# CHAPTER III

# RESEARCH METHODS

## 3.1. Research Approach

In this study using a survey approach. According to Wagiran, (2014: 124) "Survey research is included in descriptive research which is a formal method for obtaining the same or similar information from various groups or people, which is mainly pursued by distributing questionnaires or conducting personal interviews". This research includes a sample survey (because it is carried out on a part of the population) and is a type of cross sectional because it is carried out at a certain time / time on the population.

According to Sugiyono, (2013: 2) in the Quantitative, Qualitative and R&D Research Book, what is meant by the research method is a scientific way to obtain data with certain goals and uses. The research method in this study uses a quantitative method approach. Quantitative methods according to Sugiyono, (2013: 8) "... are used to examine certain populations or samples, data collection uses research instruments, data analysis is quantitative/statistical, with the aim of testing predetermined hypotheses". In this study, data analysis using SPSS version 25 for Windows application.

## 3.2. Research Location and Time Plan

This research was conducted on research respondents, namely consumers of aged 17-45 years who has purchased from Lazada in Narotama University. The time for conducting field research, namely distributing questionnaires, is planned

to be carried out in June 2022. As for the time of this research as a whole, starting from writing proposals to preparing thesis reports, namely from March - June 2022

### 3.3. Population and Sample

#### A. Population

According to Sugiyono, (2013: 80) "Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions". Thus from this definition, the population is the whole object of research that has certain characteristics based on the generalization area that has been previously set by the researcher.

The population in this study are all customers in lazada located in Surabaya however since the exact number is unknown this research will use sampling formula to define the number of respondent.

#### B. Samples, Sampling Techniques & Number of Samples.

According to Siyoto & Sodik, (2015: 64) The sample is "a part of the number and characteristics possessed by the population, or a small part of the population members taken according to certain procedures so that they can represent the population". Examples of samples for example are taking part of the river water which represents the entire population of river water in a certain area, or taking a sample of some employees who represent the population of all employees in a company.

The type of sampling is non-probability sampling with sampling technique using purposive sampling technique. According to Asnawi & Wijaya, (2005: 254)

Purposive sampling is "data collection according to predetermined criteria (objectives)".

According to Syahrum & Salim, (2014: 115) Sampling technique is "a way to determine the number of samples in accordance with the sample size that will be used as the actual data source, taking into account the characteristics and distribution of the population in order to obtain a representative sample.

To determine the number of samples in this study, the Cohran formula was used because the population of this study, namely consumers of Generations Y and Z who had downloaded and using Lazada application, were large, unlimited and unknown. Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study.Purposive sampling is a non-probability sampling method that "occurs when the item choosed for the sample is selected at the discretion of the researcher. Researchers can receive a representative sample with appropriate judgment. Often I believe that it will save me time and money (Bussines research methodolgy, 2021)

This study uses the Cochran approach in Sujalu et al., (2021: 88) Cochran's formula:

$$n_0 = \frac{Z^2 p.q}{e^2}$$

$n_0$ : sample size

$Z^2$: Level of Trust, in this study is 95%

p : the proportion of an attribute in a population, in this study it is assumed that p = 0.5

q : 1-p

$e^2$ : the desired level of confidence, in this study the degree of confidence is 90%, which means the margin of error is 10% or 0.1

The Z value is obtained from the statistical table which contains the area under the normal curve.

$$n_0 = \frac{(1,96)^2\,(0,5)\,(0,5)}{(0,1)^2}$$

$$n_0 = 96,04$$

So when referring to the calculation above, the sample taken is n = 96.04 = 97 people. Rounded up to 100 people. So in this study a minimum sample of 100 respondents.

### 3.4. Research variable

According to Sugiyono, (2013: 38) "research variable is an attribute or nature or value of people, objects or activities that have certain variations set by researchers to be studied and then drawn conclusions". For example: Height, weight, attitude, motivation, leadership, work discipline, are the attributes of each

person. Weight, size, shape, and color are the attributes of the object (Sugiyono, 2013: 38). Research variables consist of independent variables and dependent variables.

According to Sugiyono, (2013: 39) "The independent variable is a variable that affects or is the cause of the change or the emergence of the dependent variable (bound). The dependent variable is the variable that is influenced or that becomes the result, because of the independent variable ".

In this study, the independent variables are Perceived Benefits (X1), Perceived Ease of Use (X2), E-Service Quality (X3) and E-Trust (X4). Meanwhile, the dependent variable is the Customer Satisfaction (Y).

