CHAPTER III

METHODOLOGY

The research method used in this study is quantitative research. Quantitative research can be interpreted as a research method based on numbers and using statistical analysis. Type of research in this study is descriptive, which is intended to investigate the circumstances, conditions, situations, events, activities and the result are presented in the form of research report (Arikunto, 2016). Based on those theories, quantitative descriptive research is data those obtained from the sample of the study population and then analyzed according to statistical method used. Descriptive research in this study is intended to get an overview and information regarding the response of respondent to the influence of halal food awareness on purchase decision with religiosity as moderating variable.

A. Research Subject

This research conducted in Yogyakarta and Thailand. To know the relationship halal food awareness and purchase decision with religiosity as a moderating variable for Muslims living in Indonesia and Thailand, the researcher conducted research for Muslim consumers of halal food in Indonesia and Thailand.

B. Type of Data Research

This research in testing the hypothesis seeks to explain causal relationships between several variables with causality approach. The research using quantitative as the research methodology and using the associative research, associative research needs to recognize the relation or influence some variables or more than

one variable (Sugiyono, 2017). The data used in this research is primary data. Primary data is data or information obtained directly from the source

C. The Sample Data Technique

Sample is part of several characteristics possessed by population use for research. If the population is large, researcher is impossible to take all for research data, for example because of limited funds, energy and time (Sujarweni, 2015). So the researcher can use samples taken from the population. The sample data technique used is non-probability sampling, where the sampling technique does not provide the equal opportunity for each element or member of the population to be selected as a sample (Sugiyono, 2017).

The sample data technique used is non-probability sampling, where the sampling technique does not provide the same opportunity equal opportunities for each element or member of the population to be selected as a sample (Sugiyono, 2017). The type of non-probability sampling used is purposive sampling (also known as judgment, selective or subjective sampling). Purposive sampling is a sampling technique in which the researcher relies on his or her own judgment when choosing members of the population to participate in the study. Purposive sampling is a non-probability sampling method and it occurs when an element selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money.

The sample criteria used in this study were Muslims, had consumed food in several places in Yogyakarta (for Indonesian respondents), and Indonesian

Muslims who were in Thailand (for respondents in Thailand). I choose in Yogyakarta because of the limitation of times and finance of researcher. The sample used in this research is based on the researchers' assumptions, where the sample used was 150 samples from Indonesian respondent and 50 samples from Thai respondent. However, these 200 samples are in accordance with the provisions of (Hair, et al., 1998) which explain that representative samples range from 100-200 samples.

D. Technique Data Collection

Technique data collection used to collect data that meets established standards. Because it uses primary data, in this research data collection techniques are obtained from primary sources which are data sources that directly provide data to data collectors (Sugiyono, 2017). The tool used to obtain data is a questionnaire by using Google Forms Survey applications. The questionnaire is collection techniques that are carried out by giving a set of questions or written statement to the respondent to answer. The questionnaire contains two (2) sections, the first sections of the survey sought demographic information from the respondents' such as gender, age, marital status, education level, and income. The second section asks for respondents' perception of halal food awareness, religiosity, and purchase decision. In the second section, respondents were requested to rate their opinion according to a five-point *Likert* type scale ranging from 1 to 5. The questionnaire was developed in the Indonesian language as the majority of the respondents were educated in the language. The questionnaires

distributed in several places in Yogyakarta, furthermore the questionnaire for Thailand and Indonesia consumers distributed use google form application.

E. Definition of Operational Variables

1. Dependent Variable

The dependent variable is a variable that is the main concern of researchers (Sekaran, 2017). The purpose of the researcher is to understand and describe the dependent variable or explain its variability or predict it. The dependent variable in this research is purchased decision on halal food for consumers who are mostly Muslim and Muslim minorities. The Instrument from purchase decision was measured using *Likert* scale through 1 to 5 for strongly disagree, disagree, quite agree, agree, and strongly agree. By using 5 scales it would be giving a specific answer and make easier for research and respondent to answer. Purchase decision on halal food contains 8 (eight) questions.

