SOCIO-ECONOMIC DETERMINANTS OF CONSUMERS' WILLINGNESS TO PAY FOR ORGANIC PRODUCTS IN ABEOKUTA SOUTHWEST, NIGERIA

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ABSTRACT

This paper investigates the factors affecting consumers' willingness to pay a premium price for organic products (green vegetables and tomato) in Abeokuta, southwest, Nigeria. The study collected primary data from a sample of 120 respondents. The data were analyzed by descriptive statistics and Contingent Valuation Method (CVM). The results show that respondents are willing to pay a premium price of 59% and 68% for organic green vegetables and tomato, respectively. The results show that the bid price, prior knowledge, safety issues and income were significant for the two models. Moreover, In the first regression model for green vegetable, it was revealed that bid price, prior knowledge, safety issues, concern issues, level of education and income were significant at $p<0.01$, $p<.1$, $p<0.05$, $p<0.01$, $p<0.1$ and $p<0.01$, respectively. Analysis further indicates that respondents are willing to pay a premium price for organic products if they have prior knowledge of the greater quality and health benefits. The study further discloses that the respondents with larger size in the household are less likely to pay a premium price for organic products. Analysis also indicates that the higher the price premium of organic products, the lower the respondent's willingness to pay for organic products. Therefore, efforts aimed at attracting more consumers of organic products by policymakers, together with marketers and producers, should focus more on lowering the price of the organic products.

Keyword: Contingent Valuation, Ogun State, Organic products, Price premium, Willingness.

INTRODUCTION

Organically grown products have received increasing attention worldwide. This is due to growing awareness of environmental problems and increased concerns about the health and safety of modern agricultural food production practices. Despite the apparent rise of both supply and demand for organic products in Nigeria, the industry is still in its infancy and consumers' purchasing behaviour towards organic products is not well researched. The rising incidence of health risks and food poisoning through the consumption of contaminated food as well as changing consumer behavior due to increasing affluence have led to increase in the demand for safer food such as organic products.

The role of organic agriculture in providing much needed food and income is gaining wider recognition (Van-Elzakker *et al.,* 2007). The market of organic products is growing as the number of people who are willing to eat organic food and pay price premium is increasing. The future of organic agriculture to a large extent depends on consumer demand and their motive for paying extra price for organically grown food. However, a consumer-oriented approach is very important in understanding the market for organic products is important for pursuing better management of organic farming. This is a complex process determined by factors such as quality production, infrastructure, certification, market environment and

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policies (Aryal, 2008). It is also important to understand consumer decision-making regarding organically produced foods and seek strategies about how the consumption can be improved.

Production and marketing strategies of organically food are determined principally by consumer beliefs, attitudes, responses and the willingness to pay a price premium. Because organic products are credence goods, consumers may not know whether a product is produced using conventional or organic methods unless they are told so (Giannakas, 2002). Thus, awareness and knowledge about organically produced foods are critical in the consumer demand decisions. Krissoff (1998) opined that consumers purchase organic products because of a perception that the products are healthier, safer and more environmentally friendly than conventionally produced alternatives. Food safety, human health, nutritive value, taste, freshness, appearance, and other sensory characteristics influence consumer preferences for organic food products (Makatouni, 2002, Bonti-Ankomah and Yiridoe, 2006).

The move to organic agriculture has reached Nigeria even though the issues of food adequacy still hold sway for a large number of consumers. In Nigeria, the consumption of organic foods constitutes only few percent of total food consumption bundle of the country (Dipeolu *et al.,* 2009). However, the demand for organic vegetables has increased in recent years. Issues related to food safety and hygiene has become increasingly important to Abeokuta people, particularly the urban consumers even among the most concern issues. The organic food industry faces many challenges such as weak regulation, insufficient financial resources, and market information on organic products. The information on consumer preference on organic products is important to farmers so they produce what consumer want and are willing to pay. In Nigeria, there is a dearth of information on Nigerian consumer preference for organic foods such as the value consumers attach to the label "organic". Hence, organic farming in Nigeria is not well developed compared to its potentials. Vegetables are important in the Nigerian food diet and among them tomato and green vegetable is the most important item.

