Mangunan Pine Forest Tourism Destination in Dlingo, Bantul, Special Region of Yogyakarta: An Observation of Marketig Mix and Willingness to Pay

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Abstract : This research aimed at identifying the social economic characteristics of the visitors of Mangunan Pine Forest, analyzing the factors of market mixing considered by the visitors of Mangunan Pine Forest, and counting the amount of the visitors' willingness to pay (WTP). The research method was descriptive statistics. The researcher selected the research object by way of purposive technique. The method of judgment sampling was employed for taking data sample which were 100 respondents. Data analysis technique applied was factor analysis, trip cost method, and contingent valuation method. The result showed that the visitors' social economic characteristics were dominated by female visitors, coming from outside of the province of Yogyakarta, age range between 17 – 23 years old, having high educational background that was graduated from university, working as civil servant (*PNS*) or private enterprise, and getting salary between IDR. 1.500,001 – IDR 3,500,000 per month. Then, the result of analyzing the factors of market mixing considered by the visitors were the factor of facility and workers, factor of cost trip, factor of tourism destination, factor of cleanliness as well as security, and factor of additional cost. Furthermore, the result of counting the amount of the visitors' willingness to pay was using the approach of cost trip which was IDR 83,751,396,603 in which the organizer got benefit up to 9.6 %, and the community around the destination gained 90.4%. Whereas, the analysis result of their willingness to pay using *contingent valuation method* was the hypothetical marketing estimation that would produce the biggest total WTP based on bargaining number IDR 3,000 reaching IDR 84,151,717,603 in a year which 10.05% of it was for the organizer of Mangunan Pine Forest and 89.95% was received by the community.

Keywords: Factor Analysis, Pine Forest, Willingness to Pay, CVM, Cost Trip.

1 Introduction

Environmental issues can influence some aspects of commercial activities and have been discussed in several recent years (Jayadevappa, 200). Indonesia is one of countries paying full attention to this issue by way of making regulations about continuous development. One of which is a regulation for continuous agricultural development. Agricultural sector in this country has strategic role in the country's economic. The strategic role is presented by the formation of capital and being the source of the country's exchange as well as being the environment conservation (Rivai and Iwan, 2011).

According to Ginoga et al. (2005), Indonesia's protected forests have important functions for maintaining the world's ecosystem and biodiversity. Based on the Act No. 41 in the Year of 1999, protected forest is defined as forest area which its function is limited for region utilization, environmental service utilization, and harvesting woods. This kind of forest has intangible economic number that is contained in the environmental service. One of the environmental service utilization for forests is making it as a nature tourism destination. Its purpose is to improve humanitarian welfare and still conserve the nature for fulfilling the needs of today as well as future generation.

In the present time, nature tourism has become a brand new trend in the world of Indonesia's tourism. Yogyakarta is one of provinces in Indonesia that has great potential of nature tourism. Based on the data from the Department of Culture and Tourism of the Province of Special Region of Yogyakarta in 2016, the total number of visitors both from inside and outside the country is 6.1 million people (Department of Tourism, 2017). Administratively, the province consists of one city and four regencies. One of the most visited tourism destinations is located in Bantul Regency.

Bantul regency has protected forests which are functioned as tourism destinations. Mostly, it is

located in Mangunan area such as *Puncak Becici, Seribu Batu Songgo Langit, Hutan Pinus Sari, Hutan Pinus Pangger, Hutan Pinus Asri, Bukit,* etc. *Hutan Pinus Sari* is one of the destinations being the most visited place since it is one of the *pioneers* of nature tourism in Mangunan area. Thus, it makes the people call it as *Hutan Pinus Mangunan* or Mangunan Pine Forest.

The management of the environment has double influences on the competitiveness of tourism industry based on nature concept (Huybers and Bennett, 2003). Organizing the nature tourism destination for the sake of developing and competing with other tourism destinations needs the power to catch the people's interest to visit using marketing pattern based on the visitor's social economic characteristics. It is divided into gender, where they come from, age, education level, job, and salary. Meanwhile, in order to know the factors influencing the customers according to Kotler (2000), market mixing is the basic source which includes 7P marketing, i.e. product, price, place, promotion, people, process, and physical evidence.

Organizing the nature tourism also has to pay full attention to the visitors' willingness to pay. The goal is to show a connection between nature conservation and economic development. Thus, economic valuation can be one of important things for improving the society's appreciation and awareness for the environment.

