Willingness To Pay Organic Agricultural Products: Contingent Valuation Methods Approach

Sucihatiningsih Dian Wisika Prajanti[1]✉ , [2]**Dhea Rizky Amelia**, [3]**Bayu Rizky Pratama**, [4]**Fauzul Adzim.**

[1]Economics Development Department, Faculty of Economics, Universitas Negeri Semarang
[2]Management Department, Faculty of Economics and Business, Universitas PGRI Semarang
[3]Agribusiness Department, Faculty of Science and Technology, Universitas Muhadi Setiabudi Brebes
[4]Economics and Development Studies Department, Faculty of Economics and Business, Universitas Diponegoro

Article Information	Abstract
	The objective of this study is to analyze the value of Willingness to Pay (WTP) of eco-friendly agricultural products and the factors that influence it. The analytical method used was the contingent valuation method (CVM) and logistic regression analysis. The results show that the total number of WTP in West Java is IDR 620,000, meaning that there will be an additional value of eco-friendly agricultural products by 620,000 for each sale. Then, the total number of WTP in Central Java is IDR 580,000 and then the total number of WTP in East Java is IDR 532,000. Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in West Java include gender, education, marital status, number of family dependents, income, and concern for the environment. Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in Central Java include age, education, number of family dependents, income, and price. Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in East Java include gender, education, marital status, number of family dependents, price, and concern for the environment.

▢ Corresponding author :
Address: Papandayan Kalilangse, 633A
E-mail: dianwisika@yahoo.com

INTRODUCTION

The agricultural sector is one sector that has a major contribution to the economy in Indonesia. In addition to contributing to the formation of Gross Domestic Product (GDP), this sector is also a sector that has a role in absorbing a large number of workers. Nevertheless, behind its contribution to the economy, the agricultural sector is a sector that contributes to environmental pollution as well. The pattern of agricultural cultivation that tends to be done conventionally has an impact on the destruction of nature and the surrounding environment. Provinces that have abundant agricultural potential in Indonesia are West Java, Central Java, and East Java. In fact, these three provinces are the largest food barns in Indonesia, which have a role in maintaining national food security.

One of the main goals in implementing the Sustainable Development Goals (SDGs) is the realization of Sustainable Consumption and Production (SCP). One of the forms of innovations in achieving Sustainable Consumption and Production (SCP) is through encouraging the use of environmentally-based product labels or eco-labeling (Kim et al., 2018; Wojnarowska et al., 2021; Khan et al., 2019). This "certification" seeks to convey information regarding the different environmental impacts of a product, in order to integrate it into one easy-to-understand format and then leave consumers free to decide for themselves which impacts are most important to them (Tzilivakis J, et al., 2012; Taufique et al., 2019).

In the process, it is important to know from the demand side how big the market share of eco-labeling-based agricultural products is (Yenipazarli, 2015). Moreover, the price of eco-labeling products is relatively more expensive. Research conducted by Sörqvist et al., (2013) reports that the price range for organic products, for example, ranges from 6 to almost 300 percent higher than conventional products. Therefore, price is an obstacle in buying eco-labeling products. When the price difference is wide, it will affect consumers' willingness to pay (WTP)

at the premium price of eco-labeling products (Heinzle & Wüstenhagen, 2011). Therefore, to enlarge the market for eco-labeling agricultural products, it is also necessary to understand the differences in characteristics between consumers who buy and do not buy eco-labeling products and how much they are willing to pay for the products. Previous research that discusses the factors that influence people's WTP towards eco-friendly products still raises debate and the findings of varying results. Several previous studies have explained that gender is a factor that has a significant effect on the WTP of organic agricultural products (Celona, 2015; Hidayati & Suryanto, 2015; Pramudita (2017). The results of other studies show that age has a significant effect on the WTP of organic agricultural products (Prasetyo and Saptutyningsih, 2013; Pramudita, 2017). However, the results of other studies show different results that age does not have a significant effect on the WTP of organic agricultural products (Herman et al., 2014; Putri & Suryanto, 2012; Hidayati & Suryanto, 2015).

Others previous studies explain that education is also a factor that can significantly influence the WTP of organic agricultural products (Sumarwan, 2011; Putri & Suryanto, 2012; Prasetyo & Saptutyningsih, 2013). Nevertheless, the results of other studies show the opposite results that education does not have a significant effect on the WTP of organic agricultural products (Pramudita, 2017). There are many more factors that can affect the WTP of organic agricultural products such as employment status (Riofiatin, 2018; Yunus et al., 2019; Dipeolu, 2016), Marital status (Shashikiran & Madhavaiah, 2014; Aufananda et al., 2017), income (Oktaviani, M., & Saptutyningsih, E., 2018; Pramudita, 2017; Rusminah & Gravitiani, 2012; Gunawan & Suprapti, 2015; Priambodo & Najib, 2014; Putri & Suryanto, 2012; Sriwaranun et al., 2015; Aufananda et al., 2017; Riana et al., 2019), Price (Fajria et al., 2020; Hamzaoui & Zahaf, 2012; Aufananda et al., 2017). The results of previous studies related to the factors that influence people's WTP towards eco-friendly products still

cause debate so that it becomes a gap for further research.

To realize sustainable production and consumption, both farmers and the community must be serious about caring for and loving eco-friendly agricultural products. Based on the background of the problem, it is necessary to conduct research related to how much Willingness To Pay (WTP) of the community is to get eco-friendly agricultural products. There are two objectives in this study, which are (1) to calculate how much the WTP value is willing to be paid by the community to pay eco-friendly agricultural products and (2) to analyze the determinants of the community's Willingness To Pay in buying eco-friendly agricultural products.

RESEARCH METHODS

The type of this study was a quantitative descriptive research that was used to estimate the value of WTP on eco-friendly agricultural products (Eco-labeling) and to analyze the factors that influenced the community's WTP for eco-friendly agricultural products. The data used in this study were secondary data and primary data. The primary data were obtained directly from the field by distributing questionnaires to respondents who have been selected for the study. Meanwhile, the secondary data obtained from literature studies and publications to complete the analysis in this study. The population in this study was all people who consume agricultural products. Meanwhile, the sample in this study was taken with a quota random sampling technique where the target respondents were people living in West Java, Central Java, and East Java Provinces as the largest food barns in Indonesia. The quota of respondents in each province was 100 respondents. The analytical method used to answer the first research objective, which was to get the WTP value, was the contingent valuation method (CVM), whereas the stages of CVM according to Fauzi, (2004) are as follows:

Creating a Hypothetical Market, the hypothetical market is formed based on the phenomenon of people's shopping culture, which tends to switch to an online system.