To succeed in enlarging the domestic organic market, it is important to understand consumers' preferences of organic products and how much they are prepared to pay for organic products. This information is not well researched or documented. Several studies have investigated consumers' behaviour towards environmentally friendly products in Nigeria, but there has been little academic research on willingness to pay for organic products. The lack of such information is a major impediment to the growth of organic products consumption and the future development of organic product markets in Nigeria. The objective of this paper is to estimate a price premium that consumers are willing to pay for organic products and to determine the critical factors affecting consumers' willingness to pay the price difference between organics and other goods. The results of this study will provide some insight for which marketers might improve their strategies to enhance sales of organic products and to assist farmers or producers to develop effective production strategies for organic products.

MATERIALS AND METHODS
The Study Area

The study was conducted in Federal University of Agriculture, Abeokuta (FUNAAB). The University of Agriculture Abeokuta, a federal tertiary institution, is one of the three specialized institutions of its kind in Nigeria, and has the south west of Nigeria as its mandate area for purposes of agricultural research, teaching and Extension. FUNAAB is the birth places for the organic agriculture movement in Nigeria (Dipeolu *et al.,* 2009; Phillip and Dipeolu,

2010) hence the choice of the location as the study area. The Federal University of Agriculture, Abeokuta is located next to Ogun-Osun River Basin Development Authority (OORBDA), along Osiele-Abeokuta road, off Abeokuta-Ibadan road in the north Eastern end of the city at Alabata and is from the city center of Abeokuta which lie approximately on latitude $70^030'$ N and longitude $30^054'$ E. It lies within the humid lowland rain forest region with two distinctive seasons. The wet season extends from March to October while the dry season extends from November to February. The mean annual rainfall is 1113.1 mm. The rainfall has a characteristic bimodal distribution with peaks in July and September and breaks in August. Generally, the rainfall could be heavy and erosive sometimes accompanied by lightning and thunderstorm at the beginning and the end of rainy season. The mean monthly temperature varies from 22.9^0C in August to 36.32^0C in March. The relative humidity is high ranging from 75.52^0C in February to 88.15^0C in July (Aiboni, 2001).

Method of Data Collection

Primary data were collected by means of a structured questionnaire. A total of 179 respondents were randomly selected in the study area. The study used structured questionnaire to elicit information on respondents' socio-economic characteristics, level of awareness and past experiences about organic products and willingness to pay for selected organic green vegetables and tomato.

Method of Data Analysis

The stated preference (SP) approach has been commonly used in the economic valuation of both non-market goods and services (i.e., environmental resources and transport) marketing and in food economics. It is also widely used to estimate consumers' preference or WTP for new products and new products' attributes (i.e., quality of food products). The SP technique uses direct methods such as surveys presenting hypothetical choices to gather data from consumers. Thus, SP data can be collected for either available products or those that are cannot be purchased. One advantage of the SP technique is that it allows policymakers or researchers to understand how consumers respond to novel goods and services and to predict demand for them when data from actual markets is not available. This is achieved by considering the value that consumers place on goods or services (Lee and Hatcher, 2001). The SP method is adopted in this study because organic products in Thailand comprise a very small market; there are no data currently available for evaluating the monetary premium that a consumer would be willing to pay for organic products.

Among the SP techniques, choice modeling (CM) and the contingent valuation method (CVM) are generally accepted by researchers as the most appropriate methods to elicit consumers' WTP. These are commonly applied in marketing research because they are easy to administer and inexpensive to carry out. Both methods use the random utility model (RUM). These are based on Lancaster consumer theory, which states that consumers make choices derived from their preferences for the particular attributes they perceive the goods to offer. These methods can thus use discrete choice models to derive the average WTP, and the product attributes and factors influencing it WTP (Lusk and Hudson, 2004).

CVM has been extensively used to determine the monetary valuation of non-market goods and services, and is now widely used to evaluate the WTP for credence products. The primary objective of CVM is to obtain an accurate estimate of the benefits (or cost) of a change in the quality or quantity of non-market goods, such as environmental improvements. Because of the absence of market prices for non-market or credence goods, the CVM proposes a hypothetical market created for questionnaire respondents to operate in the market by directly

asking them how much they would be willing to pay, contingent on a specific hypothetical scenario. The values generated by the hypothetical questions are treated as estimates of the value of the non-market good or service. The characteristic of CVM is that it reveals consumers' preference for unavailable goods and services as if a bundle of characteristics or the whole good (Carson and Hanemann, 2005). In general, CVM is a more appropriate method for evaluating the product of interest as a whole because it is improper to assume that the value of the whole product is equal to the sum of the product's attributes, as is the case with CM techniques. In contrast, CM is preferable when individual values for characteristics/attributes are required.

