



WILLINGNESS TO PAY FAIR TRADE COFFEE IN MALANG EAST JAVA INDONESIA

Ayu Wulandari Priyambodoi¹⁾; A. Yusuf Kholil²⁾

^{1,2)} **Department of Agribisnis, University Tribhuwana Tungga Dewa**

Email: ¹⁾ayu.wulandari@unitri.ac.id ; ²⁾ yusufyurazif@gmail.com

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ABSTRACT

Consumption of coffee in Indonesia has seen a significant rise in recent years. Malang is one city in Indonesia where produced coffee big volume. This research seeks to explore the determinants of coffee consumption in Malang with a specific focus on fair trade coffee. In a survey of 140 respondents in Malang City, consumers' willingness to pay (WTP) for fair trade labeled coffee was measured. This research uses an interval regression to investigate individual demographic and consumption characteristic impacts on WTP. Results show that on average, consumers willing to pay were 22% more for a medium cup of fair trade coffee compared with traditional coffee. In addition, other variables that indicated a higher WTP included female consumers, producer who made their own coffee, and consumers whom planned to consume more coffee in the following year.

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INTRODUCTION

Consuming coffee has now a days become a lifestyle for some people and beside just a sleep reliever. This is reflected in the mushrooming of cafes or coffee shop stalls from steeping coffee grounds throughout the archipelago. Now to get quality coffee not only in foreign coffee shop franchises, local coffee drinks shops are now everywhere, from the streets of the business district to the malls. Based on the data center and Ministry of Agriculture Information System the national coffee consumption in 2016 reached around 250 thousand tons and grew to 276 thousand tons . Indonesia's coffee consumption in 2016-2021 period is predicted to grow an

average of 8.22% per year. In 2021 coffee supply is predicted to reach 795 thousand tons with consumption of 370 thousand tons, resulting in a surplus of 425 thousand tons. Coffee consumption have a pattern and purpose, depending on the consumption behavior of each consumer. According to Abraham Maslov, needs are divided into five types, starting with physiological needs, security, ownership, self-esteem and self-actualization.

In recent years, the issue of sustainability or sustainability is a topic that is increasingly serious as the coffee industry becomes more serious lately. At least in the last decade, coffee is no longer only seen as a drink supplying caffeine but also part of the entity that ends up dealing with farmers, coffee processors and other actors who are no less important in the upstream. Sustainability in this case naturally triggers many other factors in the coffee industry circle, starting from the economic side to the environmental impact. Here comes the term Fair Trade, which is considered wise for coffee industry players to "provide justice" and maintain the sustainability of the life of coffee farmers, agricultural areas, as well as the environment in which these farms are located. Fair trade coffee could already have its own niche in Indonesia if consumers care and are concerned about coffee producers not only get a fair price for the coffee beans. So, buying coffee that has a fair trade label is a way to help coffee producers. To examine the behavior of consumers in fair trade, in this study evaluate through willingness to pay (willingness to pay). Willingness to pay is the availability of individuals to pay for goods / services they want. Whether or not many people are willing to pay depends on the economic value felt by the consumer for the benefits of the item. If someone believes that there is no alternative offer, the highest amount of money he is willing to pay is the same as the quality of the goods and is the price of the order. If someone sees an alternative offer with an economic value below utility, the highest price he will receive is equal to the economic value of the product and the maximum price (Tully and Winer 2014).

Willingness to pay is one of the important things for companies because willingness to pay is a challenge for them. With the willingness to pay the projection of the desired profit the company can be achieved. Consumer purchase intentions are based on perceived value of the product, and willingness to pay for higher prices or buybacks of loyalty are obtained when perceived value is considered greater (Demirgunes 2015). In general, willingness to pay (WTP) is the willingness to pay a sum of money to consumers to obtain goods or services. According to Campbell 2014 willingness to pay is the maximum price of an item that consumers want to buy at a certain time.

Research purposes

1. Knowing coffee consumers in Malang, the willingness to pay for coffee fair trade.
2. Examine the factors that influence the willingness to pay fair trade of coffee in Malang.