"*Are you willing to participate in efforts to increase the achievement of the green economy by buying eco-labeling certified agricultural products that are marketed through the digital marketplace?*"

Getting WTP Auction Value, after making questions, the survey was conducted by meeting the respondents directly. The method used to obtain the bid value was the bidding game method, which is by asking respondents repeatedly whether they want to pay a certain amount for eco-labeling certified agricultural products. The value of this payment could be increased or decreased depending on the response of the respondent until the question was stopped at a payment value.

Calculating the Average Value of WTP, the next step was to calculate the average WTP value of each individual. This calculation is usually based on the average value (mean). In calculating the estimated average WTP value, the formula used referred to Tuaputy, Putri, & Anna (2014) as follows:

$$EWTP = \sum_{i=1}^{n} WiPfi \text{ ....(1)}$$

Where, EWTP is Estimated mean value of WTP, Wi is WTP Value of i-th, Pfi is Relative frequency n is Total respondents, and I is i-th respondent who is willing to pay. WTP curve was obtained by regressing WTP as the dependent variable with several independent variables.

The last stage of the CVM technique was to aggregate the average auctions obtained in stage three. This process involved converting the sample mean data to the overall population mean. The aggregate/total value of WTP was used to determine the selling value of eco-labeling certified agricultural products. In calculating the total value of WTP, the formula used referred to the research of Tuaputy, Putri, & Anna (2014) as follows:

$$TWTP = \sum_{i=1}^{n} WTP \left(\frac{ni}{N}\right)P \text{ ....(2)}$$

where, TWTP is Total WTP of Respondents, WTP is Value of Respondent's WTP, ni is The number of the i-th sample who

is willing to pay as much as WTP, N is Total samples, P is Total population, and i is I-th respondent who is willing to pay.

To answer the second research objective related to people's willingness to pay eco-labeling agricultural products through digital marketplaces, an analysis was used, namely willingness to pay using logistic regression to determine the factors that influence WTP. The equation used is:

Logit (Y) = β0+ β1Xi+ β2X2+ β3X3+ β4X4+ β5X5+ β6X6+ β7X7+ β8X8 + β9X9+ε ..... (2)

Logit (Y) is the consumer's willingness to pay (Yes/No), β_0 is Intercept, β_1......β_9 is Slope of the regression model, gender (X1), age (X2), education (X3), employment status (X4), marital status (X5), number of family dependents (X6), income (X7), price (X8), and concern for the environment (X9) on willingness to pay for eco-friendly agricultural products. The tests used were the g test statistic to examine the role of the explanatory variable simultaneously and the Wald test to examine the effect of the variable coefficients partially, while for the interpretation of the binary logistic regression equation, the odds ratio was used. The odds ratio is the ratio of the probability of success and failure of the response variable.

The following is a logistic regression model or formula adopted from Ghozali which was used to examine hypotheses based on the variables to be studied, namely:

$$Ln = \frac{P}{1-p}$$
$$= \frac{Consumers' decision\ to\ pay\ eco-labeling\ commodities\ through\ digital\ marketplace}{s1-consumers\ pay\ eco-labeling\ commodities\ through\ digital\ marketplace}$$
$$= β0 + β1\ X1 + β2\ X2 + β3\ X3 + β4\ X4 + β5\ X5 + β6\ X6 + β7\ X7 + β8\ X8 + β9\ X9 + ε .... (3)$$

RESULTS AND DISCUSSION

This study uses the CVM (Contingent Valuation Method) approach to calculate the value of willingness to pay for eco-friendly labeled agricultural products. From the results of research conducted on consumer respondents of agricultural products in three provinces, namely West Java, Central Java, and East Java, not all consumers are willing to pay extra for eco-friendly agricultural products. The respondents who stated that they are willing or not willing to pay have their own reasons, which can be seen in Table 1 as follows:

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Table 1. Willingness and Unwillingness to Pay of the Respondents

Respondents	Total	Percentage
West Java Province		
Willing to pay	82 people	82%
Not willing to pay	18 people	18%
Total	100	
Central Java Province		
Willing to pay	77 people	77%
Not willing to pay	23 people	23%
Total	100	
East Java Province		
Willing to pay	89 people	89%
Not willing to pay	11 people	11%
Total	100	
Total	300 people	100%

Source: Data Processed, 2021

Table 1 shows that from a total of 300 respondents who consume agricultural products in this study, an average of about 82.6 respondents said they are willing to pay for eco-friendly labeled agricultural products. Meanwhile, the remaining 17.4% said they are not willing. As for if it is broken down by region, it can be seen that the region that has the highest

percentage of willingness to pay is East Java Province, which is 89%. The result indicates that most people are now starting to realize and care about the preservation of the surrounding nature.

The results of the data collection in the field stated that the majority of people stated that they are willing to pay for eco-friendly agricultural products because they think that consuming eco-friendly products can maintain their health and at the same time preserve the environment. Meanwhile, the respondents who are not willing to pay, think that it is not enough to buy eco-friendly products that are synonymous with expensive prices, sometimes even they cannot afford conventional products. In addition, they also assume that their willingness to pay depends on the price offered.

In the CVM (Contingent Valuation Method) approach, there are several stages to calculate the value of willingness to pay. The first stage is to create a hypothetical market. A hypothetical market is created to provide explanations and knowledge related to the impact of environmental damage caused by agricultural production activities. By providing explanations and knowledge regarding the impacts caused by agricultural sector activities, it is expected that the community will become aware of the importance of protecting the environment and participate in improving the quality of the environment that has been damaged by land exploitation.

The second stage is to get the WTP auction value. To get the auction value in this study used the bidding game technique, which is a technique used by giving questions repeatedly to respondents until they get a certain amount of willingness to pay. In addition to the bidding game technique, this study also used the dichotomous choice technique which is a technique done by giving a certain amount of value (money) to the respondent, who is then asked whether or not the respondent is willing to pay this amount of money in an effort to preserve the environment. From the two techniques that have been carried out, the auction values or the offer for payments of WTP in this study are Rp. 2,000, Rp. 5,000, Rp. 10,000, Rp. 15,000, and Rp. 20,000.

The third stage is to calculate the average value of WTP. After the auction value is obtained and offered to the respondent, the next step is to calculate the mean WTP value that has been obtained from the respondents' answers. To calculate the mean value of WTP, a reference formula is used based on the research of Tuaputy et al (2014) as follows:

$$EWTP = \sum_{i=1}^{n} WiPfi \ \dots\dots\dots\dots\dots\dots\dots (4)$$

Where, EWTP is Mean of WTP vaue, Wi is I-th WTP value, Pfi is Relative frequency, n is Total respondents, and I is I-th respondent who is willing to pay.

