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Article

Contingent Valuation Analysis for Conservation of Fungi in Malaysia: Are You Willing to Pay?

Hafiz Rahman [a,*] and Mahirah Kamaludin [a]

[a] Faculty of Business, Economics and Social Development, Universiti Malaysia Terengganu, 21300, Terengganu, Malaysia; mahirah.k@umt.edu.my

* Correspondence: muhdhafizrahman11@gmail.com

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Abstract: In a biological cycle on earth, there are components of life and the environment that interact with each other in carrying out functions to maintain the balance of life on earth. The function of each biotic and abiotic component that makes interactions in the ecosystem could even give a stable life cycle but deforestation that happened was not good for the surrounding, then how much it will cost to reforestation process. In conjunction with the present issue, this study is written to analyze the willingness to pay for the conservation of fungi in Malaysia. This study is designed using the Contingent Valuation Method (CVM). The results obtained after performing the double bond test also showed that the value obtained for the willingness to pay was approximately RM 4.10. In conclusion, this study indicated that the respondents are willing to make additional payments in order to restore the environment, especially the conservation of fungal communities in forest areas.

Keywords: Contingent Valuation Method (CVM); Willingness to Pay (WTP); national park; conservation; fungi.

1. Introduction

In a biological cycle on earth, there are components of life and the environment that interact with each other in carrying out functions to maintain the balance of life on earth (Singh, 2017). According to the Cambridge Dictionary, ecosystem refers to all living things that are in an area and how those components affect each other in the environment. Three basic components make up an ecosystem namely producers, consumers and decomposers. A balanced ecosystem contains two components, namely abiotic (non-living) and biotic (living). The two components will interact and depend on each other in an area of the earth. The components also interact with energy that starts from the sun's energy and will then be passed to the organism through the food chain and the food web (Whitman, 2008). In Malaysia, there are several ecosystems such as marine life ecosystems, tropical rainforest ecosystems and several other forest and swamp ecosystems. This study is more focused on studying forest ecosystems although there are various types of ecosystems found in Malaysia. In a complex forest ecosystem, there are five sub-elements of nature on the living level basically (Margulis, 1992). In general, these five elements are sub-elements to the components of living things (biotic). All the elements of nature will perform their functions.

However, most people in Malaysia only know about the two main elements of nature, namely Animalia and Plantae. Most Malaysians are unaware of the existence of Protista, Fungi and Monera elements in the natural

ecosystem environment as well as the functions of each government itself. This study that will be conducted is more focused on the study of fungal elements or fungi. Based on the understanding of the people in Malaysia, most of them know the mushroom and at the same time do not know that the mushroom is also part of the Fungi element. Therefore, this study also focuses on providing an understanding of the fungus and the mushroom is a life that is very similar to the people in Malaysia in particular. Based on Dewan Bahasa dan Pustaka (DBP), mushrooms refer to several types of leafy and non-rooted plants that multiply quickly (some of which are edible). According to DBP again, fungi are any group of parasitic organisms that do not have chlorophyll, including moulds, fungi, yeasts and others. Based on the definition by DBP for mushrooms and fungi proves significant between fungi and mushrooms because the mushrooms themselves belong to fungi.

There is a lot of importance of fungi to the industrial sector, especially the food industry. One example that can be given is the use of yeast in the food manufacturing industry. Yeast belongs to the Fungal element. It is widely used in the production of locally produced products. For example, the production of bread, tempeh, soy sauce and also products originating from the state of Kelantan, namely Budu. This is because, in the process of producing the food, yeast is used as a catalyst in the fermentation process involved. As the fermentation process progresses, Carbon Dioxide, (CO2) will be released like a bubble which will cause the bread to look fluffy (Moayad, 2018). The fungus is also able to be a platform for locals to generate income for them as well. This is because there are several Small and Medium Industry products in the field of food manufacturing that use fungi to produce a product. The absence of fungi in the ecosystem will likely cause problems for these operators.

