

CHAPTER III

RESEARCH METHODS

A. Research Design

1. Research Type

The thesis used a type of quantitative research. Quantitative research is data in the form of numbers obtained using questionnaires and official documents that support (Suliyanto, 2018).

2. Research Object

The object of this research is the boarding houses business owners in Karangwangkal Village.

3. Research Location

The location of this study was conducted in Karangwangkal Village. Because this village is one of the villages with many boarding houses and a strategic location.

4. Research Time

The time in this study was the covid-19 pandemic began to enter Indonesia since last March 2021. Therefore, this study focuses on the impact before and during the covid-19 pandemic on boarding houses in Karangwangkal Village.

5. Population and Sample

a. Population

The population in this study is a boarding houses owner in Karangwangkal Village as many as 102 boarding houses with details divided in 3 hamlet.

b. Sample

The sample in this method, there are several ways of sampling selection, namely by random sampling, systematic sampling, stratified random sampling proportionally, and cluster random sampling. Sampling is a way to determine the number of samples to match the sample size that can be used as an actual data source, taking into account the characteristics and distribution of the population to obtain a representative sample. But in this study using the cluster random sampling as a sampling technique and the formula is as follows:

$$f_i = \frac{N_i}{N}$$

Then get the size of the sample per cluster, using the following formula:

$$N_i = f_i \times n$$

Where :

f_i : Cluster fraction sample

N_i : Number of individuals in cluster

N : Total of population

n : Total of sample

Cluster random sampling is an area sampling techniques used to determine a sample when the object to be studied is very broad, for example the population of a country and province (Sugiyono, 2012).

In this population sample, there are as many as 102 boarding houses located in Karangwangkal Village, North Purwokerto. This study is a study of population and samples. This population research is used for data retrieval from respondents. So that the number of respondents for boarding houses as many as 102, while the sampling techniques used a random sampling and used the formula Taro Yamane, as follows (Riduwan, 2013:65).

$$n = \frac{N}{N \cdot d^2 + 1}$$

Where :

n : Total of sample

N : Total of population

d² : Precision

$$n = \frac{N}{N \cdot d^2 + 1}$$

$$n = \frac{102}{102 \cdot 0,05^2 + 1}$$

$$n = \frac{102}{102 \cdot 0,0025 + 1}$$

$$n = \frac{102}{1,225} = 81,27 = 81$$

From the above calculations obtained the number of samples as many as 81 respondents. Then determined the number of each sample according to the level of the boarding houses located in each hamlet proportional random sampling with the formula:

$$n_i = \frac{N_i}{N} \cdot n$$

Where :

n_i : Number of sample by stratum

n : Total of sample

N_i : Number of population by stratum

N : Total of population

From the above formula, the number of samples can be obtained according to each strata as follows:

$$\text{Hamlet 1} : \frac{144}{1382} \cdot 81 = 8,43 = 9$$

$$\text{Hamlet 2} : \frac{806}{1382} \cdot 81 = 47,2 = 47$$

$$\text{Hamlet 3} : \frac{432}{1382} \cdot 81 = 25,3 = 25$$

Based on the above formula can be seen in the table as follows:

Table 3. 1 Population Boarding Houses in Karangwangkal Village

Number	Group	Population	Sample
1.	Hamlet 01	144	9
2.	Hamlet 02	806	47
3.	Hamlet 03	432	25
Total		1382	81

Source : Preliminary Survey, 2021

6. Data Collection Techniques

The data collection techniques in this study has carried out using a questionnaire, namely by collecting data presented in the form of statements to respondents related to the service received so that respondents could provide answers to the questions in writing the form of choice of answers that had been provided and respondents just choose

the appropriate answers. To make it easier to analyze data, the variables used by using the likert scale model are distributed from:

- a. Very Agree (SS) with a value weight of 4
- b. Agree (S) with a value weight of 3
- c. Disagree (TS) with a value weight of 2
- d. Very Disagree (STS) with a value weight of 1

B. Conceptual and Operational Variable

1. Conceptual Definition

- a. Location is where a business or business activity is carried out (Swastha, 2002:24).
- b. Perception price is a number of values exchanged to obtain a product for sensitive consumers usually prices are an important source of satisfaction because they will get high value for money (Irawan, 2008).
- c. Facilities are the appearance, ability of facilities and pre-facilities and the state of the surrounding environment in showing their existence to the external which includes physical facilities, equipment, and places (Lupiodi, 2008:148).
- d. Information is a set of data or facts that are organized or processed in a certain way so that it has meaning for the recipient (Anggareni and Irviani, 2017:143).
- e. Health protocols is a series of activities related to the rules in an event that include the arrangement of places and the course of

activities in accordance with health rules, especially in the face of the covid-19 pandemic (Peraturan Kementerian Kesehatan No.9 Tahun 2020:326).