### 3.5. Data Types and Sources

#### A. Data Type

The type of data in this study is using quantitative data because in data collection the researchers distributed questionnaires / questionnaires to respondents online via Google form, namely the who had purchase from Lazada before, aged between 17-45 years in Narotama University Surabaya. The types of data used in this study are quantitative data. Quantitative data is data in the form of numbers / numbers that can be processed / analyzed using mathematical or statistical calculation techniques (Siyoto & Sodik, 2015: 68-69)

#### B. Data Source

Sources of data used in this study is Primary Data. According to Sekaran & Bougle, (2017: 130) Primary data is data that "refers to information obtained

directly (from first hand) by researchers related to variables of interest for certain purposes of the study". In this study, data were obtained from as per explained above.

### 3.6. Operational Definition of Variables

The operational definition of research is a guideline related to the measurement of variables (Siyoto & Sodik,2015: 16). So that researchers can get an idea of how the variables in their research are applied to their research.

The preparation of research instruments starts from the research variables that have been determined by the researcher. From these variables, operational definitions are given and indicators that can be measured are given. These indicators can then be described as questions (Sugiyono, 2013: 103). Operational definitions in this study are as follows:

**Table 3.2**

**Variable Operational Definition**

| Variable | Indicator | Questionnaire Items | Scale |
|---|---|---|---|
| Perceived Benefits (X1)<br><br>(Ratna Asri Saras Sati, M. Ramaditya, BBA., M.Sc, | 1. Effectiveness<br><br>2. Accomplish faster | 1. Lazada provide an effective means of service to shop in their platform<br>2. Products search and payment in Lazada can be accomplished in a | Likert |

| | | | |
|---|---|---|---|
| 2020) | 3. Useful<br>4. Advantageous | fast manner<br>3. Shopping in Lazada is useful rather than shopping offline because of the service and wide range of products offered<br>4. Shopping in Lazada is advantageous because of the promotion and the whole online services it provides | |
| Perceived Ease Of Use (X2)<br><br>(Ratna Asri Saras Sati, M. Ramaditya, BBA., M.Sc, 2020) | 1. Easyness<br>2. Clear and understandable<br>3. Easy to learn<br>4. Overall easiness | 1. Shopping in Lazada is easy to do and not complicated<br>2. Lazada provide a clear and understandable method to shop and solve problems<br>3. New terms regarding shopping and other purposes of Lazada related to their services is easy to learn and understand<br>4. Overall Lazada platform is easy to navigate for user | Likert |
| E-Service Quality (X3)<br><br>(Robert AB, Cindy Prishila Wowor, 2019) | 1. Efficiency<br>2. Fulfillment<br>3. System availability | 1. The service of Lazada platform is efficient for the user<br>2. The service of Lazada platform is fulfilling user needs<br>3. The e-system of Lazada platform is always available and working properly each time user access it | Likert |

| | | | |
|---|---|---|---|
| | 4. Privacy | 4. Lazada platform maintains the privacy of each user with maximum security | |
| E-Trust (X4)<br><br>(Ratna Asri Saras Sati, M. Ramaditya, BBA., M.Sc, 2020) | 1. Security<br><br>2. Privacy<br><br>3. Reliability | 1. Customers of Lazada can trust the security on the platform regarding shopping<br>2. Customers of Lazada can trust that the platform maintain their privacy regarding their identity and shopping history safely<br>3. Customers of Lazada deemed that the platform is reliable and trusted for their online shopping activities | Likert |
| Customer Satisfaction (Y)<br><br>(Robert AB, Cindy Prishila Wowor, 2019) | 1. Satisfaction with the overall product price<br>2. Satisfaction with the overall product variety<br>3. Overall satisfaction with information<br>4. Satisfaction | 1. Shopping in Lazada gives satisfaction to the customers regarding product price<br>2. Shopping in Lazada gives satisfaction to the consumer regarding product variety<br>3. Shopping in Lazada gives satisfaction to the consumer regarding product and services information<br>4. Shopping in Lazada gives satisfaction to the consumer | Likert |

| | | | |
|---|---|---|---|
| | with the answers given by the online shop as a whole<br>5. Overall satisfaction with service<br>6. Satisfaction with shopping convenience | regarding answers given by the online shop as a whole<br>5. Shopping in Lazada gives satisfaction to the consumer regarding their overall services<br>6. Shopping in Lazada gives satisfaction to the consumer regarding their shopping convenience | |

### 3.7. Data collection technique

Data collection is the most important work in research activities, so it is necessary to develop research instruments seriously and not include the subjective element of the researcher (Siyoto & Sodik, 2015: 75). Data collection techniques in this study using:

**A. Questionnaire / Questionnaire Distribution**

In the opinion of Sugiyono, (2013: 142) "Questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer". Meanwhile, according to Siyoto & Sodik, (2015: 79) "The form of the questionnaire sheet can be in the form of a number of

written questions, the aim is to obtain information from respondents about what he experienced and knew". The data collection needed in this study includes:

1) Profile / Identity of the respondent includes: respondent's name, gender (M/F), age, and domicile (eg East Surabaya).
2) Data from respondents' answers related to variables that influence Customer Satisfaction, starting from answers to Perceived Benefit, Perceived Ease of Use, E-service quality, E-trust.