Based on that background explanation, the objectives of the study are 1) identify the visitors' social economic characteristics of Mangunan Pine Forest, 2) identify the factors of market mixing considered by the visitors of Mangunan Pine Forest, and 3) counting the amount of the visitors' willingness to pay of Mangunan Pine Forest

2 Problem Formulation

Basic method used in this research was descriptive statistics (Junaiyah and Zaenal, 2010). The research took place in Mangunan Pine Forest located in Dlingo, Bantul, Yogyakarta which was considered using technique of purposive sampling (Sugiyono, 2012).

The total number of population that cannot be known can use 100 samples (Slamet, 2006). The types of data were qualitative data and quantitative data whereas the data source was primary data as well as secondary data. The data collection techniques were

observation, documentation, interview, and questioner. The methods applied for analyzing the data were (1) descriptive statistic analysis which was used for analyzing the social economic characteristics and perception of the visitors about the condition of Mangunan Pine Forest and (2) factor analysis which was used for analyzing the factors of marketing mix that was preceded by validity test and questioner. According to Simamora (2005), linier combination from input variables is presented by equation:

$$F_j = b_{j1}X_{s1} + b_{j2}X_{s2} + b_{j2}X_{s3} + b_{j2}X_{s4} + b_{j2}X_{s5} + b_{j2}X_{s6} + b_{j2}X_{s7} + b_{j2}X_{s8} + b_{j2}X_{s9} + b_{j2}X_{s10} + b_{j2}X_{s11} + b_{j2}X_{s12} + b_{j2}X_{s13} + b_{j2}X_{s14} + b_{j2}X_{s15} + b_{j2}X_{s16} + b_{j2}X_{s17} + b_{j2}X_{s18} + b_{j2}X_{s19} + b_{j2}X_{s20} + b_{j2}X_{s21} + b_{j2}X_{s22} + b_{j2}X_{s23} + b_{jk}X_{sk}$$

Abbreviations:

F1   = score of factor j
B1   = coefficient of factor j
Xsk   = variable k which is already standardized

(3) Analysis of trip cost for knowing the amount of the visitors' willingness to pay of Mangunan Pine Forest based on the real market. According to Sanim and Sigema (1996), the willingness to pay can be formulated as follows.

$$WTP = P.Q$$

Abbreviations:

WTP   = willingness to pay
P   = price
Q   = quantity

(4) Contingent valuation method (CVM) was used for counting the visitor's willingness to pay of Mangunan Pine Forest based on hypothetical market (Hanley and Spash, 1993). The steps for applying CVM were building the hypothetical market, considering the number of bid with Bidding Game, and counting the number of WTP using the formulation proposed by Sanim and Iman (1996).

$$WTP = P.Q$$

Abbreviations:

W   = willingness to pay
P   = price
Q   = quantity

3 Problem Solution

3.1 History of Mangunan Pine Forest Tourism Destination

Since the forest was opened, the community around the forest area was allowed to organize the area as

farmers. Then, they were taught by the Department of Forestry and Plantation as forest farmer community or known as *KTH (Kelompok Tani Hutan)* that was affiliated for producing honey bee. However, that activity was not completely done which made the farmers stop it. At that time, the pine forest was already visited by many people, and even some criminals happened there such as robbing motorcycle, mobile phone, camera, and many other things. More than that, immoral things also happened inside the forest. Thus, that condition made some parties sad. Because of that, the people who used to be the farmers of honey bee started to manage parking area inside the forest under the supervision of the Head of RPH Mangunan. The beginning activities there were started around February 2011 and then were officially opened in February 2017.

3.2 General Condition of Mangunan Pine Forest Tourism Destination

Mangunan Pine Forest tourism destination is located in the area of protected forests managed by RPH Mangunan especially in Mangunan village and the rest is located in Muntuk village, Dlingo Sub district. This tourism destination is in the hill area where the condition is still natural and many types of plantations still exist. Overall landmass of the protected forests in RPH Mangunan is 570.7 Ha and divided into 7 blocks i.e. *Blok Terong (42.3 Ha), Blok Sudimoreo I (97.2 Ha), Blok Sudimoro II (108.3 Ha), Blok Sudimoro III (102 Ha), Blok Gumelem (83.5 Ha), Blok Kediwung (97.6) Ha),* and *Blok Ceme (39.8 Ha).* Moreover, the landmass that can be functioned for tourism destination is only 57 Ha (10%).