CVM has been a popular technique to evaluate consumers' willingness to pay for different types of food attributes, considered as credence attributes. This is because the quality of credence goods cannot be observed either before or after the purchase of the good, and may not be widely available in the market. A number of studies have applied CVM to evaluate consumers' preferences for food safety in terms of avoidance of pesticides, residue free products (Batte *et al.,* 2007 and genetically modified products (Grimsrud *et al.,* 2004). Other CVM studies focusing on environmentally friendly products and organic products include Sanjuán *et al.* (2003), Gil *et al.* (2000), Lusk (2003), Vanit-Anunchai (2006) and Rodríguez *et al.* (2007).

To elicit consumers' willingness to pay for the selected organic products, contingent valuation method was applied, which help to find out how much an individual respondent would be willing to pay by using hypothetical survey questions as used by Mitchell and Carson (1989).

Using double bounded approach, respondents were asked two questions. Question format was "Are you willing to pay amount of money for organic leafy vegetable that has no chemical pesticide, no synthetic fertilizer and good for health". Each question has two choices: yes or no. If "yes" in the first question, higher amount of bid was given in the second question; otherwise, lower amount with "no". Therefore, one of four abilities of a respondent can be: 1. Yes–Yes (YY), 2. Yes–No (YN), 3. No–Yes (NY), 4. No–No (NN). According Hanemann (1991) and Hai *et al.* (2013), the probability of answering "Yes" for both questions is expressed:

$$Pr_{yy}(B, B^u) = Pr[B \leq WTP, B^u \leq WTP] \qquad \text{... (1)}$$
$$Pr_{yy}(B, B^u) = Pr[B \leq WTP / Bu \leq WTP]Pr[B^u \leq WTP] \qquad \text{... (2)}$$
$$Pr_{yy}(B, B^u) = PrB^u \leq WTP = 1 - F(B^u) \qquad \text{... (3)}$$

where;
Pr_{yy} = probability of answering "Yes" "Yes".
B = price in the first question.
B^u = higher price in the second question.
WTP = Willingness to pay.
F = Cumulative Distribution function (CDF).

The probability of answering "Yes" followed by "No" in question (2) is:

$$Pr_{yn}(B, B^u) = Pr[B \leq WTP < B^u] = F(B^u) - F(B) \qquad \text{... (4)}$$

Similarly, probabilities for answering "No–Yes" and "No –No" are:

$$Pr_{ny}(B, B^d) = Pr[B^d \leq WTP < B] = F(B) - F(B^d) \qquad \dots (5)$$

$$Pr_{nn}(B, B^d) = Pr[B > WTP, B^d > WTP] = F(B^d) \qquad \dots (6)$$

where;
B^d = lower price in the second question

The maximum likelihood estimation is applied to estimate the likelihood of responses. Given a sample of 179 respondents, where; B_i, B_i^u, B_i^d are bids used for the ith respondent, the log–likelihood function was specified as:

$$lnL = \sum_{1}^{n} \{ yy_i lnPr_{yy}(B_i, B_i^u) + yn_i lnPr_{yn}(B_i, B_i^u) + ny_i lnPr_{ny}(B_i B_i^d)$$
$$+ nn_i lnPr_{nn}(B_i B_i^d) \} \qquad \dots (7)$$

where;
yy, yn, ny and nn = dummy variables. If one respondent answer yes–yes (yy) for two questions, then yy = 1, so others will be zero.

In order to elicit WTP, standard double bounded model Hanemann *et al.* (1991) is used. Therefore, WTP is generally expressed by function:

$$WTP_{ij} = \alpha + \sigma Bid_{ij} + \lambda X_i + \varepsilon_{it} \qquad \dots (8)$$

where;
α = intercept of the model
Bid = proposed price (hypothetical price) given to respondents
σ = coefficient of Bid
X_i = the vector of socioeconomic variables of consumer ith
λ = the coefficients of X_i
i = individual consumer (ith)
j = kind of leafy vegetables

The selected organic products are green vegetable and tomato. Green vegetable and tomato were used for this study because of their high consumption volume among other vegetables.

Apriori **Expectation of Variables used in the Model**

All the variables and the *apriori* expectation are defined in Table 1. There is a need to clearly define selected variables used in the model. These include hypothetical bid amount, prior knowledge, concerned issues, organic consumption, age, sex, household size, income and level of education.