### 3.8. Measurement Scale Type

The type of measurement scale used in this study is the Likert Scale. Based on the opinion of Sugiyono, (2013: 93) "The Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena". The size of the Likert scale is described as follows:

**Tabel 3.1 Measurement Scale (Likert)**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree (SD) | Disagree (D) | Neutral (N) | Agree (A) | Strongly agree (SA) |

Source: (Nofriansyah & Defit, 2017 : 9)

### 3.9. Data analysis technique

According to Sugiono's opinion (2013: 147) regarding data analysis are as follows:

A data analysis is an activity after data from all respondents or other data sources have been collected. The data analysis activities are as follows: Group data based on variables and respondent types, aggregate data based on all

respondent variables, present data for each surveyed variable, perform calculations to answer problem formulation do, and performing calculations to test the hypotheses that have been proposed. In general, in this study, data analysis uses Multiple Linear Regression (RLB) and uses SPSS version 25 for windows statistical analysis tools.

In this study, researchers in conducting data analysis using the following steps:

**A. Validity and Reliability Test**

**1) Validity Test**

According to Marzuki et al., (2020: 61) Validity test is "a test used to measure the level of validity/truth of a data to be used as a measuring tool to measure what you want to test.

According to Marzuki et al., (2020: 62) The implementation of the Validity Test in research has the aim "to ensure that the question/statement items in the questionnaire and interview are valid/legitimate to be used as a measuring tool for the variables of the research being conducted. The results of the validity are usually expressed in the form of r-count. If r count ≥ r table, the instrument/question item is considered to have a significant correlation with the total score or is considered valid. However, if r count < r table then the correlation is considered low or invalid (Marzuki et al., 2020: 62) The validity test can be done using the Pearson product moment formula (Hidayat, 2015: 83).

Pearson Product Moment Formula:

$$r_{count} = \frac{n(\sum XY) - (\sum X)\,(\sum Y)}{\sqrt{\{n.\sum X^2 - (\sum X)^2\}\,.\,\{n.\sum Y^2 - (\sum Y)^2\}}}$$

Information:

$r_{hitung}$ : Correlation coefficient
$\Sigma Xi$ : Total item score
$\Sigma Xi$ : Total score (item)
$n$ : Number of respondents

**2) Reliability Test**

Research activities require data that can be declared valid and reliable. Reliability is related to the accuracy of the measuring instrument. Accuracy can be evaluated from statistical analysis in order to detect errors in measuring instruments (Pramesti, 2014: 42). According to Ovan & Saputra, (2020: 4) "Reliability can show the consistency of the questionnaire to the respondent's answers in several tests under different conditions using the same questionnaire".According to Pramesti, (2014: 44) "an instrument can be said to be reliable if the Cronbach's Alpha coefficient is above 0.6, so it can be said that the instrument has high reliability".

**B. Classical Assumption Test**

According to Purnomo, (2017: 107) "the classical assumption test is used to determine whether there is residual normality, multicollinearity, autocorrelation, and heteroscedasticity in the regression model.

The classical assumptions must be fulfilled because in order to obtain a regression model with unbiased estimates and reliable testing". In this study, the classical assumption test was carried out through the multicollinearity test, heteroscedasticity test and normality test.

1) **Normality Test**

According to Pramesti, (2014: 24) this normality test is a test "conducted to investigate whether the data collected follows the assumption that it follows a normal distribution or not".

The normality test in this study was carried out using the Kolmogorov-Smirnov analysis method. According to (Dahlan (2017) in Hulu & Sinaga, (2019: 38) the assumption of using the Kolmogorov-Smirnov analysis can be used "if p > 0.05 significance level with a sample size > 50".

The data is said to be normally distributed when the result of the calculation of significance in the SPSS application is greater than the significance level of = 0.05 (Pramesti, 2014: 24)

2) **Multicollinearity Test**

According to Santoso, (2019: 195) this Multicollinearity test is a test "to find out whether in the regression model there is a correlation between independent variables. If there is a correlation, it is called a Multicollinearity (Multiko) problem.

