CHAPTER III

OBJECT AND RESEARCH METHODOLOGY

3.1 Objects Research

According Sugiyono (2009:38) understanding of the research object is an attribute or the nature or value of a person, object or activity that has certain variations which are set by the researchers to be learned and then drawn conclusions.

Here, the objects research are students of SMA BPK PENABUR Tasikmalaya grade 1-3.

3.2 Research Methods

The research method is a way to be able to grasp an object of research to guide researchers to the sequences of how research is conducted that includes techniques and procedures used in the study

The method used is descriptive method that the author of a literary portrait of the actual state of the object under study, according to the actual situation at the time of the study directly.

3.3 Population and Sample

According to Sugiyono, the population means generalization region consists of: objects / subjects that have certain qualities and characteristics are determined by investigators to be studied and then drawn conclusions (Sugiyono, 2010:80).

So the population is not only people but also objects and natural objects to another. Population is also not just the amount present in the object / subject studied, but includes characteristics / properties owned by the subject or the object.

Sample new research may be carried on the subject in a state where the population is completely homogeneous.

According to Sugiyono (2010), sample is part or the number and characteristic possessed by the population. When a large population, and

researchers may not learn all that there is in the population, e.g. because funds limitation, manpower and time, the researchers will take a sample of the population. What is learned from the samples, the conclusion will be applied to the population. The samples are taken from the population to rigorously representative (Sugiyono, 2010).

3.3.1 Population

The population is a region consisting of generalization, objects or subjects that have certain qualities and characteristics are determined by the researchers to learn and then drawn conclusions. (Sugiyono 2010: 72). In this study, the respondents are students of SMA BPK PENABUR Tasikmalaya. It is hoped that the results of this study provide a clearer picture about the judgment of students in choosing a school.

3.3.2 Sample

There are 259 students in SMA BPK PENABUR Tasikmalaya now. The writer used Slovin formula that is:

n = N/ (1+Ne2)

in which

e = margin error 5%

n = sample

N = population

So, when it is counted=

n = N/ (1+Ne2)

= 259 / (1 + 259 (0,05)2)

= 259 /2,65

= 97,7

So, for this, the writer will use 100 students as sample. The 100 respondents are pit from three grades available based on the percentage of the amount of students. So, they are from grade X, XI, and XII. Then, it is put from sex identity male in female in random.

3.4 Operational Variables

For operational variables, this research will use Service Quality Dimensions that has been researched by Parasuraman, Zeithaml, and L. Berry (2009). There are five dimensions that are tangibles, reliability, responsiveness, assurance, and empathy.

Independent variables (independent variables) in this study are overall those dimensions that consist of products, place, price and promotion.

Dependent variable (dependent variable) in this study is a decision to choose SMA BPK PENABUR Tasikmalaya field as a place to get an education (Y), the overall effort or action from students directly choose SMA BPK PENABUR Tasikmalaya as a place to study.

Then it will be presented for a clearer operational definitions of independent variables and the dependent variable are described in Table 3.1 below which will also be described on each of the indicators that support the independent variable and dependent variable and will be determined that there are types of measurement scale.

It can be described like this:

Table 2.2

Influence of 7 P's

Variable	Definition	Indicator	Measurement
Product (X1)	Overall offer and the services that provide benefits to all students in SMA BPK PENABUR Tasikmalaya.	Good curricula, accreditation, brand image	Ordinal
Place (X2)	It is a location and strategic place of SMA BPK PENABUR Tasikmalaya.	Near public facilities , near from home, safe	Ordinal

Price (X3)	Overall financial that is issued for students to study in SMA BPK PENABUR Tasikmalaya.	Reachable payment, conditional tuition, scholarship	Ordinal
Promotion (X4)	Overall effort is made by SMA BPK PENABUR Tasikmalaya give information to the students to know their services.	Annual big event, school visit, open school	Ordinal
People (X5)	The whole of the individual help / contribute for all of operational going well.	qualified teachers, qualified administration officers, qualified non administration officers,	Ordinal
Process (X6)	Overall process activities in SMA BPK PENABUR Tasikmalaya.	registration, learning, payment	Ordinal
Psychical Evidence (X7)	Overall evidence can be seen from the school	Modern building, sport arena, labs	Ordinal
Student's Decision (Y)	Efforts or actions of students who are directly / not to choose SMA BPK	Initiative need, finding information, information	Ordinal