Table 2. Mean Value of WTP

No	WTP Values	Total			Frequency (Pf_i) (%)			Mean values of WTP		
		West Java	Cent. Java	East Java	West Java	Cent. Java	East Java	West Java	Central Java	East Java
1	Rp 2,000	20	30	31	20%	30%	31%	Rp400	Rp600	Rp620
2	Rp 5,000	29	18	39	29%	18%	39%	Rp1,450	Rp900	Rp1,950
3	Rp 10,000	18	11	8	18%	11%	8%	Rp1,800	Rp1,100	Rp800
4	Rp 15,000	9	8	5	9%	8%	5%	Rp1,350	Rp1,200	Rp750
5	Rp 20,000	6	10	6	6%	10%	6%	Rp1,200	Rp2,000	Rp1,200
Total		82	77	89	**100%**	**100%**	**100%**	Rp6.200	Rp5,800	Rp5,320

Source: Data Processed, 2021

Based on table 2 above, it can be seen that the mean value of WTP obtained in this study in each province is West Java of Rp. 6,200, Central Java of Rp. 5,800, and East Java of Rp. 5,320.

Based on the result, it can be concluded that people who live in West Java have the highest WTP value compared to people who live in Central Java and East Java. From the results, it

is also known that the majority of respondents who are willing to pay for eco-friendly agricultural products in West Java are in the range of Rp. 5,000. Then, the majority of people in Central Java have a WTP value in the range of Rp 2,000. Meanwhile, the majority of people in East Java have a WTP value in the range of IDR 5,000.

The fourth step is to estimate the WTP curve. The WTP curve is used to show changes in the WTP value due to the influence of changes in several factors that influence it. An auction curve can be created from the results of the WTP auction values that have been offered to the response. The WTP curve in this study is presented in the following figure:
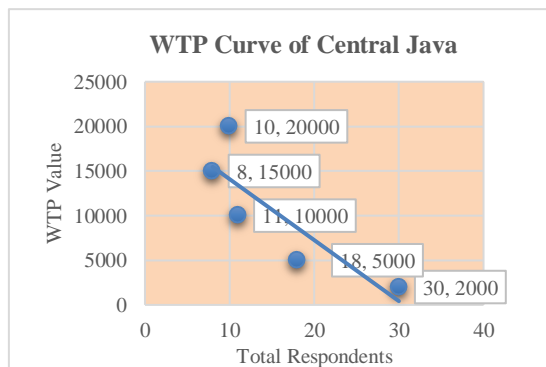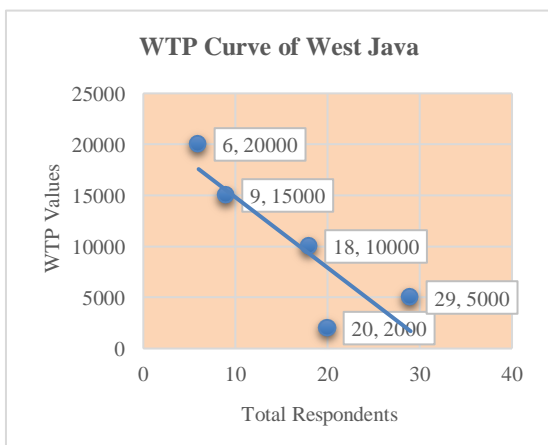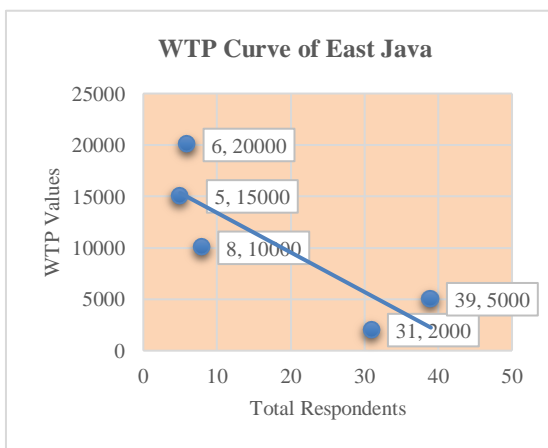

Figure 1. WTP Value Auction Curve
Source: Data Processed, 2021

Figure 1 shows that the curve of the WTP value in this study has a negative slope which means that the greater the cost burden set for additional prices on eco-friendly agricultural products, the lower the number of people willing to pay and otherwise. West Java has a WTP curve with a negative slope where the highest frequency of respondents is at a WTP value of Rp. 5000. Then, Central Java has a WTP curve with a negative slope where the highest frequency of respondents is at a WTP value of Rp. 2,000, while East Java has a WTP curve with a negative slope where the highest frequency of respondents is at the WTP value of Rp. 5,000.

The fifth step is to aggregate the WTP values. The aggregate of WTP values in this study is used to determine the economic value of natural resources and the environment. To obtain the aggregate of WTP values, it is necessary to calculate based on the distribution of the respondents' WTP. The formula for calculating the WTP aggregate in this study refers to the research of Tuaputy et al (2014) as follows:

$$TWTP = \sum_{i=1}^{n} WTP \left(\frac{ni}{N}\right) \quad \text{............................(5)}$$

where, TWTP is Total WTP of Respondents, WTP is Value of Respondent's WTP , ni is The number of the i-th sample who is willing to pay as much as WTP, N is Total samples, P is Total population, and i is I-th respondent who is willing to pay.

Table 3. Total Values of Willingness to Pay

WTP Values	Total Respondents (ni)			Population (P)			Total (TWTP)		
	West Java	Cent Java	East Java	West Java	Cent Java	East Java	West Java	Central Java	East Java
Rp 2.000	20	30	31	24.39	38.96	34.83	Rp9,756	Rp23,377	Rp21,596
Rp 5.000	29	18	39	35.37	23.38	43.82	Rp51,280	Rp21,039	Rp85,449
Rp 10.000	18	11	8	21.95	14.29	8.99	Rp39,512	Rp15,714	Rp7,191
Rp 15.000	9	8	5	10.98	10.39	5.62	Rp14,817	Rp12,468	Rp4,213
Rp 20.000	6	10	6	7.32	12.99	6.74	Rp8,780	Rp25,974	Rp8,090
Total	**82**	**77**	**89**	**100**	**100**	**100**	**Rp620,000**	**Rp580,000**	**Rp532,000**

Source: Data Processed, 2021

Table 3 shows the aggregate value/total WTP obtained for eco-friendly agricultural products for each product sale. The total number of WTP in West Java is IDR 620,000, meaning that there will be an additional value of eco-friendly agricultural products by 620,000 for each sale. Then, the total number of WTP in Central Java is IDR 580,000 and the total number of WTP in East Java is IDR 532,000.

