

CHAPTER V

RESULT AND ANALYSIS

A. Research Variable Statistics Description

Based on research that has been done about Willingness to Pay the visitors of Pangandaran beach so the result of research variables statistics description are:

TABLE 5.1
Variable Statistics Description

Variables	Definition	Mean	Max	Min	Standard Deviaton
WTP	Willingness to Pay	19375.00	60000	1000	15162.496
Age	Age	28.94	58	15	10.998
Edu	Last Education	11.99	16	6	2.359
Inc	Income	4116000.00	20000000	300000	4524589.830
Br	Recreation fee	233610.00	625000	30000	141182.141
Fk	Visit Frequency	2.91	8	1	1.609

Source: primary data processed

Based on table 5.1 from 100 respondents the high willingness to pay (WTP) is IDR.60.000,00 and the lowest willingness to pay is IDR 1.000,00. The average willingness to pay is IDR 19,375,00 with standard deviation is IDR 15.162,496, with a standard deviation lower than average so its mean the data distribution of respondents answer about willingness to pay (WTP) is good.

From the data above respondent with the oldest age is 58 years old and respondent with the youngest age is 15 years old. The average of age is 28 years old with standard deviation is 10.998. Standard deviation that is lower than the average show that the distribution of data about age is good.

According to Table 5.1 explains the high last education is S1 or the length of education is 16 years, while the lowest education is elementary school with the length education is 6 years the. From 100 respondents, the average education level is 11.99 or can be said last average of education is Senior High School. Standard deviation value of last education variable is 2.359, which means that the average value of the last education is higher than the standard deviation, so it can be said that the data distribution of respondents answer about last education is good.

In Table 5.1 can be seen that the income level variable where the average income level of the respondents is IDR 4.116.000,00 where the

majority of respondents is a entrepreneur and students, or working as a civil servant and private employee. The highest income level is IDR 20.000.000,00 and the lowest is IDR 300.000,00. The standard deviation value of income level is 4.524.589,830 which means that the value of the average level of income is lower than the standard deviation, so it can be said that the data distribution of respondents answer about income level is not good.

In Table 5.1 from 100 respondents the average of recreation fee is IDR 233.610,00. The highest total recreation fee of 100 respondents is IDR 625.000,00 and the lowest of totalrecreation fee is IDR 30.000,00. The lowest recreation fee is incurred by respondents who live close from Pangandaran Beach attractions. Standard deviation value of this variable is 1441182.141 which mean that the average value of recreation fees higher than the standard deviation, so it can be said that the data distribution of the respondents answer about recreation fee is good.

In Table 5.1 from 100 respondents the average of visit frequency is 2.91. The highest visit frequency from 100 respondents is 8 times and the lowest of total visit frequency is 1 time. The highest visit frequency is incurred by respondents who live close from Pangandaran Beach attractions. Standard deviation value of this variable is 1.609 which means that the average value of visit frequency is higher than the standard deviation, so it can

be said that the data distribution of the respondents answer about visit frequency is good.

B. Classical Assumptions

1. Multicollinearity Test.

Multicollinearity test was used to test whether among the independent variables are used, it correlation or not. Multicollinearity is a state where there is a linear relationship between the perfect or near the independent variables in the regression model. A regression model is said to have multicollinearity if there is a perfect linear function in some or all of the independent variables in a linear function. And the results are difficult to get influence between independent and dependent variables.

How to determine the presence or absence of multicollinearity is by looking at the value of Variance Inflation Factor (VIF) and Tolerance, if VIF is less than 10 and tolerance more than 0.1 so its means there is no multicollinearity (Priyatno, 2013).

