CHAPTER III

RESEARCH METHODS

3.1 Population and Sample

Population is referring to the object of a study, which could be in a form of living things or non-living things (Etikan et al., 2016). The researcher uses GO-FOOD users located in Surabaya for the object of study.

Sample is the portion that is taken from the population of interest (Etikan et al., 2016). There are various methods to process sample, some of them require samples to be measured and some of them to be randomly selected (Fink, as cited by Etikan et al., 2016). For this research, the researcher uses purposive sampling method, where it needs to meet certain requirements, as follows:

1. The participant age needs to be between 15-60
2. The participant has a smartphone
3. The participant makes transactions on GO-FOOD at least 1 time within 3 months

The researcher doesn’t have access for the amount of the population that is being studied. The minimum requirement for the data to be processed using SPSS is 30 and since there are possibilities of bad data, the researcher decided to use 50 samples where 20 samples are given to compensate in the possibility of retrieving bad data. The researcher also set a limit of maximum 3 months because according to Kjellsson et al. (2014), 90 days is the limit for people’s memory recalling capabilities.
3.2 Data Collection Methods

3.2.1 Types and Source of Data

a. Primary Data: Primary data is collected from questionnaires which filled by the research’s subjects.

b. Secondary Data: Secondary data is the data taken from literatures, articles, books, and others that are related to the research (Sugiyono, 2013). The secondary data in the research will be gathered from journals, articles, books, and other recent studies.

3.2.2 Data Collection

This research uses questionnaires as a method to gather data from respondents. According to Sugiyono (2015), a questionnaire is a tool that is used to gather data where participants need to fill in a form and answer questions.

3.3 Operational Definition and Variable Measurement

3.3.1 Operational Definition

Table 3.1 Variables and Indicators

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived Usefulness</strong></td>
<td>According to Davis, as cited by Hamid et al., 2015:</td>
</tr>
<tr>
<td>Independent Variable / X1</td>
<td>a. Make Job Easier</td>
</tr>
<tr>
<td></td>
<td>b. Accomplish More Work</td>
</tr>
<tr>
<td></td>
<td>c. Save Time</td>
</tr>
<tr>
<td></td>
<td>d. Useful</td>
</tr>
<tr>
<td></td>
<td>e. Effectiveness</td>
</tr>
</tbody>
</table>

“the extent of which a person believes that using a particular technology will enhance her/his job performance” (Davis, as cited by Hamid et al., 2015).
### Perceived Ease of Use
Independent Variable / X2

“the degree to which a person believes that using a particular system would be free of effort” (Davis, as cited by Alalwan et al., 2016).

According to Davis, as cited by Upadhyay and Jahanyan, 2016:
- Easy to become Skillfull
- Easy to Learn
- Clear
- Flexible
- Easy to Use

### Perceived Risk
Independent Variable / X3

“the extent to which consumers perceive the possible losses that could be created due to the uncertainties of using m-payment”. (Forsythe and Shi, as cited in Yang et al., 2016)

According to Yang et al., 2015:
- Perceived Financial Risk
- Perceived Privacy Risk
- Perceived Performance Risk
- Perceived Psychological Risk
- Perceived Time Risk

### Behavioral Intention
Dependent Variable / Y

Behavioral intention is the users intention to adopt and used technology. User’s intention to use are determine by attitude (Cabanillas et al., 2017).

According to Upadhyay & Jahanyan 2016:
- Continued Usage
- Intention to Use
- Actual Use
- Plan to Use

Source: Processed data

### 3.3.2 Variable Measurement

This research used five point Likert Scale as measurement. All variables are measured by the five point Likert Scale ranging from Strongly Disagree (1) to Strongly Agree (5). According to Sugiyono (2014), Likert Scale is a measurement of individual
or group behavior towards the object of the study. The researcher uses five point Likert Scale because it is used in previous similar studies as the researcher’s topic. Apart from that, it is also used in order to help respondents distinguish the answer easier and faster.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 3.2 Five Point Likert Scale

3.4 Validity and Reliability

3.4.1 Validity

Validity test is important to determine whether the indicators are related and valid or not. According to Priyatno (2014), Pearson Correlation is used to test the validity of a variable, which is done by correlating every indicator’s score to the total score. If the score is 0.05 or less, it is considered as valid.

3.4.2 Reliability

Reliability test is important to determine whether the indicators for this research are reliable and consistent in order to be used. According to Sundayana (2015), the
Cronbach Alpha is used to test the reliability where if the score is more than 0.60, it is considered as reliable.

3.5 Data Analysis Method

3.5.1 Multiple Regression Analysis

The data analysis of this research uses multiple regression analysis. According to Priyatno (2014), multiple linear regression is used to explain the connection of two or more independent variables toward one dependent variable.

\[ Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \]

Explanation:
- \( a \) : Constanta
- \( \beta_1, \beta_2, \beta_3 \) : Regression Coefficients
- \( Y \) : Behavioral Intention
- \( X_1 \) : Perceived Usefulness
- \( X_2 \) : Perceived Ease of Use
- \( X_3 \) : Perceived Risk
- \( \epsilon \) : Error / Residual
3.5.2 Research Test

3.5.2.1 Model Fit Test (F test)

According to Priyatno (2014), the F test is used to observe the influence of independent variable as a whole towards the dependent variable. When the F coefficient is 0.05 or less, the independent variables are found to be affecting the dependent variable significantly, which is viable to use.

3.5.2.2 Partial Significance Test (t test)

According to Priyatno (2014), the t test is used to test the independent variables independently towards the dependent variable. If the t coefficient is 0.05 or less, the independent variable are found to be significantly affecting the dependent variable.

3.5.2.3 Coefficient of Correlation (R) and Coefficient of Determination (r^2)

According to Priyatno (2014), partial correlation is the correlation between independent and dependent variable with the range of 0 to 1. If the value of R is zero, there is no correlation between the variables. The closer the R to 1, the stronger the correlation between independent and dependent variables. According to Priyatno (2014) the coefficient determination is used to measure the capability on how independent variables explains the dependent variable.

3.5.2.4 Partial Correlation

According to Field (2015), partial correlation is conducted in order to observe the correlation between two variables where the other variable’s effect is maintained. The closer the value to 1, the stronger the correlations are.
### 3.5.2.5 Classical Assumption Test

**a. Multicollinearity Test**

According to Priyatno (2014), Multicollinearity test is used to find if there is any connection between independent variables. The test is done using VIF (variance inflation factors) value. If the value is less than 10, there are no multicollinearities.

**b. Normality Test**

Normality test is used to determine the distribution of data for independent variables and dependent variable (Sujarweni, 2015). The Kolmogorov-Smirnov test can be used to find irregularities in the data, where if the value of sig is greater than 0.05, then the data is considered as normal.

**c. Heteroskedasticity Test**

Heteroskedasticity test is used to find the difference between residual variances of one observation to another (Sujarweni, 2015). Heteroskedasticity test uses the Gleijser test. If the value of sig. is more than 0.05, there are no heteroskedasticity found in residual variance.