3.3 Respondents' Social Economic Characteristics

The respondents' characteristics influence individual behavior in considering places to be visited as well as taking riskiness. The visitors' characteristics in this research are based on gender, where they come from, age, education background, job, and salary. The understanding of the visitor's characteristics is very important since it can help the management for knowing the segment of market that will be served, knowing the visitors' behaviors toward the destination, and assisting the management for making regulations and service appropriately. The

respondents of this research are 100 visitors of Mangunan Pine Forest.

Table 1. Domination of the visitors of Mangunan Pine Forest

Characteristics	Category	Percentage
Gander	Female	58%
Where they come from	Outside Yogyakarta Province	66%
Age	17-23 years old	41%
Education background	University	64%
Job	Civil servant / employee of private enterprise	41%
Salary	IDR 1,500,001 -3,500,000	33%

Source: Primary Data Analysis, 2018

The visitors of Mangunan Pine forest have some different considerations one another. The differences can be seen from several things such as the information source about the tourism destination, frequency of visitors in the last recent year, transportation that can be used, time of the trip, and time that is spent for enjoying Mangunan Pine Forest tourism destination.

Table 2. Domination of information about the visitors of Mangunan pine forest tourism destination.

Characteristics	Category	Precentage
Information source	Social/printed media	58%
Total number of visitor in a year	once	65%
Transportation	Personal car	57%
Time of trip	1-3 hours	38%
Duration	1-3 hours	50%

Source: Primary Data Analysis, 2018

3.4 Analysis of Market Mixing Factors

The data test was done using the method of analysis the factors by way of software SPSS 23.0. The steps of data analysis need the previous testing that should be done first that is validity test and then reliability

test for knowing the validity and accuracy of the data.

3.4.1. Validity Test

This test was done by taking 30 respondents as the sample for finding the r count value based on the score of Corrected Item-Total Correlation and for the r table value with the score of n 30 is 0.361. Each variable should show that r count value > r table. According to Table 3, it can be seen that each variable is valid. Thus, the points inside question construction can be declared as suitable for defining the variable and then can be continued to the next analysis.

Table 3. Validity Test of Questioner

Variabel	r Hitung	Keterangan
X1 Condition of tourism destination	0,650	Valid
X2 Cleanliness of tourism destination	0,601	Valid
X3 Security of tourism destination	0,549	Valid
X4 View of tourism destination	0,430	Valid
X5 Transportation cost	0,532	Valid
X6 Retribution	0,572	Valid
X7 Parking fee	0,683	Valid
X8 Fee of stot photos	0,448	Valid
X9 Cost of food and beverages	0,569	Valid
X10 Assurance cost	0,622	Valid
X11 Toilet fee	0,842	Valid
X12 Officer performance	0,637	Valid
X13 Officer service	0,672	Valid
X14 Officer knowledge	0,543	Valid
X15 Officer behaviour	0,667	Valid
X16 Public facility completeness	0,566	Valid
X17 Public facility condition	0,516	Valid
X18 Parking area	0,502	Valid
X19 Easiness of accessing location	0,440	Valid
X20 Direction	0,564	Valid
X21 Location lay out	0,563	Valid
X22 Community relationship	0,383	Valid
X23 Promote frecuncy	0,369	Valid

Source: Primary Data Analysis, 2018

3.4.2 Reliability Test

This research used reliability test of *Cronbach Alpa's*. If the score of Cronbach Alpa's >= constant (0.6), thus the question is considered as reliable, and if the score of Cronbach Alpa's < constant (0.6), thus the question is considered as not reliable (Oktavia, 2015). Based on Table 4, it can be said that the result of testing the reliability shows that the score of Cronbach Alpa's >= constant (0.6) that is 0.895. Therefore, it can be concluded that the variable of the instrument in this research is reliable.

Table 4. Reliability test of the Questioner

Cronbach's Alpha	N of Item
0,895	23

Source: Primary Data Analysis, 2018

3.4.3 Factor Analysis

This research needed four times of testing because in the first test, the score of Measure of Sampling Adequecy (MSA) that was resulted in one of the variables was less than 0.5 which was in the variable of location lay out. Then, the second test as well as the third test, the result of the score of communalities was less than 0.5 which was in the variables of the easiness of accessing the location, direction, promote frequency, and public facility completeness. The fourth test did not result the score of MSA as well as communalities which was less than 0.5. Therefore, the test could be continued to the next step. The result of the last factor analysis test can be seen below.

