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# Consumer attitudes toward the Purchase of Organic Products in China

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## Consumer Attitudes toward the Purchase of Organic Products in China

### Abstract

The food industry in China has been the subject of media attention in recent years. The number of recent high-profile scandals involving tainted food products has shaken China's public confidence in the safety of domestic supplies. These incidents have included milk powder contaminated with the industrial chemical melamine, meat containing the banned steroid clenbuterol, rice contaminated with cadmium, and cooking oil recycled from street gutters.

This study examines the underlying factors influencing organic product purchase decisions. Situated in Kunming, China, we investigate consumers' levels of awareness, and attitudes towards organically produced food products. In particular, we focus on the characteristics of safety, health value, environmental degradation, and taste and price, in order to better understand consumers' attitudes towards organic products and their place in the food marketplace. Our study will test the level of influence that each of these co-variants contributes to purchase decisions for organic foods.

### JEL Classifications:

**Keywords:** organic product, food safety, environment, price

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# Consumer Attitudes toward the Purchase of Organic Products in China

## 1 Introduction

Concern with food safety has driven many consumers to search for foods whose qualities and safety attributes are guaranteed through third-party certification. Organic products are seen by many to have enhanced value, and to be safer for consumption. This is likely because they are perceived to be free of at least some of the questionable ingredients and chemical residues that non-certified products may include. Non-materialistic values held by consumers, such as environmental sustainability, enhanced quality of life, support for small farmers and local businesses, and a heightened concern for animal rights, all potentially contribute to the value placed on organic foods (Magnusson et al., 2001).

The food industry in China has been the subject of media attention in recent years. A number of recent high-profile scandals involving tainted food products in China has shaken public confidence in the safety of domestic supplies. These incidents have included milk powder contaminated with the industrial chemical melamine, meat containing the banned steroid clenbuterol, rice contaminated with cadmium, and cooking oil recycled from street gutters (Huang, 2012). Chinese consumers have paid significant attention to food safety subject since the media reports, which has provided growing opportunities for organic food products.

With rising affluence and thus increasing disposable incomes, Chinese consumers are becoming more demanding with regard to the products they purchase. As their horizons expand beyond basic concerns about food availability, and their budgets allow for greater discretionary spending, food safety has increased in importance. They are becoming increasingly health conscious and tend to consume healthier and more nutritious. They are willing to pay for better value and quality, and are spending more time researching the food marketplace and exploring product characteristics and nuances.

However, there is an inadequate study on consumer attitudes towards organic products in China. There is no specific empirical consumer research of organic products purchasing behaviour in China. Chan (2001) and Yin et al (2009) studies address the intentions to purchase organic products behaviour in China and Chan and Lau (2001) conducted a cross cultural study of American and Chinese consumers' intentions to purchase organic products. Results of Yin et al study show that consumers' organic products purchase intentions are strongly affected by individual factors such as income, degree of trust in organic foods and certifications, degree of acceptance of organic food prices, and consumers' engagement in self-health behaviours. Xu and Wu (2010) investigate Chinese consumers' perception of food safety and their willingness to pay for certified traceable food. Their result shows that consumers are dissatisfied with food safety conditions in the province and most are unwilling to pay higher price to purchase certified traceable food.

The consumer market for organic food products in China is still at its early stage of development and there are many barriers to overcome, related to both supply as well as demand for organic produce, in order to develop domestic organic food market. Thus, a clear

understanding of what factors influence and motivate the consumers to purchase organic products in these immature markets may help both consumers of organic interest and marketers of organic food. It may also help the government to design strategies for consumer education on the benefits of going organic. Using a structured survey questionnaire of 700 respondents in Kunming, Yunnan Province, China, this study aims at investigating consumers' attitudes towards organically produced food products. In particular, the study employs the logistic regression model to identify the most likely food safety, health, environmental, convenience, ethical, lifestyle, label, price and socio-demographic factors affecting consumers' purchase decisions towards organic products in the food marketplace.

## **2 Factors Affecting Consumers' Decision to Purchase Organic Products**

Since organic food products are significantly expensive than conventional products, consumers are willing to pay premium for organically produced foods only when they believe that organic foods possess preferable values over conventional alternatives. The most important quality characteristics given attention by consumers are credence values such as healthiness, environmental friendliness, animal welfare and sensory value (for example taste and freshness). While consumers can test sensory value of organic produce through looking and tasting, it is impossible for them to check the credence qualities. Therefore, Yiridoe, Bonti-Ankomah, and Martin (2005) postulate that organic food purchase decision is based on consumer's belief in credence attributes of organic produce. Health related values are primitive consumer's motives to purchase organic food (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). Consumers prefer to buy organic food when they perceive that organic food is free from chemical, artificial fertilizer and additive (Sangkumchaliang & Huang, 2012; Yin, Wu, Du, & Chen, 2010).

Consumers who are health conscious and practise healthy life style show their preference for organic food products (Cicia, Del Giudice, & Scarpa, 2002; Gracia & Magistris, 2007; Schifferstein & Oude Ophuis, 1998) while buyers who appreciate convenience are less likely to buy organic produce (Chen, 2007; Zakowska-Biemans, 2011). Ahmad and Juhdi (2010) identify that consumers are inclined to purchase organic food products when their family members have history of suffering from chronic illness. In addition, the increasing food safety concern impels organically produced food consumption (Huang, Kan, & FU, 1999; Jolly, 1990; McEachern & McClean, 2002). Only few studies find the insignificant relationship between health related factors and organic food purchase intention (Chen, 2007; Lockie, Lyons, Lawrence, & Grice, 2004). Pino, Peluso, and Guido (2012) suggest that food safety concerns and health consciousness only affect occasional consumer's attitude, not regular consumer's attitude towards organic food products. There is consistency among studies on consumer's behaviour towards organic food products in China regarding the role of health related factors as being of main motives for organic food purchase (Chen & Lobo, 2012; Sirieix, Kledal, & Sulitang, 2011; Thøgersen & Zhou, 2012; Yin et al., 2010).

Besides healthiness, environment related values and animal welfare are other reasons for organic food purchase. Consumers who are concerned environmental issue and involved in green practices are more likely to buy organic produces when organic produces are believed to be environmentally friendly (Lockie et al., 2004; Voona, Nguib, & Agrawal, 2011). Similarly, consumers who are familiar with ethical behaviour tends to purchase organic animal-related food since they believe that organic production process is good for animal welfare (Chen, 2007; Harper & Makatouni, 2002; Millock, Wier, & Andersen, 2004). Nevertheless, animal welfare receives modest attention from previous studies compared to health related values and environment concern.