These values indicate the amount of compensation, which can potentially be obtained as an effort to preserve the environment and as a form of participation by agricultural business actors in terms of maintaining and improving environmental conditions.

This study uses logistic regression to determine the effect of gender (X1), age (X2), education (X3), employment status (X4), marital status (X5), the number of family dependents (X6), income (X7), price (X8) and concern for the environment (X9) on the willingness to pay for eco-friendly labeled agricultural products. Logistic regression research is characterized by the presence of two categories or binomials on the dependent variable.

The feasibility test of the logistic regression model is carried out by conducting Hosmer and Lemeshow's goodness of fit test. This test is conducted to examine the hypothesis that there is no difference between the model and the data so that the model can be said to be fit. This test is conducted to assess the hypothesized model so that the observed data fit the predictive data of the logistic regression model. The following shows the results of the goodness of fit test in table 4.

Table 4. The Results of Goodness of Fit Test

Independent Variable	Dependent Variable	HL	Prob.	Explanation
West Java				
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay for Eco-friendly Agricultural Products	1.2432	0.8845	Model Fit with the Data

Independent Variables	Dependent Variables	HL	Prob	Explanation
Central Java				
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay for Eco-friendly Agricultural Products	1.3674	0.9765	Model Fit with the Data
East Java				
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay for Eco-friendly Agricultural Products	1.4732	0.9934	Model Fit with the Data

Source: Data Processed, 2021

Based on Table 4, it can be seen that the significance value of Hosmer and Lemeshow's goodness of fit test in West Java is 1.2432 with a significance probability value of 0.8845. Then, the significance value of Hosmer and Lemeshow's goodness of fit test in Central Java is 1.3674 with a significance probability value of 0.9765. Meanwhile, the significance value of Hosmer and Lemeshow's goodness of fit test in East Java is 1.4732 with a significance probability value of 0.9934.

The probability value in each province is greater than the goodness of fit test (0.05), which means that the model could be accepted so that it can predict the value of the observation or it can be said that the model is acceptable because it fits the observation data.

The coefficient of determination is a measurement of how far the model's ability explains the variation of the dependent variable. The values of the coefficient of determination are between zero and one. If the value of McFadden R^2 shows a small value, then the ability of the independent variables in explaining the dependent variables is very limited. The greater the value of R^2 means that the independent variables provide almost all the information needed to predict the variation of the dependent variable. The coefficient of determination in this study is presented in Table 5 below.

Table 5. Coefficient of Determination

Independent Variable	Dependent Variable	R^2
West Java		
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay Eco-friendly Agricultural Products	0.62373

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Independent Variable	Dependent Variable	R²
Central Java		
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay Eco-friendly Agricultural Products	0.58263
East Java		
Gender Age Education Employment Status Marital Status Number of Family Dependents Income Price Concern for the Environment	Willingness to Pay Eco-friendly Agricultural Products	0.66185

Source: Data Processed, 2021

Table 5 shows that the coefficient of determination (McFadden R-Square) in West Java province is 0.62373 or 62.3%. Then, the coefficient of determination (McFadden R-Square) in Central Java province is 0.58263 or 58.2%. Meanwhile, coefficient of determination (McFadden R-Square) in East Java province is 0.66185 or 66.1%. The R-Square value in each of these provinces means that the model's ability to explain variations in the dependent variable is able to provide the information needed to predict the decision variables for choosing the type of batik. The remaining 17.63% is explained by other variables outside the variables in this study.

Wald test is a statistical test to measure estimates in accordance with the existing hypothesis. The equations examined in this study are as follows:

$$Q = \alpha + \beta_1 JK + \beta_2 U + \beta_3 Pd + \beta_4 SPr + \beta_5 SPk + \beta_6 Jtk + \beta_7 Pdp + \beta_8 H + B_9 Sk + \varepsilon \dots\dots\dots\dots (6)$$

In which from the equation, gender, age, education, employment status, marital status, number of family dependents, income, price, and

concern for the environment become variables that affect the willingness to pay for eco-friendly agricultural products. The result of the Wald test is presented in table 6 as follows:

Table 6. The Result of Wald Test

West Java Test Statistic	Value	df	Probability
t-statistic	-3.744213	90	0.0150
F-statistic	6.983675	(1, 90)	0.0150
Chi-square	6.983675	1	0.0124

Central Java Test Statistic	Value	df	Probability
t-statistic	-2.654273	90	0.0130
F-statistic	5.763327	(1, 90)	0.0130
Chi-square	5.763327	1	0.0105

East Java Test Statistic	Value	df	Probability
t-statistic	-3.885346	90	0.0120
F-statistic	6.786595	(1, 90)	0.0120
Chi-square	6.786595	1	0.0113

Source: Data Processed, 2021

Based on table 6 shows that based on the hypothesis, after being tested together using the wald test, it states that the Chi-Square value in West Java is 6.983675, Central Java is 5.763327, and East Java is 6.786595. All Chi-Square values in each province are smaller than Chi-Square table 114.2679, so the hypothesis is accepted that there is a possibility or opportunity regarding the effect of gender, age, education, employment status, marital status, number of family dependents, income, price, and concern for the environment on the willingness to pay for eco-friendly agricultural products. Judging from the probability value of t-statistics, F-statistics, and Chi-square have values smaller than the 0.05 significance level so that these variables have the opportunity or probability to influence the results on the decision to choose the type of batik.