A good regression model is when there is no Multicollinearity relationship (Priyatna, 2020: 53). Guidelines for Multicollinearity

Decisions according to Priyatna, (2020: 53) are to look at the Tolerance and Variance Inflating Factor (VIF) values:

Guidelines for decisions based on tolerance values:

1. If the Tolerance value > 0,10 ; there is no Multicollinearity
2. If the Tolerance value < 0,10 ; Multicollinearity occurs

Decision guidelines based on the value of the variance inflating factor (vif):

1. If the value of VIF <10,00 ; there is no Multicollinearity
2. If the value of VIF >0,10 ; Multicollinearity occurs

### 3. Heteroscedasticity Test

According to Gunawan (2020: 128) this Heteroscedasticity Test is a test to assess "whether in the regression model there is an inequality of variance from the residuals from one observation to another observation" According to Gunawan (2020: 128) "If the variance of the residual value from one observation to another is fixed, then it is called Homoscedasticity"

According to Gunawan (2020: 128) "a good regression model is one that does not occur heteroscedasticity, or in other words a good regression model is a homoscedasticity one"

In this Heteroscedasticity Test using the method approach: Spearman rank.

## C. Hypothesis Testing (Parametric and Nonparametric Statistics)

### 1. Test t (Partial)

The t-test according to Sugiyono (2014) in Yusuf & Daris, (2019 :134) is a "partial regression coefficient test which aims to determine the significance of the partial role between the independent variables on the dependent variable by assuming that other dependent variables are considered constant". In this study, the test was carried out through the t-test with a 95% confidence level.

Terms of t test:

a. H0 is accepted and Ha is rejected if t count < t table, meaning that the independent variable has no significant effect on the dependent variable.
b. H0 rejected and Ha accepted if t count > t table, meaning that the independent variable has a significant effect on the dependent variable.
c. Another alternative to see the partial effect is if the significance value is < 5% or 0.05 then there is a partially significant effect between the independent variable and the dependent variable, if the significance value is > 5% or 0.05 then there is no effect or there is no correlation. (Mulyono, 2018: 113)

The hypothesis proposed for this study is described in the following description:

1. Ha1: 1 > 0, meaning that the prevised benefits variable (X1) has a positive effect on the Customer Satisfaction variable (Y).
2. Ha2: 2 > 0, meaning that the prevised Ease of Use variable (X2) has a positive effect on the Customer Satisfaction variable (Y).
3. Ha3: 3 > 0, meaning that the E-service Quality variable (X3) has a positive effect on the Customer Satisfaction variable (Y).

4. Ha4: 4 > 0, meaning that the E-Trust variable (Y) has a positive effect on the Customer Satisfaction variable (Y).
5. Ha5: 5 > 0, meaning that the Perceived Benefit (X1), Perceived Ease-of-Use(X2), E-Service Quality(X3), E-Trust(X4) simultaneously has a positive and significant effect on customer satisfaction (Y).

**2. Test f (Simultaneous)**

The f test is a test to determine the effect of the independent variable (X) together (simultaneously) on the dependent variable (Y) (Mulyono, 2018: 113). The degree of confidence used is 0.05. If the calculated F value is > from the F table value, then the hypothesis that all independent variables in this study starting from Perceived Benefits (X1), Perceived Ease of Use (X2), E-Service quality (X3) and E-Trust (X4) simultaneously have an effect. Which is significant to the dependent variable, namely Customer Satisfaction (Y).

F Test Assessment Criteria according to Mulyono, (2018: 113)

- H0 is accepted, if F count ≤ F table or sig value > 0.05
- H0 is rejected, if F count ≥ F table or sig value < 0.05

**3. Multiple Regression Analysis**

This Multiple Regression Analysis can be used to determine the effect of the independent variable (X) more than one variable on the dependent variable (Y) (Febry & Theophilus, 2020: 92). In this study using the regression equation model as follows:

$$\mathbf{Y = \alpha + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + e}$$

Explanation:

Y : Customer Satisfaction
e : Standard Error
α : constant
X1 : Perceived Benefits
X3 : E-Service Quality
X2 : Perceived Ease Of Use
X4 :E-Trust

β1: variable regression coefficient Perceived Benefits
β2: variable regression coefficient Perceived Ease of Use
β3: variable regression coefficient E-Service Quality
β4: variable regression coefficient E-Trust

**4. Coefficient of Determination Test (R2)**

According to (Ghozali (2007) in Mulyono, (2018: 112) The coefficient of determination test essentially measures how much the independent variable is able to explain the dependent variable. The value of the coefficient of determination ranges from 0 to 1 (0 R2 1) or from 0% to 100%. The higher the value of R2 or the coefficient of determination, the

higher the ability of the regression model to explain the diversity in the sample data (Susanti et al., 2019: 53).