Sensory values have influence on the decision to buy organic food products (Lockie et al., 2004; Zakowska-Biemans, 2011). Apart from consumers' perception of credence values, the attitude towards organic food produces may come from the sensory attributes such as taste, freshness, visual appeal and packaging (Ahmad & Juhdi, 2010; Ghorbani & Hamraz, 2009; Torjusen, Lieblein, Wandel, & Francis, 2001; Wier, O'Doherty Jensen, Andersen, & Millock, 2008). According to Hughner et al. (2007), people pursuing hedonism life style consider sensory characteristics to be an important factor to buy organic products.

Knowledge plays an important role in forming consumer's perception and attitude towards organic food. Therefore, it is believed that consumers who possess good knowledge of organic food are more likely to choose organically produced food (Gracia & Magistris, 2007; Saleki, Seyedsaleki, & Rahimi, 2012) and lack of knowledge and information about organic production method is a barrier to organic purchase, especially in developing countries (Gracia & Magistris, 2007; Roitner-Schobesberger, Darnhofer, Somsook, & Vogl, 2008; Yin et al., 2010). The study of Zander and Hamm (2010) indicates that organic food purchasers tend to search more information while non-organic consumers are likely to obtain less information. In addition, consumers' past experience with organic products may affect their subsequent purchase (Hughner et al., 2007; Suh, Eves, & Lumbers, 2012; Thøgersen & Zhou, 2012; Zanolli & Naspetti, 2002).

The study of Chen (2007), Dean et al. (2008), Thøgersen (2009), Voona et al. (2011) and Saleki et al. (2012) confirm the importance of subject norm to consumer's intention to buy organic food products. According to Suh et al. (2012), expert opinions and suggestions from friends have significant effect on decision to purchase organic food of Korean consumers while Zagata (2012) finds out that expectation from family is the main social norm affecting Czech consumer's purchasing behaviour. It is explained by Zagata (2012) that when knowledge of consumers' on organic food is low, their purchase decision has to rely on other people's evaluation and experience. However, finding from Thøgersen and Zhou's (2012) study implies the insignificant impact of social norm on individual's purchasing decision in China.

Compared to perception of and attitude towards organic food, socio demographic characteristics show the weaker influence on consumer's intention to buy organically produces (Gracia & Magistris, 2007; Lea & Worsley, 2005). Literature examining the effect of gender, age, marital status, presence of children, education and income on consumer's behaviour toward organic food fails to give clear profile on organic buyers and only small trend is obvious (Pearson, Henryks, & Jones, 2011). There is general consensus among studies

that women more likely to buy organic food since they are the main food shopper in the family and pay more attention on health and environment (McEachern & McClean, 2002; Pearson et al., 2011; Ureña, Bernabéu, & Olmeda, 2008). In addition, married consumers are found to be in favour of organic products (Dimitri & Dettmann, 2012; Ward et al., 2012). The effect of age on decision to buy organic food is equivocal. Finding from Thompson's (1998), Onyango et al.'s (2007), Rimal et al.'s (2005) studies evidence that young consumers express more interest in organic food while older buyers are more likely to buy organic products in the studies of Magnusson et al. (2001) and Ghorbani and Hamraz (2009). The difference is due to the fact that young people are more open with trendy products, but their purchase is limited by low disposable income (Magnusson et al., 2001; Żakowska-Biemans, 2009). Other studies disclose the minor relationship between age and organic food purchase intention (Lea & Worsley, 2005; Paul & Rana, 2012; Yin et al., 2010). Presence of children is one of reasons consumers choose to purchase organic food (Sangkumchaliang & Huang, 2012; Thompson & Kidwell, 1998; Ward et al., 2012). However, this factor is found to have insignificant effect on intention to purchase organically produced food in Davies et al.'s (1995), Millock et al.'s (2004) and Yin et al.'s (2010) study. Similarly, more educated consumers are expected to have more knowledge of organic food and better income to afford premium price for organic produces, thus they are more likely to be organic purchasers however the effect of this factor is significant in study of Fotopoulos and Krystallis (2002), Thøgersen and Zhou (2012) and Zepeda and Li (2007) whereas insignificant in study of Yin et al. (2010). Because of relative expensiveness of organic produces, it is generally believed that high income consumers are more likely to purchase organic foods which is supported by the findings of Jolly (1990), Millock et al. (2004) and Dimitri and Dettmann (2012). Nevertheless, Onyango et al.'s (2007), Paul and Rana (2012), Zepeda and Li's (2007) studies find the insignificant relationship between income and organic food purchase.

Literature related organic food also identify impediments to organic food purchase. Price is indicated as the primitive deterrent to organic food purchase in both developed and developing markets (O'Donovan & McCarthy, 2002; Suh et al., 2012; Yin et al., 2010; Zagata, 2012), followed by lack of availability (Paul & Rana, 2012; Sangkumchaliang & Huang, 2012; Żakowska-Biemans, 2009) and lack of information (Sangkumchaliang & Huang, 2012; Żakowska-Biemans, 2009). Some studies (Chen, 2007; Dimitri & Dettmann, 2012; Zagata, 2012) reveal inconvenience of purchasing is an obstacle encountered by consumers to buy organic food, but this factor is found to have weak effect in the study of Yin et al. (2010). As consumers cannot recognize whether the foods are conventionally or organically produced unless they are informed, organic labels are expected to promote organic product purchase (Soler, Gil, & Sanchez, 2002). However, organic food mislabelling (Giannakas, 2002), ambiguous label and failure of organic label in differentiating organic food from alternatives such as eco-label or healthy food (Roitner-Schobesberger et al., 2008; Żakowska-Biemans, 2009) may have negative effect on consumer's organic purchase decision. Furthermore, distrust in organic certified label is a reason that consumers are reluctant to buy organic food products (Krystallis & Chryssohoidis, 2005; Suh et al., 2012; Voona et al., 2011; Yin et al., 2010).



In summary, consumer's preference for organic food depends on their knowledge and perception of organic attributes associated with health, environment, animal welfare and sensory appeal. In addition, purchase behaviour towards organic food is determined by consumer's trust in organic certification and label, their experience with organic food and the availability of organic food in the area they reside. Organic food's purchasers tend to be women, family with young children, high educated and high income employee and those practise healthy life style. The impact of subjective norm is inconsistent among previous study, however, it should be given more attention in the markets where consumer's knowledge of organic food is limited. It's revealed from previous studies that high price, lack of information and availability, confusing label and inconvenience of purchasing are the main hindrances to organic food purchase.