Table 1: Variables of the Double Bounded Logit Model

Variables Expected	Description of Variables	Sign (+/–)
Dependent variable:	Response to bid: receives 1 if answer "yes" with proposed bid amount, 0 if saying "no"	
Independent ariables:		
Bid (σ)	Hypothetical price	-
Prior Knowledge (X_2)	Consumer awareness of the health benefit of organic products (1 = Yes, 0 = No)	+
Safety issue (X_3)	Consumer evaluation about organic products safety (likert–scale: 1 = very unsafe, 5 = very safe) – Chemical	-
Concerned issue (X_4)	The most important issue for buying organic products (1 = price, 0 = others)	-
Organic consumption (X_5)	Organic products consumption before (1 = Yes, 0 = No)	+
Age (X_6)	Age of respondents (years)	+
Sex (X_7)	Respondents' gender (1 = female, 0 = male)	+
Household size (X_8)	Household size (number of family's member)	+
Income (X_9)	Monthly income	+
Level of Education (X_{10})	level of education attained (years)	+

Payment Vehicle Designing (Designing Bid Amount)

In this study, designing hypothetical prices (bids) to apply double bound dichotomous was based on the questionnaire pretest and the prices of the conventional vegetables in the markets (₦50/bundle for green vegetables and ₦500/kg for tomato, respectively). Bidding system was used in Table 2. Each consumer was asked for answering one of four random bids set below to minimize the bias of starting bids. Table 2 presents the distribution of the double-bounded WTP responses for the three specified organic leafy vegetables. In terms of the different structure of bid prices of 50%, 40% and 30%. The bid designs captured the WTP ranges quite well. The proportion of the respondents who were willing to pay the bid generally decreased with increases in price. This is confirmed by the fact that the higher starting bid price was less likely to generate a "Yes/Yes" response and more likely to produce a "No/No" response. Figure 1 present the structure of the bidding system used for this study. It is a reflection of the bid system as shown in Table 2.

Table 2: Bid System for selected Organic Products

Questionnaire versions	Conventional price	First bid	Second bid (₦/Bundle) Higher amount	Second bid (₦/Bundle) Lower amount
Green Vegetables (₦/bundle)	₦50	₦100	₦125	₦75
Tomato (₦/kg)	₦500	₦750	₦800	₦625

Table 3: Socio-economic Characteristics of the Respondents

Variable	Frequency	Percentage
Age (years)		
<30	35	19.6
31-50	100	55.8
51-70	40	22.4
70-79	4	2.2
Sex		
Male	97	54.2
Female	82	45.8
Marital status		
Single	50	27.9
Married	106	59.2
Divorced	16	8.9
Widowed	7	3.9
Household size		
1-3	77	43.0
4-5	80	44.7
6 and above	22	12.3
Working experience (years)		
1-5	89	49.7
6-10	47	26.3
11and above	43	24.0
Ethnicity		
Yoruba	131	73.2
Igbo	38	21.2
Hausa	10	5.6
Religion		
Christianity	108	60.3
Islam	62	34.6
Traditional	9	5.0
Level of Education		
NCE/OND	48	26.8
HND/BSC	84	46.9
MSC/PHD	47	26.3
Monthly Income		
₦50,000- ₦100,00	83	46.4
₦100,001- ₦200,000	78	43.6
Above ₦200,001	18	10.1
Prior knowledge		
Yes	141	78.8
No	38	21.2
Purchase organic products before		
Yes	109	60.9
No	70	39.1

Source: Field Survey, 2015

RESULTS AND DISCUSSION
Socio-economic characteristics of the Respondents

As a background to this study, Table 3 presents the socio-economic variables of the respondents. Socio-economic characteristics of the respondents are important factors directly and indirectly determining willingness to pay. These include age, gender, marital status, level of education, household size among others and the results were summarized in Tables 3.

The results show the age structure of the respondents and the modal age group of 31-50 years with a frequency of 55.8% while 24.6% were above the age of 50 years. The results further revealed that 54.2% were male. Marital status is an important factor determining the extent of awareness of organic products. 59.2% were married revealing that majority of the respondents were married and have families to cater for. The level of education of respondents is assumed to influence the level of awareness and perception of organic leafy vegetable consumption. 26.8% of the households had NCE/OND, 46.9% had HND/BSC, and 26.3% had Ph.D. Moreover, 87.7% of the respondents had between 1 to 5 people as member of household. The respondents' income is an important factor influencing willingness to pay a price premium for organic leafy vegetable. It was revealed that 90% received a monthly income of ₦200,000. With this amount, it is assumed that respondents should respond positively in paying a price premium for organic leafy vegetable. Nearly half of the respondents, 78.8% claimed they purchased organic products (purchasers of organic products). Females comprised the bulk of food purchase decision makers, representing 60.9% of the sample.