TABLE 5.2
The Value of Tolerance and VIF

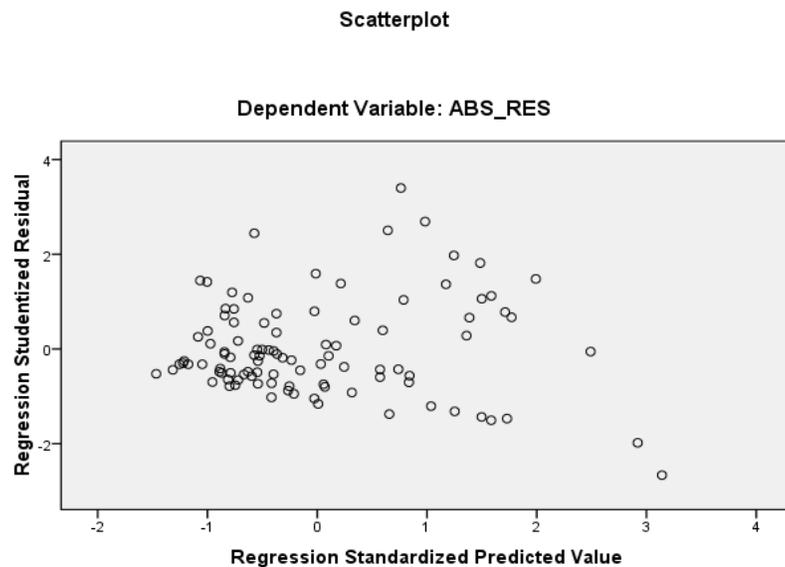
Variable	Definition	Colinearity Statistics	
		Tolerance	VIF
Age	Age	0.717	1.395
Edu	Last Education	0.860	1.163
Inc	Income	0.647	1.546
Br	Recreation Fee	0.725	1.379
Fk	Visit Frequency	0.948	1.055

Source: Primary data processed

Based on table 5.2 can see there is no independent variables that have tolerance value under 0,1 its mean there is no correlation between independent variables. Based on the result of Variance Inflation Factor (VIF) show that there is no independent variables that have VIF value less than 10 so its mean there is no multicollinearity between independent variables in regression model.

2. Heteroskedasticity Test

Heteroskedasticity is a situation where there is inequality variant of residuals for all observations in the regression model. To detect the presence or absence heteroskedasticity is see a pattern of dots on the scatterplots regression. If the points spread with no apparent pattern above and below the number 0 on the Y axis then there is no problem heteroskedasticity (Ghozali, 2016).



Source: Primary data processed

FIGURE 5.1

Scatterplot

Heteroskedasticity test results can be seen in the image Scatterplot Regression output, it can be seen that the points spread with no apparent pattern above and below the number 0 on the Y axis, so it can be concluded that there was no heteroskedasticity in regression models.

Another way to test heteroskedasticity is test Glejser. Glejser test is done by regress the variables independent of the absolute value of the residual. Residual is the difference between the value of the variable Y with the value of the variable Y is predictable, and the absolute is absolute values (all positive values). If the value of the significant between

independent variable and the absolute residuals greater than 0.05 means there is no problem of heteroskedasticity (Ghozali, 2016).

TABLE 5.3
Glejser Test

Variables	Sig
Age	0.503
Edu	0.415
Inc	0.227
Br	0.154
Fk	0.316

Source: Primary data processed

Based on table 5.3 show that the value of significant from all independent variables are more than 0.05 so we can conclude that there is no heteroskedacity in this regression model. So the regression model is fit for use.

3. Normality Test.

Normality test on the regression model was used to test whether the residual value is normally distributed or not. A good regression model is one that has residual value that is normally distributed.

Way to detect it is to see the spread of the data on the source of the diagonal on the graph Normal P-P Plot of regression standardized as the basis for decision making. If spread around the line and follow the diagonal line, the regression model has been normal and proper to be used to predict the independent variable and vice versa(Ghozali,2016).

