An investigation on consumers' awareness and willingness to pay for organic vegetables : A case of Akuressa area

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1. Introduction

Nowadays patterns of food consumption are rapidly changing towards organic food due to various reasons. Agricultural products are grown without the support of any chemicals, synthetic pesticides, bioengineered genes, or any artificial fertilizers are called organic products. Due to the undesirable health effects of conventional agricultural products, consumers are encouraged to prefer organic vegetables. According to many studies, organic food provides a variety of advantages and nutritional value for human health such as being safer than conventional foods, immune system preserving, antibiotic resistance, greater antioxidant value, containing fewer pesticides, etc. (Gopalakrishna, 2019). When consumers move to organic vegetables, various reasons influence their buying preference and willingness to pay such as education and year of education (Piyasiri,2002). The purpose of this study is to investigate consumer awareness and factors effect for the willingness to pay for organic vegetables in the Akuressa area. Further, specific objectives identify buying preferences of organic products and to identify reasons for less consuming organic vegetables or not consuming organic vegetables. Data were collected from consumers (205) in the Akuressa area using interviews and questionnaires. The multiple regression analysis was used to determine which factors influence the WTP for organic vegetables. Organic products are considered as the best quality compared to conventionally produced products therefore the demand for organic products is increasing all over the world, as well as in Sri Lanka.

2. Materials and methods

The study area was Akuressa which is located in the Matara district of the southern province. The data collection method was interviews and questionnaires. Secondary data were collected by using various published researches, journals. The study is based on multiple regression analysis. The people who are living in the Akuressa area above 21 years old are sampling frame Through the questionnaire, three sections have to collect information related to the survey. The first section of the questionnaire was designed to get information about the socio background of respondents like gender, age, education level, size of household, monthly income. The second section includes questions about awareness of organic vegetables and the third section is the most important section in this questionnaire which is the willingness to pay questions. It Includes open-ended questions and Categorical questions.

Face-to-face interviews with respondents were conducted using questionnaires. A sample of 205 consumers was interviewed in the Akuressa area. All these respondents were interviewed during February, March 2021, and the statistical package SPSS was used to analyze the data of this study.

The Model

Y = b0 + b1 X1 + b2 X2 + b3 X3 + b4 X4 + e

3. Results and Discussion

3.1. Socioeconomic factors

Among 205 respondents, 29.8% were male whereas 70.2% were female. Some female respondents, who were approached for an interview, refused to give an interview. The eldest consumer was of 70 years whereas the youngest was of 21 years. The average age of respondents was 40 years. 22.9% of respondents have primary education 48.3% of respondents have secondary education and the other 28.8% are university students. 63.9% of respondents were married whereas 36.1% were unmarried.

Through these socio-economic factors, three variables are highly significant with the willingness to pay variables. Those are income, size of household, education level, and monthly household income.

3.2. Consumer awareness about organic vegetables

Among the respondents, 15.1% had better knowledge about organic products, 75.1% respondents had some knowledge about organic vegetables while 9.3% did not have awareness. (Figure 01) According to the survey, the reasons for less consuming organic vegetables are insufficient to supply for market 44.4% (n=205), 22.9% respondents were mentioned as a result of the high price they have less consume of organic vegetables. According to responders insufficient supply for the market mean there are few supermarkets and the majority of grocery shop haven't organic vegetables in the Akuressa area so the organic vegetable sellers are not sufficient for this area.

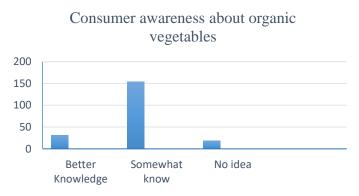


Figure 1. Consumer awareness about organic vegetables

3.3. Willingness to pay (WTP)

A multiple linear regression model was applied to estimate factors affecting for respondent's WTP. Maximum willingness to pay amount is considered as a dependent variable. Regression analysis results showed that of the four variables considered, income, size of household, education was significant at a probability level of 0.05, and monthly spend for normally vegetables was significant at a probability level of 0.01.

When adjusted R2 is closer to 1 it says there is a good model fit of dependent variables and independent variables because this model summary has a 0.885 (89%) value. According to the coefficient table, education and size of household have negative B value and income, monthly spend for normally vegetable have positive B value. It meant when income and monthly spend for normally vegetables goes 1% then willing to pay amount goes up by 0.022%,

1.455% because those two independent variables are positive. Education and size of the household go 1% then dependent variable goes down by 1111.234%, 532.102% because those are negative values. (Table 01)

Some respondents didn't contribute to the survey because some of them were on a limited budget so they didn't pay additional money for organic vegetables including 6.8% of people. 1.5% of respondents say they don't like to buy organic vegetables and 0.9% of people say this program is not important to them.

Table 01. Coefficient

Model	Unstandardized Coefficient		standardized Coefficient	t	Significant
	В	Std. Error	Beta		
(Constant)	4338.043	3407.892		1.273	0.205
Monthly income	0.022	0.011	0.070	2.089	0.038**
Size of household	-532.102	210.771	-0.069	-2.525	0.013**
Education level	-1111.234	494.551	-0.092	-2.247	0.026**
Monthly spend for vege;(Rs)	1.455	0.052	0.904	28.015	0.000***

^{**}Significant at 5% level

Willingness to pay equation = Constant + income + Education + Size of household + monthly Spend on normal vegetables.

Willingness to pay = 4338.04 + 0.022**X1 + (1111.234**)X2 + (532.102**)X3 + 1.455***X4

4. Conclusions

This study indicates that consumer education effectively influences for demand organic vegetables. The willingness to pay for organic vegetables is shown to be significantly influenced only by the income, education, size of household, and amount of monthly spend for normal vegetables. Also, highly educated people are more concerned about organic products and they tend to purchase organic vegetables. Hence it could be concluded that, in general, educational programs would promote organic product consumption. Further, the majority of consumers are willing to pay a higher price for organic vegetables if those products are available in the market.

5. References

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^{***}Significant at 1% level