### **3 Data and Methodology**

A structured questionnaire was developed to obtain the data for analysis. The design of the questionnaire was derived from the literature on organic foods consumers purchased and the activities of businesses servicing the organic foods marketplace. The questionnaire was translated into Chinese before administration via face-to-face interviews to minimize misunderstanding of the questions. Pretesting of the questionnaire was conducted with a sample of 30 shoppers in Kunming City to avoid ambiguous wording and inapplicable questions. The pre-test was also used to assess the internal reliability of the device and the constructs thus measured.

A total of 700 questionnaires were distributed to the respondents to measure their attitudes toward purchasing organic food products. The survey targeted respondents at retail food stores where organic and/or conventional products were sold in Kunming City. The stores were chosen with a focus to ensure the variability households characteristics participating in the study. Stores were situated in areas of the city that were relatively homogeneous in terms of neighbourhood household incomes, education levels, and occupations, but varied between neighbourhoods. The food stores chosen to participate in the study included hypermarkets (example Carrefour and Walmart) supermarkets (example Parkson), convenience stores (i.e. natural and health food stores) and traditional retail markets (i.e. fresh markets).

The interview was conducted using an intercept technique due to the practical difficulties in detecting the target population. Potential respondents were approached while they shopped in one of the food stores in Kunming City, which offer a broad range of organic products and a variety of organic products brands. To avoid the potential sample selection bias, an equal sampling of consumers who are organic and conventional produce purchasers were approached. The survey instrument employed open-ended and close-ended questions with checklists, and Likert and rating scales. A total of 680 questionnaires were returned. From the returned questionnaires, 675 were complete and useable, yielding a response rate of 96 per cent.

### 3.1 Factor Analysis

Exploratory factor analysis was used to condense the large number of items measuring consumers' attitudes related to price, health, environment, convenience, label, ethics, lifestyle, food safety and their perceptions about organic food products features into the smallest set of factors while maintaining the highest amount of information. The Latent root criterion (eigenvalue) was used to determine the number of factors to be retained. An eigenvalue (variance) greater than one has been most commonly used to determine the optimal number of factors extracted and was thus adopted for the present study.

Table 1 shows 31 items of consumers' general attitudes toward organic food products were extracted into a ten-factor solution. These factors were renamed as Price, Health benefit, Environmental benefit, Convenience, Label, Health concern, Ethical concern, Environmental concern, Lifestyle and Food safety. The items used to measure each construct were tested for reliability using a Cronbach's Alpha value of 0.30 as the cut-off point, following the standard for exploratory studies suggested by Hair, Black, Babin, Anderson and Tatham (2006) and Raubenheimer (2004). We used a 0.30 as the cut-off point given we have both a larger sample size and a larger number of variables being analysed. For the present study, this test of reliability yielded acceptable alphas for all ten constructs. The scores of the items comprising each factor were calculated by averaging over the number of the items that loaded on the factor. These factor scores were then used in the subsequent analysis, which included the test of the empirical model examining consumers' purchase of organic food products.

**Table 1. Rotated Component Matrix for the Respondents' Attitudes towards Price, Health, Environmental benefit, Convenience, Label, Health concern, Ethical concern, Environmental concern, Lifestyle and Food safety Factors**

	VARIMAX Rotated Loading				Commonalties
	F1	F2	F3	F4	
<b>Factor 1: Price</b>					
Organic products are more expensive than conventional products.	0.654				0.577
Price of organic products is a barrier to decision to buy	0.767				0.632
<b>Factor 2: Health benefit</b>					
There are no preservatives in organic foods.		0.801			0.724
Organic production does not use chemical pesticides or fertilizers		0.748			0.696
<b>Factor 3: Environmental benefit</b>					

Organic products are more ecologically sound than conventional products			0.739		0.690
Products grown “organic” are obtained from sustainable resources and less polluted discharges into air, water and soil than grown conventionally.			0.789		0.741
I believe organic food consumption contributes to protect environment			0.786		0.718
<b>Factor 4: Convenience</b>					
Organic products are not easily found in grocery stores compared with conventional products.				0.689	0.643
There is a small variety of organic products compared with conventional products				0.732	0.659
Eigenvalues	1.090	1.312	2.933	1.446	
Variance explained (%)	1.730	2.083	4.656	2.296	
Cumulative variance (%)	1.730	3.813	8.469	10.765	
Number of items	2	2	3	2	
Cronbach’s Alpha	0.514	0.724	0.862	0.713	
Inter-item correlation	0.348	0.568	0.676	0.555	
	<b>VARIMAX Rotated Loading</b>				<b>Commonalties</b>
	<b>F5</b>	<b>F6</b>	<b>F7</b>		
<b>Factor 5: Label</b>					
Organic food labels are confusing	0.767				0.618
Organic food labels can easily be imitated	0.626				0.539
I don’t know how organic food labels look like	0.485				0.433
<b>Factor 6: Health Concern</b>					
I worry that there are harmful chemicals in my food.		0.397			0.505
I do not eat foods with additives and preservatives.		0.383			0.511
I am concerned about drinking water quality.		0.471			0.501

I usually read the ingredients labels on the foods I consider purchasing.		0.727			0.617
I read health-related articles in newspaper, magazines and books		0.693			0.598
<b>Factor 7: Ethical Concern</b>					
Buying organic food product shows that I believe in the fair treatment of animals			0.789	0.706	0.698
I buy meat and eggs produced in a way that does not cause the animal's pain or suffering.					0.567
Eigenvalues	1.645	1.702	2.365 3.755 19.83 2	2 0.661 0.495	
Variance explained (%)	2.611	2.701			
Cumulative variance (%)	13.376	16.077			
Number of items	3	5			
Cronbach's Alpha	0.594	0.692			
Inter-item correlation	0.333	0.318			
	<b>VARIMAX Rotated Loading</b>				<b>Commonalties</b>
	<b>F8</b>	<b>F9</b>	<b>F10</b>		
<b>Factor 8: Environmental concern</b>					
Saving energy is an important goal for me.	0.578				0.540
I recycle (e.g., plastic bottles, newspapers).	0.544				0.505
I take my own shopping bag when I go to the market.	0.504				0.515
Climate change is a serious issue to me.	0.630				0.573
<b>Factor 9: Lifestyle</b>					
I avoid eating snacks.		0.559			0.518
I exercise regularly.		0.758			0.664
I am generally in good health.		0.602			0.636
<b>Factor 10: Food safety</b>					
All restaurants should be inspected for cleanliness.			0.655		0.545