Normal P-P Plot of Regression Standardized Residual

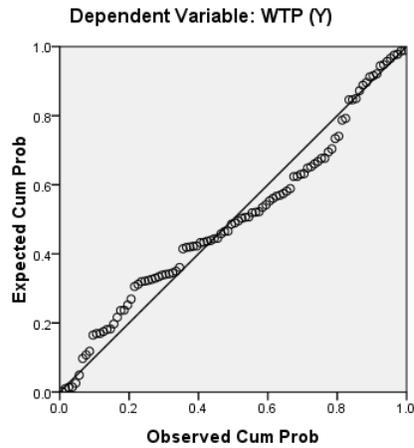


FIGURE 5.2
P-P Plot Regression

Normality test results can be seen in the image output Regression Chart Normal P-P Plot. It can be seen that the points spread around the line and follow the diagonal line, the regression model has been normal.

Another way is by using normality test One Sample Kolmogorov Smirnov test. The test criteria are as follows:

- If the value Significance (2-tailed Sig Asym) > 0.05, then the normal distribution of data.
- If the value Significance (2-tailed Sig Asym) \leq 0.05, then the data are not normally distributed.

TABLE 5.4
Normality Test

Statistic	Unstandardized Residual
Kolmogrov-Smirnov Z	0.909
Asymp,sig,(2tailed)	0.381

Source: Primary Data Processed

From the table 5.3 show that the value of Asymp.sig.(2tailed) is 0.381 its mean the value more than 0.05 so the residual is normally distributed.

C. The Regression Estimation Result.

Regression analysis is model that use in this research and the model in this research is formulated as follows:

$$Y = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Edu} + \beta_3 \text{Inc} + \beta_4 \text{Br} + \beta_5 \text{Fk} + e$$

Where:

WTP = Willingness To Pay

β_0 = Intercept

β_1, \dots, β_5 = Regression Coefficient

Age = Age

Edu = Education

Inc = Income

Br = Recreation Fee

Fk = Visit Frequency

TABLE 5.4
Regression Result

Variables	Full Model		Fit Model	
	Coefficient	t-stat	Coefficient	t-stat
Constant	-12897.978	-1.934	-10574.634	-2600
Age (Age)	541.319	4.453	544.508	4.507
Last Education (Edu)	228.016	0.441	-	-
Income (Inc)	0.001	2.610	0.001	2.604
Recreation Fee (Br)	0.019	2.010	0.020	2.317
Visit Frequency (Fk)	2223.403	3.077	2225.870	3.094
	R-Squared	0,476	R-Squared	0.475
	F-Statistic	17.095	F-Statistic	21.502
	Prob F-Stat	0.00	Prob F-Stat	0.00

Source: Primary data processed

Based on the result of regression from table 5.4, in fit model column show that last education (Edu) is out from regression model and not influencing willingness to pay (WTP). While the others variable that effecting willingness to pay (WTP) are Age (Age), Inc (income level), Br (recreation fee) and Fk (visit Frequency).

D. t Test (Variable Interpretation)

1. Age Variable.

Null hypothesis (H_0) state that age is significantly not influence Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. Alternative hypothesis (H_a) state that age is affecting willingness To Pay (WTP) the visitors of Pangandaran Beach attractions.

Based on the degrees of freedom (df) 100-5-1 and the significance

is 5 percent ($\alpha = 0.05$) obtained $t_{table} 1.986$. The decision making criteria are:

- H_0 is accepted and H_a is rejected if $t_{value} < t_{table}$ or the level of probability > 0.05
- H_0 is rejected and H_a is accepted if $t_{value} > t_{table}$ or the level of probability < 0.05

Based on table 5.4 show that the value of t_{value} or t_{stat} of Age variable is 4.507 and the probability of age is 0.00 its mean less than the value of significance 5% ($\alpha = 0.05$). So the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted, its mean the age variable is influencing Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. When the age variables increase one year so it will increase Willingness To Pay (WTP) IDR 4.507 with assumption another variable is constant.

2. Income level.

Null hypothesis (H_0) state that age is significantly not influence Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. Alternative hypothesis (H_a) state that age is affecting willingness To Pay (WTP) the visitors of Pangandaran Beach attractions.

