

CHAPTER III

RESEARCH METHODOLOGY

A. Research Subject

Objective of this research is the visitors of Lakey beach. This study is conducted in Dompu regency, West Nusa Tenggara province. This ressearch is began from July until August 2017.

B. Data Types

The types of data used in this study are:

1. Quantitative data is data formed figures such as data on the amount of travel cost, individual income, number of visits, years of education, time required, and age.
2. Qualitative data is data used to complement and explain and strengthen quantitative data so that it can provide convenience in analyzing the data being studied.

Based on data sources, the data used in this study can be grouped into:

1. Primary data is data obtained directly from sources related to research on the state of tourism in Lakey beach. Data obtained from interviews with respondents in the form of the manager, and filed questionnaires to tourists at the location of the object. Based on interviews and

questionnaires, the research can determine the conditions in developing green tourism on Lakey beach and strategies in developing green tourism in Dompu Regency.

2. Secondary data is data obtained from the second party processing or publication of other parties. The secondary data used were obtained from the relevant agencies with this research from the Dompu City Tourism Department, the Central Bureau of Statistics, which is related to tourist visit data, government policy data concerning tourism, geographical condition, topography, and demography, socio-culture, economic condition. In addition, data are also obtained from various literature books, journals, and internet sources.

C. Sampling Technique

Random sampling method is a method of sampling that gives equal opportunity for each element or member of the population to be elected as a random sample. The advantages of this sampling method is very easy sample selection, sample selection unit is one of a kind, misclassification can be avoided simply by picture outline of the population and a sample design the most simple and easy. The samples used in this research object is using random sampling method.

Due to the number of visitors of natural tourism object in Dompu Regency is not known yet, the sample in this research use incidental random sampling technique, that is sample research technique based on chance, anyone

who accidentally met with the researcher and according to as data source, it can be used as sample. According Sugiyono (1997) said that the definition of the sample is part of the number and characteristics possessed by the population.

The sample in this research is by using the formula of Slovin namely:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = number of samples to be studied

N = Population

e = per cent leeway carefully situations due to lack of sampling error is still tolerated (set at 10%)

$$\begin{aligned} n &= \frac{N}{1 + Ne^2} \\ &= \frac{1431214}{1 + 1431214 (10\%)^2} \\ &= 99,99 \text{ or } 100 \end{aligned}$$

So, from the sample of respondents to tourists in this study obtained 100 respondents.

D. Data Collection Technique

In this research the data collection technique used is by:

1. Literature study that is one of the way to get information or data with reading some literature or journal that related with the problem that is being sought.
2. Documentation means search Finding and collecting existing data, whether in books, magazines and newspapers, the Department of Tourism and Culture, BPS or data available on the Internet and other sources that related to this research.
3. Interview technique is how to collect data by interviewing respondents directly to be sampled to obtain the required data by distributing a list of questions to respondents who have prepared before.
4. Questionnaire technique is a structured question form given to the respondent in accordance with the research problem.

E. Definition Of Operational Research Variables

1. Research Variables

Variables used in this study are dependent and independent variables.

Dependent variable is the factors influenced by independent variable. While the independent variable is the factor that influence the dependent variable.

Dependent variable used in this research is number of visits.

2. Operational Definition

The operational definition describes the method used by the researcher to measure the variables to be used. Many of the above-mentioned variables used in this study are as follows:

a) Number of Visits

This variable is a dependent variable in this study. The number of tourist visits is the frequency of visits to the Lakey beach in Dompu Regency.

b) Travel Cost (TC)

The cost of travel is the total cost incurred by visitors of the tourist objects. The cost of this trip involves the costs incurred visitors include the cost of return transportation, the cost of parking, entrance fee, consumption fees, and other expenses incurred during travel and tour in the tourist attraction.

c) Education (Edu)

The education referred to in this study is the years of education that has been reached by visitors of related attractions.

- 1) Elementary School = 6 years
- 2) Junior High School (Junior High School) = 9 years
- 3) Senior graduate (Senior High School) = 12 years
- 4) Graduate Diploma = 15 years
- 5) Bachelor degree graduate = 16 years

d) Income (Inc)

The rate of income in the study is the amount of income per month received by tourists or respondents who have worked and earned. In this study, for student and student respondents their income level is pocket money received per month. The size of the income will affect the amount of expenditure.

e) Variable time required is the amount of time that visitors need on their way from a tourist residence to the tourist object.

f) Age is the unit of time that measures the time of existence of an object or a living thing. In this study the age in question is the age of visitor attractions.

g) Perception of Respondents (Persp)

Respondent perception in this research is visitor perception to natural beauty and all means of infrastructure of tourist location, starting from road to tourist location, transportation, until facility which provided by managers like parker facility, food place, toilet, and place of worship. Variable perceptions use a score of the sum of seven items of respondents' perception questions. The scale used in the respondent's variabel is Likert scale.

F. Hypothesis Test and Data Analysis

In this research, the number of tourist visit in Dompu Regency is estimated by using the Travel Cost Method which includes return trip transportation from residence to tourist object, consumption cost, parking fee, entrance fee, toilet entrance fee, and Miscellaneous expense. In addition, this study uses the method of Contingent Valuation Method that is survey method directly ask the visitors about Willingness to pay for the development and preservation of tourism object in Dompu Regency. The Contingent Valuation Method is capable of measuring the value of a good that is not in the market. This method can determine the maximum level of willingness to pay and enough to provide clear information about the goods to the beneficiaries. Primary data processing using computer software SPSS 15 and Microsoft Excel 2007. So that it can simplify look at the willingness of visitors to pay attractions (Willingness to pay) in order to maintain natural attractions so that it remains sustainable.