2. Independent Variable

Generally considered independent variables when variables that affect the dependent variable, either positively or negatively. If there are independent variables, the dependent variable is also present and with each unit increase in the independent variable, there is also an increase or decrease in the dependent variable (Sekaran, 2017). The independent variable in this research is halal food awareness. The Instrument from halal food awareness was measured using *Likert* scale through 1 to 5 for strongly disagree, disagree, quite agree, agree, and strongly agree. By using 5 scales it would be giving a specific answer and make

easier for researcher and respondent to answer. Halal food awareness contains 7 (seven) questions.

3. Moderating Variable

Moderating variable is an independent variable that will strengthen or weaken the relationship between other independent variables to the dependent variable (Ghozali, 2016). The moderating variable in this research is religiosity. Religiosity in this research has an impact on strengthening or weakening the relationship between halal food awareness and purchase decision. This illustrates that religiosity can strengthen consumer preferences in determining halal food. The Instrument from religiosity was measured using *Likert* scale through 1 to 5 for strongly disagree, disagree, quite agree, agree, and strongly agree. By using 5 scales it would be giving a specific answer and make easier for research and respondent to choose and answer. Religiosity contain 21 (twenty one) questions.

F. Quality Data and Instrument Test

Key indicator of the quality of a measure is the proper measurement of validity and reliability of the research (Mohajan, 2017). Quality data and instrument test in this researched used validity and reliability tests. Validity and reliability are the two most important and fundamental features in the evaluation of any measurement instrument or tool for good research. According to Kimberlin and Winterstein (2008) Validity and reliability are two most important and fundamental features in the evaluation of any measurement instrument or tool for a good research. In a standard research, the score obtained must have a good level of validity, if the measurement is very accurate, then a researcher will find a true

score. Validity concerns what an instrument measure, and how well it does so. Reliability concern the faith that one can have in the data obtained from the use of an instrument, that is, the degree to which any measuring tool controls for random error.

1. **Validity test**

    Validity is a measure of the degree of validity or the validity of a research instrument. An instrument is said to be valid if it can measure what is to be measured or desired. An instrument said to be valid if it can be revealing the data of the variable research. Test validity of the questionnaire was conducted using *Product Moment Pearson Correlations* using IBM SPSS. The validity test *Product Moment Pearson Correlations* were done by correlating each item questionnaire scores with the total score. Item-item questionnaire that significantly correlated with total score indicates that the items are valid (Ghozali, 2016). The basic decision making in Validity test is:

    a. If the significance value $< 0,05$, then the instrument is declared valid

    b. If the significance value $> 0,05$, then the instrument is declared invalid

2. **Reliability test**

    After the research instrument is declared valid in the validity of the test, the next step is to test reliability. Reliability is a measure to indicate that a reliable instrument to be used as a means of collecting data for the instrument is considered good. A good instrument will not be tendentious directing the respondents to select a certain answer. Reliable means trustworthy also reliable. So, several times repeated whatever the outcome will remain the same or

consistent. Reliability test instrument can be done by using *Cronbach's Alpha* (Ghozali, 2016). The basic decision making in reliability test is:

a. If the value of Cronbach's Alpha > 0.6, then the questionnaire items dictated reliable.

b. If the value of Cronbach's Alpha < 0.6, then the questionnaire items dictated unreliability.

G. Data Analysis

The data analysis method is a technique to analyze the obtained data. Analyze data is useful for the research because the raw data taken from the field are meaningless if they are not analyzed. In this research, all the data are gained from the result of the questionnaire and test in the form of a number. All the data therefor analyzed quantitatively.

1. Demographic Characteristics of Respondents

Demographic characteristics of respondents used to know and show the identity of respondent and represent the collection data every single demography of respondent using SPSS. The demographic characteristics of reused in this study consisted of tabulations of frequency distributions and percentages. Descriptive analysis used the demography of respondent, descriptive concerning gender, age, marital status, education level, and income. This analysis has also described the comparison halal food awareness, purchase decision among Muslims living in Indonesia and living in Thailand.