Based on the degrees of freedom (df) 100-5-1 and the significance is 5% ($\alpha = 0.05$) obtained $t_{table} 1.986$. The decision making criteria are:

- H_0 is accepted and H_a is rejected if $t_{\text{value}} < t_{\text{table}}$ or the level of probability > 0.05
- H_0 is rejected and H_a is accepted if $t_{\text{value}} > t_{\text{table}}$ or the level of probability < 0.05

Based on table 5.4 show that the value of t_{value} or t_{stat} of income level is 2.604 and the probability of age is 0.011 its mean less than the value of significance 5% ($\alpha = 0.05$). So the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted, its mean the income level variable is influencing Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. When the income level variables increase one rupiah so it will increase Willingness To Pay (WTP) IDR 2.604 with assumption another variable is constant.

3. Recreation Fee.

Null hypothesis (H_0) state that age is significantly not influence Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. Alternative hypothesis (H_a) state that age is affecting willingness To Pay (WTP) the visitors of Pangandaran Beach attractions.

Based on the degrees of freedom (df) 100-5-1 and the significance is 55 ($\alpha = 0.05$) obtained t_{table} 1.986. The decision making criteria are:

- H_0 is accepted and H_a is rejected if $t_{\text{value}} < t_{\text{table}}$ or the level of probability > 0.05

- H_0 is rejected and H_a is accepted if $t_{\text{value}} > t_{\text{table}}$ or the level of probability < 0.05

Based on table 5.4 show that the value of t_{value} or t_{stat} of recreation fee is 2.317 and the probability of age is 0.023 its mean less than the value of significance 5% ($\alpha = 0.05$). So the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted, its mean the recreation fee variable is influencing Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. When the recreation fee variables increase one rupiah so it will increase Willingness To Pay (WTP) IDR 2.317 with assumption another variable is constant.

4. Visit frequency.

Null hypothesis (H_0) state that age is significantly not influence Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. Alternative hypothesis (H_a) state that age is affecting willingness To Pay (WTP) the visitors of Pangandaran Beach attractions.

Based on the degrees of freedom (df) 100-5-1 and the significance is 5% ($\alpha = 0.05$) obtained t_{table} 1.986. The decision making criteria are :

- H_0 is accepted and H_a is rejected if $t_{\text{value}} < t_{\text{table}}$ or the level of probability > 0.05
- H_0 is rejected and H_a is accepted if $t_{\text{value}} > t_{\text{table}}$ or the level of probability < 0.05

Based on table 5.4 show that the value of t_{value} or t_{stat} of visit frequency is 3.094 and the probability of age is 0.03 its mean less than the value of significance 5% ($\alpha = 0.05$). So the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted, its mean the visit frequency variable is influencing Willingness To Pay (WTP) the visitors of Pangandaran Beach attractions. When the income level variables increase one time so it will increase Willingness To Pay (WTP) IDR 3094 with assumption another variable is constant.

E. F Test

F statistic is use to know the influence of independent variables on dependent variables with togetherness. Null hypothesis state that in togetherness age, income level, recreation fee and visit frequency not influencing Willingness To Pay (WTP) the visitor of Pangandaran Beach attractions. Alternative hypothesis state that in togetherness age, income level, recreation fee and visit frequency influencing Willingness To Pay (WTP) the visitor of Pangandaran Beach attractions.

Based on the degrees of freedom (df) 100-5-1 and the significance is 5% ($\alpha = 0.05$) obtained $F_{\text{table}} 2.311$. The decision making criteria are:

- H_0 is accepted and H_a is rejected if $F_{\text{value}} < F_{\text{table}}$ or the level of probability > 0.05
- H_0 is rejected and H_a is accepted if $F_{\text{value}} > F_{\text{table}}$ or the level of

probability < 0.05

Based on table 5.4 show that the value of F statistic or F_{value} is 21.502 where F-statistic or F_{value} is greater than F_{table} 2.311 and the probability of F-statistic is 0.00 its mean less than the value of significance 5 percent ($\alpha = 0.05$). So the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted, its mean that age, income level, recreation fee and visit frequency in togetherness influencing Willingness To Pay (WTP) visitors of Pangandaran Beach attractions.