In addition, fungi also give importance to the medical world. There may still be audiences who are unaware of the uses or even importance of fungi in the medical world due to the lack of exposure on most media platforms. Fungi can be used as a source in medicine because they have their nutrients. Zhang et al. (2018) gave the view that in the structure of the mushroom itself, there are many nutrients, such as potassium (K), magnesium (Mg) and calcium (Ca) which are used in medicine such as the overcome problem of vomiting and fever. Several types of fungi are used as Antibiotics such as Penicillin and Fusidine Acid (Moayad, 2018). De Frutos et al. (2016) stated that a biochemist who is also a lecturer at Westminister University, London, said that mushrooms have unique benefits and are also suitable for use in conjunction with modern medicine for those undergoing conventional cancer treatment. Many herbal medicines cannot be used in conjunction with modern medicine by doctors because of possible interactions with drugs, but the use of this mushroom is considered safe and has been used by doctors as an adjunctive treatment in Western countries.

There is also some importance of fungi in agrotan crops. Among its importance is that the fungus serves as a decomposing agent in the decomposition of organic matter (dead animals and plants) in the production of compost. In the agricultural sector, most farmers and plantation operators will use fertilizer as a catalyst medium to increase crop yields. Most of them will use chemical fertilizers as fertilizer input. However, the use of chemical fertilizers will disrupt the fertility rate of the soil and of course, the price of chemical fertilizers is more expensive according to the market price. As an alternative and also a more effective measure, the use of compost is one of the steps to overcome the problem. Where this compost can be produced easily by mixing excess household food waste with fallen leaves and coconut fibre. Then, leave the mixture for two to three weeks. It is one of the proactive measures because it can provide more quality and safe fertilizer input and at the same time can save the cost of using chemical fertilizers or petrochemical fertilizers whose prices are soaring in the market.

2. Materials and Methods

Generally, the environment is included in free goods, where there is difficulty in determining the value of an ecosystem. Given that the ecosystem plays several important roles in certain functions has resulted in the environment being very important to ensure its sustainability. To assess the environment is a bit difficult because there is no value specification placed on the environment itself (Liu et al., 2019). As a result, some economic thinkers have developed and established some suitable and more accurate methods to assess the economic value of free goods. Several methods have been established, among them are Hedonic Pricing, Contingent Valuation Method (CVM), and Cost of Travel (TCM) Method. Based on these methods, the researcher will continue this study.

Hedonic Pricing

A study conducted by Brown Jr & Mendelsohn (1984) stated that the hedonic travel cost method is a technique that reveals how much consumers are willing to pay to use economic goods that are difficult to assess such as the environment. The price can be placed after considering some specific aspects that can be directly affected such as the cost of travel involved. Indeed, the demand for environmental functions will inevitably also influence the relative pricing by consumers. This technique is used to assess the number of steelhead fish in Washington waters. The hedonic pricing method will be used to obtain the value of the public land available there (land area) along the way to obtain steelhead fish. By making the distance travelled by fishermen to catch fish up to the end point of fishing. With that too, the price

and quality can be updated. As a result, this price is very suitable for fishermen who live closer to the fishing location because of the shorter distance to the fishing area.

Cost of Travel (TCM) Method

There is a good program for greening urban areas through the Urban Greening Program where the economic value that can be placed on the trees is more appropriate because there is no specific cost for it (Dwyer et al., 1983). Consumers, they need to put a more appropriate fee for them to enjoy the forest area in the city based on the costs involved when they want to enjoy the area. Where such costs can also be utilized to cover funding to implement the program. Travel cost models have been established for three urban forest areas in the Chicago area. Based on the models that have been estimated, most consumers are willing to pay as much as $ 4.54, $ 8.68, and $ 12.71 for each visit session. This information can guide urban forest resource management programs facing capital shortages. In conclusion, by using this TCM evaluation method, it can determine the willingness to pay that can be placed by the user himself.

Contingent Assessment Method (CVM)

Contingent evaluation methods involve the use of survey questionnaires (questionnaires) to obtain the willingness of consumers to pay for (in general) projects or programs related to free goods (Portney, 1994). Based on the name of the method itself has given an idea of the method to be carried out is a contingent (comprehensive) assessment of the environment. Through that too, the study will be an important resource in deciding on the price as it has considered several parties to finalize the appropriate fees to be charged based on their willingness to pay. With that too, is likely to be a debate between consumers and the authorities to put a fair price. Of course, the debate should be stable where, the session should be attended by representatives of consumers, representatives of the authorities, academics and some important members of the community. Next, some issues exist when this willingness to pay study is conducted, as each value placed needs to get approval from the authorities as well even if the issue has been debated. This is so because they have the power to set the value and of course, the valuation is by the law because the value placed needs to be balanced with the economic value released. In general, the debate raises broad questions about what economists say about the values that should be considered in determining the prices of public goods and private goods. The researcher aims to give the best picture of this method as well as recommendations to economists as well as consumers for the common good in assessing the environment.