	PENABUR Tasikmalaya as a place to study.	evaluation, right decision, psychology effect	

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3.5 Sources and Types of Data

Sources of data used in this study:

1) Primary sources are the data obtained from the first of the individual sources such as interviews or filling questionnaire (Umar 2009:130). The type of data is obtained directly from the results of questionnaires to the community and parents.

2) A secondary source is the data that has been further processed and presented by both primary data collection or by others (Umar 2009: 130) such as, data on the number of students , historical data and a new student in the SMA BPK PENABUR Tasikmalaya.

The type of data used in this study is quantitative data. Quantitative data is data in the form of numbers that can be calculated systematically (Sugiyono 2010: 14), such as data gender, education and employment

3.6 Data Collection Techniques

Data collection methods used in this study is using questionnaire. Questionnaire data collection technique is done by set of questions that are covered and must be filled in by the respondent by way of choosing one alternative answers available.

3.7. Research Instruments

Sugiyono (2010: 86) states that the Likert scale is used to measure attitudes, one's opinion about social phenomena. All variables used in this study were measured using a Likert scale of 1 to 5 for the responses.

3.7.1 Test Validity

According to Sugiyono (2010), the valid and reliable instrument means a measuring tool used to get the valid data. Valid means the instrument can be used to measure what it is supposed measured. While the instrument is reliable means when used to measure many times will result in the same data.

Testing the validity and reliability of the instrument will then be calculated using SPSS (Statistical Packed for Social Science). Sugiyono (2010) argues "If the validity of any answer obtained when provided a list of questions is greater than 0.30 then the questions considered as valid ".

3.7.2 Test Reliability

Reliability or reliability conducted to determine the extent to which the questionnaire can give different results when measured return on the same subject at different times. The questionnaire is a reliable questionnaire which, if attempted repeatedly to the same group will result in the same data with the provisions of Cronbach alpha greater than 0.60, (Simamora, 2009: 177).

According to the Court (2005:72) Reliability (reliability) is a measure of the stability and consistency of the respondents in answering the issues related to constructs that question is a variable dimension and arranged in a form of questionnaire.

In this study the reliability testing using Cronbach Alpha approaches to the

$$r^- \alpha = \frac{k \ r^-}{1 + (k-1)r^-}$$

Description:

$r^- \alpha$: Cronbach alpha reliability

k : Number of items in scale

r^- : The average correlation among items

r^- : If the value of Cronbach alpha> 0.60, then the instrument is said to reliable, otherwise if <0.60, is said to be reliable.

With using sample 30 students and managed data by SPSS 16, got the result as follow:

Table 3.3

The result of instrument:

Variable	Alpha	Conclusion
Products	0, 888	Reliable
Place	0, 888	Reliable
Price	0, 834	Reliable
Promotion	0, 901	Reliable
People	0,876	Reliable
Process	0,854	Reliable
Psychical Evidence	0,812	Reliable
Student's Decision	0, 814	Reliable

3.8 Data Analysis

To determine the effect of the product, place, price, and promotion to the decision of choosing SMA BPK PENABUR Tasikmalaya, then used multiple regression analysis with the following equation:

$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

Where:

Y = Student Decision

a = constants

β_1 = coefficient of variable X1

β_2 = coefficient of variable X2

β_3 = coefficient of variable X3

β_4 = coefficient of variable X4

X1 = Product (Program)

X2 = Place

X3 = Price

X4 = promotion

e = Standard error (error rate)

Hypothesis Testing criteria are:

Ho: Product, place, price, promotion, people, process and psychical evidence are not a positive influence on student's choice to enter SMA BPK PENABUR Tasikmalaya.