(1) Test of Kaiser Mayer Olikin (KMO) was done for measuring the appropriate amount of sampling comprehensively and counting sampling adequacy for every variable with the determiner score of KMO-MSA should be more than 0.5 (Hidayat, 2014). The following is the score of KMO and Barlett Test used in this research.

Table 5. Test of Kaiser Mayer Olikin (KMO)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.823
Bartlett's Test of Sphericity	Approx. Chi-Square	997.511
	Df	253
	Sig.	.000

Source: Primary Data Analysis, 2018

Based on Table 5, the score of KMO is 0.836 > 0.5. It means that the process of factor analysis can be continued.

(1)   The next testing was counting the worthiness of every variable using MSA with the consideration that the score of anti image correlation is more than 0.5 (Roduwan, 2013).

Table 6. Anti Image Correlation

Variable	*Score of Measure of Sampling Adequency*
X1	,899
X2	,697
X3	,741
X4	,814
X5	,846
X6	,833
X7	,857
X8	,793
X9	,815
X10	,794
X11	,913
X12	,860
X13	,892
X14	,890
X15	,872
X17	,856
X18	,834
X22	,750

Source: Primary Data Analysis, 2018

Based on Table 6, it can be concluded that each variable has score more than 0.5. Thus, all of the

variables can be said to be worth for the next analysis.

(2) Considering the score of Communalities which was used for knowing how a variable can define a factor.

Table 7. Score of Communalities

Variable	*Initial*	*Extraction*
X1	1.000	.609
X2	1.000	.831
X3	1.000	.782
X4	1.000	.594
X5	1.000	.707
X6	1.000	.706
X7	1.000	.622
X8	1.000	.620
X9	1.000	.721
X10	1.000	.710
X11	1.000	.661
X12	1.000	.680
X13	1.000	.733
X14	1.000	.663
X15	1.000	.687
X17	1.000	.537
X18	1.000	.636
X22	1.000	.617

Source: Primary Data Analysis, 2018

By looking at Table 7, it can be seen that the score of communalities is more than 0.5 which means that the variables can be continued. (3) The following test was done by looking at the score of total variance explained. The explanation is presented below.

Table 8. Score of Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*
1	6.918	38.434	38.434	6.918	38.434	38.434	3.330	18.502	18.502
2	1.645	9.139	47.573	1.645	9.139	47.573	2.766	15.366	33.868
3	1.372	7.623	55.196	1.372	7.623	55.196	2.404	13.358	47.226
4	1.138	6.321	61.517	1.138	6.321	61.517	1.853	10.295	57.521
5	1.045	5.807	67.323	1.045	5.807	67.323	1.764	9.803	67.323
6	.804	4.469	71.792						
7	.709	3.936	75.729						
8	.685	3.806	79.535						
9	.596	3.311	82.846						
10	.567	3.150	85.996						
11	.542	3.012	89.008						
12	.418	2.324	91.332						
13	.396	2.203	93.535						
14	.301	1.670	95.206						
15	.263	1.462	96.667						
16	.227	1.261	97.929						
17	.210	1.164	99.093						
18	.163	.907	100.000						

Source   :   Primary   Data   Analysis,   2018

According to Table 8, this research resulted five basic factors with the score of eigenvalue is more than 1. (4) Then, the score of Rotated Component Matrix with consideration that the score of factor loading is more than 0.5. Below is the result of Rotated Component Matrix.

Table 9. Score of Rotated Component Matrix

Variable	Component				
	1	2	3	4	5
X18	**.771**	.081	.161	.035	-.089
X13	**.753**	.313	.164	.093	.182
X12	**.743**	.096	.103	.204	.258
X15	**.660**	.281	.187	.368	.051
X14	**.608**	-.004	.256	.285	.383
X17	**.519**	.430	.283	.047	-.030
X6	.122	**.802**	-.080	.140	.148
X5	.193	**.774**	.204	.077	.154
X7	.211	**.700**	.239	.172	.017
X8	.037	**.554**	.191	-.010	.524
X22	.328	-.030	**.699**	.045	.136
X9	.249	.224	**.685**	-.088	.364
X4	.074	.243	**.665**	.261	-.137
X1	.176	.152	**.615**	.419	.027
X2	.276	.067	.030	**.850**	.162
X3	.140	.287	.383	**.730**	-.011
X10	.077	.094	-.037	.085	**.829**
X11	.369	.346	.303	.102	**.550**