2.1. Research Design

This study is more descriptive as no special instruments can be used to set environmental prices. Therefore, the survey method will be used to see the level of willingness to pay by each visitor to the nature park. This design is suitable for use given that the sample size of respondents is relatively large, and the data collection period is relatively difficult (Tahir et al., 2010). According to Mohd Majid, the survey method is very suitable to be used in a study that aims to explain a phenomenon that occurs. Therefore, the researcher has made a set of questionnaires that will be distributed to respondents to complete the data collection process.

2.2. Data Source

Data is one of the most important elements in a study. This is because the data will determine the results at the end of the study later. The main data sources are divided into two, namely primary data and secondary data (Ramli, 2011). In this study, the researcher will collect primary data because the raw data was obtained in the early stages of the study and has not been analyzed by any party. Researchers also used secondary data obtained from websites, scientific materials and newspaper clippings. For this study, the researcher has set to collect data from 100 respondents who visited the nature park. The sample size of the respondents is quite large for a study, but it is sufficient for the data analysis process. If a reduction in the sample size of the respondent is done,

2.3. Data Collection Methods

Basically, there are four primary data collection methods, namely questionnaires, observations, interviews and experimental (Idris & Dollard, 2014). Where, among the four methods, the experimental method is rarely used because it is more suitable for use in teaching sessions in the classroom (Tahir et al., 2010)(Ahmad, 2010). In the process of primary data collection, usually, the questionnaire instrument is the most frequently used because it is easier and more suitable to obtain cooperation from respondents (Ramli, 2011). Questionnaires will be distributed to respondents face to face. Each question will be explained by the researcher himself about the purpose of the study and so on to give understanding to the respondents to answer the questionnaire. Typically, the questionnaire will contain the objectives

of the study, research hypotheses and the content of the questionnaire. The form can also contain questions about the background of the respondent such as age, gender, income level and the type of job.

2.4. Data Analysis

Data analysis method is a stage that contains several methods used to analyze the data and draw a conclusion at the end of the study. Based on the theoretical framework that has been created, the most appropriate method of data analysis is quantitative analysis. Where in this study, an analysis is done on the factors influencing the value of willingness to pay that can be issued by the respondents. In this section, all the data that has been collected will be analyzed using several computer software applications such as Microsoft Excel and Stata14. To explain the demographic instrument of the respondents, descriptive statistical techniques will be used to show the demographic distribution more clearly. It will be displayed with various graphs as well as percentages.

2.5. Econometric Model

The formation of a baseline model for this study is important to analyze the relationship between the dependent variables and the independent variables. Where through the model various hypotheses will be created to be tested during the data analysis. In this study, the dependent variable that has been identified is a willingness to pay (WTP) while the independent variable stated is the bid price, knowledge, education and the gender of the respondents. All independent variables will be tested to indicate if there is a relationship with the respondent's WTP.

$$WTP = \beta 0 + \beta 1BID + \beta 2KNW + \beta 3EDU + \beta 4GEN + \mu$$

Where, WTP = Willingness to pay (WTP), BID = Bid price, KNW = Knowledge, EDU = Education, GEN = Gender, β0 = Intercept, β1, β2, β3, β4 = regression coefficients for BID, KNW, EDU and GEN

In Equation 1, the model used is a regression model where the willingness to pay consumers depends on independent variables, namely bid price, knowledge, education and gender. Based on the relationship between all the above variables will be evaluated the level of relationship whether positive or negative. Users will be offered a price of RMX for the entrance fee. Several questions will be asked to the respondents through a questionnaire that will be distributed. Among the questions are "If you as a visitor make an additional payment to the entrance ticket of RMX to manage and conserve the fungus and mushroom community. Are you willing to pay? ". The answer choices are "YES" or "NO" because this question is in the form of an Open-Ended Question. Therefore, respondents have to choose the answer "YES" or "NO". The results from the collected data will show the variability in the probability values obtained. Based on a study conducted by Hanemann et al. (1991).

