

Willingness to pay and actual purchase decision for organic agriculture products in Vietnam

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Abstract

This article aims to investigate the determinants of willingness to pay and the actual purchase decision of organic agriculture products among consumers in Vietnam, one of the emerging markets. The study uses primary survey data of 210 consumers based on the logit and ordered logit regression models. **Findings/Originality:** The results confirmed that consumers' perceptions of external factors and product attributions, external factors (processing, packaging, and labelling, certification, supply of product), perceived health and nutrition of products, socioeconomic characteristics significantly influence on consumer's willingness to pay and actual purchase decision for organic foods in the context of Vietnam market. These results of the study provided insights for marketers on the key variables that could be used for promoting more widespread consumption of organic foods in the country.

Introduction

Consumer demand for organic agriculture products is rising rapidly in recent years due to the increase in consumer awareness concerning climate change, product safety, and hygiene. The increasing consumer demand for higher quality produce and food safety makes organic food an interesting option. Willer and Lernoud (2017) estimated the value of the organic agricultural products market would grow by 15-20%/year in the Asia-Pacific region. In Vietnam market, rapid socio-economic development has been accompanied by modernization, industrialization, and international integration of agricultural food production, the young population structure, the rapid increase in per capita income, and the improving consumer awareness for health and environmental issues will increase demand for organic products, but the actual demand for organic agricultural products has not yet reached its potential. Sustainable agricultural development is the trend and the proper policy. The high incidence of lifestyle diseases, such as diabetes and heart disorders, raised an alarm which made consumers realize the importance of food quality and safety; while investment in organic agriculture will become a long-term and sustainable strategy of agricultural businesses as well as of farmers. However, the output of organic products has met hard barriers that have to be overcome; consumption of organic food was symbolic of the ethical value system (Grosplik, 2017).

Consumer behavior regarding organic agriculture products have received great attention in the economics literature with numerous results clarifying many aspects of consumer behavior, such as clarification who are the customers as well as their characteristics, their attitudes, and preferences, willingness to buy, purchasing decisions, and the level of consumption of organic agricultural products in many countries (Anisimova, 2016; Asif, Xuhui, Nasiri, & Ayyub, 2018; Cheung, Lau, & Lam, 2015; Hansen, Sørensen, & Eriksen, 2018; Joshi & Rahman, 2015; Khan & Mohsin, 2017; Rana & Paul, 2017). Previous studies used a microeconomic theory approach, behavioral economics theory to explain consumers' organic products purchasing behavior and test for multiple product groups.

However, there is no full research model in all cases, and many studies, rather than the use of dependent variables, are the real purchase decisions of consumers make using other variables such as a willingness to buy or intention to purchase. Thus, the predictability power of these research models is not significant. This study aims to analyze factors that influence the willingness to pay and the actual purchase decision of organic agriculture products among Vietnamese consumers.

The definitions of organically produced products mostly emphasize the technology or production practices and principles used, such as biological or natural production systems and green or environmental friendliness, while others emphasize the limited use of artificial chemicals in organic production (Yiridoe, Bonti-Ankomah, & Martin, 2005). The term "organic product" remains loosely defined along with related terms, such as "biological," "naturally produced," "green," "environmentally friendly," "sustainable" and "limited use of artificial chemicals" (Harper & Makatouni, 2002; Hill & Lynchehaun, 2002). Organic products are generally regarded as healthier, safer, better tasting, and more nutritious than conventionally produced products (Krystallis & Chrysohoidis, 2005; Perrini, Castaldo, Misani, & Tencati, 2010; Voon, Ngui, & Agrawal, 2011). Organic agriculture products are perceived as healthier and safer and organic practices are perceived to be more environmentally sound in this study.

The theory of planned behavior by Ajzen (1991) is a generally applied model that predicts consumer behavior based on "intention to perform the behavior" and "perceived behavioral control". The intention is influenced by three constructs: "attitude towards the behavior", "subjective norm", and "perceived behavioral control". The theory of planned behaviour has often been applied in the area of product choice and also more recently to model organic product choice (Aertsens, Verbeke, Mondelaers, & Van Huylenbroeck, 2009; Al-Swidi, Huque, Hafeez, & mohd shariff, 2014; Chen, 2007; Dean, Raats, & Shepherd, 2008; Dowd & Burke, 2013; Gracia Royo & De-Magistris, 2007; Paul, Modi, & Patel, 2016; Saba & Messina, 2003; Scalco, Noventa, Sartori, & Ceschi, 2017; Shin, Im, Jung, & Severt, 2018; Tarkiainen & Sundqvist, 2005; Voon et al., 2011). Value theory has also been applied to get a better insight into the consumption of organic products, including perceived value effects on personal moral norms, beliefs, and attitudes (Schwartz, 2006).