2. Operational Definition

A variable operational definition is given to a variable by giving meaning or specifying an activity or providing an operation necessary to measure that variable. To find out these variables, the operational definition is given as follows:

Table 3. 2 Operational Definition

No	Variable	Concept	Indicator	Scale
1	Location (X1)	Location is a place that has previously been set by the owner of a rental house when going to build a boarding house with careful considerations, or it can be said to be a place where a boarding house is located.	1. Clean rental home environment 2. Boarding house environment close to campus 3. Boarding house environment close to public facilities	Likert
2	Price Perception (X2)	Price perception is the assessment, and price considerations offered by business owners to consumers.	1. Low price 2. Monthly rent 3. Annual rent 4. There are discounts	Likert
3	Facilities (X3)	Facilities are the completeness of the items that have been provided by each rental house to meet the needs of students during renting the boarding house.	1. Public facilities 2. Boarding room facilities 3. Additional facilities	Likert
4	Information (X4)	Information is an activity carried out to introduce a product with certain steps to	1. Information from the family	Likert

		consumers so that it can attract consumers to use and buy it.	2. Information from faculty/major friends	
5	Health Protocols (X5)	Health protocol is a rule set to regulate security and break the spread of the covid-19 chain.	1. Availability of handwashing 2. Availability of disinfectant tools	Likert
6	Supply of Boarding Houses (Y)	Rental house bidding as the selection of an action of two or more desires	1. Conformity to financial capabilities 2. Easy to reach or not the location of the rental house to be chosen 3. Suitability of rental house with desire 4. The comfort of the rental house as a place to live	Likert

C. Data Analysis Technique

Data analysis in quantitative research is an activity or stage that is carried out after all research data is collected. This activity consists of grouping data based on variables and types of respondents, tabulating data based on variables from all respondents. It is then converted into a form of interval data to used the Method Successive Interval (MSI), classic assumption test, statistical test, and research hypothesis are carried out.

1. Method Successive Interval (MSI)

Analysis Method Successive Interval (MSI) used to convert ordinal scaled data into interval scales (Sugiyono, 2013:25). The steps are performed in Method Successive Interval as follows:

- a. Pay attention to each respondents answer point from the questionnaire spread.
- b. On each item specified several people who get a score of 1,2,3,4,5 and expressed in frequency.
- c. Each frequency is divided by the number of respondents and the results is called the proportion.
- d. Determine the cumulative proportion value by summing the proportion values sequentially per score column.
- e. Used a normal distribution table, calculated the value of Z for each cumulative proportion obtained.
- f. Specify the density height value for each Z obtained

1. Multiple Linear Regression Test

This tool is used to test the influence of an independent variable (Y) on a dependent variable (X), where the independent variable consists of more than one variable. In multiple linear regression the independent variable , calculated it's effect on the dependent variable. Then this double linear regression equation is:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e$$

Where :

Y : Supply of boarding houses

α : Constant

$\beta_1 \beta_2 \beta_3 \beta_4 \beta_5$: Regression coefficient

x_1 : Location

- x₂ : Perception price
- x₃ : Facilities
- x₄ : Information
- x₅ : Health protocols
- e : standard error

2. Classic Assumption Test

Conduct perquisite test analysis with the following quantitative approach:

a. Normality Test

The normality test aims to test whether in a regression model, the disruptor or residual variable has a normal distribution or not where a good regression model is one that has a normal or near normal distributions. One way to see normal distributions is to look at normal probability plots that compare the cumulative normal distributions (Ghozali, 2007).

b. Multicollinearity Test

The multicollinearity test aims to test whether in the regression model there is a correlation between independent variables (Ghozali, 2007). The expected results in testing that there is no correlation between independent variables. There are several ways to test whether or not multicollinearity exists in regression models. In this test, researchers used a matrix analysis of correlations between independent variables by looking Tolerance Inflation Factor (TIF)

and Variance Inflation Factor (VIF). If the TIF greater than 0.10 and the VIF smaller than 0.10, that's means that there is no multicollinearity test in the regression model.

c. Heteroskedasticity Test

The heteroskedasticity test aims to test whether in one regression model there is a inequality of variants of residuals from another observation (Ghozali, 2007). If the variant of residue from one observation to another remains, then it's called homochemicity, and if the variants are different then it's heterochemicity. A good regression model is one that is homochemicity or does not occur heteroskedasticity (Ghozali, 2007).

3. Hypothesis Test

To find out whether there is an influence of free variables there are bound variables, it is necessary to test the hypothesis proposed in this study, the method of testing the proposed hypothesis, conducted simultaneous testing using t test and f test.

a. Normality test

The normality test is to whether the free variables and the variable are bound or both are normal or abnormally distributed in the regression model (Ghozali, 2016). If a variable is not distributed normally, then the results of the statistical test will go down. The data normality test can be carried out using the Kolmogorov Smirnov and Shapiro Wilk.

b. t test

Partial test are used to determine the effect of each independent variable on the dependent variable. This partial test has the goal or confirming hypothesis individually. This test is done by comparing the value of the t table. If $t_{table} > t_{calculate}$ with a signification below 0.05%, the partially the free variable has a significant effect on the bound variable and vice versa.

c. f test

Statistical f test is used to find out whether all independent variables used in regression models collectively affect dependent variables or to determine the decisions of hypothesis accepted or rejected.