2. Description of Research Variables

Description of research variables used to describe the data that has been collected related to respondents' approval of the research variable. In this analysis, the data are grouped, sorted and simplified so that they are easily interpreted. To be interpreted according to the data obtained, the data will be grouped into categories according to the *Likert scale*. The estimation of this study using 5 *Likert* scale that is:

$$Range\ of\ Value = \frac{(Max.\ Value - Min.\ Value)}{Total\ Value}$$

$$Range\ of\ Value = \frac{(5-1)}{5} = \frac{4}{5} = 0,80$$

From the formulation above determine the interval value, the interval scale shows in table 3.1:

Table 3.1
Perception Scale Estimate

Interval	Scale
1 – 1,80	Strongly Disagree
1,81 – 2,60	Disagree
2,61 – 3,40	Quite Agree
3,41 – 4,20	Agree
4,21 – 5,00	Strongly Agree

Source: (Baroroh, 2008)

Table 3.1 explains the perception scale estimation divided into 5 *Likert* scales. Likert scale is applied as one of the most fundamental and frequently used psychometric tools in educational and social sciences research. This scale used to calculate the variables based on respondent perception. In this study, five types of

intervals used with a range of value was 0,8. The scale used gives the meaning of the respondent's approval at the level strongly disagree, disagree, quite agree, agree, and strongly agree.

3. Moderated Regression Analysis (MRA)

This research using moderated regression analysis (MRA) as instrument analysis use SPSS 20 to analyze the influence between halal food awareness and purchase decision with religiosity as moderating variable. In this study, the type of moderating variable used was the pure moderator. According to (Ghozali, 2016) explained that in the pure moderator, the moderator variable (Z) is not related to the dependent variable (Y) and the independent variable (X) but interacts with the independent variable (X). To use MRA with one independent variable (X) it must compare three regression equations to determine the type of moderator variable. The three equation is:

$$Yi = \alpha + \beta 1Xi + \varepsilon \qquad\qquad (3.1)$$

$$Yi = \alpha + \beta 1Xi + \beta 2Zi + \varepsilon \qquad\qquad (3.2)$$

$$Yi = \alpha + \beta 1Xi + \beta 2Zi + \beta 3Xi*Zi + \varepsilon \qquad\qquad (3.3)$$

Yi	= Purchase Decision Variable
α	= constant
β	= Coefficient
Xi	= Halal Food Awareness Variable
Zi	= Religiosity Variable
ε	= *error*

If equations (3.2) and (3.3) do not differ significantly or (B3 = 0; B2 ≠ 0) then Z is not a moderator variable, but as an independent variable. If equations (3.1) and (3.2) are the same but different from equation (3.3), the variable Z is a pure mediator. Testing of the pure mediator is done by making regression

interactions, but the mediator variable does not function as an independent variable. Then the regression equation used to predict the moderator variable or to prove hypothesis 4 is equation (3.3) (Ghozali, 2016).

$$Yi = \alpha + \beta1Xi + \beta2Zi + \beta3Xi*Zi + \varepsilon \qquad (3.3)$$

a. **Determination Coefficient test**

The coefficient of determination (R^2) is used to find out how much variation in the independent variable (X) can explain overall to the dependent variable (Y). the coefficient of determination is between zero and one. If R = 0 means that among the independent variables with the dependent variable there is no relationship, whereas if R = 1 means that between the independent variable and the dependent variable has a strong relationship. In this research, the coefficient of determination used refers to Ghozali (2016) using adjusted R Square to evaluate which is the best regression model.

b. **Hypothesis test**

Hypothesis testing in this research using the t-test obtained from the results of the MRA. The t-test basically shows how far the influence of one independent variable individually in explaining the dependent variable variation. In this study, the test was conducted to see how much influence of halal food awareness (X) with religiosity (Z) as moderating variable on purchase decisions (Y). In this research, the calculation of hypothesis 2 and 3 used a regression test with different samples, where hypotheses 2 (H2) used to sample data from Indonesian respondent and hypothesis 3 (H3) used to sample

data from Thai respondents. Then, to calculate hypotheses 4 (H4) used to sample data from both.

The basis for decision making in a hypothesis test is:

1) If the significance value < 0.05, then the hypothesis is accepted

2) If the significance value > 0.05, then the hypothesis is rejected