Basic of the theory of planned behavior, several attempts have been made to examine consumers' perceptions of organic products, factors that have facilitated the organic product choice, willingness to pay, and reasons for purchase/non-purchase.

Consumers purchase organic products among consumer mainly for the following factors: social and demographic factors, environmental concern, health concern and lifestyle, product quality, knowledge or awareness, external factors (processing, packaging and labelling, certification, supply of product, store image), perceived behaviour control, subjective norms, product-related factors (perceived attributes, product attributes), are the most important factors that explain consumers' decision-making processes for organic food products (Aertsens et al., 2009; Anisimova, 2016; Aryal, Chaudhary, Pandit, & Sharma, 2009; Asif et al., 2018; Cheung et al., 2015; Gil & Soler, 2006; Hamzaoui Essoussi & Zahaf, 2008; Hansen et al., 2018; Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Joshi & Rahman, 2015; Khan & Mohsin, 2017; Konuk, 2018; Onyango, Hallman, & Bellows, 2007; Paul & Rana, 2012; Rana & Paul, 2017; Salleh & Noor, 2018; Singh & Verma, 2017; Tsakiridou, Boutsouki, Zotos, & Mattas, 2008; Van Doorn & Verhoef, 2015; Voon et al., 2011; Yadav & Pathak, 2017).

Family structure, marriage status, the presence of children in the household has been regarded as a significant factor, which positively influences consumers' organic food attitudes as well as buying behavior (Hamzaoui Essoussi & Zahaf, 2008). Education has also been reported as a significant factor affecting consumer attitudes towards organic food products. People with higher education are more likely to express positive attitudes towards organic products (Gracia Royo & De-Magistris, 2007). Higher-income households are also more likely to form positive attitudes and to purchase more organic food (Aryal et al., 2009; Haghiri, Hobbs, & McNamara, 2009).

The research framework was defined based on a review of the literature on organic product consumption. The dependent variables in the research model are the willingness to pay (WTP) and the actual purchase decision of agriculture organic products among consumers. Variable definitions and measurements were presented in Table 1.

Methods

Greene (1990) and Maddala (1986) revealed that, given the ordinal ranking of the WTP variable, the multinomial logit model would fail to account for the ordinal nature of the dependent variable; therefore, the ordered version of logit estimation was applied. Overall probabilities were calculated for the variables' mean values using estimated intercepts and coefficients. Model significance was verified by calculating the χ^2 statistics resulting from the restricted and unrestricted log-likelihood functions. The model, selected to analyze the dependence of WTP on the main factors, was specified as equation 1:

$$WTP = \beta_1 + \beta_2 GENDER + \beta_3 EDU + \beta_4 AGE + \beta_5 CHILD + \beta_6 FAMSIZ + \beta_7 INCOME11 + \beta_8 INCOME20 + \beta_9 KNOWLEDGE + \beta_{10} SUPPLY - SI + \beta_{11} SUPPLY - VI + \beta_{12} PPL - SI + \beta_{13} PPL - VI + \beta_{14} HEALTHY - SI + \beta_{15} HEALTHY - VI + \beta_{16} NUTRI - SI + \beta_{17} NUTRI - VI + \mu \quad (1)$$

in which WTP is the willingness to pay, β_1 to β_{17} are regression coefficients of the independent variables (gender, education, age, the family with children, family size, income, knowledge of organic foods, supply availability, external factors related to organic products, consumers' perceptions of health, nutrition concerns of organic products, respectively), and μ is the residual.

