic agriculture is seen as part of the emerging marketing trends where consumers demand to know what benefits a food could delivery before making a purchasing decision (Siti Nor Bayaah & Nurita, 2010). A recent report in Market Watch (2012) suggested

that increasing consumer awareness in nutrition value and food fortification for healthcare has created the demand for organic food in Malaysia, which is expected to continue in the future.

It is highly important to examine the underlying factors that might influence the trend of consumer to purchase organic food products. As most studies were conducted in developed countries, there might be some socio-demographic differences in organic food acceptance and consumption behaviour. Although organic foods deliver benefits to the health and the environment, the demands for the non-organic foods are growing more steadily in its market shares compared to the organic food (Local Marketing of Organic Products, 2003).

Based on past studies, organic food attitudes are influenced by gender, age, level of income, level of education and the presence of children in the household (e.g. Davis et al., 1995; Wandel & Bugge, 1997; Thompson & Kidwell, 1998; Magnusson et al., 2001; Wier & Calverley, 2002). Recently, it has been suggested that women and young consumers have positive attitude and prone to consider organic product in their purchase (Van Doorn & Verhoef, 2011). Furthermore, due to the general assumptions that organic products are expensive, the consumption of organic product is always associated with high level of income consumers (Magnusson et al., 2001; Tsakiridou et al., 2008), lifestyle (Beate & Achim, 2014), highly educated consumers (Storstad & Bjorkaug, 2003; Wier et al., 2003) and presence of children within the household (Fotopoulos & Krystallis, 2002).

Soonthonsmai (2007) noted that consumer's green purchase intention has positive correlation with different age and income group but level of education was found not related to intention to purchase organic products. In contrast, past studies have also found that level of income (eg. Durham, 2007; Fotopoulos & Krystallis, 2002) and presence of children (Durham, 2007) are not related to the willingness to buy organic product. Despite the numerous studies examining the links between demographic characteristics and the likelihood of buying organic products, to date, research yields conflicting findings. Against this backdrop, the following questions arise: Do demographics characteristics (gender, age, income, level of education and the presence of children within the household) related to purchasing intention for organic product among Malaysian? What are usage patterns towards organic products among Malaysian? The results of this study contribute to the literature by assessing how demographic characteristics influence organic purchase intention, specifically among Malaysian.

Literature review

As consumer environmentalism becomes more popular in the world (McIntosh, 1991), more consumers are willing to purchase green products that are not harmful to the environment (Chen, 2010). According to Lea and Worsley (2005) and Van Doorn and Verhoef, (2011), younger household and women consider organic food more important and include it in their purchase. Similarly, past studies have also found that women to be more interested in organic food than men (Davis et al., 1995; Wandel & Bugge, 1997). These past studies are also supported by KoivistoHursti and Magnusson (2003) who noted that a higher proportion of women holds positive attitudes towards organic foods and consumes organic foods (e.g. Lockie et al., 2002; McEachern & McClean, 2002; Storstad & Bjorkhaug, 2003). Similarly, Jolly (1991) noted that most organic food buyers tend to be younger than non-buyers. Interestingly, past studies (e.g. Wandel & Bugge, 1997; Thompson & Kidwell, 1998; von Alvensleben, 1998; Fotopoulos & Krystallis, 2002) also suggest that young people are more environmentally conscious but less willing to pay more due to their lower purchasing power, whereas older people are more health conscious and more willing to pay an extra price for organic food.

In the demographic portrayal of consumers, income is another factor considered important in influencing purchase intention of organic food. According to Awad (2011), income was always perceived to have a positive relation to green consumer behaviour due to the general assumption that most green products have higher prices than conventional ones. Income similarly yields mixed findings: higher-

income households are more likely to form positive attitudes and to purchase more organic food (Grunert & Kristensen, 1991; Lockie et al., 2002; Magnusson et al., 2001). However, there are also past studies that found income is not related to purchasing intention and general willingness to buy organic food. Due to the mix results, income appears to affect mainly the quantity of organic bought and not the general willingness to buy organic products (Fotopoulos & Krystallis, 2002). Similarly, Durham (2007) also found that income is unrelated to the likelihood of buying organic food.

Besides that, the level of education has also been reported as a significant factor affecting consumer attitudes towards purchase of organic food. According to Storstad and Bjorkhaug (2003), organic food consumers tend to be more highly educated than non-organic consumers. Consumers with higher education were found to be more interested in purchasing organic food than those with less education (e.g. Magnusson et al., 2001; Zepeda & Li, 2007; Dettmann & Dimitri, 2007). This is because people with higher education require more information on the production and process methods of organics (Wier & Calverley, 2002); and is more willing to pay a premium for organic food (Jolly, 1991; Wandel & Bugge, 1997).