In the following, the results of the estimated logistic regression equations from each province are presented:

Table 7. Result of Logistic Regresion Estimation

Independent Variable	Coeff.	Odds ratio	Prob.	Explanation
West Java				
Gender	0.268988	1.38542	0.0336	Significant
Age	0.084475	1.076091	0.5653	Insignificant
Education	2.147275	8.277754	0.0201	Significant
Employment Status	0.073371	1.086591	0.4032	Insignificant
Marital Status	0.27652	1.276514	0.0437	Significant
Number of Family Dependents	-0.187732	1.167092	0.0341	Significant
Income	2.137824	7.637526	0.0233	Significant
Price	-0.0634269	1.067861	0.4035	Insignificant
Concern for the Environment	3.8497389	1.740184	0.0256	Significant
Gender	0.268988	1.38542	0.0336	Significant
Central Java				
Gender	0.094486	1.099094	0.6925	Insignificant
Age	0.258999	1.295632	0.0439	Significant
Education	2.237299	9.367994	0.0311	Significant
Employment Status	0.072486	1.090513	0.2536	Insignificant
Marital Status	0.093300	1.097791	0.5033	Insignificant
Number of Family Dependents	-1.137824	8.537526	0.0423	Significant
Income	2.247824	6.537526	0.0390	Significant
Price	-2.7537389	1.040183	0.0412	Significant
Concern for the Environment	0.0734267	1.056761	0.6034	Insignificant
C	-29.26176	7.75264		
East Java				
Gender	0.328988	1.24542	0.0456	Significant
Age	0.072475	1.065091	0.7353	Insignificant
Education	2.127295	7.277754	0.0402	Significant
Employment Status	0.0453371	1.066591	0.4032	Insignificant
Marital Status	0.28652	1.206514	0.0237	Significant
Number of Family Dependents	-0.167732	1.107092	0.0141	Significant
Income	0.184269	1.167061	0.7015	Insignificant
Price	-2.037824	7.607526	0.0433	Significant
Concern for the Environment	1.0497389	1.340183	0.0356	Significant
C	-25.26176	6.77834		

Source: Data Processed, 2021

Based on Table 7, it can be seen that in each province there are nine variables in an equation with the dependent variable of the willingness to pay for eco-friendly agricultural products. The significant variables in influencing people's decisions in West Java are gender, education, marital status, number of family dependents, income, and concern for the environment. Meanwhile, the variables of age, employment status, and price do not have a significant effect.

From the existing regression results, the final model of the logistic regression equation is as follows:

$$\text{Ln}\left(\frac{p}{1-p}\right) = -27.26176 + 0.268988 \text{ Jk} + 0.084475 \text{ U} + 2.147275 \text{ Pd} + 0.073371 \text{ SPk} + 0.27652 \text{ SPh} - 0.187732 \text{ JTK} + 2.137824 \text{ Pn} - 0.0634269 \text{ H} + 3.8497389 \text{ SKL} + \varepsilon \quad ....(7)$$

The parameter used for the partial test in this study is to compare the significance value with the 5% significance level. The interpretation of the odds ratio based on the logistic regression equation model is as follows:

$$\text{Ln}\left(\frac{p}{1-p}\right) = 5.78654 + 1.38542 \text{ Jk} + 1.076091 \text{U} + 8.277754 \text{ Pd} + 1.086591 \text{ SPk} + 1.276514 \text{ SPh} - 1.167092 \text{ JTK} + 7.637526 \text{ Pn} - 1.067861 \text{ H} + 1.740184 \text{ SKL} + \varepsilon \quad ....(8)$$

The following is the interpretation of the logistic equation in West Java Province based on the results of logistic regression using E-Views 10 as follows:

The gender variable has an odds ratio value of 1.38542 and the estimated logistic regression has a significance level of 0.0336 < the significance level ($\alpha = 0.05$). Based on the analysis results, it is known that the gender variable has a significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.38542 means that the opportunity for women to pay eco-friendly labeled agricultural products is 1.38542 times that of men.

The age variable has an odds ratio value of 1.076091 and the estimated logistic regression has a significance level of 0.5653 > the

significance level (α = 0.05). Based on the analysis result, it is known that the age variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.076091 means that along with increasing age, the willingness to pay eco-friendly labeled agricultural products is 1.076091 times.

The education variable has an odds ratio value of 8.277754 and the estimated logistic regression has a significance level of 0.0201 < the significance level (α = 0.05). Based on the analysis results, it is known that the education variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 8.277754 means that the higher one's education, the willingness to pay for eco-friendly agricultural products will be 1.076091 times.

The employment status variable has an odds ratio value of 1.086591 and the estimated logistic regression has a significance level of 0.4032 > the significance level (α = 0.05). Based on the analysis result, it is known that the employment status variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.086591 means that people who work will have the willingness to pay eco-friendly labeled agricultural products by 1.076091 times.

The marital status variable has an odds ratio value of 1.276514 and the estimated logistic regression has a significance level of 0.0437 < the significance level (α = 0.05). Based on the analysis results, it is known that the marital status variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.276514 means that people who are married will have the willingness to pay eco-friendly labeled agricultural products by 1.276514 times.

The variable of the number of family dependents has an odds ratio value of 1.167092 and the estimated logistic regression has a significance level of 0.0341 < the significance level (α = 0.05). Based on the analysis result, it is known that the variable of the number of family dependents has a negative and significant effect

on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.167092 means that the greater the number of dependents in one's family, the willingness to pay eco-friendly labeled agricultural products will be 1.167092 times lower.

The income variable has an odds ratio value of 7.637526 and the estimated logistic regression has a significance level of 0.0233 < the significance level (α = 0.05). Based on the analysis result, it is known that the income variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 7.637526 means that the higher one's income, the willingness to pay for eco-friendly agricultural products will be 7.637526 times higher.

The price variable has an odds ratio value of 1.067861 and the estimated logistic regression has a significance level of 0.4035 > the significance level (α = 0.05). Based on the analysis result, it is known that the price variable has a negative but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.067861 means that the higher the price of the product offered, the willingness to pay eco-friendly labeled agricultural products will be 1.067861 times lower.

The variable of concern for the environment has an odds ratio value of 1.740184 and the estimated logistic regression has a significance level of 0.0256 < the significance level (α = 0.05). Based on the analysis result, it is known that the attitude of caring for the environment has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.740184 means that the higher one's concern towards the environment, the willingness to pay eco-friendly labeled agricultural products will be 1.740184 times higher.

The following is an interpretation of the logistic equation in Central Java Province based on the results of logistic regression using E-Views 10 as follows:

The gender variable has an odds ratio value of 1.099094 and the estimated logistic

regression has a significance level of 0.6925 > the significance level (α = 0.05). Based on the analysis results, it is known that the gender variable does not have a significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.099094 means that the opportunity for women to want to pay eco-friendly labeled agricultural products is 1.099094 times that of men.

The age variable has an odds ratio value of 1.295632 and the estimated logistic regression has a significance level of 0.0439 < the significance level (α = 0.05). Based on the analysis results, it is known that the age variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.295632 means that along with increasing age, the willingness to pay eco-friendly labeled agricultural products is 1.295632 times.

The education variable has an odds ratio value of 9.367994 and the estimated logistic regression has a significance level of 0.0311 < the significance level (α = 0.05). Based on the analysis results, it is known that the education variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 9.367994 means that the higher one's education, the willingness to pay for eco-friendly agricultural products will be 9.367994 times.