Consumer WTP

WTP analysis is conducted to determine the value of willingness to pay or the maximum value that someone is willing to spend on the coffee fair trade. The respondents of this study were 140 people and 75% of them were willing to pay for quality improvement from conventional coffee to fair trade coffee. The remaining 25% are not willing to pay for the quality improvement. Information can be seen in Table 1.

Table 1 Respondend

Willingnes to pay	Responden	Percentage
Yes	105	75%
No	35	25%
Total	140	100%

The value of consumers' willingness to pay using CVM analysis consists of six stages of analysis, namely:

1. Building a hypothetical market Respondents were given information about improving the quality of conventional coffee and becoming fair trade coffee, so that respondents had an idea of the situation of the hypothetical market in question. This is done so that respondents can determine the amount of money they are willing to pay. Memperoleh nilai penawaran WTP (Obtaining Bids)
2. Calculating the estimated average WTP value The estimated average WTP value of respondents is calculated based on the distribution data of respondents' WTP. The results of the calculation of the average WTP Rp17.800

RESEARCH METHODS

Method of Collecting Data

This research was carried out in Malang Regency and City in December 2019 until March 2020. The results obtained are expected to provide the most recent data and information from previous similar studies, such as research conducted by Nurhasanah (2017) which examined the factors factors affecting the purchase interest of halal processed food products (case study in Bogor city / district). The data used in this study are primary and secondary data. The primary data obtained is the result of interviews with Malang residents who are coffee consumers. Secondary data is the result of literature studies and related data. Primary data used in this study were collected online. Samples were collected with the help of an online questionnaire.

Data Analysis Method

Descriptive analysis was conducted to explain the general picture of organic vegetable farming and analysis of willingness to pay from the perspective of consumers and analysis of willingness to accept the perspective of producers. Data processing and analysis procedures used are descriptive analysis and multiple regression analysis and CVM. Analysis tools in the form of Microsoft Excel 2013 software and Eviews 17. Descriptive analysis is used to draw the characteristics of respondents, awareness and confidence of respondents to organic vegetables and interpretation of the results of data processing illustrates the cross tabulation between the characteristics of respondents with WTP and other data processing results. The analytical tool used to determine the variables that influence WTA / WTP is Multiple Regression Analysis.

Empirical Model

The analytical tool used to determine the variables that influence WTA / WTP is Multiple Regression Analysis.

$$E(WTP) = \sum_{i=1}^n W_i P_{ft} \quad (\text{Hannemann 1989})$$

E (WTP) = estimated average WTP

W_i = lower limit of i-class class WTP

P_{fi} = the relative frequency of the class
in question

n = number of classes (interval)
 i = class (interval) WTP; $i = 1, 2, 3$

The amount of WTP expected by consumers can certainly vary depending on the factors that influence them. In this study the factors that influence WTP are formulated in the model as follows:

$$WTP = (\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 e)$$

WTP = price value of willingness to pay

X_1 = age

X_2 = marital status

X_3 = income

X_4 = Coffee flavor

X_5 = Bought coffee

RESULTS AND DISCUSSION

Willingness to pay

The results showed that the average drinking WTP (willingness to pay) consumers of fair trade coffee for the City and Regency of Malang. The results of the calculation of the average WTP and the factors that influence the WTP.

Variable	Mean	DS	Min	Max
WTP	Rp.17.800	55	Rp.15.000	Rp.40.000
Marital Status	0,15	0,36	0	1
Gender	0,67	0,47	0	1
Income	Rp.4.000.000	0,8	Rp.3.000.000	Rp.10.000.000
Coffee Flavour	0,35	0,45	0	1
Bought Coffee	0,23	0,43	0	