The presence of children within the household has also been regarded as a significant factor, which positively influences consumer's organic food attitudes as well as buying behaviour (e.g. Davis *et al*., 1995; Thompson & Kidwell, 1998; Fotopoulos & Krystallis, 2002). According to Wier and Calverley (2002), the age of the children within a household is one of the key factors that can influence consumer intention to purchase organic products. Is it suggested that the higher the age of children within the household, the lower the propensity to buy organic food. Therefore, demographic variables such as gender, age, income, level of education and the presence of children within the household will be considered in this study. Based on the findings and conjectures discussed above, the hypothesis is as followed:

H1a: Gender is positively related to purchasing intention towards organic food.
H1b: Age is positively related to purchasing intention towards organic food.
H1c: Level of income is positively related to purchasing intention towards organic food.
H1d: Level of education is positively related to purchasing intention towards organic food.
H1e: The presence of children in the household is positively related to purchasing intention towards organic food.

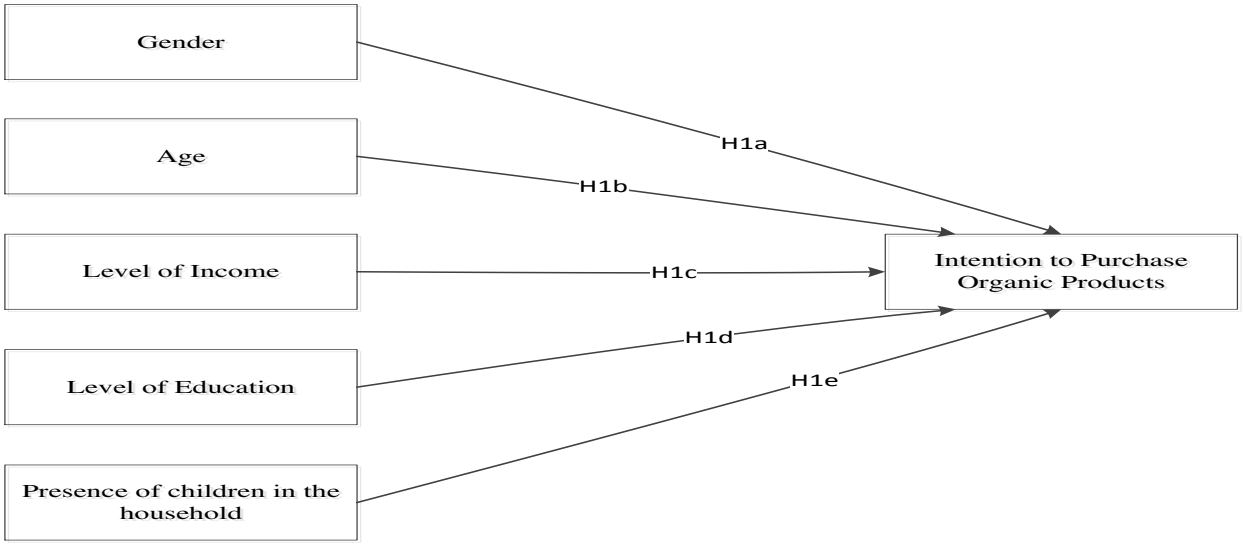

Figure 1. *Research model*

Methodology

Sampling design and measures

The present research is a cross-sectional study which was conducted in a shopping-mall in Klang Valley, Malaysia. The reason for choosing Klang Valley is due to its strategic location which lies between Selangor state and the Federal Territory, which includes the capital of Malaysia, Kuala Lumpur, and other large cities in Malaysia (Awang Besar & Ghazali, 2015). Additionally, Klang Valley provides the best representative population of interest as the area is regarded as the most advance region in term of economy and social, densely populated area and consisted of people from various ethnic groups, different level of education, and income distribution (Mat Jali & Awang Besar, 2012; Mindarti & Buang, 2012).

This study involved administering the questionnaire to a convenient selection of customers from a shopping-mall. Customers who agreed to participate in this study were given a survey to complete. If they encountered difficulty to complete the questionnaire, an enumerator would provide assistance. The questionnaire was prefaced by a brief description of "organic foods," which was kept as neutral as possible. The questionnaire form was collected back after respondent complete all questions. Overall, 150 usable questionnaires were collected and used for data analysis.