Prob 1 {YES} = Prob {WTPmax> BID} = 1 - G (BID PRICE; Θ)

Prob 2 {NO} = Prob {WTPmax<BID} = G (BID PRICE; Θ)

Where, BID = The bid price for the admission ticket to be offered, WTPmax= Maximum user WTP level, G (BID, PRICE, Θ) = works on WTP.

In addition, respondents will be asked questions about the value they are willing to put for the price of an admission ticket. Consumers will be asked, "What is the maximum amount of payment you are willing to pay to manage and conserve a fungal and mushroom community?". Roughly speaking, if the price offered is lower than the value of willingness to pay placed by the respondent, it illustrates that the respondent has a high awareness of environmental conservation activities. In addition, the average willingness to pay for each respondent was estimated and analyzed using the model demonstrated by Cameron & Quiggin (1998). The model is as below:

$$\text{Mean WTP} = \frac{\beta 0 + \beta iX}{-\beta 1}$$

Where, β0 = constant, βi = demographic variable, β1 = bid price variable.

Table 1. Bid Price Levels

Ticket Bid Price Offered	Highest Ticket Bid Price	Lowest Ticket Bid Price
RM 2.00	RM 4.00	RM 1.00
RM 4.00	RM 6.00	RM 2.00
RM 6.00	RM 8.00	RM 4.00

RM 8.00	RM 10.00	RM 8.00

Table 1 shows the varying bid price levels. Initially, the ticket price for admission to Taman Alam Kuala Selangor for an adult is RM 4.00. The bidding price starts at RM 2.00, if the respondent answers "YES" then the bidding price increases to RM 4.00 and if the respondent answers "NO" then the bid price becomes RM 1.00. Next, the second bid price offer is RM 4.00 while the highest and lowest price offer is RM 6.00 and RM 2.00. For the third category, the bid price offered is RM 6.00 while the highest and lowest price offered for the third category is RM 8.00 and RM 4.00. For the fourth category, the price offered is RM 8.00, if the respondent answers "YES" the bid price will increase to RM 10.

2.6. Study Hypothesis

Table 2. Expected Variables Affecting WTP

Variables	Description	Direction
Bid Price	The total value placed to be bid by the respondent in finalizing the final value. The higher the bid price, the fewer respondents have to pay.	Positive
Knowledge	Respondent's knowledge of the function and importance of fungi. The higher the knowledge, the higher the WTP.	Positive
Education	The level of education is divided into four, namely primary school, secondary school, institutions of higher learning and others. If the level of education of the respondents is high, then the WTP is also high.	Negative
Gender	The gender of the respondents is divided into two, namely men and women. Women will likely put a high price because of the nature of women who usually like something natural.	Negative

2.7. Definition of Variables

1. Willingness to pay (WTP) is the amount that respondents or visitors are willing to pay at the maximum level. Respondents will determine for themselves the maximum price they are willing to pay to care for and conserve the area.
2. Bid price is an offer of a certain amount of payment or price by a potential buyer for something sold. It is a process of placing a price on something or a desire to be obtained.
3. Knowledge refers to knowledge that is everything that is known or learned about a knowledge. It is also synonymous with the words know, understand and comprehend. The scope of the definition of knowledge is also not very specific because the field of knowledge is quite wide
4. Education refers to the subject or act of educating. For example, the method of educating a person requires a variety of means. This education also has several levels from low level to high level.
5. Gender is sex (either male or female). Scientifically, the measurement of something based on gender is a subjective and unpredictable matter.

3. Results and Discussion

3.1 Respondent Demographic Data

Few indicators contain in the demographic background in this study. As a result of the questionnaire conducted, the number of male respondents is 53 people (53%) while the number of female respondents is 47 people (47%) out of the total number of respondents which is 100 people. Thus, the number of genders for the respondents is quite balanced but males are slightly more than females. In addition, the number of respondents aged 18 to 29 years is the largest, representing 60% of the total respondents. The age range of 30 to 39 years represents 18% of respondents while the rest are respondents aged 40 years and above. It can be concluded that the young represent most visitors to the Kuala Selangor Nature Park.