Source: Primary Data Analysis, 2018

Based on Table 9, it can be concluded that what kinds of variables being included in the basic factors. The variables have the score that is more than 0.500. The basic factor 1 includes variable X18 (parking area), X13 (officer service), X12 (officer performance), X15 (officer behavior), X14 (officer knowledge) and X17 (public facility condition). The basic factor 2 consists of variable X6 (retribution fee), X5 (trip cost), X7 (parking are) and X8 (fee for photo spots). The basic factor 3 includes variable X22 (the community relationship), variable 9 (cost for food and beverages), X4 (view of the destination), and X (condition of the destination). The basic factor 4 consists of variable X2 (the cleanliness), and X3 (the security). The basic factor 5 consists of variable X10 (insurance fee), and X11 (toilet fee).

Those basic factors are new factors that are produced and resulted from the factor analysis which was done. The name of the factor is based on one of the variables which have the highest factor loading (Amanda, 2009). The naming was done if there is no possibility that giving a name for a factor can represent all of the variables that lead to the factors.

According to Tavle 10, the result of factor analysis using 23 variables can be simplified into 18 variables and include the five basic factors with the total variant percentage is 67.323%.

Table 10. Result of Factor Analysis

Factor	Name of Factor	% of Variance	Cumulative Total Variance (%)	Variable in core factor	Factor Loading	Eigenvalue
1	Facility and officer	38,434	38,434	X18	0,771	6,918
				X13	0,753	
				X12	0,743	
				X15	0,660	
				X14	0,608	
				X17	0,519	
2	Visit fee	9,139	47,573	X6	0,802	1,645
				X5	0,774	
				X7	0,700	
				X8	0,554	
3	Tourism destination	7,623	55,196	X22	0,699	1,372
				X9	0,685	
				X4	0,665	
				X1	0,615	
4	Cleanliness and security	6,321	61,517	X2	0,850	1,138
				X3	0,730	
5	Additional cost	5,807	67,323	X10	0,829	1,045
				X11	0,550	

Source: Primary Data Analysis, 2018

Therefore, the factors influencing the visitors to visit Mangunan Pine Forest are facility and officer, visit fee, tourism destination, cleanliness and security, and additional cost. There is one variable that is the most influencing the visit which is the factor of cleanliness and security with the variable of cleanliness is in the highest score of factor loading that is 0.850%.

3.5 Analysis of Willingness to Pay
3.5.2 Method of Cost Trip

Counting the willingness to pay using cost trip can be done by software Microsoft excel. The costs that are counted in this research are trip cost, retribution fee of the ticket, fee of photo spots, cost of food and beverages, insurance fee, toilet fee, and other costs. The table below is the data of the visitors in 2017.

Table 11. Data of visitors of Mangunan pine forest in 2017

Month	Total
January	-
February	63.500
March	52.367
April	81.742
May	95.861
June	16.502
July	138.012
August	64.797
September	67.538
October	69.083
November	42.992
Desember	108.248
Total	**800.642**

Source: Secondary data, 2018

There was no visitor in January 2017 because in this month, Mangunan pine forest was still in the step of building. Thus, there was no visitor that was officially recorded from the management. In February 2017, Mangunan pine forest was officially opened and its law was based on *Koprasi*.

Table 12. WTP of the visitors in Mangunan Pine forest in 2017 using the analysis of trip cost.

Cost tipe	Price (IDR)	WTP (IDR)	Presentage (%)
Trip cost			
Singletrip	50.250	16.897.549.410	20,2
Multitrip	109.785	50.981.119.543	60,9
Retribution fee	2.500	2.001.605.000	2,4
Parking cost	3.880	3.106.490.960	3,7
Cost for food and beverages	9.765	7.818.269.130	9,3
Toilet cost	1.150	920.738.300	1,1
Other	2.530	2.025.624.260	2,4
Total	**179.860**	**83.751.396.603**	**100**

Source: Primary Data Analysis, 2018

Table 12 shows that the visitors' willingness to pay in 2017 is Rp. 83.751. 603. The willingness to pay is resulted based on the counting of total number of cost which is multiplied with the total number of visitors in the previous year using the formulation proposed by Sanim and Sigema (1996).