A survey instrument was composed based on the measurement items plus items designed to collect respondent demographics. All questions were measured on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, where respondents indicated their degree of agreement or disagreement with a series of statements. A reliability analysis revealed Cronbach alphas of 0.89, for purchase intention indicating a high degree of internal consistency. Descriptive statistics, independent-samples t-test and analysis of variance ANOVA) were used in order to identify the statistical significance of demographic characteristics to purchase intention towards organic products. The level of significance is set at p= 0.05.

Findings and results

Demographic profile organic food usage pattern

The description of the sample shown in Table 1 indicated that about 66% of respondents were women. The sample was predominantly Malays (54%) followed by Chinese (36%), and Indians (7%). Majority of respondents under the age group of 20 to 29 years (48%) and 61% were married with children. Most respondents (47%) were university graduates and41% of respondents have an average gross income of RM2, 000 - RM3, 999.

Table 1. Demographic profile of respondents (n= 150)

	Number of respondents	Percentage (%)
Gender		
Male	51	34
Female	99	66
Ethnic		
Malay	81	54
Chinese	54	36
Indian	10	7
Others	5	3

	Number of respondents	Percentage (%)
Age		
Less than 20 years	14	9
20 to 29 years	72	48
30 to 39 years	18	12
40 to 49 years	21	14
50 to 59 years	22	15
60 years and above	3	2
Present marital status		
Single	52	35
Married without children	6	4
Married with children	91	61
Widowed/ Divorced	1	1
Number of children		
No	59	39
1 to 2 persons	45	30
3 to 4 persons	40	27
5 to 6 persons	4	3
More than 6 persons	2	1
Education		
Primary school or below	11	7
Secondary school	35	23
Certificate/ Diploma	30	20
Bachelors' Degree	71	47
Postgraduate Degree	2	2
Others	1	1
Gross income per month		
Less than RM1,000	20	13
RM1,000- RM1,999	41	27
RM2,000- RM3,999	61	41
RM4,000- RM5,999	21	14
RM6,000- RM7,999	5	3
RM10,000 and above	2	2

Based on the survey result, 72.7% of the 150 respondents were experienced in buying organic food while other 27.3% of respondents have never purchased organic food. Among the 41 respondents who

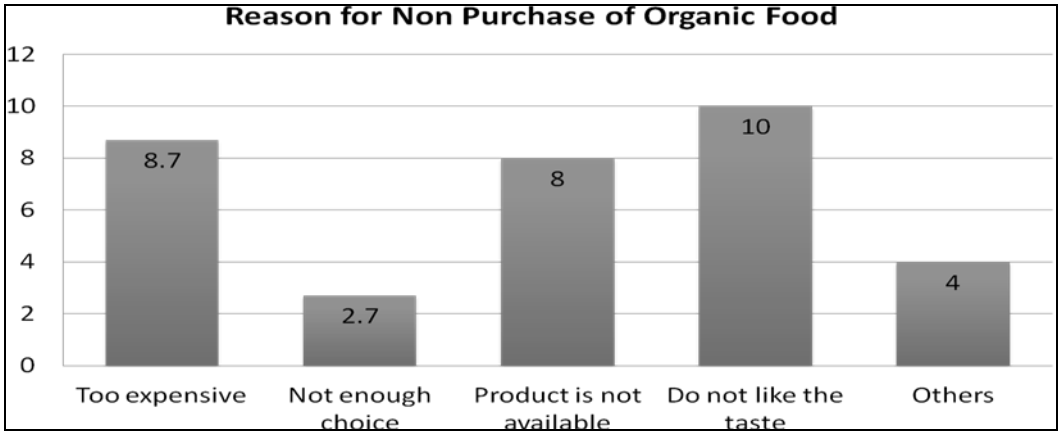

Figure 2. *Reason for non-purchase of organic food*

have never purchased organic food, 15 respondents (10%) point out that they do not like the taste, follow by too expensive (8.7%) and product is not easily available (8%) (see Figure 2).

The respondents were asked to indicate their buying behaviour related to organic foods. Out of the 109 respondents who have purchased organic food, the survey results showed that they have many choices to choose when buy organic food. Based on Figure 3, most organic food consumers in Malaysia prefer to purchase organic vegetables (52.7%) followed by fruits (47.3%), eggs (30%) and bakery products such as breads. Other organic food products like cereal's product (25.3%), daily products (20%) and others (4%) are also becoming popular choices of organic food to consumers when purchased the organic products.