I don't think the government is doing enough to prevent food contamination.			0.778	0.666
I always carefully wash my hands before I prepare something to eat.			0.421	0.448
Food manufacturers are not doing enough to prevent food contamination.			0.674	0.620
Pesticide residues in food cause illnesses in humans.			0.621	0.638
Eigenvalues	3.486	1.584	10.996	
Variance explained (%)	5.533	2.514	17.454	
Cumulative variance (%)	25.365	27.879	45.333	
Number of items	4	3	5	
Cronbach's Alpha	0.652	0.590	0.801	
Inter-item correlation	0.325	0.331	0.449	

### 3.2 Empirical Model of Consumers' Purchase of Organic Products

For many commodities and services, the individual's choice is discrete and the traditional demand theory has to be modified to analyse such a choice (Ben-Akiva & Lerman, 1985; Gracia and Magistris, 2008). Models for determining discrete choice such as whether an individual housing loan is rejected or not is known as a qualitative choice model. Therefore, the decision to own or not to own a home falls into the qualitative choice framework. If the random term is assumed to have a logistic distribution, then the decision to own or not to own a home represents a standard binary logit model. However, if it is assumed that the random term is normally distributed, then the model becomes the binary probit model (Maddala, 1993; Greene, 2000). In this study, we choose logit model because of its simplicity. The model is estimated by the maximum likelihood method used in the STATA software.

Consumers' purchase behaviour towards organic food is hypothesized to be influenced by a set of demographic and attitudinal factors known to be relevant to organic foods purchase decisions. These include household size, household structure, age, gender, income, marital status, education, engagement in a variety of health-related behaviours, degrees of concern for food safety and for the environment, convenience, ethical value, lifestyle, label, taste, knowledge and prices charged for organic foods. Our study tests the level of influence that each of these co-variants contributes to purchase decisions for organic foods.

The respondent's decision whether to purchase organic products or not is hypothesized to be affected by the following factors and can be implicitly written under the general form:

$$\text{Purchase}_{it} = B\_HEALTH_{it} + B\_ENVIRONMENT_{it} + CONVENIENCE_{it} + LABEL_{it} + C\_HEALTH_{it} + C\_ETHICS_{it} + C\_ENVIRONMENT_{it} + LIFESTYLE_{it} + SAFETY_{it} + PRICE_{it} + HH\_SIZE_{it} + TASTE_{it} + INCOME_{it} + KNOWLEDGE_{it} + GENDER_{it} + AGE (Dummy)_{it} + HH\_STRUCTURE (Dummy)_{it} + MARITAL (Dummy)_{it} + EDU (Dummy)_{it} + \epsilon_i$$

The discrete dependent variable, PURCHASE, measures whether an individual has purchased organic products or has not purchased organic products for home consumption. The dependent variable is based on the question asked in the survey: "Did you buy any organic products during last year?". The definitions of the model variables are presented in Table 2.

**Table 2. Model Variable Definitions**

Variable Name	Description	Priori Sign
B_HEALTH	Health benefit	+
B_ENVIRONMENT	Environmental benefit	+
CONVENIENCE	Convenience	-
LABEL	Label	-
C_HEALTH	Health concern	+
C_ETHICS	Ethical concern	+
C_ENVIRONMENT	Environmental concern	+
LIFESTYLE	Lifestyle	+
SAFETY	Food safety concern	+
PRICE	Organic product price perception	-
HH_SIZE	Household size	+
TASTE	1 if respondent perceives organic products taste better than conventional products, 0 = otherwise	+
INCOME	1 if respondent has income higher than RMB6000, 0 = otherwise	+
KNOWLEDGE	1 if respondent has some knowledge of organic products, 0 = otherwise	+
GENDER	1 if respondent is female, 0 = male	+
AGE (Dummy)	1 if respondent is younger than 36 years old, 0 = otherwise	+/-
HH_STRUCTURE (Dummy)	1 if respondent has no child, 0 = otherwise	-
MARITAL (Dummy)	1 if respondent is married/engaged/in De facto relationship, 0 = otherwise	+
EDU (Dummy)	1 if respondent has completed bachelor degree or higher	+
$\epsilon$	Error term	

## 4 Research Results

### 4.1 Profile of the Survey Respondents

Table 3 shows the profile of the sample respondents. A total of 446 (66.67 per cent) respondents claimed they had purchased organic products, with the remaining 223 (33.33 per cent) claiming they had not purchased them. Of the total respondents who purchased organic products, 67.19 per cent were female, while 63.23 per cent of the total non-purchasers of organic products were female. The majority of the respondents who purchased organic

products fell in the 18 to 25 years old (36.26 per cent) category followed by the 26 and 35 years old category (31.53 per cent) whereas most of the non-purchasers of organic products were in the 18 to 25 years old (39.01 per cent) followed by the 26 to 35 years old (36.32 per cent). The results also showed that 36.83 per cent of the respondents had completed a bachelor's degree, with 22.46 per cent had a three year college diploma. In addition, 37.30 per cent of the respondents who purchased organic products had a bachelor's degree compared to 35.87 per cent of non-purchasers of organic products. In terms of occupation, 21.35 per cent of the respondents were business employee, followed by normal company staff (16.39 per cent) and the self-employed (14.29 per cent). More than half of the respondents (55.84 per cent) were married or in de facto relationships at the time of the survey and 58.66 per cent of those who purchased organic products were married or in de facto relationships. Similarly, the majority of non-purchasers of organic products were married or in de facto relationships (50.22 per cent).

Table 3 also shows that the proportion of households with children (44.06 per cent) versus without children (6.62 per cent) in the family. The households' modal category for monthly income was between RMB 4,001 and RMB 6,000 (24.81 per cent) followed by between RMB 2,001 and RMB 4,000 (20.75 per cent). From the table, one can see that the households with higher income are more likely to purchase organic products. For example, 13.77 per cent of the households with the highest monthly income (over RMB 10,000) were purchasers of organic products compared with 7.66 per cent non-purchasers of organic products.