F. R^2 Test (Determination Coefficient)

Based on table 5.4 conclude that the regression model in this research is $WTP = -10574.634 + 544.508\text{Age} + 0.001\text{Inc} + 0.020\text{Br} + 2225.870\text{Fk}$. Based on table show that R square is 0.475 its mean age, income level, recreation fee and visit frequency influencing Willingness To Pay (WTP) 47.5% and 52,5% is influencing by another factors outside from this research or study.

G. Discussion

1. The Influence of Age Variable on Willingness To Pay (WTP).

Based on primary data that has been processed, show that age is positively influence on Willingness to pay (WTP) visitors of Pangandaran Beach Tourism. When age is increasing one year it will increase Willingness To Pay (WTP) with assumption another factors is constant. This condition it is because more increase age the way people's thinking

more wide.

This research is supported by research that has been done by Nugroho (2012), that explains age is positively influence on Willingness To Pay (WTP) for improvement of villages tourism in Sleman Regency. And this research also supported by research that has been done by Amanda (2009) that explain age is positively influence on Willingness To pay (WTP) in improvement of environmental quality of Pangandaran Beach Tourism.

The result of this research is not supported by research that has been done by Kartika (2014), that explain age is negatively influence on Willingness To pay (WTP) the visitors of Keraton Yogyakarta heritage for improvement preservation of heritage in Special Region of Yogyakarta.

2. The Influence of Last Education on Willingness To Pay (WTP).

Based on primary data that has been processed, show that last education is positively influence on Willingness to pay (WTP) visitors of Pangandaran Beach Tourism but last education variable is not significant. When last education is increasing one year it will increase Willingness To Pay (WTP) with assumption another factors is constant.

This research is supported by research that has been conducted by Fadilah (2011) who explained that last education is positively effect on

willingness to pay a visitor to pay for travel packages in ecotourism waterfall Curug Nangka in Bogor. This is because a person who had a longer study, usually have a wide mindset, so it may take a longer feel for the benefits of tourism packages.

3. The influence of level Income on Willingness To Pay (WTP).

Based on primary data that has been processed, show that income level is positively influence on Willingness to pay (WTP) visitors of Pangandaran Beach Tourism. When income level is increasing one rupiah it will increase Willingness To Pay (WTP) with assumption another factors is constant. The income level of a person's influence to make decision for refreshing and travel and more willing to pay for improving environmental quality. Visitors who have high levels of income will be more willing to spend some extra money for the development of Pangandaran Beach attractions. For those more expensive price is not a problem, as long as the environmental quality of Pangandaran Beach attractions can be maintained and become better. Improving environmental quality in tourism area is very important not only from the manager of Pangandaran Beach, but also for the visitors must preserving for environmental.

The results of this study supported by previous research that has been conducted by Andita (2015), explains that income level is positively influence on willingness to pay (WTP) for improved health services BPJS

Class III. In addition, research that has been conducted by Sari (2015), explains income level has positively influence on willingness to pay (WTP) for pay the new rates of economic long-distance trains, assuming an improvement in the quality of service.

4. The Influence of Recreation Fee on Willingness To Pay (WTP).

Based on primary data that has been processed show that recreation fee is positively influence on Willingness To Pay (WTP) with assumption another factors is constant.

The results of this study supported by previous research that has been conducted by Majid (2008), explains that recreation fee is positively influence on willingness to pay (WTP) for improved environmental in Situ Babakan Tourist Object, Srengseng Sawah Central Jakarta.

5. The Influence of Visit Frequency on Willingness To Pay (WTP).

Based on primary data that has been processed show that visit frequency is positively influence on Willingness To Pay (WTP) with assumption another factors is constant.

Results of this study supported by previous research that has been conducted by Majid (2008), explains that Visit Frequency is positively influence on willingness to pay (WTP) for improved environmental in Situ Babakan Tourist Object, Srengseng Sawah Central Jakarta.