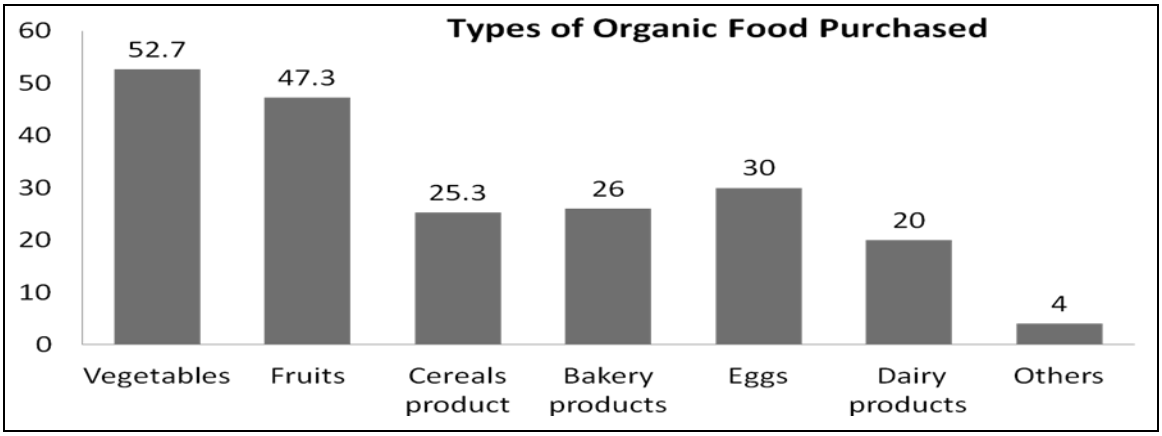

Figure 3. *Types of organic food purchased*

Based on Figure 4, it was found that majority of respondents (32%) purchase organic food less than once in a month. It means that although 109 respondents have purchased organic food, the proportion of consumers who purchase organic food regularly is low. Out of the 109 respondents, 23 respondents (21%) have purchased organic food once in a month, and 25% of respondents have purchased organic food 2 to 3 times per month. Some of the respondents (17%) have purchased the organic food with a frequency of 1 to 2 times in a week. Only 5% of respondents have purchased organic food 5 to 7 times per week.

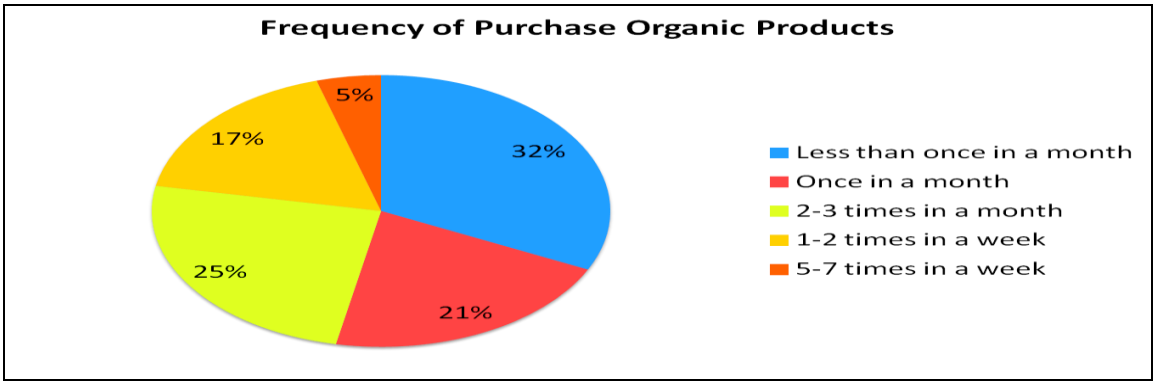

Figure 4. *Frequency of purchase organic products*

Figure 5 showed the comparison of organic food consumption between the year 2015 and last year (2014). Based on the result, the organic food consumption is different within these two years. Out of the 109 respondents, 22% of the respondent stated that they bought as many organic products as before. 38 respondents (25.3%) point out that they buy fewer organic products now. While the rest of 25.3%

respondents bought more organic products at present compare to last year. From the analysis, it means that organic food market trend in Malaysia is growing, and many factors may affect the consumption pattern of organic food consumer's year by year.