1. Regression Analysis

Regression analysis is a method used to analyze the relationship between variables. The relationship can be expressed in terms of the equation connecting the bound variable Y with one or more independent variables X_1, X_2, \dots, X_n . In the regression analysis, the pattern of relationships between variables is expressed in a regression equation that is supposedly based on sample data.

This research uses multiple regression analysis method, with quantitative qualitative data approach. To analyze the amount of data of individual visits to tourism object in Dompu Regency that is influenced by the cost of travel to tourism object, years of education, income, time required, and visitor age visitor perception are formulated as follows:

$$\text{Visit} = f(\text{TC}, \text{Edu}, \text{Inc}, \text{Time}, \text{Age}, \text{Persp})$$

Information:

Visit : Number of Visits

TC : Traveling Cost of tourist attractions in the form of transportation costs, consumption costs, entrance fee, parking fees, toilet entrance fees, and other expenses.

Edu : The last education respondents

Inc : Average Income (allowance) visitors per month

Time : the time it takes to a tourist attraction

Age : visitor age

Persp : Perception of respondents

E : Error Term

From the above formulation, the model for multiple regression analysis using quantitative qualitative data approach is as follows:

$$\text{Visit} = \beta_0 + \beta_1\text{TC} + \beta_2\text{Edu} + \beta_3\text{Inc} + \beta_5\text{Time} + \beta_6\text{Age} + \beta_7\text{Persp} + e$$

2. The classical assumptions test

In order to draw conclusions based on regression results the equation model must be free of classical assumptions. The classical assumption test used in this research consisted of multicollinearity test and heteroscedasticity test.

a. Multicollinearity test

In the beginning, multicollinearity means the existence of a perfect or definitive linear relationship (correlation), among some or all of the explanatory variables of the regression model. Precisely the term multicollinearity refers to the existence of more than one definite linear relationship and the term of collinearity with respect to the existence of a linear relationship. But this distinction is rarely noticed in practice, and multicollinearity with respect to both cases (Gujarati, 2003).

Multicollinearity test aims to test whether the regression model found a correlation between independent variables (Independent). A good regression model should not be correlated among independent variables. If independent variables are correlated, these variables are not orthogonal. The orthogonal variable is an independent variable whose correlation value among the independent variables is equal to zero (Ghozali, 2002).

Test for the presence or absence of multicollinearity is done by using the VIF test (Gujarati, 2003). If a free variable has $VIF < 10$, then the independent variable does not experience multicollinearity with other independent variables.

b. Heteroscedasticity test

The heteroscedasticity test aims to test whether in the regression model there is an unequal Variance of the residual one observation to the other. If the Variance of the residual one observation to another observation remains, then it is called homoscedasticity and if different is called heteroscedasticity. A good regression model is homoscedasticity or no heteroscedasticity (Ghozali, 2002).

Detection of presence or absence of heteroscedasticity can be done by Park test, Glejser test, White test. In addition, heteroskedastisitas test can be done by looking at the plot graph between the predicted value of dependent variable (ZPRED) with residual SRESID. Detection of whether or not heteroscedasticity can be done by looking at the presence of a particular pattern on the scatterplot chart between SRESID and ZPRED where the Y-axis is predicted Y, and the X-axis is the studentized residual (Y prediction–Y) that has been studentized (Ghozali, 2006).

3. Hypothesis Test

a. T test

Test t is a form of partial regression coefficient test used to determine the influence of each independent variable in influencing the change of bound variable. In this test it is assumed that other independent variables are in constant state. The t test uses the following hypothesis:

$$H_0: \beta_i = \beta$$

$$H_1: \beta_i \neq \beta$$

β_i is the independent coefficient variable to-I it is as the value parameter of the hypothesis. B the value of t is greater than t table, then H_0 is rejected. This shows that the independent variables influence to the dependent variable. Coefficient t formulated as follows:

$$t_{hitung} = \frac{(\beta_i - \beta)}{sb}$$

Where:

β_i = Free Coefficient to-i

β = Hypothesis Value is Zero

Sb = The standard deviation of the independent variable to-i

b. F test

F test is a test together to determine the influence of independent variables to the dependent variable. F test can be obtained by comparing F statistic with f table at certain level and certain degrees of freedom. This test is done with the following formula:

$$f_{hitung} = \frac{R^2 / k}{(1-R^2)/(n-k-1)}$$

Where:

R^2 = Coefficient of Determination

k = number of parameters assumed

n = number of samples

When $F_{hitung} > F_{table}$ then at a certain level of confidence H_0 accepted, means together independent variables do not significantly affect the dependent variable.

c. R^2 test

Determination R^2 is used to measure the proportion of variation of variables described by the independent variables;

$$R^2 = \frac{\frac{\sum e^2}{N-K}}{\sum y^2 (N-1)}$$

The value of R^2 is located $0 \leq R^2 \leq 1$. The closer to 1, the better the model. Coefficient of determination is to know how big percentage of independent variable to dependent variable expressed in percentage form.

4. Consumer Surplus

According to Nichoson (2002), the consumer surplus is the value an individual receives for consumption that exceeds what is paid or the value one is willing to pay to obtain the right to consume something at the current price. Consumer Surplus/CS for linear demand function can be formulated as follows (Fauzi, 2006)

$$CS = \frac{\text{mean } V^2}{2\beta}$$

CS : Consumer Surplus

V : Average number of visits

β : Coefficient of travel cost

5. Calculation of Economic Valuation

In this study to calculate the economic valuation used the method of individual travel costs (Individual Travel Cost Method), namely by calculating the value of consumer surplus per individual per year.

To calculate the value of consumer surplus, use the formulation as follows:

$$TCS = CS \times N$$

TCS : Total Consumer Surplus

CS : Consumer Surplus

N : Population 1 year