6. Willingness To Pay and Consumer Surplus.

Based on primary data by asking the 100 respondents, obtained a total willingness to pay for a visitors of Pangandaran Beach attractions IDR 1.973.500,00. Where that amount influenced by age, income levels, recreation fee and visit frequency. The average value (mean) of the 100 respondents' willingness to pay is equal IDR 19.375,00.

The consumer surplus is the difference between the amount paid by consumers for goods and services with a willingness to pay (willingness to pay). The ménage of Pangandarn Beach set the admission price IDR6.000,00. Total consumer surplus is the total willingness to pay reduced admission price paid by 100 visitors or the respondents. Based on research results from 100 respondents the total consumer surplus amounted $\text{IDR}1.973.500,00 - (100 \times \text{IDR}6.000,00) = \text{IDR}1.373.500,00$, with the average consumer surplus per person is $\text{IDR}19.375,00 - \text{IDR}6.000,00 = \text{IDR}13.375,00$.

Based consumer surplus count can be explained that the 100 respondents in this study are willing to pay more. This means it can be used as input for tourism managers of Pangandaran Beach and the government to raise the levy of admission. The admission price may be increased up to a maximum equal to average of consumer surplus. But with the increase, it must also be accompanied by improved quality of Pangandaran Beach attractions getting better. With the increase in quality

provided by tourism managers of Pangandaran Beach, expect a lot of visitors who will come to enjoy the beauty of Pangandaran Beach.

7. Tourism Industry: The Effect on Local Government Revenue.

The development of the tourism industry especially coastal tourism is one of the efforts made by local governments in effort to develop tourist resorts that attract tourists to visit. Moreover Pangandaran Regency is an area directly adjacent to the Indian Ocean, because of that Pangandaran rich of coastal tourism. Pangandaran Regency is located in the southeast province of West Java is a lot of coastal areas and coastal tourism, both of which have been managed well until that has not been managed well and still quiet. The development of coastal tourism has benefits in terms of economies include the availability of jobs and increase incomes of the population around the beach.

Pangandaran Beach is one of the unique coastal tourism and crowded in the district of Pangandaran. Based on the research that has been done, community participation, especially visitors can was measured using the willingness to pay of visitors in an effort to improve the environment in Pangandaran, either by way of maintenance, repair, and tourism development. Willingness To Pay visitors in efforts to improve environmental quality Pangandaran Beach attractions are influenced by age, income level, recreation fee and visit frequency. Willingness To Pay can determine the level of one's maximum willingness to goods and

services including tourism, government or manager can raise the levy the admission of the value of the average willingness to pay of visitors. An increase in levy admission tickets can then be used for the repair, maintenance, and development of these attractions.

Research conducted that measure the willingness to pay of tourists and people around the Beach attractions, so the local government or the managers were able to make improvements, improvement, maintenance, and development of tourism. With these efforts to attract tourists to visit, if many travelers who visit it will increase regional revenue.

Based on research Prasetyo (2011), the number of tourists has positive influence on local government revenue in Karanganyar. Which explains that the number of tourists has positive influence on local government revenue in Surakarta. So, with the increasing number of tourists coming, it will increase local government revenue.

Department of Tourism Industry Trade Cooperation and Small Medium Enterprises of Pangandaran district notes that the local government revenue from tourism in this area throughout 2016 exceeded the target charged that amounted IDR 6.032.500.000,00 and exceeded IDR 6.047.910.5500,00. Local government Revenue in the tourism sector amounted IDR 6.047.910.550,00 largely contributed by Pangandaran Beach that amounted IDR 4.328.200.000,00. In Pangandaran Beach which is has large contribute to the local government revenue its mean the

local government should continue to do promotion and improvement the quality of coastal attractions that will make the tourist of Pangandaran Beach increase.

Given the Pangandaran Beach attractions has the potential to be expanded and will bring more tourists, therefore the Government or managers need to take care of and improve environmental quality of tourist attractions. Along with the increase in tourist arrivals, the number of regional revenue also will gradually increase. Because of Pangandaran Beach attractions can contribute significantly to the regional revenue for local governments revenue.