Besides that, the Malays represent most respondents with a percentage of 79%. There are only 8% of Chinese respondents while the remaining 13% of respondents are Indians. Here it can be concluded that most of the respondents are Malays who are mostly locals in the Kuala Selangor area who come there for recreation. Next, the number of respondents who are still single is more than the number of respondents who are married that is 58% of respondents are single and the rest are married. This may be due to most of the respondents having leisure and recreation with friends in a group. However, some respondents are married and come to have fun with their families, but their young children are not eligible to be respondents.

While the result also showed half of the respondents are government employees and self-employed respondents which is 25% for each item, private employees' respondents are 35%, farmers or fishermen by 4% while the remaining 11% of respondents are factory workers. Here it can be concluded that the number of end users is relatively even based on the type of occupation only farmers/fishermen and factory workers are relatively few. Thus, regarding the educational background, half of the respondents are university graduates, which is 51% of respondents. 27% percent of respondents are college graduates and the remaining 22% of respondents are upper secondary graduates. For items of primary and lower secondary school, graduates were absent both items. This may be due to the location of the nature park located near the city centre of Kuala Selangor which is an economic and social focus and consists of educated people. Thus it can be concluded that the respondents are comprised of educated people even if only upper secondary graduates. Finally, is the respondent income, it can be seen that the percentage of respondents according to income range is quite even is 23% of respondents earning RM 1 - RM 1999, 31% of respondents earning RM 2000 - RM 2999, 19% of respondents earning RM 3000 - RM 3999, 14% respondents for the income range of RM 4000 - RM 4999 while the smallest percentage of respondents for the income range of RM 5000 and above is 13%.

3.2 Visitors' Perception and Knowledge of the importance of fungi to the environment.

3.2.1 Level of Satisfaction with the Management of Kuala Selangor Nature Park

Table 3. Frequency of respondents' satisfaction with nature park management

Scale	Very dissatisfied	Unsatisfied	Not sure	Satisfied	Very satisfied
Frequency	10	12	24	36	18
Percent (%)	10%	12%	24%	36%	18%

Table 3 shows the results of the analysis of the level of satisfaction of respondents with the management of nature parks. The results from the analysis showed that a total of 36 respondents were satisfied and 18 respondents were very satisfied with the management of the nature park. A total of 24 respondents chose the uncertain scale. This may be due to an indifference to the state of the nature park and the development that is being done. The scale of highly dissatisfied and dissatisfied has a total number of respondents of 22 people. Overall, most respondents are satisfied with the management of nature parks that have been done by the government or non -governmental organizations (NGOs).

3.2.2 Importance of Fungal Conservation based on Contribution to Economic Activity

Table 4. Descriptive Analysis for Part C

Bid Price Class Interval (RM)		N	Mean	Std. Dev.	Std. Error	95% CI for Mean	
						Lower Bound	Upper Bound
1.00		20	3,5250	0.51080	0.11422	3.2859	3.7641
2.00		28	3.6321	0.42518	0.08035	3.4673	3,7970
3.00		26	3.6231	0.56022	0.10987	3.3968	3.8494
4.00		26	3.7538	0.44831	0.08792	3,5728	3,9349
Total		100	3.6400	0.48534	0.04853	3.5437	3.7363
Model	Fixed Effects			0.48637	0.04864	3.5435	3.7365
	Random Effects				0.04864a	3.4852a	3.7948a

Table 4 displays the value of willingness to pay placed randomly by the respondents were classified according to 4 class intervals namely class 1.00 (RM 0 - RM 2.40), class 2.00 namely (RM 2.50 - RM 4.90), class 3.00 namely (RM 5.00 - RM 7.40) and class 4.00 namely (RM 7.50 and above). Once the grouping process was completed, the data for each question in sections C (C1 to C10) were tested with each of the class intervals. According to the frequency obtained, there is the highest total mean obtained in the 4.00 class interval of 3.75. Indirectly, most respondents would like to pay a lot more (class 4.00).