The employment status variable has an odds ratio value of 1.090513 and the estimated logistic regression has a significance level of 0.2536 > the significance level (α = 0.05). Based on the analysis results, it is known that the employment status variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.090513 means that people who work will have a willingness to pay eco-friendly labeled agricultural products by 1.090513 times.

The marital status variable has an odds ratio value of 1.097791 and the estimated logistic regression has a significance level of 0.5033 > the significance level (α = 0.05). Based on the analysis results, it is known that the marital status variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.097791 means that people who are married will have a willingness to pay eco-friendly labeled agricultural products by 1.097791 times.

The variable of the number of family dependents has an odds ratio value of 8.537526 and the estimated logistic regression has a significance level of 0.0423 < the significance level (α = 0.05). Based on the analysis results, it is known that the variable of the number of family dependents has a negative and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 8.537526 means that the greater the number of dependents in one's family, the willingness to pay eco-friendly labeled agricultural products will be 8.537526 times lower.

The income variable has an odds ratio value of 6.537526 and the estimated logistic regression has a significance level of 0.0390 < the significance level (α = 0.05). Based on the analysis results, it is known that the income variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 6.537526 means that the higher one's income, the willingness to pay for eco-friendly agricultural products will be 6.537526 times higher.

The price variable has an odds ratio value of 1.040183 and the estimated logistic regression has a significance level of 0.0412 < the significance level (α = 0.05). Based on the analysis results, it is known that the price variable has a negative and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.040183 means that the higher the price of the product offered, the lower the willingness to pay eco-friendly labeled agricultural products by 1.040183 times.

The variable of concern for the environment has an odds ratio value of 1.056761 and the estimated logistic regression has a significance level of 0.6034 > the significance level (α = 0.05). Based on the analysis results, it is known that the attitude of caring for the environment has a positive but insignificant

effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.056761 means that the higher one's caring attitude towards the environment, the willingness to pay eco-friendly labeled agricultural products will be 1.056761 times higher.

The following is an interpretation of the logistic equation in East Java Province based on the results of logistic regression using E-Views 10 as follows:

The gender variable has an odds ratio value of 1.24542 and the estimated logistic regression has a significance level of 0.0456 < the significance level (α = 0.05). Based on the analysis results, it is known that the gender variable has a significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.24542 means that the opportunity for women to want to pay eco-friendly labeled agricultural products is 1.24542 times that of men.

The age variable has an odds ratio value of 1.065091 and the estimated logistic regression has a significance level of 0.7353 > the significance level (α = 0.05). Based on the analysis results, it is known that the age variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.065091 means that as age increases, the willingness to pay for eco-friendly agricultural products is 1.065091 times.

The education variable has an odds ratio value of 7.277754 and the estimated logistic regression has a significance level of 0.0402 < the significance level (α = 0.05). Based on the analysis results, it is known that the education variable has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 7.277754 means that the higher one's education, the willingness to pay for eco-friendly agricultural products will be 7.277754 times.

The employment status variable has an odds ratio value of 1.066591 and the estimated logistic regression has a significance level of 0.4032 > the significance level (α = 0.05). Based on the analysis results, it is known that the

employment status variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.066591 means that people who work will have a willingness to pay eco-friendly labeled agricultural products by 1.066591 times.

The marital status variable has an odds ratio value of 1.097791 and the estimated logistic regression has a significance level of 0.5033 > the significance level (α = 0.05). Based on the analysis results, it is known that the marital status variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.097791 means that people who are married will have a willingness to pay eco-friendly labeled agricultural products by 1.097791 times.

The variable of the number of family dependents has an odds ratio value of 1.206514 and the logistic regression estimation has a significance level of 0.0237 < the significance level (α = 0.05). Based on the analysis results, it is known that the variable of the number of family dependents has a negative and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.206514 means that the greater the number of dependents in one's family, the willingness to pay eco-friendly labeled agricultural products will be 1.206514 times lower.

The income variable has an odds ratio value of 1.167061 and the estimated logistic regression has a significance level of 0.7015 > the significance level (α = 0.05). Based on the analysis results, it is known that the income variable has a positive but insignificant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.167061 means that the higher one's income, the willingness to pay for eco-friendly agricultural products will be 1.167061 times higher.

The price variable has an odds ratio value of 7.607526 and the estimated logistic regression has a significance level of 0.0433 < the significance level (α = 0.05). Based on the analysis results, it is known that the price variable has a negative and significant effect on the willingness to pay for eco-friendly agricultural

products. The odds ratio value of 7.607526 means that the higher the price of the product offered, the willingness to pay eco-friendly labeled agricultural products will be 7.607526 times lower.

The variable of concern for the environment has an odds ratio value of 1.340183 and the estimated logistic regression has a significance level of 0.0356 < the significance level (α = 0.05). Based on the analysis results, it is known that the attitude of caring for the environment has a positive and significant effect on the willingness to pay for eco-friendly agricultural products. The odds ratio value of 1.340183 means that the higher one's attitude of caring for the environment, the willingness to pay eco-friendly labeled agricultural products will be 1.340183 times higher.

For the further discussion on this research, based on the estimation results of the logistic regression model in West Java Province, it shows that gender has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.38542. Then, the estimation results of the logistic regression model in East Java Province show that gender has a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.24542. Meanwhile, the estimation results of the logistic regression model in Central Java Province show that gender does not have a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.099094.

The research results in the provinces of West Java and East Java are in line with research conducted by Celona (2015), Hidayati & Suryanto (2015), and Pramudita (2017) which state that the gender variable affects people's Willingness to Pay. Meanwhile, the research result in Central Java is not in line with the previous research.

Gender in West Java and East Java is one of the factors that can encourage consumers' willingness to pay for eco-friendly agricultural products. In this study, it is found that women have a higher willingness to pay for eco-friendly agricultural products than men. This is because women, as people who are responsible for cooking in a family, are more sensitive to agricultural products that are considered safe for health. The sensitivity of women makes women have a higher WTP than men in buying eco-friendly agricultural products. Meanwhile, in Central Java Province, gender does not have a significant effect on consumers' willingness to pay for eco-friendly agricultural products.

Based on the estimation results of the logistic regression model in West Java Province, it shows that age does not have a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.076091. Then, the estimation results of the logistic regression model in East Java Province also show that age does not have a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.065091. Meanwhile, the estimation results of the logistic regression model in West Java Province show that age has a positive and significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.295632.