**Table 3. Profile of the Survey Respondents**

	<b>Organic Product Purchasers</b>	<b>Organic Product Non-Purchasers</b>	<b>Total</b>
<b>Gender</b>			
Male	32.81	36.77	34.13
Female	67.19	63.23	65.87
<b>Age</b>			
18 - 25	36.26	39.01	37.18
26 - 35	31.53	36.32	33.13
36 - 45	21.62	14.35	19.19
46 - 55	6.98	8.97	7.65
Older than 55	3.60	1.35	2.85
<b>Marital status</b>			
Single	40.22	47.09	42.51
Married/De facto/Engaged	58.66	50.22	55.84
Divorced/Separate/Widowed	1.12	2.69	1.65
<b>Education</b>			
No formal education	1.12	0.90	1.05
Primary school	3.60	3.59	3.59
Middle school	10.11	6.73	8.98
Some high school	7.19	4.93	6.44
High school graduate	13.71	14.35	13.92
Three year college diploma	20.67	26.01	22.46

Bachelor	37.30	35.87	36.83
Postgraduate	6.29	7.62	6.74
<b>Occupation</b>			
Business employee	21.90	20.27	21.35
Civil Servant	4.51	4.95	4.66
Company Manager	5.42	5.41	5.41
Normal company staff	16.70	15.77	16.39
Owner of private business	5.87	4.05	5.26
Professional	12.64	10.36	11.88
Self-employed	14.00	14.86	14.29
Retired	2.93	3.15	3.01
Unemployed	4.06	4.95	4.36
Other(s)	11.96	16.22	13.38
<b>Household structure</b>			
Single adult	18.92	24.89	20.90
Couple without children	5.41	9.05	6.62
Couple with a child/children	47.30	37.56	44.06
Single parent with a child/children	1.80	2.71	2.11
Extended family	25.23	24.43	24.96
Other	1.35	1.36	1.35
<b>Household income</b>			
RMB 2,000 or less	7.67	12.16	9.17
RMB 2,001 to RMB 4,000	18.74	24.77	20.75
RMB 4,001 to RMB 6,000	23.70	27.03	24.81
RMB 6,001 to RMB 8,000	21.22	18.02	20.15
RMB 8,001 to RMB 10,000	14.90	10.36	13.38
More than 10,000 RMB	13.77	7.66	11.73

#### 4.2 Respondents' Attitudes towards Price, Health, Environmental, Convenience, Label, Ethics, Lifestyle and Food Safety Factors

Table 4 describes the respondents' general attitudes towards price, health, environmental, convenience, label, ethics, lifestyle and food safety attributes which were calculated using the mean scores and standard deviations of the individual Likert-scaled statements. Food safety clearly tops the list of consumers' perception toward organic products. When asked to identify the most important issues, most of the respondents strongly agreed that "all restaurants should be inspected for cleanliness" followed by "the government is not doing enough to prevent food contamination", "food manufacturers are doing enough to prevent food contamination", and they "wash their hands before preparing something to eat".

Concerns about well-being (health consciousness) were also strongly held by the respondents. Respondents are "concerned about drinking water quality". Similarly, most respondents agreed that they "worry that there are harmful chemicals in their food", "read



health related articles in newspaper, magazines and books”, “read the ingredients labels on the good they consider buying”, and “do not eat foods with additives and preservatives”.

In addition, most of the respondents strongly agreed that the "saving energy is an important goal for them" followed by “climate change is a serious issue”, “use their own shopping bag when going to the market”, and they practice “recycling (examples plastic bottles and newspapers)”. These results implied that respondents understood the importance of protecting the environment and were proactive in contributing to protect the environment.

Table 4 also reveals that most of the respondents agreed that organic products are “produced from sustainable resources and discharges less pollution into air, water and soil compared to conventionally grown products”, followed by “organic food consumption contributes to protect the environment”, and “organic products are more ecologically sound than conventional products”. These results implied that organic products are believed to yield environmental benefits.

However, most of the respondents showed the neutral attitudes towards organic food price, health benefit of organic food, convenience and label. The results suggested that in general, price, convenience and label were not big obstacles for the most consumers to purchase organic foods. Respondents were also not strongly convinced of the health benefits of organic products. They only slightly agreed “there are no preservatives in organic foods” and “organic production does not use chemical pesticides or fertilizers”.

Further, the respondents manifested slightly lower attitudes towards ethical concern and lifestyle. This is not a surprised since the mean difference between the two groups of respondents with regard to the two factors were insignificant. Further, the survey reveals more than 60 percent of the respondents occasionally purchased organic products while 29 per cent as frequent purchasers. This supports the findings of Pino, Peluso and Guido (2012) and Barrena and Sanchez (2010) who argue that ethical self-identity influences regular purchasers of organic food more those of the occasional consumers.

The significance of the mean differences revealed greater variation in attitudes between the two groups of respondents with regard to price, health, environmental, convenience, label, ethics, lifestyle and food safety attributes. Purchasers of organic products reported higher mean scores in the food safety, health and environmental attitudes than non-purchasers of organic products. There is a significance difference between purchasers and non-purchasers of organic products, except for the items "all restaurants should be inspected for cleanliness”, “the government is not doing enough to prevent food contamination”, “food manufacturers are not doing enough to prevent food contamination”, “they worry that there are harmful chemicals in their food”, “recycling (examples plastic bottles and newspapers)”, and “climate change is a serious issue.” On the other hand, non-purchasers of organic products reported higher mean scores in the convenience and price attributes, except for items “there is a small variety of organic products compared with conventional products”, and “organic products are more expensive than conventional products”.

**Table 4. Organic Product Purchasers and Non-Purchasers' Perception of Organic Products**

	Purchasers		Non-purchasers		Total		Significance of difference <sup>b</sup>
	Mean <sup>a</sup>	SD	Mean <sup>a</sup>	SD	Mean <sup>a</sup>	SD	
<b>Factor 1: Price</b>							
Organic products are more expensive than conventional products.	3.80	1.20	3.95	1.21	3.85	1.21	-1.37 <sup>NS</sup>
Price of organic products is a barrier to decision to buy	3.44	1.32	3.65	1.27	3.50	1.31	-1.91*
<b>Factor 2: Health Benefit</b>							
There are no preservatives in organic foods.	3.57	1.25	3.32	1.28	3.49	1.26	2.19**
Organic production does not use chemical pesticides or fertilizers	3.53	1.27	3.40	1.34	3.49	1.29	1.19 <sup>NS</sup>
<b>Factor 3: Environmental benefit</b>							
Organic products are more ecologically sound than conventional products	4.15	1.05	3.92	1.13	4.08	1.08	2.57***
Products grown "organic" are obtained from sustainable resources and less polluted discharges into air, water and soil than grown conventionally.	4.22	1.05	3.97	1.15	4.14	1.09	2.80***
I believe organic food consumption contributes to protect environment	4.20	1.05	4.03	1.05	4.14	1.05	1.81*
<b>Factor 4: Convenience</b>							
Organic products are not easily found in grocery stores compared with conventional products.	3.80	1.25	3.97	1.28	3.86	1.26	-1.65*
There is a small variety of organic products compared with conventional products	3.90	1.23	3.95	1.15	3.91	1.21	-0.56 <sup>NS</sup>
<b>Factor 5: Label</b>							
Organic food labels are confusing	3.59	1.27	3.63	1.21	3.61	1.25	-0.38 <sup>NS</sup>
Organic food labels can easily be imitated	3.60	1.29	3.68	1.20	3.62	1.26	-0.75 <sup>NS</sup>
I don't know how organic food labels look like	3.13	1.38	3.55	1.47	3.27	1.42	-3.37***
<b>Factor 6: Health Concern</b>							
I worry that there are harmful chemicals in my food.	4.40	0.97	4.29	1.01	4.36	0.99	1.35 <sup>NS</sup>