The visitors are dominated by visitors with multitrips that is 58% whereas singletrip is only 42%. The domination of multitrips may be caused by the existence of some other tourism destination in the area of Mangunan. Thus, there are a lot of visitors that come to other destinations.
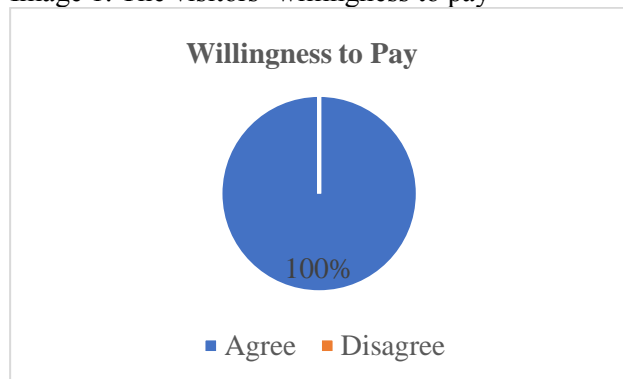
Not all of the cost and fee from the visitors are received by the management, but also received by the community around the destinations. The benefits for the management are retribution fee, parking fee, toilet cots, and other costs which is only 9.6% and the rest 90.4% is gained by the community.

3.5.2 Contingen Valuation Method (CVM)

Contingen Valuation Method (CVM) was used for analyzing the willingness to pay based on particular scenario which was functioned to give direction for respondents. It was done in order to make them understand the environmental situation that will be achieved in hypotetical market that was a nature destination which was still natural and well treated.

Based on the scenario made by the researcher, it can be concluded that 100 respondents state that they agree with the effort for conservation of Mangunan Pine Forest. The following diagram is based on the 100 respondents who are already given an offer about their willingness to pay the retribution as an effort for conservation.

Image 1. The visitors' willingness to pay

Willingness to Pay

100%

■ Agree ■ Disagree

Source : Primary Data Analysis, 2018

The consideration for the bidding score uses the method of bidding game in which the score is started with the lowest offer up to the highest offer. Based on the information given by the ticketing officers, the present price of the ticket is Rp 2000 and Rp 500 for the insurance fee. Therefore, the total retribution fee that should be paid by the visitors is Rp. 2.500. For considering the lowest offer, the researcher increased 50% from the present ticket fee which is from Rp. 2000 into Rp. 3000. Then, for considering the highest offer, the researcher increased up to 900% that is Rp. 20.000. The insurance fee is not increased since it is assumed that it is already inside the retribution fee. Counting the WTP uses the formulation proposed by Sanim and Sigema (1996) in which the total of WTP is gained from all of the changing costs and

retribution fee based on the score of bidding and other costs which are stagnant.

Therefore, based on the Table of the biggest acceptance TWTP in the hypothetical market in a year is in the score of bidding that is Rp.3.000,00 resulting Rp. 84.151.717.603,00 in which Rp. 8.454.799.520,00 (10%) is received by the management of Mangunan pine forest and the rest Rp. 75. 696. 938. 083, 00 (89.95%) is received by the community.

Based on the score of bidding from Rp 20.000,00 up to Rp. 3.000,00 results increasing number of the visitors who have the willingness to pay the retribution from 5% of the visitors up to 100% visitors. It means that the lower the bid, the higher number of visitors who have the willingness to pay. The increasing or decreasing of service demand influences the change of the price of its product.

In line with the law of demand stating that " the lower the price, the higher total number of products that are demanded, and vice versa, the higher the price, the lower the total number of demanded products" (Dian, 2017). Determining the bidding score which will be used in hypothetical market that is done by the researcher by way of choosing the bidding score which is Rp. 3000,00. This is based on the increasing TWTP without being followed by decreasing the total number of visitors. Thus, it can minimalize the loss for some parties which is in line with the law of pareto improvement.

Table 13. Visitors' WTP of Mangunan pine forest in 2017 using CVM.