3.3 Willingness to Pay Analysis (WTP)

3.3.1 Analysis of Willingness to Pay Among Respondents

Table 5. Distribution of Questionnaires by Bid Price

Bid Price	Frequency	Percentage	Cumulative
RM 2	25	25	25
RM 4	25	25	50
RM 6	25	25	75
RM 8	25	25	100
Total	100	100	100

Based on the number of questionnaires that have been distributed to respondents, a total of 100 respondents were selected to answer this questionnaire (refer to Table 5). All questionnaires were divided into 4 groups according to specific bid price classes. The number of respondents is with the same frequency of 25 respondents for each bid price class. Each questionnaire distributed is in the same proportion for each bid price class because it is to avoid the occurrence of bias when conducting testing.

3.3.2 Analysis of the Relationship between Bid Price Variables and Willingness to Pay

Table 6. Analysis of the relationship between Bid Price Variables and Willingness to Pay

Response	Coef.	Std. Err.	z	P>z	(95% Conf. Interval	
Bid1	0.12	0.05	2.08	0.04	0.01	0.24
_cons	-1.05	0.33	-3.11	0.00	-1.71	-0.40

The first thing that can be assessed based on the results that have been obtained, the bid price variable is significant with the value of willingness to pay (WTP). The relevance that exists allows the test to obtain the value of willingness to pay (WTP) to be conducted. Based on Table 6 above, the relationship that exists between the bid price variable and WTP is positively related at the 5%significance level. In other words, the higher the bid price offered, the higher the amount consumers willingness to pay for the conservation of the affected fungal community.

3.3.3 Analysis of the Relationship between Bid Price Variables, Knowledge, Gender and Education

Table 7. Analysis of the Relationship between Bid Price Variables, Knowledge, Gender and Education

Response	Coef.	Std. Err.	Z	P> | z |	[95% Conf. Interval]	
bid1	0.20	0.07	2.75	0.01	0.06	0.35
knowledge	0.39	0.18	2.10	0.03	0.02	0.76
Gender	-0.64	0.31	-2.07	0.03	-1.26	-0.03
education	-0.55	0.20	-2.69	0.01	-0.95	-0.15

Table 7 displays that all the independent variables that were tested showed significance with the willingness to pay (WTP). According to the probability value of p-value, all of them showed significant values at the significance level of 5% against WTP. The results also show that bid price and knowledge are positively correlated. The bid price is significant but positively related to the willingness to pay at the 5%significance level. This is because the respondents have a high value of love for the environment in each of them. Although the bid price is increasing the respondents remain to make additional payments for conservation purposes. Similarly, the knowledge variable also has a negative value with the willingness to pay but remains significant at the 5%significance level. This is because this willingness to pay is a matter that can be attributed to one's level of knowledge. Having a lot of knowledge will create a spirit of love for the environment then the value of willingness to pay will be released.

In addition, the results also show that gender and education are negatively related to willingness to pay and are significant at the 5%significance level. Gender was significant with the ability to pay but was negatively related. Women are more likely to make extra payments. For education also has a negative value but is significant on the willingness to pay. According to the results obtained, even if a respondent has a high educational background, it is not a reason for the respondent to make additional payments for conservation. This is so because for a person to make additional payments requires a high awareness and love of the environment.

3.3.4 Analysis of Average Willingness to Pay Respondents

Table 8. Analysis of Average Willingness to Pay Respondents

Response	Coefficient	Std. Err.	z	P>z	(95% Conf. Interval)	
WTP	8.50	1.89	4.47	0.00	4.75	12.16

After testing is done on all independent variables on willingness to pay (WTP). Table 8 shows the value of average willingness to pay for this study was also obtained. The average willingness to pay value obtained is RM 8.50. This also shows that the respondents are willing to make an additional payment of RM 8.50 for the purpose of this conservation.

3.4 Analysis of Willingness to Pay by Double Bond

3.4.1 Testing of Bid Price 1 and Price 2 with Willingness to Pay

Table 9. Testing of Bid Price 1 and Price 2 with Willingness to Pay

	Coef.	Std. Err.	z	P>z	(95% Conf. Interval)	
Beta _cons	4.10	0.49	8.37	0.00	3.15	5.08
Sigma _cons	4.46	0.50	8.92	0.00	3.48	5.44

Based on testing of willingness to pay, with double b Beta instructions can be estimated directly. Based on the testing that has been done in Table 9 above, the value of willingness to pay is approximately RM 4.10. After that, testing was also performed on other independent variables.