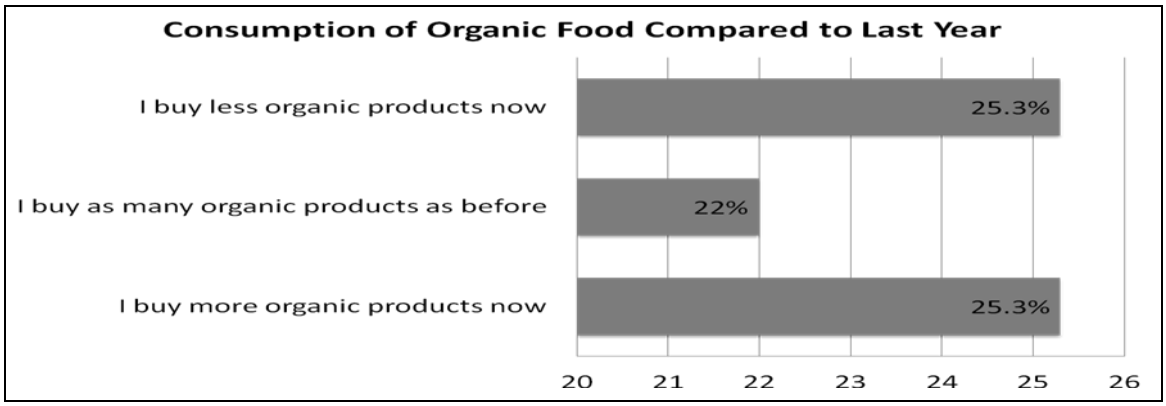

Figure 5. *Consumption of organic food compared to last year*

Based on Figure 6, most Malaysian consumers buy organic food at supermarket or grocery stores. Almost 57% out of 109 respondents usually purchase organic food at supermarket or grocery stores, which is more convenience and offer many choices of organic food. Besides that, some of the respondents will purchase organic food either from organic food stores (20%) or at specialty shops like bakery (7%). Another 7% of respondents purchase organic food at farmers markets and 5% of respondents get the source of organic food from own organic garden.

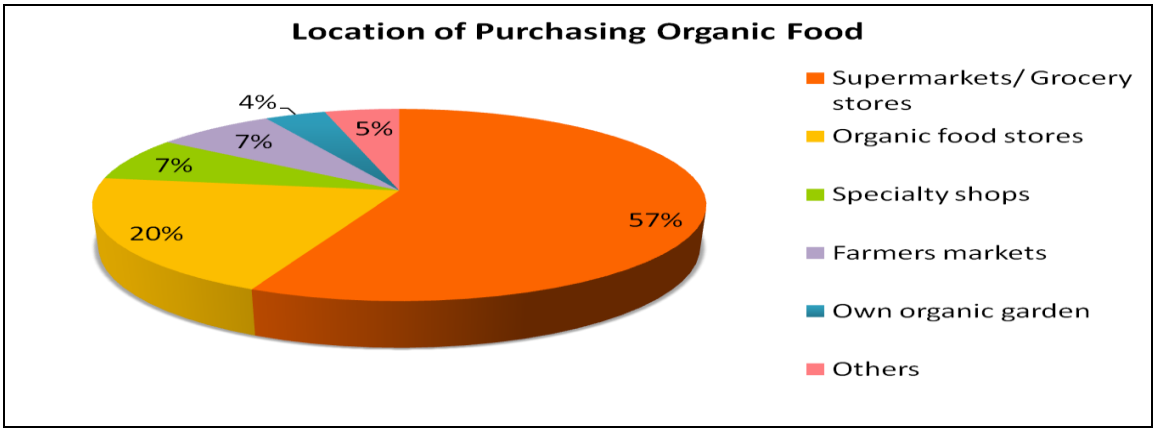

Figure 6. *Location of purchasing organic food*

Hypotheses testing

- The relationship between gender and purchase intention towards organic food

An independent-samples t-test was conducted to compare the purchase intention towards organic food for male and female. There was a significant difference in scores for male (M = 3.15, SD = 0.77) and female (M = 3.43, SD = 0.70; t (148) = -2.27, p = .03) (see Table 2 and 3). The magnitude of the differences in

the means (mean difference = -.28, 95% *CI*: -.53 to -.04) was very small (eta squared = =.03) (Cohen, 1988).

Table 2. Group statistics

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	51	3.1490	.76821	.10757
Female	99	3.4323	.70259	.07061

Table 3. Independent samples test

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Equal variances assumed	.356	.551	-2.266	148	.025	-.28330	-.53039	-.03622
Equal variances not assumed			-2.202	93.515	.030	-.28330	-.53881	-.02779

According to the result above, we can notice that significant value in independent samples test is .03 which is less than .05. Thus, gender has positive relationship with purchase intention towards organic food. Therefore, hypothesis H1a was supported.