The logit model was estimated to explain and predict consumer purchase of organic agriculture products. The logit model was chosen for this study because of its mathematical simplicity and because of its asymptotic characteristics that constrain the predicted probabilities to a range between zero and one (Maddala, 1986). The maximum likelihood (ML) estimation procedure was used to obtain the model parameters. The model, selected to analyze the dependence of purchasing decision (Y) on the main factors, was specified as equation 2:

$$Y = \beta_1 + \beta_2 GENDER + \beta_3 EDU + \beta_4 AGE + \beta_5 CHILD + \beta_6 FAMSIZE + \beta_7 INCOME11 + \beta_8 INCOME20 + \beta_9 KNOWLEDGE + \beta_{10} SUPPLY - SI + \beta_{11} SUPPLY - VI + \beta_{12} PPL - SI + \beta_{13} PPL - VI + \beta_{14} HEALTHY - SI + \beta_{15} HEALTHY - VI + \beta_{16} NUTRI - SI + \beta_{17} NUTRI - VI + \mu \quad (2)$$

in which Y is the purchasing decision, β_1 to β_{17} are regression coefficients of the independent variables (gender, education, age, the family with children, family size, income, knowledge of organic foods, supply availability, external factors related to organic products, consumers' perceptions of health, nutrition concerns of organic products, respectively), and μ is residual.

Green (1991) suggesting that in the regression model, the minimum sample size was determined by the empirical formula $50 + 8 \times \text{independent variables in the model}$. This study has 08 independent variables so the sample size is at least $50 + 8 \times 16 = 178$ observations. The sample for the study was drawn conveniently from 210 consumers in Ho Chi Minh city which represent different geographic, cultural, and commercial backgrounds of Vietnam. The stratified sampling plan was followed based on the population distribution in the districts of the city to ensure the representation of the research sample. Personal interviews were conducted at the supermarkets and organic food chains by the author in Ho Chi Minh city. The survey collected information about consumer awareness, knowledge of willingness to pay, purchasing decision toward organic products and views

on their characteristics considered important in the purchase decision. Data were also collected on knowledge of organic products, attitudes towards personal health, and nutrition concerns relating to these products among consumers. Additional information concerning the respondents' socioeconomic characteristics and economic conditions was also collected.

Table 1. Variable definitions and demographic descriptions

VARIABLES	Variable Definition	Mean	S.D	Max	Min
WTP	Willingness to pay for organic products 0 = none 1 = no more than 5% 2 = 6-10% 3 = 11-15% 4 = 16-20% 5 = more than 20%	2.29	1.44	5	0
Purchasing (Y)	Purchasing decision 1 = regular buyers (buying organics sometimes, frequently or always) 0 = irregular buyers (never or rarely buy organics)	0.62	0.49	1	0
Gender	Sex of respondent 1 = male; 0 = female	0.33	0.47	1	0
Education	Education level of respondent 1 = high school or higher 0 = otherwise	0.62	0.49	1	0
Age	Age of respondent (years)	30.60	7.14	56	19
Child	Household with children (<10) 1 = Family with children; 0 = otherwise	0.6	0.49	1	0
Farm size	Family Size (Number of people)	3.92	0.92	4	1
Income-10	1 = less than 10 million; 0 = otherwise				
Income-11	1 = 11-20 million; 0 = otherwise	0.52	0.50	1	0
Income-20	1 = more than 20; 0 = otherwise	0.37	0.48	1	0
Knowledge	Knowledge/awareness of respondent about organic products 1 = some or more information; 0 = no information	0.77	0.42	1	0
Supply_NI ^a	1 = Product availability is not important; 0 = otherwise				
Supply_SI	1 = Product availability is somewhat important to important; 0 = otherwise	0.68	0.47	1	0
Supply_VI	1 = Product availability is very important to extremely important; 0 = otherwise	0.87	0.34	1	0
PPL_NI ^a	1 = Processing, packaging, labelling, certification of organic products is not important; 0 = otherwise				
PPL_SI	1 = Processing, packaging, labelling, certification of organic products is somewhat important to important; 0 = otherwise	0.89	0.31	1	0
PPL_VI	1 = Processing, packaging, labelling, certification of organic products is very important to extremely important; 0 = otherwise	0.63	0.48	1	0
Healthy_NI ^a	1 = Healthy concerning organic product is not important; 0 = otherwise				
Healthy_SI	1 = Healthy concerning organic product is somewhat important to important; 0 = otherwise	0.79	0.41	1	0
Healthy_VI	1 = Healthy concerning organic product is very important to extremely important; 0 = otherwise	0.77	0.42	1	0
Nutri_NI ^a	1 = Nutritious, tasty in organic product is not important; 0 = otherwise				
Nutri_SI	1 = Nutritious, tasty in organic product is somewhat important to important; 0 = otherwise	0.623	0.485	1	0
Nutri_VI	1 = Nutritious, tasty in organic product is very important to extremely important; 0 = otherwise	0.704	0.457	1	0

Note: ^a Implies that the variable was dropped during model estimation to avoid the dummy variable trap.