Willingness to Pay for Organic Products

Table 4 indicates that about 74.86% of the respondents are willing to pay a premium for organic leafy vegetable, while 25.14% were not willing to pay. They were later asked to respond to the double-bounded dichotomous choice questions with two bid prices: a starting bid and a follow-up bid. However, despite of limitation in current market share, consumers' demand for organic product is high in Hanoi. The results about high percentage of willingness to pay show consistence with other studies such as Ara (2002), Huong (2007), Dipeolu *et al.* (2009), Wahida *et al.* (2012), and Somsak and Blut (2012). For example, Huong (2007) reported that 93% of Vietnamese consumers had a high desire for organic vegetables. In a study about WTP for organic vegetables in West Africa, 85% of the consumers in Ghana and 95% in Benin agreed to buy a higher price for organic vegetables (Coulibaly *et al.,* 2011).

Table 4: Percentage of Consumers who are willing to pay a Price Premium

Indicator	Frequency	Percentage
Yes	134	74.86
No	45	25.14
Total	179	100

Source: Field Survey, 2015

Distribution of the Double-Bounded WTP Responses

Table 5 presents the distribution of the double-bounded WTP responses for the specified organic leafy vegetables. In terms of the different structure of bid prices, the proportions of respondents were distributed nearly equally to the bid structure of versions A and B, respectively. The bid designs in Table 2 captured the WTP ranges quite well. The proportion of the respondents who were willing to pay the bid generally decreased with

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increases in price. This is confirmed by the fact that the higher starting bid price was less likely to generate a "Yes/Yes" response and more likely to produce a "No/No" response.

Table 5: Willingness to Pay Responses for the Double-bounded Dichotomous Choice

Organic Products	Percentage of Respondents (n = 179)				
	Yes–Yes	**Yes–No**	**No–Yes**	**No–No**	**Total**
Green Vegetable	33 (18.4%)	44 (24.6%)	78 (43.6%)	24 (13.4%)	179 (100%)
Tomato	23 (12.9%)	55 (30.7%)	64 (35.8%)	37 (20.7%)	179 (100%)

Note: "Yes/Yes" indicates Yes and Yes response in the first and second bid, respectively.
"Yes/No" indicates Yes and No response in the first and second bid, respectively.
"No/No" indicates No and No response in the first and second bid, respectively.
"No/Yes" indicates No and Yes response in the first and second bid, respectively.
Figures in parentheses are the percentage of the possible outcomes.
Source: Field Survey, 2015

Mean/median WTP for Organic Leafy Vegetables

The result of the mean/median WTP in Table 6 shows that consumers were willing to pay a mean amount of ₦73/bundle for green vegetable and ₦665/kg tomato, respectively. This means that consumers would pay around 20-30% higher for the selected organic products than conventional green vegetables and tomato. Study by Asadi *et al.* (2009) in Iran reported that majority of the consumers are not willing to pay a price premium higher than 20%. The similar study by Millock (2002) in Denmark reported that, 35% of the consumers are willing to pay more for any type of organic products compared to 18% of consumers who are not willing to pay for all kind of products. In this case, organic products also depend with the consumer's preference which product to buy or not. Menon (2008) on his paper organic agriculture and market potential mentioned that the organic product is gaining price premium from 5% to as high as 60% in some products.

Table 6: Mean/Median Willingness to Pay

Organic Products	Green Vegetable (₦/bundle)			Tomato (₦/kg)		
	WTP	**Lower bound**	**Upper bound**	**WTP**	**Lower Bound**	**Upper Bound**
Mean	73.30	43.75	140.21	664.65	555.12	775.51
Median	70.39	40.93	78.47	663.34	551.04	775.65
95% CI of mean WTP	75.56 - 72.89			670.24 - 665.37		

Source: Field Survey, 2015

Determinants of Willingness to Pay for Organic Products

Table 7 presents the result of the logit regression model. The results show that the bid price, prior knowledge, safety issues and income were significant for the two models. Moreover, In the first regression model for green vegetable, it was revealed that bid price, prior

knowledge, safety issues, concern issues, level of education and income were significant at $p<0.01$, $p<.1$, $p<0.05$, $p<0.01$, $p<0.1$ and $p<0.01$, respectively.