- The relationship between age and purchase intention towards organic food

Based on Table 4, 5 and 6, a one-way between- groups analysis of variance was conducted to explore the impact of age on purchase intention towards organic food, as measured by the Life Orientation Test (LOT). There are six age groups of respondents in this survey (Less than 20 years; 20 to 29 years; 30 to 39 years; 40 to 49 years; 50 to 59 years; 60 years and above). There was a statistically difference at the $p < .05$ level in LOT scores for the six age groups: $F (5, 144) = 2.4$, $p = .04$. Despite reaching statistical significance, the actual difference in mean scores between the groups was medium (Cohen, 1988). The effect size, calculated using eta squared, was .08.

Table 4. Descriptives (age)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Less than 20 years	14	3.6429	.80452	.21502	3.1783	4.1074
20 to 29 years	72	3.4028	.69078	.08141	3.2405	3.5651
30 to 39 years	18	3.5000	.46653	.10996	3.2680	3.7320
40 to 49 years	21	2.9238	.84256	.18386	2.5403	3.3073
50 to 59 years	22	3.2273	.78872	.16816	2.8776	3.5770
60 years and above	3	3.0000	.72111	.41633	1.2087	4.7913
Total	150	3.3360	.73542	.06005	3.2173	3.4547

Table 5. ANOVA (age)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.290	5	1.258	2.438	.037
Within Groups	74.295	144	.516		
Total	80.586	149			

Post- hoc comparisons using the Tukey HSD test indicated that the mean score for Group less than 20 years (M = 3.64, SD = .80) was significantly different from Group 40 to 49 years (M = 2.92, SD = .84). Group 20 to 29 years, 30 to 39 years, 50 to 59 years, 60 years and above did not differ significantly from either Group less than 20 years or 40 to 49 years. The finding showed that age has a positive and significant relationship with purchase intention towards organic food (p = .04). Thus, H1b was supported.

Table 6. Multiple comparisons (Age)

AGE (I)	AGE (J)	Mean Difference (I-J)	Std. Error	Sig.
Less than 20 years	20 to 29 years	.24008	.20981	.862
	30 to 39 years	.14286	.25596	.993
	40 to 49 years	.71905*	.24783	.048
	50 to 59 years	.41558	.24557	.539
	60 years and above	.64286	.45698	.723
20 to 29 years	Less than 20 years	-.24008	.20981	.862
	30 to 39 years	-.09722	.18929	.996
	40 to 49 years	.47897	.17814	.084
	50 to 59 years	.17551	.17498	.916
	60 years and above	.40278	.42326	.932
30 to 39 years	Less than 20 years	-.14286	.25596	.993
	20 to 29 years	.09722	.18929	.996
	40 to 49 years	.57619	.23072	.132
	50 to 59 years	.27273	.22829	.839
	60 years and above	.50000	.44793	.874
40 to 49 years	Less than 20 years	-.71905*	.24783	.048
	20 to 29 years	-.47897	.17814	.084
	30 to 39 years	-.57619	.23072	.132
	50 to 59 years	-.30346	.21914	.736
	60 years and above	-.07619	.44334	1.000
50 to 59 years	Less than 20 years	-.41558	.24557	.539
	20 to 29 years	-.17551	.17498	.916
	30 to 39 years	-.27273	.22829	.839
	40 to 49 years	.30346	.21914	.736
	60 years and above	.22727	.44208	.996
60 years and above	Less than 20 years	-.64286	.45698	.723
	20 to 29 years	-.40278	.42326	.932
	30 to 39 years	-.50000	.44793	.874
	40 to 49 years	.07619	.44334	1.000
	50 to 59 years	-.22727	.44208	.996

*. The mean difference is significant at the 0.05 level.

- The relationship between level of income and purchase intention towards organic food

A one-way between- groups analysis of variance was conducted to explore the impact of income on purchase intention towards organic food, as measured by the Life Orientation Test (LOT). There are six

levels of income in this survey (Less than RM1,000; RM1,000- RM1,999; RM2,000- RM3,999; RM4,000- RM5,999; RM6,000- RM7,999; RM10,000 and above). Research result show that there was no significant difference at the $p < .05$ level in LOT scores for the six income groups: $F (5, 144) = .42$, $p = .84$ (see Table 7, 8 and 9).