The survey data shows the organic product types and distribution channels selected by Vietnamese consumers. Vegetables, fruits, meats, rice, fishes and tea were the top organic foods among consumers, while distribution channels include organic food stores, direct sales, and supermarkets in this study basic of a survey the data. Variable definitions and demographic characteristics were described in Table 1.

Results and Discussion

Factors Affecting Consumers' WTP for Organic Agriculture Products

Table 2 presented the estimation results from the ordered logit model. The log-likelihood ratio test indicates that the estimated model has satisfactory explanatory power - χ^2 was significant at the 0.001 probability level, R^2 was at 0.3595. The positive sign on Income and Knowledge was common to all similar previous studies while other demographic factor effects were not significant. This means that the probability of a higher WTP increases with higher income and knowledge/awareness of organic products. Among factors related to consumers' perceptions of external factors and product attributions, the coefficients related to processing, packaging and labeling, certification, the supply of the product, and perceived health and nutrition of products have positive impacts on WTP and are significant at the 5% and 1% levels.

Regarding the weight of the different explanatory variables on WTP, probability derivatives were calculated from the estimated model. The sum of marginal probabilities was zero, and a higher probability attached to one WTP category means a lower probability for another. Income and perceived product attributes were the variables with the strongest impacts on the consumer's decision to change his or her behavior from no WTP to a positive WTP. Looking at the different WTP classes, the most positive changes in probabilities were in the "6 to 10%", "11-15" classes and the "above 20%". Consumers with an income belonging to the class from 11 million or higher and who viewed products attribute to be important were more likely to buy organic products regularly compared to those who did not consider this aspect.

Table 2: Regression results of WTP for organic agriculture products (ordered logit analysis)

VARIABLES	B	S.E.	z	P> z
gender	0.120	0.300	0.40	0.690
edu	0.238	0.342	0.70	0.486
age	0.013	0.022	0.59	0.558
child	-0.102	0.292	-0.35	0.726
famsize	-0.009	0.088	-0.10	0.917
income11	2.310	0.411	5.61	0.000
income20	2.225	0.404	5.51	0.000
knowledge	1.056	0.383	2.76	0.006
supply_si	0.317	0.306	1.04	0.300
supply_vi	1.169	0.462	2.53	0.011
ppl_si	1.544	0.544	2.84	0.005
ppl_vi	-0.397	0.331	-1.20	0.231
healthy_si	0.813	0.421	1.93	0.054
healthy_vi	2.035	0.385	5.29	0.000
nutri_si	-0.754	0.310	-2.44	0.015
nutri_vi	1.960	0.402	4.87	0.000

Number of observations: 210; LR χ^2 (16): 252.55; Prob > χ^2 : 0.000; Pseudo R square: 0.3595; Log likelihood: -224.932

Factors Affecting Consumer Purchasing Decisions (Y) for Organic Agriculture Products

The maximum likelihood (ML) estimates of the model coefficients, the marginal effects on consumers' purchase decision, and t-ratios were reported in Tables 3 and Table 4. The maximum likelihood (ML) estimates of the model coefficients, the marginal effects on the dependent variable, and the associated t-ratios were reported in Table 3 and Table 4. Among the 210 respondents included in this study, 131 (60%) respondents were categorized as regular buyers (buying organics sometimes, frequently or always) while 79 (40%) were irregular buyers (never or rarely buying organics). The reported value of the Pseudo R², a measure of goodness of model fit, was 0.7726, indicating that the model has significant explanatory power. The estimated model successfully predicted 86.48% of the responses relating to organic product purchase decision among Vietnamese consumers.

Among the socioeconomic variables, the coefficients related to big family size, with having a high school education or above, and income have positive impacts on organic purchases and were significant at the 5% level. The results suggest that bigger family size, income (11 – 20 million VND) and those with a high school education or more were more likely to purchase organic products that were the respective reference categories. The coefficients for knowledge or awareness by consumers of organic products was significant and positively related to organic product purchases. The result indicates that consumers who have good information about organic products were more likely to purchase them than were others.

Among the external factors, perceived attributes, and product-related factors, the coefficients related to processing, packaging and labeling, certification, the supply of the product, and perceived health and nutrition of products have positive impacts on Vietnamese consumer purchase decision of organic products and were significant at the 10% and 5% levels.