I do not eat foods with additives and preservatives.	3.46	1.18	3.29	1.26	3.41	1.21	1.68*
I am concerned about drinking water quality.	4.47	0.89	4.3	0.92	4.42	0.90	2.29**
I usually read the ingredients labels on the foods I consider purchasing.	3.80	1.17	3.40	1.29	3.67	1.23	3.40***
I read health-related articles in newspaper, magazines and books	4.01	1.09	3.59	1.21	3.87	1.15	4.36***
<b>Factor 7: Ethical Concern</b>							
Buying organic food product shows that I believe in the fair treatment of animals	2.52	1.22	2.50	1.18	2.51	1.21	0.19 <sup>NS</sup>
I buy meat and eggs produced in a way that does not cause the animals pain or suffering	3.05	1.32	2.95	1.31	3.01	1.32	0.85 <sup>NS</sup>
<b>Factor 8: Environmental concern</b>							
Saving energy is an important goal for me.	4.34	0.94	4.06	0.99	4.25	0.96	3.59***
I recycle (e.g., plastic bottles, newspapers).	3.82	1.22	3.79	1.16	3.81	1.20	0.29 <sup>NS</sup>
I take my own shopping bag when I go to the market.	4.04	1.17	3.74	1.34	3.94	1.24	2.88***
Climate change is a serious issue to me.	4.24	1.07	4.11	1.04	4.20	1.064	1.39 <sup>NS</sup>
<b>Factor 9: Lifestyle</b>							
I avoid eating snacks	2.73	1.27	2.67	1.30	2.71	1.29	0.55 <sup>NS</sup>
I exercise regularly	2.48	1.24	2.47	1.20	2.48	1.23	0.06 <sup>NS</sup>
I am generally in good health	1.92	1.00	1.87	1.04	1.90	1.02	0.61 <sup>NS</sup>
<b>Factor 10: Food safety</b>							
All restaurants should be inspected for cleanliness.	4.54	0.94	4.47	0.94	4.52	0.94	0.81 <sup>NS</sup>
I don't think the government is doing enough to prevent food contamination.	4.42	0.98	4.51	0.85	4.45	0.94	-1.13 <sup>NS</sup>
I always carefully wash my hands before I prepare something to eat.	4.27	0.96	4.03	1.05	4.19	1.00	2.90***
Food manufacturers are not doing enough to prevent food contamination.	4.43	0.93	4.32	1.03	4.39	0.96	1.23 <sup>NS</sup>

Note: <sup>a</sup> Mean score is calculated with values of 5 for "strongly agree" through to 1 for "strongly disagree" and excluded "don't know" or "not answered" response.

<sup>b</sup> Independent-samples *t*-test is used to test the significance of difference between the groups. The number is the value of the *t*-test.

\*, \*\*, and \*\*\* indicate the significant difference between purchasers and non-purchasers of organic products at the 10, 5, and 1 per cent level, respectively.  
 NS indicates non-significant.

### 4.3 Respondents Purchasing Behaviour towards Organic Products

Table 5 displays respondents' purchasing behaviour toward organic product. The result shows 68.31 per cent of the respondents occasionally purchased organic products followed by 28.99 per cent as frequent purchasers. However, only a relatively small proportion of the respondents purchased organic products always (2.47 per cent). The main factors encouraging consumers to purchase organic products were health consciousness followed by environmental concerns. They purchased organic products because these were thought to be "healthier for me and my family" (68.31 per cent), "free from pesticides/growth hormones" (57.98 per cent), "contain more nutrients/vitamins (55.28%) and were "GMO free" (36.40 per cent). However, only 6.29 per cent of the respondents said they "do not trust conventional products".

Retailers, especially supermarkets (55.28 per cent) and fresh food markets (42.92 per cent) dominate domestic organic markets where they were more available but sold at a price premium. The next available outlet was wet markets (32.36 per cent), followed by convenience store (22.02 per cent). Consumers reported that they were willing to buy more if the products regulations were "stringently enforced", were trustworthy assurance, conveniently available (at supermarkets and farmers market), and had lower prices (59.78, 51.46, 44.04 and 32.81 per cent, respectively).

**Table 5. Respondents Purchasing Behaviour towards Organic Products**

<b>Statement</b>	<b>Organic Food Purchasers (%) (n=445)</b>
<b>Frequency in purchasing organic product</b>	
Always	2.47
Frequently	28.99
Occasionally	68.31
<b>Main reason(s) for buying organic products</b>	
Contain more nutrients / vitamins	55.28
Do not trust conventional products	6.29
Environmental friendly production method	35.73
Free from pesticides / growth hormones	57.98
GMO free	36.40
Healthier for me and my family	68.31
High quality	24.94
Support of smaller / local producers	15.28
Taste better	17.98
<b>Places to buy organic products</b>	
Convenience store	22.02

Fresh food market	42.92
Health food shop	19.10
Supermarket	55.28
Wet market	32.36
Other(s)	2.25
<b>Factors which persuade to buy more organic products</b>	
Availability and convenience (all supermarkets, farmers market)	44.04
Better appearance	11.01
Cheaper prices	32.81
Environmentally friendly packaging	25.17
No plastic in the packaging	13.93
Displays in supermarkets	24.49
Stringent, enforced regulations	59.78
Trustworthy quality assurance	51.46
Other(s)	2.02
<b>Type(s) of organic product often buy</b>	
Fruits (e.g. apples, oranges)	85.17
Meat (e.g. chicken, beef)	55.06
Processed food (e.g. coffee, biscuits)	13.71
Raw materials (e.g. sugar, flour, noodles)	30.34
Vegetables (e.g. Chinese cabbage, green beans)	77.30
Rice	46.07
Milk	52.58
Eggs	35.96
<b>Sources of Organic Product information</b>	
Billboard / bus advertisement	37.08
Health convention	11.01
Internet	42.92
Magazine	30.56
My doctor	7.19
My parents / other relatives	20.67
Newspaper	26.52
Nutrition expert	23.15
Radio	21.80
Television	9.44
Word of mouth	2.25
Other	1.12

In addition, the respondents who purchased organic products were asked to identify the types of organic products they buy often. Fruits (85.17 per cent), vegetables (77.30 per cent), and meat (55.06 per cent) dominated the respondents' purchases. This result is not surprising, since these products are available in the market. The most popular source of information about organic products is internet (42.92 per cent) and billboard/bus advertisement (37.08

per cent). Other popular sources of information included magazines (30.56 per cent) and newspaper (26.52 per cent).