The research result in Central Java Province is in line with the research conducted by Prasetyo & Saptutyningsih (2013) and Pramudita (2017) which state that age has a significant effect on people's WTP. Meanwhile, the results of research in the provinces of West Java and East Java are in line with the research conducted by Herman et al., (2014), Putri & Suryanto (2012), and Hidayati & Suryanto, (2015) which state that age does not have a significant effect on people's WTP.

Age is a factor that has an effect in determining people's willingness to pay for eco-friendly agricultural products. As consumers get older, their knowledge, experience, and concern for health and the environment will increase. This makes the tendency of someone with a more mature age level to have a higher willingness to pay for eco-friendly agricultural products.

Based on the estimation result of the logistic regression model in West Java Province, it shows that education has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 8.277754. The higher one's education, the willingness to pay for eco-friendly agricultural products will be 8.277754 times higher. Then, the estimation result of the logistic regression model in Central Java Province shows that education has a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 9.367994. The higher one's education, the willingness to pay for eco-friendly agricultural products will be 9.367994 times higher. Furthermore, the estimation result of the logistic regression model in East Java Province also shows that education has a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 7.277754. The higher one's education, the willingness to pay for eco-friendly agricultural products will be 7.277754 times higher.

The results of the study in three provinces show identical results, namely education has a positive and significant effect on the willingness to pay eco-friendly labeled agricultural products. The results of this study are in line with the research conducted by Sumarwan (2011), Putri & Suryanto (2012), and Prasetyo & Saptutyningsih (2013) which state that education has a significant effect on people's WTP. However, the results of this study are not in line with the research conducted by Pramudita (2017) which states that education does not have a significant effect on people's WTP.

Education is an important element in people's lives. Through education, a knowledgeable and broad-minded generation will be formed. Someone who has a higher level of education will have broad knowledge and insight, including in terms of health and the environment. This study provides empirical evidence that someone with higher education tends to be willing to pay higher for eco-friendly agricultural products.

Based on the estimation results of the logistic regression model in West Java Province, it shows that employment status does not have a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.086591. Then, the estimation results of the logistic regression model in Central Java Province show that employment status does not have a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.090513. Furthermore, the estimation results of the logistic regression model in East Java Province also show that employment status does not have a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.066591.

The results of this study are in line with the research conducted by Dipeolu (2016), Rofiatin, (2018), and Yunus et al., (2019) which state that employment status does not have a significant effect on people's willingness to pay for organic products. Employment status has a role in providing income for consumers. Consumers who work mean they have income so they will tend to be willing to pay higher for eco-friendly agricultural products. On the contrary, when someone does not have a job, he will tend to be willing to pay lower for eco-friendly agricultural products because he does not have an income.

Based on the estimation results of the logistic regression model in West Java Province, it shows that marital status has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.276514. Then, the estimation results of the logistic regression model in East Java Province also show that marital status has a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.206514. Meanwhile, the estimation results of the logistic regression model in Central Java Province show that marital status does not have a significant effect on willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.097791.

The result of research in Central Java Province is in line with the research conducted by Shashikiran & Madhavaiah (2014), Aufananda et al., (2017), and Yunus et al., (2019) which state that marital status does not have a significant effect on the willingness to pay for organic products. Meanwhile, the results of research in the provinces of West Java and East Java are not in line with the previous research.

Marital status is a factor that can change the mindset of a consumer. A person who is married generally has a more mature mindset, especially an attitude of caring for the family, for example, concern for family health. This makes people who are married tend to be willing to pay higher for organic products because they are concerned for health.

Based on the estimation results of the logistic regression model in West Java Province, it shows that the number of family dependents has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.167092. Then, the estimation results of the logistic regression model in Central Java Province show that the number of dependents of the family has a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 8.537526. Furthermore, the estimation results of the logistic regression model in East Java Province also show that the number of dependents of the family has a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.107092.

The results of this study are in line with the research conducted by Yunus et al., (2019) which states that the number of family members has a significant effect on willingness to pay for organic products. However, the results of this study are not in line with the research of Aufananda et al., (2017) and Riana et al., (2019) which state that the number of family members does not have a significant effect on willingness to pay for organic products. The number of family members has an impact on the amount of consumption in a household (Han, 2019; Lai, 2018; McFadden, 2017; Nazzaro, 2019; Rajamoorthy, 2019;

Rodella, 2019; Schäufele, 2017). The higher the consumption needs, the higher the amount of budget that must be spent. This makes someone who has a large number of family members has a lower willingness to pay for organic products (Bao, 2018; Berger, 2019; Budhathoki, 2019).

Based on the estimation results of the logistic regression model in West Java Province, it shows that income has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 7.637526. Then, the estimation results of the logistic regression model in Central Java Province also show that income has a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 6.537526. Meanwhile, the estimation results of the logistic regression model in East Java Province show the opposite result, namely, income does not have a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.167061.

The results of research in West Java and Central Java are in line with the research conducted by Oktaviani, M., & Saptutyningsih, E. (2018), Pramudita (2017), Rusminah & Gravitiani (2012), Gunawan & Suprapti (2015), Priambodo & Najib (2014), Putri & Suryanto (2012), Sriwaranun et al., (2015), Aufananda et al., (2017), Riana et al., (2019) which state that income has a significant effect on people's WTP. Meanwhile, the result of research in East Java Province is in line with the research conducted by Yunus et al., (2019) which states that income does not have a significant effect on people's WTP.

Income is an important factor that greatly affects people's consumption. Consumers who have a high level of income can meet their daily consumption needs without any problems. They think that buying organic products can be used as a health investment because it is considered a safer and better qualities food product. The higher a consumer's income, the consumer will have a higher willingness to pay for eco-friendly products because the consumer has a higher

budget (Greene, 2018; Hao, 2019; Hinnen, 2017).

Based on the estimation result of the logistic regression model in West Java Province, it shows that price does not have a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.067861. Meanwhile, the estimation results of the logistic regression model in Central Java and East Java Provinces show that price has a significant effect on the willingness to pay eco-friendly agricultural products in Central Java and East Java Provinces with odds ratio values of 1.040183 and 7.607526, respectively.

The research result in West Java Province is in line with the research conducted by Fajria et al., (2020), Hamzaoui & Zahaf (2012), and Aufananda et al., (2017) which state that price does not have a significant effect on the willingness to pay for organic products. Meanwhile, the results of research in Central Java and West Java are in line with the research conducted by Riana et al., (2019) which states that price has a significant effect on the willingness to pay for organic products. Price is one of the most important factors in consumer decisions to buy a product. Consumers will usually have a lower willingness to pay if the product offered has a high price because it is related to the budget that must be spent (Lombardi, 2019; López-Sánchez, 2017; Maaya, 2018; McFadden, 2017; Mulder, 2017; Nazzaro, 2019; Ouédraogo, 2018; Portnov, 2018). However, unlike people who are used to consuming organic products and care about their health, usually the willingness to pay for organic products is not influenced by price (Handoko & Setiawan, 2021).