Table 7. Descriptives (Level of income)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Less than RM1,000	66	3.3788	.71307	.08777	3.2035	3.5541
RM1,000- RM1,999	27	3.3333	.79614	.15322	3.0184	3.6483
RM2,000- RM3,999	33	3.2485	.71769	.12493	2.9940	3.5030
RM4,000- RM5,999	17	3.4471	.83225	.20185	3.0192	3.8750
RM6,000- RM7,999	5	3.0000	.67823	.30332	2.1579	3.8421
RM10,000 and above	2	3.3000	.70711	.50000	-3.0531	9.6531
Total	150	3.3360	.73542	.06005	3.2173	3.4547

Table 8. ANOVA (Level of income)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.151	5	.230	.417	.836
Within Groups	79.435	144	.552		
Total	80.586	149			

Table 9. Multiple comparisons (Level of income)

INCOME (I)	INCOME (J)	Mean Difference (I-J)	Std. Error	Sig.
Less than RM1,000	RM1,000- RM1,999	.04545	.16967	1.000
	RM2,000- RM3,999	.13030	.15835	.963
	RM4,000- RM5,999	-.06827	.20201	.999
	RM6,000- RM7,999	.37879	.34451	.881
	RM10,000 and above	.07879	.53308	1.000
RM1,000- RM1,999	Less than RM1,000	-.04545	.16967	1.000
	RM2,000- RM3,999	.08485	.19274	.998
	RM4,000- RM5,999	-.11373	.22996	.996
	RM6,000- RM7,999	.33333	.36160	.940
	RM10,000 and above	.03333	.54429	1.000
RM2,000- RM3,999	Less than RM1,000	-.13030	.15835	.963
	RM1,000- RM1,999	-.08485	.19274	.998
	RM4,000- RM5,999	-.19857	.22173	.947
	RM6,000- RM7,999	.24848	.35643	.982
	RM10,000 and above	-.05152	.54086	1.000
RM4,000- RM5,999	Less than RM1,000	.06827	.20201	.999
	RM1,000- RM1,999	.11373	.22996	.996
	RM2,000- RM3,999	.19857	.22173	.947
	RM6,000- RM7,999	.44706	.37786	.844
	RM10,000 and above	.14706	.55522	1.000
RM6,000- RM7,999	Less than RM1,000	-.37879	.34451	.881
	RM1,000- RM1,999	-.33333	.36160	.940
	RM2,000- RM3,999	-.24848	.35643	.982
	RM4,000- RM5,999	-.44706	.37786	.844
	RM10,000 and above	-.30000	.62140	.997

INCOME (I)	INCOME (J)	Mean Difference (I-J)	Std. Error	Sig.
	Less than RM1,000	-.07879	.53308	1.000
	RM1,000- RM1,999	-.03333	.54429	1.000
RM10,000 and above	RM2,000- RM3,999	.05152	.54086	1.000
	RM4,000- RM5,999	-.14706	.55522	1.000
	RM6,000- RM7,999	.30000	.62140	.997

Based on the above ANOVA table, level of income has a positive but insignificant relationship with purchase intention towards organic food due to the significant value was greater than .05 (p = .84). As a result, hypothesis H1c was not supported.

- The relationship between level of education and purchase intention towards organic food

A one-way between- groups analysis of variance was conducted to explore the impact of education level on purchase intention towards organic food, as measured by the Life Orientation Test (LOT). Six education level in this survey included category of primary school or below; secondary school; certificate or diploma; bachelor's degree; postgraduate degree and others education level. Based on Table 10 and 11, there was a statistically difference at the p < .05 level in LOT scores for all six education levels F: (F (5, 144) = 2.6, p = .03. Despite reaching statistical significance, the actual difference in mean scores between the groups was medium (Cohen, 1988). The effect size, calculated using eta squared, was .08.

Table 10. Descriptives (Level of education)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Primary school or below	11	2.8727	.67689	.20409	2.4180	3.3275
Secondary school	35	3.1257	.87995	.14874	2.8234	3.4280
Certificate/ Diploma	30	3.3600	.68963	.12591	3.1025	3.6175
Bachelors' Degree (or equivalent)	71	3.4873	.64563	.07662	3.3345	3.6401
Postgraduate Degree	2	3.3000	.14142	.10000	2.0294	4.5706
Others	1	4.4000	.	.	.	.
Total	150	3.3360	.73542	.06005	3.2173	3.4547

Table 11. ANOVA (Level of education)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.686	5	1.337	2.606	.027
Within Groups	73.899	144	.513		
Total	80.586	149			

Based on the above tables, level of education was positively related to consumer's purchase intention towards organic food with a significant value p = .03. Therefore, hypothesis H1d was supported.

- The relationship between presence of children in the household and purchase intention towards organic food

A one-way between- groups analysis of variance was conducted to explore the impact of presence of children in the household on purchase intention towards organic food, as measured by the Life Orientation Test (LOT). According to the ANOVA analysis (see Table 12, 13 and 14), there were no significant differences for the five groups regarding number of children in the household: F (4, 145) = 1.0, p = .40.