The respondents who did not purchase organic products were asked why they did not. These results are presented in Table 6. The largest number of respondents identified insufficient information about the products (56.05 per cent), not available where they shop (45.29 per cent) and confused with the organic products terminology and certification (41.26 per cent) as barriers to purchase. The high price (37.22 per cent) and the organic products do not taste any different from conventional products (35.43 per cent) were also identified as barriers to purchasing. Other reasons deterring respondents from purchasing organic products included “do not see any benefits in organic products” and “organic products are not high enough quality.” The factors that could persuade non-purchasers to buy organic products were easier to find (61.43 per cent), greater variety of organic products (49.33 per cent), trust in organic certificates (48.88 per cent) and cheaper prices (44.84 per cent). Increase in the income of the respondents (35.87 per cent) was the least important factor that might contribute to persuading non-purchasers to buy organic products.

**Table 6. Respondents’ Reasons for not Purchasing Organic Products**

<b>Statement</b>	<b>Organic Product Non-Purchaser % (N = 223)</b>
<b>Reasons for not purchasing organic products</b>	
Confused (about terminology, certification bodies, etc.)	41.26
Do not like the taste	4.93
Do not see any benefits in organic products	17.94
Do not taste any different from conventional products	35.43
High price	37.22
Insufficient information about the products	56.05
Lack of variety	21.97
Not available where I shop	45.29
Organic products are not high enough quality	10.76
Satisfied with the quality of non-organic produced products	8.07
Unattractive appearance	5.83
Other(s) (Please specify)	1.79
<b>Factors which would persuade to buy organic products</b>	
Cheaper prices	44.84
Easier to find (better distribution)	61.43
Greater variety of products	49.33
Increase in my income	35.87
More information on the labels	36.32
Trustworthy organic certification on packages	48.88

#### 4.4 Empirical Results

Table 7 shows the results obtained from the logit model. The VIF test (mean VIF=1.34) confirms the absence of multicollinearity from the model. High p value ( $p=0.42$ ) obtained from Hosmer-Lemeshow's goodness of fit test indicates the model is well-fitted with the data (Janosz, LeBlanc, Boulerice, & Tremblay, 1997). The percentage of observations that are correctly predicted by the model is 74.39% (PCP =74.39). The likelihood ratio test (LR test) with  $\chi^2(19)=111.31$  indicates that the model as a whole is significant at 1% level.

Results from Table 7 indicate the significant effect of taste, knowledge, income, convenience, health concern and ethical concern on the consumer's likelihood to purchase organic products. Literature suggests the influence of health concern and health benefit on the consumer's decision to buy organic product. In this study, we identify that although the effect of health benefit perception is negligible, the impact of health concern on organic product purchase is significant at 5% level. This means households who are more concerned about health issue tend to buy organic products. The finding is similar to the results obtained from the studies of Cicia, Del Giudice, and Scarpa (2002), Voona, Nguib, and Agrawal (2011) and (Gracia & Magistris, 2007). Cicia et al. (2002) reveal that organic consumers are those who are concerned about health problem and have a healthy lifestyle. Voona et al. (2011) show that health concern contributes to form the positive consumer's attitude towards organic food in Malaysia. Similarly, applying qualitative method, Sirieix, Kledal, and Sulitang (2011) identify that health concern is the main motive Shanghai consumers choose organic food.

Ethical concern is also found to have significant influence on the consumer's organic product choice. Households who are more concerned about animal welfare and believe that organic products are animal welfare friendly are inclined to buy organic products. Chen (2007) and Millock, Wier, and Andersen (2004) conclude that belief in animal welfare friendliness of food production process is a motive to buy organic food. Harper and Makatouni (2002) also identify the significant relationship between animal welfare concern and organic food purchase.

Other factors such as environmental benefit, environmental concern, food safety concern and lifestyle have positive on the organic product purchase, however, their effects are insignificant. Therefore, organic product purchase decision in China is not substantially affected by environmental related values of organic food and food safety concern.

Our results confirm the importance of organic food sensory value to the consumer's food purchase behaviour. The significance of TASTE at 1% on decision to buy organic products implies that the consumers who perceive that organic foods taste better than conventional products are more likely to buy organic foods. The finding supports the studies of Thøgersen and Zhou (2012) and Yin, Wu, Du, and Chen (2010) postulating that sensory attributes such as taste and appearance influence the decision to buy organic products in China.

Similar to the study of Gracia and Magistris (2007) and Saleki, Seyedsaleki, and Rahimi (2012), our study finds out that customer's knowledge of organic products is associated with the decision to buy organic food products. The significant positive effect of KNOWLEDGE variable at 1% level confirms that customers who have some knowledge of organic products are more likely to consume organic products. The literature suggests that knowledge of organic

products are critical in the consumers' purchase decisions because organic products are credence goods. If consumers cannot differentiate whether a product is produced using organic or conventional methods, a price premium on the organic products can deter consumption in favour of the cheaper conventional products (Giannakas, 2002). The result also indicates that knowledge is an obstacle to organic food purchase in China, which is consistent with the findings of Yin et al. (2010) and Roitner-Schobesberger, Darnhofer, Somsook, and Vogl (2008) about organic food purchase in China and Thailand, respectively.

Convenience is another factor affecting organic product purchase. The negative effect of this variable on organic product purchase (significant at 10% level) reveals that the consumers who have difficulties in finding organic products in their convenient shopping places are less likely to buy organic products. Similarly, Chen (2007), Dimitri and Dettmann (2012) also uncover that inconvenience is of the main reasons customers don't choose organic products in Taiwan and US, respectively.

In terms of demographic variables, only income has significant effect on organic product purchase decision while the effects of gender, marital status, age, household structure and education are insignificant. As expected, income has influence on the consumers' likelihood to buy organic products. As organic products are more expensive than conventional ones, they are more affordable for the consumers with higher income. Our result indicates that the households with monthly income higher than RMB6000 are more likely to buy organic products. In addition, higher income households are more likely to form positive attitudes and to purchase more organic products (Grunert and Kristensen, 1991; Magnusson et al., 2001).

Marginal effects reflect the effect magnitude of each variable on the consumers' decision to buy organic products. From the values of marginal effect, we can see that knowledge has the strongest effect on the organic product purchase, followed by taste and income. Improving the consumer's knowledge of organic products can increase their likelihood to purchase by 39.7%. Health concern, ethical concern and convenience have lowest marginal effect on organic product purchase (8.4%, 5% and 4.5%, respectively).