Biding value	% Responden	Retribution fee	Single Trip of Transpost Cost	Multi Trip of Transport Cost	Parking cost	Cost of food and beverage	Toilet Cost	Others	WTP
(Rp)	(%)		Rp 50.250	Rp 109.785	Rp 3.880	Rp 9,765	Rp 1.150	Rp 2.530	(Rp)
3,000	100	2,401,926,000	16,897,549,410	50,981,119,543	3,106,490,960	7,818,269,130	920,738,300	2,025,624,260	84,151,717,603
4,000	83	2,658,131,440	14,024,966,010	42,314,329,220	2,578,387,497	6,489,163,378	764,212,789	1,681,268,136	70,510,458,470
5,000	82	3,282,632,200	13,855,990,516	41,804,518,025	2,547,322,587	6,410,980,687	755,005,406	1,661,011,893	70,317,461,314
6,000	28	1,345,078,560	4,731,313,835	14,274,713,472	869,817,469	2,189,115,356	257,806,724	567,174,793	24,235,020,209
7,000	28	1,569,258,320	4,731,313,835	14,274,713,472	869,817,469	2,189,115,356	257,806,724	567,174,793	24,459,199,969
8,000	28	1,793,438,080	4,731,313,835	14,274,713,472	869,817,469	2,189,115,356	257,806,724	567,174,793	24,683,379,729
9,000	26	1,873,502,280	4,393,362,847	13,255,091,081	807,687,650	2,032,749,974	239,391,958	526,662,308	23,128,448,097
10,000	26	2,081,669,200	4,393,362,847	13,255,091,081	807,687,650	2,032,749,974	239,391,958	526,662,308	23,336,615,017
11,000	8	704,564,960	1,351,803,953	4,078,489,563	248,519,277	625,461,530	73,659,064	162,049,941	7,244,548,288
12,000	8	768,616,320	1,351,803,953	4,078,489,563	248,519,277	625,461,530	73,659,064	162,049,941	7,308,599,648
13,000	8	832,667,680	1,351,803,953	4,078,489,563	248,519,277	625,461,530	73,659,064	162,049,941	7,372,651,008
14,000	8	896,719,040	1,351,803,953	4,078,489,563	248,519,277	625,461,530	73,659,064	162,049,941	7,436,702,368
15,000	7	840,674,100	1,182,828,459	3,568,678,368	217,454,367	547,278,839	64,451,681	141,793,698	6,563,159,512
16,000	5	640,513,600	844,877,471	2,549,055,977	155,324,548	390,913,457	46,036,915	101,281,213	4,728,003,180
17,000	5	680,545,700	844,877,471	2,549,055,977	155,324,548	390,913,457	46,036,915	101,281,213	4,768,035,280
18,000	5	720,577,800	844,877,471	2,549,055,977	155,324,548	390,913,457	46,036,915	101,281,213	4,808,067,380
19,000	5	760,609,900	844,877,471	2,549,055,977	155,324,548	390,913,457	46,036,915	101,281,213	4,848,099,480
20,000	5	800,642,000	844,877,471	2,549,055,977	155,324,548	390,913,457	46,036,915	101,281,213	4,888,131,580

Source: Primary Data Analysis, 2018

4. Conclusion

Based on the research result and discussions, several conclusions can be gained as follows:

(1) The visitors' social economic characteristic of Mangunan Pine forest is dominated by female visitors up to 58%. Visitors coming from outside Yogyakarta province are 68%. The visitors' age range is between 17 up to 23 years old 43%. The background of education of the visitors is 64% graduated from university. The visitors' job as civil servants and employee of private enterprise is 42%, and their salary per month around Rp. 1.500.001 up to Rp 3.500.000 is 33%.

(2) The result of factor analysis shows that from 23 variables, it can be produced five basic factors being considered by the visitors to visit Mangunan Pine Forest. These five factors are facility and officers, visit cost, destination object, cleanliness as well as security, and additional cost.

(3) The result of the visitors' willingness to pay with cost trin in Mangunan Pine forest in 2017 is Rp. 83.751.396.603,00. Then, 9.6% of it is received by the management of the destination and the rest 90.4% is received by the community. Meanwhile, the result of the visitors' willingness to pay based on contingent valuation method (CVM) in the forest using hypothetical market would produce total WTP in its biggest score based on bidding value Rp. 3000,00 us Rp. 84.151. 717. 603. 00 in a year. 10.05% of it is received by the management while the rest 89.95% is received by the community.

Based on the research and its discussion, the researcher gives several suggestions for the management of Mangunan pine forest, they are:

(1) The management of Mangunan pine forest should give more attention for those mentioned five basic factors being considered by the visitors such as by improving the best service for the visitors, maintaining the price, beautifying the destination's view, keeping the security, cleanliness, and the worthiness of the tourism destination.

(2) The management of Mangunan pine forest could increasing the retribution from Rp. 2500 to Rp. 3.000 as the effort for the environment conservation done by keeping its environment clean.

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