In table 1 there are two variables used in that is the consumer above shows the demographic variable, shows the pattern of coffee consumers that can be examined coffee drinking habits. The average Willingness to Pay value that can be purchased by residents of Malang City and Malang Regency is Rp. 17.800 per glass with a fair trade logo. Of all respondents, the highest WTP bid was Rp. 40.000 while the lowest is Rp. 15.000. Most respondents are students, so the average WTP ranges from Rp. 17,800 per glass. Students where financial conditions are not too mature so only offer WTP cheaper than non students. Non-student respondents bid more expensive, where their opinions range from more than Rp. 3.000.000. Marital status also influences, where married people have more family members, so they think more about buying coffee with a fair trade logo. According to Schiffman and Kanuk (2007), although in developed countries, families are not formed for economic security, it cannot be doubted that the main function of the family is to provide financial resources and economic welfare to the people who are dependents. From this statement, it can be concluded that families with fewer members will have a greater ability to prosper their family members. Based on the data collected, most of the respondents have 3 to 4 family members, which is 66 people (48.95%). Gender also influences coffee purchases, especially coffee with a fair trade logo. Male respondents tend to be more likely to bargain for higher pay than women. In this study 59% of all male respondents

were recorded. Only 17% of respondents are married. Around 38% of respondents worked as full-time employees in the study period. Male respondents are more coffee connoisseurs than women. The average age of respondents aged 24 years usually drinks coffee, while respondents who are 40 years old even less often drink coffee as respondents aged over 30 years recorded only a small portion. Variations in the presentation of coffee affect the purchase of coffee, especially coffee with a fair trade logo.

The number of family dependents is around 3 people per household in the sample. The families averaged 60% of respondents bought coffee in a glass / cup and 69% made coffee in a glass/cup within 30 days before the study was conducted. Around 62% of respondents indicated that they only consumed regular black coffee (or black coffee with creamer or sugar). The average consumption of respondents in this study to drink 4.5 small cups of coffee per week. As many as 50% of all respondents, answered drinking regular black coffee for 5 more years. In the next consumption condition 32% answered that their consumption increased and 10% answered to reduce their consumption of coffee in the future. This research includes knowledge of how understanding is related to fair trade coffee and organic coffee. About 45% of respondents know about organic coffee, but only about 34% of respondents have good information about fair trade coffee. The results of this study indicate the future market potential for fair trade products.

Table 2 Factor Affecting Consumer Willingness to Pay

Variable	OLS Coefficients	Interval Coefficients	Probit Coefficients	Logit Coefficients
<i>Gender</i>	27.87 (22.41)	25.82 (22.00)	23.18 (21.85)	22.11 (21.84)
<i>Age</i>	20.06 (21.47)	20.06 (21.43)	20.02 (21.65)	20.03 (21.60)
<i>Income</i>	4.000.000 (20.02)	4.000.000 (20.01)	4.000.000 (20.22)	4.000.000 (20.17)
<i>Marry</i>	0.99 (1.85)	0.96 (1.61)	0.23 (1.70)	0.49 (2.14)
<i>Bghtcofe</i>	20.35 (20.83)	20.24 (20.51)	20.06 (20.54)	20.14 (20.75)
F (17, 546)	3.06			
Log pseudo-likelihood		21475.79	21300.62	21302.19
Wald χ^2		56.64	63.04	54.57
Adjusted R ²	0.05			
Pseudo R ²		0.02	0.02	0.02

The results of OLS (Ordinary Least Square) testing, range regression and using the probit / logit model for WTP are shown in the table below. Overall, the four models are good models that also represent the estimated results of the study. It can be seen from the results of the study that the marital status and taste variables chosen were significant in the probit and logit models. The coefficients in this model do not represent monetary values directly for those who do not meet the information and

interpretations. Demographic and consumption variables for PAPs are generally consistent with a priori expectations. The OLS data results and the range of regressions related to each other approach the normal assumptions well presented by the data. The dependent variable on the model is the ordinal indicator category, the magnitude of the coefficients in the two models also differs for each condition. This is inversely proportional to the non-linear model in which the magnitude of the coefficient cannot be interpreted directly. Nevertheless this non-linear state can still be interpreted in the estimation sign and compared with the other two models. The regression range explains the overall intuitive data, referring to the discussion focused on the results of the regression range. In the demographic variables, the regression range model is only a gender variable, that is, a male with a statistical difference from zero at a significance level of 5 percent. Having a negative sign indicates that female respondents are willing to pay more than men. Compared to women, men pay more.