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To test the significance of these factors together against the decision of choosing SMA BPK PENABUR tasikmalaya, used test formula F (Sugiyono, 2010), namely:

$Fh = (R^2 / k) / ((1 - R^2) / (n \ k \ 1))$

Description:

R^2 = coefficient of multiple correlation

k = number of independent variables

n = Number of sample members

In the F test, with a confidence level (confidence interval) 95% or $\alpha = 0.05$ if the calculation of significant F value is smaller than $\alpha = 0.05$ then Ho rejected and Ha is accepted, it means that the independent variables-variables it is together have a significant effect on the dependent variable.

Conversely, if a significant F value is greater than $\alpha = 0.05$ then the Ho accepted and Ha rejected, this means that the independent variables it together not have a significant effect on the dependent variable.

To test the significance of these factors partially on student's choice on SMA BPK PENABUR Tasikmalaya, used test formula t, (Sugiyono, 2010), that is:

$$t = \frac{rp.\sqrt{n-2}}{\sqrt{1-rp^2}}$$

Description:

rp = partial correlation found

n = number of samples

t = t count is then compared with the t table.

If the results of the t test with a confidence level (Confident Interval) of 95% or α = 0.05 t value significantly smaller than α = 0.05 then Ho is rejected.

3.9. Classical Assumption Testing

3.9.1 Normality Test Data

Testing this hypothesis using non-parametric statistics because the data to be tested ordinal form. Therefore Santoso (2010), states that "to determine whether the data were normally distributed or or near-normal and normal is considered biased, if the bias will be tested Plot normality, which is a test using PP-Plot Graph ".

Testing normality normality test data using the Plot basis for decision making PP-plot graphs see that if a data distribution looks clustered around the test line that leads to right up and no data located far away from the distribution of the data. Thus the data is said to be normal bias.

3.9.2 Multicollinearity Test

In multiple linear regression problems besides the above test also there should be related Multicollinearity testing, because it is bias can affect whether or not the conclusion of a multiple regression analysis.

Multicollinearity is an event that informs the relationship between the independent variables and the relations are quite large. This case will cause the significance of the estimated regression coefficients obtained.

3.9.3 Test Heterocedastisity

Another serious problem that may arise in the Multiple Regression Analysis is heterocedastity. This arises when the assumption that the variance of the factors tool is constant for all the independent variables that are not being met. If the variance is not together, are said to occur heterocedastity. To detect the

presence or absence heterocedastity regression model used in the form of Residual Analysis chart with the basic decision-making if certain patterns such as no spots particular form a regular pattern, then there heterocedastity.

If there is no clear pattern, and the points spread below the number 0 on the axis Y does not happen heterocedastity.

3.10. Hypothesis Testing

From the data processing will be carried out with SPSS software analysis descriptively and prove the hypothesis. Hypothesis testing using Multiple Linear Regression, inside effect will be seen simultaneously or partially. The decision-making criteria are as follow.

3.10.1 Test for Simultaneous (F-test)

Simultaneous test (F-test) was aimed to determine whether independent variables jointly have a significant effect the dependent variable is: Decision of students choosing SMA BPK PENABUR Tasikmalaya.

In the F-test when a significant F value calculation is smaller than $\alpha = 0.05$ where H0 Products Factor (course of study), price (tuition fees), promotion, location, people, processes, and services are not a positive influence on the decision Students choose SMA BPK PENABUR Tasikmalaya rejected and Ha where Factor Product (course of study), price (tuition fees), promotion, location, people, process, and services has positive influence on the decision Students choose SMA BPK PENABUR Tasikmalaya is accepted. This means that the independent variables together - both have a significant effect on the dependent variable.

3.10.2 Partial Test (t-test)

Partial test (t-test) was used to determine the effect of each independent variables on the dependent variable, whether the effect is real or not.

If the t value significantly smaller than $\alpha = 0.05$, it can be seen independent variables gives significant effect on dependent variables that is the decision to choose SMA BPK PENABUR Tasikmalaya.