Based on the estimation results of the logistic regression model in West Java Province, it shows that the attitude of caring for the environment has a significant effect on the willingness to pay eco-friendly agricultural products in West Java Province with an odds ratio value of 1.740184. Then, the estimation results of the logistic regression model in East Java Province also show that the attitude of caring for the environment has a significant effect on the willingness to pay eco-friendly agricultural products in East Java Province with an odds ratio value of 1.340183. Meanwhile, the estimation results of the logistic regression model in Central Java Province show the opposite result that the attitude of caring for the environment does not have a significant effect on the willingness to pay eco-friendly agricultural products in Central Java Province with an odds ratio value of 1.056761.

The results of research in the provinces of West Java and East Java are in line with the research conducted by Dipeolu (2016) and Yunus et al., (2019) which state that the public concern for the environment has a significant effect on the willingness to pay for organic products. Meanwhile, the result of research in Central Java Province is not in line with the previous research. Consumers who already have a concern for the environment generally have a willingness to pay higher for organic products. This is due to the consumer's knowledge of the importance of consuming organic products for environmental sustainability and the dangers of non-organic products that can threaten environmental sustainability.

For the policy implications, agricultural sector is a strategic sector in the economy in Indonesia, especially in the provinces that are the largest national food barns, namely West Java, Central Java, and East Java. As national food barns, agricultural productivity in the areas should be maintained and improved. Ironically, the majority of agricultural cultivation patterns are still carried out conventionally and tend to be exploitative, causing negative externalities in the form of environmental damage. Efforts to preserve the environment but do not reduce agricultural productivity can be done by revolutionizing conventional agriculture into organic agriculture. However, realizing organic agriculture is not an easy thing because it requires collaboration and synergy from various parties. To realize organic agriculture, it is necessary to harmonize sustainable production and consumption, in this case, both farmers and consumers must be willing to carry out a revolution in organic agriculture

CONCLUSION

Based on the results and discussions that have been described, it can be concluded that out of 300 respondents of agricultural products' consumers in this study, an average of about 82.6 respondents said they are willing to pay for eco-friendly labeled agricultural products. Meanwhile, the remaining 17.4% said they are not willing. As for if it is broken down by region, it can be seen that the region that has the highest percentage of willingness to pay is East Java Province, which is 89%. The result indicates that most people are now starting to realize and care about the preservation of the surrounding nature. By using the dichotomous choice and bidding game techniques, the auction values or the WTP payment offers in this study included Rp. 2,000, Rp. 5,000, Rp. 10,000, Rp. 15,000, and Rp. 20,000. The average value of WTP obtained in this study in each province is West Java of Rp. 6,200, Central Java of Rp. 5,800, and East Java of Rp. 5,320. Based on the result, it can be concluded that people living in West Java have the highest WTP value compared to people living in Central Java and East Java. From the result, it is also known that the majority of respondents who are willing to pay for eco-friendly agricultural products in West Java are in the range of Rp. 5,000. Then, the majority of people in Central Java WTP value are in the range of Rp 2,000. Meanwhile, the majority of people in East Java have a WTP value in the range of IDR 5,000.

The WTP value curve in this study has a negative slope which means that the greater the cost burden that is set for additional prices on eco-friendly agricultural products, the lower the number of people willing to pay and vice versa. West Java has a WTP curve with a negative slope where the highest frequency of respondents is at a WTP value of Rp. 5000. Then, Central Java has a WTP curve with a negative slope where the highest frequency of respondents is at a WTP value of Rp. 2,000, while East Java has a WTP curve with a negative slope where the highest frequency of respondents is at the WTP value of Rp. 5,000. The aggregate value/total WTP

obtained for eco-friendly agricultural products for each product sale. The total number of WTP in West Java is IDR 620,000, meaning that there will be an additional value of eco-friendly agricultural products by 620,000 for every sale. Then, the total number of WTP in Central Java is Rp. 580,000 and the total number of WTP in East Java is Rp. 532,000. These values show the amount of compensation that can be obtained as an effort to preserve the environment and as a form of participation by agricultural business actors in maintaining and improving environmental conditions.

Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in West Java include gender with an odds ratio value of 1.38542, education with an odds ratio value of 8.277754, marital status with an odds ratio value of 1 .276514, the number of dependents in the family with an odds ratio value of 1.167092, income with an odds ratio value of 7.637526, and a concern for the environment with an odds ratio value of 1.740184. Meanwhile, the variables that do not have a significant effect on the willingness to pay for eco-friendly agricultural products in West Java include age with an odds ratio value of 1.076091, employment status with an odds ratio value of 1.086591, and prices with an odds ratio value of 1.067861.

Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in Central Java include age with an odds ratio value of 1.295632, education with an odds ratio value of 9.367994, the number of family dependents with an odds ratio value of 8.537526, income with an odds ratio value of 6.537526, and prices with an odds ratio value of 1.040183. Meanwhile, the variables that do not have a significant effect on the willingness to pay for eco-friendly agricultural products in Central Java include gender with an odds ratio value of 1.099094, employment status with an odds ratio value of 1.090513, marital status with an odds ratio value of 1.097791, and concern for the

environment with an odds ratio value of 1.056761.

Based on the results of the logistic regression estimation, it shows that the variables that have a significant effect on the willingness to pay for eco-friendly agricultural products in East Java include gender with an odds ratio value of 1.24542, education with an odds ratio value of 7.277754, marital status with an odds ratio value of 1 .206514, the number of dependents in the family with an odds ratio value of 1.107092, price with an odds ratio value of 7.607526, and concern for the environment with an odds ratio value of 1.340183. Meanwhile, the variables that do not have a significant effect on the willingness to pay for eco-friendly agricultural products in East Java include age with an odds ratio value of 1.065091, employment status with an odds ratio value of 1.066591, and income with an odds ratio value of 1.167061.

The advice that can be given in this research is that the community should understand and realize the importance of preserving nature to maintain the survival of the ecosystem for future generations. One that can be applied is to start changing consumption patterns from conventional products to eco-friendly products. The government as the authority in formulating policies needs to issue regulations on eco-friendly agricultural cultivation patterns and provide easy access for farmers both access to agricultural inputs and outputs. There is a need for a policy of convenience in managing organic certificates at an affordable cost. In addition, there is also a need for the willingness of farmers to start switching to eco-friendly agriculture.

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