Table 3. Maximum likelihood estimates of model coefficients

VARIABLES	B	S.E.	z	P> z
gender	-1.011	0.792	-1.28	0.202
edu	2.427	1.001	2.42	0.015
age	-0.023	0.58	-0.39	0.695
child	1.242	0.804	1.54	0.122
famsize	0.869	0.349	2.49	0.013
income11	2.556	1.026	2.49	0.013
income20	1.340	1.144	1.17	0.242
knowledge	3.277	1.025	3.20	0.001
supply_si	2.035	0.931	2.18	0.029
supply_vi	1.339	1.022	1.31	0.190
ppl_si	-1.013	1.300	-0.78	0.435
ppl_vi	1.550	0.912	1.70	0.089
healthy_si	3.473	1.201	2.89	0.004
healthy_vi	2.122	0.892	2.38	0.017
nutri_si	1.037	0.877	1.18	0.237
nutri_vi	3.231	1.036	3.12	0.002
cons	-17.050	4.540	-3.76	0.000

Number of observations: 210; LR χ^2 (16): 214.86; Prob > χ^2 : 0.000; Pseudo R square: 0.7726; Log-likelihood: -31.625

The estimated marginal effects of the demographic, knowledge, and product attribute (presented in Table 4) showed the degree to which respondents were more or less likely to regularly purchase organic products. Respondents with bigger family size and with a high school education or higher were likely to buy organic products regularly. Probabilistically, those with a big family size were

10.20% more likely to buy organic products regularly than were those with smaller family size. Those with a high school education or higher were 35.60% more likely to buy organic products regularly than were those with less than high school education. Similarly, those who identified themselves as knowledgeable (have information about organic products) as compared to non-knowledgeable respondents were 59.10% more likely to buy organic agricultural products.

Table 4. Maximum likelihood estimates of model marginal effects

VARIABLES	B	S.E.	z	P> z
gender	-0.135	0.118	-1.14	0.255
edu	0.356	0.167	2.14	0.032
age	-0.003	0.007	-0.39	0.700
child	0.161	0.134	1.20	0.231
famsize	0.102	0.041	2.47	0.013
income11	0.329	0.136	2.43	0.015
income20	0.142	0.103	1.38	0.169
knowledge	0.591	0.180	3.28	0.001
supply_si	0.309	0.164	1.88	0.060
supply_vi	0.218	0.210	1.04	0.299
ppl_si	-0.089	0.0779	-1.14	0.253
ppl_vi	0.212	0.130	1.63	0.103
healthy_si	0.639	0.208	3.07	0.002
healthy_vi	0.356	0.197	1.81	0.070
nutri_si	0.134	0.122	1.10	0.273
nutri_vi	0.547	0.175	3.13	0.002
Correct prediction: 0.8648				

In terms of external factors and perceived product attributes, respondents who view supply availability to be somewhat important to important in deciding what products to eat and were 30.90% more likely to buy organic products regularly compared to those who do not consider this aspect important. Respondents who view processing, packaging and labeling and certification to be very important to extremely important were 21.20% more likely to buy organic products. Respondents who view health concerns to be either important or extremely important in purchasing decisions were 63.90% and 35.60%, more likely, respectively, to buy organic products regularly compared to those who do not consider this aspect important. And finally, those who view the nutrition of organic products to be very important to extremely important were 54.70% more likely to buy organic products regularly than those respondents who do not consider this aspect.

The results of this study suggested that the regularity of organic product purchase decision was influenced by socioeconomic factors and the presence or absence of external factors, knowledge of consumers, and product attributes deemed important in consumption decisions. This article is one the few studies that integrated multiple factors in one research framework to empirically evaluate the role of demographic factors, healthism, and trust among suppliers in explaining consumer's WTP and actual purchase decision of organic foods. These findings were strongly supported by several previous studies. It helps to understand that there is a strong relation in purchase behavior for organic food among consumers between developing and developed countries.

For developed economies: Teng and Wang (2015) revealed that trust, serving as the antecedent of attitudes, significantly mediates the relationships between revealing information, perceived knowledge, and organic purchase intentions. Additionally, both attitudes towards organic foods and subjective norm significantly influence consumer organic food choices. Anisimova (2016) provides support for the research hypotheses by revealing positive and statistically significant effects of healthism, hedonism, and trust on consumer purchase intentions in Australia.