Table 12. Descriptives (Presence of children in the household)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
No	86	3.4047	.68598	.07397	3.2576	3.5517
1 to 2 persons	26	3.4000	.81976	.16077	3.0689	3.7311
3 to 4 persons	28	3.1786	.72896	.13776	2.8959	3.4612
5 to 6 persons	8	3.0000	.97980	.34641	2.1809	3.8191
More than 6 persons	2	3.1000	.70711	.50000	-3.2531	9.4531
Total	150	3.3360	.73542	.06005	3.2173	3.4547

Table 13. ANOVA (Presence of children in the household)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.220	4	.555	1.027	.395
Within Groups	78.365	145	.540		
Total	80.586	149			

Table 14. Multiple Comparisons (Presence of children in the household)

CHILDREN (I)	CHILDREN (J)	Mean Difference (I-J)	Std. Error	Sig.
No	1 to 2 persons	.00465	.16453	1.000
	3 to 4 persons	.22608	.15996	.620
	5 to 6 persons	.40465	.27174	.571
	More than 6 persons	.30465	.52584	.978
1 to 2 persons	No	-.00465	.16453	1.000
	3 to 4 persons	.22143	.20022	.803
	5 to 6 persons	.40000	.29723	.663
	More than 6 persons	.30000	.53945	.981
3 to 4 persons	No	-.22608	.15996	.620
	1 to 2 persons	-.22143	.20022	.803
	5 to 6 persons	.17857	.29472	.974
	More than 6 persons	.07857	.53808	1.000
5 to 6 persons	No	-.40465	.27174	.571
	1 to 2 persons	-.40000	.29723	.663
	3 to 4 persons	-.17857	.29472	.974
	More than 6 persons	-.10000	.58119	1.000
More than 6 persons	No	-.30465	.52584	.978
	1 to 2 persons	-.30000	.53945	.981
	3 to 4 persons	-.07857	.53808	1.000
	5 to 6 persons	.10000	.58119	1.000

Obviously, result from above ANOVA analysis indicated that there was no statistically difference at the $p < .05$ level in the LOT scores for the five groups. Thus, hypothesis H1e was not supported.

Discussion

Table 15 listed the summary of results to all the five hypotheses in this research. Based on the results, gender, age and level of education seem to be related to organic food purchase intention. This is in line with past studies that support the relationship between gender and purchase intention and quality to

organic products (Van Doorn & Verhoef, 2011; Winterich, Mittal & Ross, 2009), age and intention in buying organic food (Fotopoulos & Krystallis, 2002) and level of education and organic food's purchase intention (Dettmann & Dimitri, 2007). Therefore, supporting H1a, H1b and H1d. However, level of income (H1c) and presence of children within the household (H1e) do not seem to be related to intention in buying organic food. This could be attributed to the sample in this study as majority of the respondent are young, within the range of 20 to 29 years (48%) believed to be concerned about price due to limited financial resources. Based on past studies, those who have stable employment and income (e.g. Awad, 2011; Wier et al., 2008) are more willing to pay an extra price for organic food.

Table 15. Results of the Hypotheses Tested

Hypotheses	Supported	Not Supported
H1a: Gender is positively related to purchase intention towards organicfood.	P=0.025 (P<0.05)	
H1b: Age is positively related topurchase intention towards organic food.	P=0.037 (P<0.05)	
H1c: Level of income is positively related to purchase intentiontowards organic food.		P=0.836 (P>0.05)
H1d: Level of education is positively related to purchase intentiontowards organic food.	P=0.027 (P<0.05)	
H1e: The presence of children in the household is positively related to purchase intentiontowards organic food.		P=0.395 (P>0.05)

Although the level of income and number of children within the household indicated an insignificant relationship with purchase intention in organic food, previous study has supported that income similarly yields mixed findings. For example, Fotopoulos and Krystallis (2002) indicated that income appears to affect mainly the quantity of organic bought and not the general willingness to buy. Past study of Durham (2007) also found that children in the household have no impact on the likelihood of buying organic food.

Limitations and future research

The present study presents particular limitations. First, it relies on a sample drawn from a limited geographical area in Malaysia. The convenience sampling technique may not represent the entire population and therefore, requires replication. Second, this study relies on survey-based, cross-sectional data, and thus causality of the relationships between predictor and criterion variables cannot be claimed. However, our interpretation of the findings is based on prior research. Based on the limitations of this study, future research might usefully to seek further to verify or extend the proposed model by consider other factors such as health and environmental issues as well as price, availability and quality considerations.

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