3.4.2 Double Bond Analysis on Independent Variables

Table 10. Double Bond Analysis on Independent Variables

	Coef.	Std. Err.	z	P>z	(95% Conf. Interval)	
Knowledge	1.01	0.57	1.76	0.07	-0.11	2.12
Gender	-1.19	0.95	-1.25	0.21	-3.06	0.67
Education	-0.81	0.60	-1.33	0.18	-2.00	0.38
Beta _cons	5.98	3.05	1.96	0.05	0.01	11.95
Sigma _cons	4.29	0.48	0.48	0.00	3.35	5.23

Table 10 captures the result of double -bonded testing on other independent variables (knowledge, gender, education). Based on the test results that have been done, the knowledge variable shows a positive and significant relationship to the willingness to pay at the 5%significance level. The variables of gender and education, both variables are not significant with the willingness to pay respondents. This may be due to the educational background possessed by the respondents does not reflect the value of willingness to pay placed and gender cannot influence the respondents 'propensity to make additional payments for environmental conservation.

4. Conclusions

In conclusion, this study identified that the respondents were agreed to pay an additional fee of RM 4.10 approximately. This acquired willingness to pay was also tested with several factors which at the same time were also independent variables in this study. Based on the value of willingness to pay that has been obtained, it can be concluded that there are consumers who are willing to spend a sum of money as added value which the payment can also be included along with the collection of tickets to enter the ecotourism area. Through the value of willingness to pay obtained, the researcher found that the majority of respondents are aware of the current situation that occurs to the environment, which is increasingly destroyed due to economic activities, including national development purposes. With that caring spirit, the respondents were willing to issue a number of additional payments for the purpose of repairing the environment.

Furthermore, it can be ascertained that there are also factors that can influence the value of consumers' willingness to pay. Through the testing conducted, it turns out that the factors that can affect the value of the ability to pay are the factors of bid price, knowledge, gender and education. All these variables were tested with willingness to pay and

showed a significant relationship between the two. For all four variables, there is a positive relationship and a negative relationship on willingness to pay. It turns out that a lot of input can be used through the findings obtained after this study was conducted. All the results that have been obtained can be used for the future either by the government or the public. Similarly, future researchers can also use this study as a reference to overcome the problems that exist. All the proposals proposed can also most likely be raised to the highest level of administration so that together we can do the preservation and conservation of the environment. Apart from that, the researcher hopes that this study can benefit all parties which indirectly also provides additional knowledge to its readers. It is hoped that there will be more studies - environmental studies like this so that more environmental values will be explored and maintained. Finally, the environment is the responsibility of all parties to work together to conserve its resources so that they do not continue to become extinct due to destructive human activities.

The environment is getting worse nowadays. This is because according to the Malaysian Forestry Statistics website, the total area covered by forest in the Peninsula is only 5.76 Million Hectares out of the total area of the Peninsula which is 13.21 Million Hectares. This is also strong evidence as Malaysia also does not want to be left behind in the current development of globalization which is growing rapidly. With the increasing population in Malaysia every year, the demand for settlement areas is increasing and so are employment opportunities. Based on that, it is also what makes the forest area more and more leveled because the right situation requires to do such a thing. Over time, this problem has become more serious and has received attention from the community and the government. Due to that, there is a disturbance to the ecological system and at the same time also a disturbance to other systems. This can clearly be seen in water systems that will be polluted if management is not done better. The root cause of this is due to the actions of human beings themselves who want to do development for their own progress and interests. Therefore, the basic thing that should be done is to increase awareness and knowledge of the community, especially on the importance of the environment which needs to be emphasized again.

It turns out that a lot of input can be used through the findings obtained after this study was conducted. All the results that have been obtained can be used for the future either by the government or the public. Similarly, future researchers can also use this study as a reference to overcome the problems that exist. All the proposals proposed can also most likely be raised to the highest level of administration so that together we can do the preservation and conservation of the environment. Apart from that, the researcher hopes that this study can benefit all parties which indirectly also provides additional knowledge to its readers. It is hoped that there will be more studies - environmental studies like this so that more environmental values will be explored and also maintained. Finally, the environment is the responsibility of all parties to work together to conserve its resources so that they do not continue to become extinct due to destructive human activities.

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