**Table 7. Logit Result (Consumers' Purchase Decisions towards Organic Products)**

Variable	Coefficients	Standard Errors	T-statistics	Marginal Effects
HH_SIZE	0.053	0.084	0.640	0.011
TASTE	0.884***	0.217	4.074	0.187
INCOME	0.506**	0.221	2.285	0.105
KNOWLEDGE	1.696***	0.343	4.949	0.397
GENDER	0.148	0.226	0.653	0.031
AGE (Dummy)	-0.458	0.282	-1.624	-0.093
HH_STRUCTURE (Dummy)	-0.046	0.250	-0.184	-0.010
MARRIED (Dummy)	0.005	0.268	0.020	0.001



EDU (Dummy)	0.091	0.235	0.388	0.019
PRICE	-0.133	0.110	-1.205	-0.028
B_HEALTH	0.034	0.107	0.315	0.007
B_ENVIRONMENT	0.133	0.133	0.996	0.028
CONVENIENCE	-0.216*	0.121	-1.783	-0.045
LABEL	-0.095	0.112	-0.845	-0.020
C_HEALTH	0.400**	0.188	2.128	0.084
C_ETHICS	0.238**	0.102	2.326	0.050
C_ENVIRONMENT	0.125	0.162	0.774	0.026
LIFESTYLE	0.176	0.139	1.262	0.037
SAFETY	0.066	0.198	0.331	0.014
CONSTANT	- 3.815***	1.328	-2.873	
Number of observations	531			
Likelihood ratio	111.31***			
Pseudo R2	0.17			
PCP	74.39%			
EPCP	64.87%			
VIF	1.34			
Hosmer-Lemeshow's goodness of fit test: p = 0.42				

## 5 Conclusions

The socio-demographic profile of organic products purchasers reveals more women buying than men. Consumers aged between 18-25 shows the highest frequency in the purchase of organic products followed by the 26-35 age group. Households with the presence of children are also more likely to purchase organic products. The reason behind may be perceived as a higher level of concern in food safety with the presence of children, especially the recent food scandal in China.

The survey results showed more than 60 per cent of the respondents purchased organic products but only a relatively small proportion purchased organic products always (2.47 per cent). The main factors encouraging the respondents to purchase organic products were health consciousness followed by environmental concerns. Conversely, insufficient information about the products was identified most frequently by non-purchasers of organic products as the major deterrent factor for purchasing organic products. Purchasers of organic products revealed that the availability and purchase convenience as the most important attributes that could persuade them to buy more organic products. The factors that could persuade non-purchasers to buy organic products were "easy to find" followed by "greater variety" of organic products and "trust in organic certificates". The majority of purchasers reported that organic products are mostly found in the organic sections of supermarkets and fresh food markets.

The factor analysis extracted ten important factors that influence consumers' general attitudes toward organic products: Price, Health benefit, Environmental benefit,

Convenience, Label, Health concern, Ethical concern, Environmental concern, Lifestyle and Food safety. This indicates that consumers' interest in organic food is influenced by their belief that organically produced food is safe and better for health, environment and welfare of the animals. The results of the logistic analysis indicate that taste, knowledge, income, convenience, health concern and ethical concern appear to have a strong impact on the respondents' likelihood to purchase organic products. In contrast, environmental benefit, environmental concern, food safety concern and lifestyle appear to have less impact on the respondents' decision to purchase organic products. Therefore, organic product purchase decision in China is not necessarily affected by environment related values of organic food products, food safety concern and lifestyle. This maybe unique to China because the consumer market for organic food products in China is still at its early stage of development.

In the opinion of Chinese consumers, organic food is a new concept, and in some instances organic food concept is used to name the healthy and environment protecting products. Furthermore, Giannakas (2002), Landay, (1996), Groves (1998) and Tregear et al., (1994) report that many potential organic consumers in Western industrialised countries mistrust about organic product labels and misrepresentation of conventionally produced food as organic. Thus, although Chinese consumers are concerned with food safety and their intention to purchase organic products, understanding of the word "organic" maybe a barrier to their organic food consumption.

Furthermore, our results show demographic characteristics have weak influence on the respondents' likelihood to purchase organic products. The results show only income influences the respondents' decision to purchase organic products. Organic products are more expensive than conventional products and our result reveals that the households with monthly income higher than RMB4001 are more likely to buy organic products. This further supports the findings of Gracia and Magistris (2007) and Santucci, Marino, Schifani and Zanolli (1999) who report that consumers with high income often buy organic food to reflect on their awareness and status. In addition, most Chinese consumers are price sensitive and look for value for money when buying food products.

## 5.1 Implications

The survey result shows female and households with children are more likely to consume organic products. Since the recent high-profile scandals involving tainted food products in China, there is an increase in demand for detail information and knowledge about organic product benefits. These two groups therefore have a bigger potential as the major consumption group and can be identified as target customers. A marketing mix strategy could be used to target these groups. For example, when designing advertisement and packaging of products, words such as "safe", "healthy" and "environmental friendly" should be stressed in packaging to maintain a consistent image and impression for organic products .

Key motivating factors for purchasing organic products are health and safety factors (contain more nutrients/vitamins and free from pesticides and growth hormones) and these should therefore continue to be the promotional pillars for increasing organic consumption in China.

This is further strengthened by the fact that when being asked about the factors which persuade them to buy more organic products, the consumers' top considerations are stringent enforced regulations and trustworthy quality assurance for the majority purchasers of organic products. Surprisingly, price is not a major factor influencing both purchasers and non-purchaser of organic products.

A major reason why non-purchasers do not purchase organic products is the insufficient information about the products. Our survey results reveal that those who do not purchase organic products may have a general knowledge about them, but do not have enough detailed information to clearly differentiate the unique attributes of organic from conventionally grown alternatives. This further supports the findings of Xu and Wu (2009) who conclude that consumers' knowledge of the food safety problem is limited. There is limited media coverage and reports on food safety. Therefore, the government can cooperate with public and private organizations to produce brochures, campaigns and TV programmes on the common attributes and benefits of organic products to attract non-buyers. In addition, schools can educate students about nutrition and the benefits of healthy food choices they can consume.

The organic product market in China is still at the early stage of development and can be considered as immature. Promotion of various attributes of organic products and building trust in this product category would increase consumers' consumption of organic products since the Chinese consumers are very concerned about food safety in the recent media reports about food scandals in China. This reflects Chinese consumers' search for food products that have positive health and safety connotation.

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