The higher WTP by female consumers for fair trade coffee thus benefiting disadvantaged producers may be related to the fact that females are often a disadvantaged group in many societies in the world whether developing or developed countries. There might be several reasons for this outcome. One of the most important causes could be that unlike in many western countries, fair trade coffee (in fact, even coffee in general) is still a very new product in Indonesia as specially Malang. Many consumers may not have formed a well-established purchasing preference for this product and as a result, their WTP does not necessarily incorporate all concepts included in fair trade coffee. We expect this result to change over the years when consumers have become more stable in their preferences. Nevertheless, the fact that the majority of the sampled consumers indicated positive WTP for fair trade coffee suggests by itself that ethical consumption may take a sizeable share of the total demand in the near future. Another reason to support this likely outcome includes the fact that Indonesia, as a developing country, produces many types of products that could benefit from the rising domestic and international consumer support of the notion of fair trade.

CONCLUSIONS AND POLICY IMPLICATIONS

Conclusions

This research investigated Malang City consumers' coffee consumption and willingness to pay for fair trade coffee using a survey implemented in Malang City, Indonesia. The key objective was not just to ascertain Malang City consumers' willingness to pay for fair trade coffee but also to contribute to the general literature on fair trade products and to offer grounds for comparison with other countries, particularly to consumers in western countries. Although the independent variables related to ethical and environmental concerns were not significant in this study, many demographic and consumption variables did show significant impact to fair trade coffee WTP and were mostly consistent with previous studies. Our initial results do recognize that Malang City consumers are willing to show their appreciation of fair trade coffee through their stated WTP: about 89% of respondents would like to pay some additional amount for a cup of fair trade coffee above the price of Rp 20.000 for a medium cup of regular coffee. On average, respondents were willing to pay about Rp 15.000 more for a medium cup of fair trade coffee. This translates into about a 22% price premium. This result is also consistent with Belgian consumers found in Pelsmacker et al. (2005).

Data were further analyzed using four different econometric models: OLS regression, interval regression, and ordered probit/logit models. All models gave consistent results regarding the signs and significance of coefficients. In terms of factors affecting consumers' WTP, results found that women would most likely pay price premiums for fair trade coffee. A straightforward message for coffee marketers is to target female consumers to profit through this potentially lucrative niche market. In terms of consumption habits, whether the respondent had made a cup of coffee in the past, whether they had been a regular coffee drinker, and how they would change their coffee consumption in the following year, all had an important impact on their WTP for fair trade coffee. Combining with the result that consumers' prior knowledge of fair trade or organic coffee did not have a significant impact on their WTP, this study shows that consumers' WTP is more related to their consumption habits.

Recommendations

As pointed out previously, the coffee market in Indonesia is a potentially high growth market, yet there have been no significant studies addressing consumers' preference and WTP for coffee. Although coffee, including fair trade coffee, is not a primary commodity in Indonesia yet, this study gives an idea of how firms can approach the Indonesia coffee market. First, this study shows that like many other countries, fair trade coffee will likely incur a price premium. In addition, Figure 3 shows that not only were the majority of consumers willing to pay extra for fair trade coffee, there was also a sizeable portion of consumers willing to pay a significant premium (Rp. 5000) higher over the regular price. Coffee marketers should recognize this price premium and adjust their marketing strategies to capture the most profit. Second, the results show that not all consumers would be willing to pay the same amount of price premium for fair trade coffee. Depending on their demographic features and past experience with coffee, consumers may be classified into different groups; each may have a different range of willingness to pay. Marketers can also adopt corresponding marketing strategies to focus on the target groups, while relevant policy makers can use proper management tools to facilitate this rapidly expanding market. An extension of the current study may be to conduct a cluster analysis of consumers to determine market segmentation. Finally, the survey sample consisted primarily of young adults, who currently make up the majority of coffee consumers in Indonesia. As this young generation grows older and has more disposable income at hand, it will not be difficult to imagine a strong growth in Indonesia coffee consumption.

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