Table 7: Estimates of Double Bounded Logit Model

Organic Products	Green Vegetable		Tomato	
Variables	**Coefficient**	**Standard error**	**Coefficient**	**Standard error**
Bid (σ)	-.285***	.024	-.297**	.033
Prior Knowledge (X_1)	.770*	.426	.749*	.434
Safety issues (X_2)	.175**	.649	-.235	.357
Concerned issue(X_3)	-.143***	.518	-.063	.324
Organic consumption (X_4)	-.138	.098	-.245***	.100
Age (X_5)	.289	.176	-.226	.176
Sex (X_6)	-.069	.363	.423	.374
Household Size (X_7)	-.179	.299	-.245	.300
Monthly Income (X_8)	4.24***	.624	4.35**	.732
Level of Education (X_9)	.496*	.276	-.490*	.283
Constant (α)	4.254	2.084	6.230	2.535
Number of Observation (179)	179		179	
Log likelihood	-246.71		-312.12	
Wald chi2 (11)	83.25***		74.48***	

Note: * = $p<0.1$, ** = $p<0.05$, *** = $p<0.01$ denote significant at 10, 5 and 1%, respectively.
Source: Field Survey, 2015

The bid price and concern issues were negative and this is in conformity with the *apriori* expectation. The implication of this is that as the bid price increases, the respondents willing to pay decreases. Also, the significance and negative relationship between WTP and concern issues implies that factors other than price such as taste, odour and shelf life influence respondents WTP. However, prior knowledge, income and level of education were significant at $p<0.1$, $p<0.01$ and $p<0.1$ and were positive implying that the higher the prior knowledge, income and level of education of the respondents, the increase in WTP. In the second model for tomato, it was revealed that bid price, prior knowledge, organic consumption, income and level of education were significant at $p<0.05$, $p<0.1$, $p<0.01$, $p<0.05$, $p<0.1$ and were all negative except income. The implication of this results is that the decrease in prior knowledge, organic consumption and level of education, the increase in their WTP for organic tomato. This is totally against the *apriori* expectation. One possible explanation for this result is that purchasers of organic products appreciate the quality of organic products because of their previous purchase experience. They are thus, less concerned about price than other respondents. This is further supported by the study findings like consumers who usually buy organic food were more concerned about food safety than price (Shakya, 2005; Aguirre, 2001). Similar result can be found in the studies of Govindasamy and Italia (1999) and Vanit-Anunchai (2006), who reported that consumers who regularly purchased organic fresh produce were willing to continue to pay a premium price for organic fresh produce. The measures of goodness of fit used for dichotomous choice contingent valuation, such as McFadden's R^2, are not applicable to payment card models (Kanninen and Khawaja, 1995). Consequently, the Wald test proposed by Harpman and Welsh (1999) for use with the double-bounded logit model

is used. The Wald statistic tests the improvement of the fitted model over a model that includes only a constant term. The Wald statistic has a chi-square distribution, with one degree of freedom for all tests. The fitted models are all of very high significance implying that the wald tests for vegetable green and tomato which was significance at $p<0.01$ show that explanatory variables were generally suitable.

CONCLUSION AND RECOMMENDATIONS

The study concludes that bid price, prior knowledge, safety issues and income were significant factors influencing respondent's willingness to pay a price premium for the selected organic products. In addition, policy makers can use some of the findings to frame their policies in developing the domestic organic product market. The socio-demographic characteristics that influence consumers' willingness to pay a premium price for organic products are a diverse rather than homogenous group. The marketing strategies for introducing organic products to the domestic market are more likely to be successful if marketers target elderly consumers and families without young children, but with high household incomes. This has clear implications for distribution strategies and mechanisms. The empirical results showed that greater knowledge about organic products will not only induce new purchasers to try organic products but will raise the level of money that consumers would be willing to pay for them. Therefore, the study recommends as follows:

1. Policy makers, marketers and producers will be able to persuade more consumers to pay more for organic products by providing more information and developing educational promotional campaigns.
2. Policy makers and marketers should attempt to increase consumers' understanding of the term "organic" by providing information about how organic products are produced and processed.
3. Standardizing the term so that it has a consistent meaning and communicating that to the public will be beneficial as well.

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