The findings of Konuk (2018) in Turkey reported that store image has a positive impact on perceived quality and trust in the private organic label. It was also revealed that perceived quality, trust in private organic label contributes to perceived value. Also, both perceived value, trust in private organic label and the perceived value were found to have a positive influence on consumers' purchase intentions.

In developing economies: Thøgersen, de Barcellos, Perin, and Zhou (2015) indicated that the reasons why Brazilian and Chinese consumers buy organic food are strikingly similar to what is found in Europe and North America. Consumers' attitude toward buying organic food is strongly linked to beliefs about its healthiness, taste, and environmental friendliness. Also, consumer attitudes toward buying organic food are positively related to Schwartz's "Universalism" values in all studied cultures. The findings from Kapuge (2016) demonstrated that awareness and health consciousness were the two key determinants and demonstrated a significant positive impact with purchase intention of organic food Sri Lankan customers. Nandi, Bokelmann, Gowdru, and Dias (2017), based on a consumer survey in India, indicated that about 90% of the consumers were willing to pay a premium price ranging between 5% to more than 100% to acquire better-quality fruits and vegetables. They also suggested that factors such as family income, size of the family, gender, and other opinion variables such as chemical residue in conventional foods, trust on retailers, taste, and environmental concerns significantly influence consumers' WTP.

More than 87% of the consumers indicated that high price, lack of availability, narrow range, and irregular supply are the major barriers for them to buy these products. Singh and Verma (2017) confirmed six factors included health consciousness, knowledge, subjective norms, price, additional factor (i.e., availability), and socio-demographic factors (age, education, and income) influence the actual buying behavior among organic food products. Asif et al. (2018) is comparative in nature and focuses on understanding the factors that affect the purchase intention for organic food in three countries: Pakistan, Turkey, and Iran. The results of the study vary from country to country, but attitude and health consciousness are found to be better predictor organic food purchase intention. The awareness of consumers moderates positively in the intention to purchase of organic food. The relationship of the subjective norms, perceived behavior control and environment concern to purchase vary across different contexts.

This study has some limitations. First, the results of this study cannot be generalized, since the sample was collected in Vietnam, one of the emerging economies. Thus, more studies need to be carried out in different economies, geographical settings, and cultures to provide overall consumer's decision process among organic products. Second, the research model contains the relationship of many independent variables, mediating effects, and dependent variable. These relationships are independently tested through the logit and ordered logit regression models in this study.

Meanwhile, the model can also be tested simultaneously through the SEM model. Subsequent studies can be approached in this direction. Thirdly, based on Kotler consumer's purchase decision process passes five stages includes: aware, appeal, ask (attitude), action (purchase/non-purchase), and advocate (loyalty) but this study did not cover consumer's post-purchase behavior. Thus, further studies could consider a consumer's loyalty/satisfaction as the independent variables in the research model. Also, this study has not considered the decision to purchase and the willingness to pay for each type of organic products, but only consider consumer purchase decision in a general case. Further studies may test consumer purchase decision toward each type of products to provide insights for the marketer of each segmentation.

Conclusions

A growing interest in organic agriculture production has prompted numerous studies comparing aspects of organic and conventional agriculture products. This article uses primary data based on the logit and ordered logit regression models. Its findings provide interesting new insights for

marketing and business strategies under customer-driven demand in the Vietnamese organic food market. In summary, consumers' perceptions of external factors and product attributions, coefficients related to processing, packaging and labelling, certification, supply of product, perceived health and nutrition of products, along with socioeconomic characteristics related to big family size, high school education or above, and income influence consumer WTP and purchase decisions for organic foods. The price premium for organic food over conventional alternatives can be viewed among consumers as the cost of investment in human health. Product prices also provide signals about the inherent quality characteristics of a product, as well as reflecting the value of inputs used to produce the product. The promotion of organic products among agriculture businesses needs to be invested affordably concerning product attributes and health concerns; these then would be translated into a positive WTP and purchasing decisions by consumers in the long-term. Marketers also need to include information of production methods, environmental benefits, and positive contributions to local economies. Besides, the distribution channels and other factors belonging to cost management must be controlled to increase positive WTP and purchase decisions among consumers because the cost will be a crucial factor for the success of organic products. Consumer trust in the food sector has been destroyed significantly in Vietnam context over the past years; therefore, external factors such as processing, packaging and labelling, certification, and identification of place of origin for organic products will be needed to increase WTP and convince consumers to change purchase decisions.

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