CHAPTER 3
RESEARCH METHODOLOGY

A. Object / Subject of The Research

The subject of this research is undergraduate accounting students in Yogyakarta. The students without Islamic economic education background are represented by Universitas Negeri Yogyakarta (UNY) and Universitas Pembangungan Nasional Yogyakarta (UPN). Meanwhile, sample from Universitas Muhammadiyah Yogyakarta (UMY) and Universitas Islam Negeri (UIN) Sunan Kalijaga are as the representative students with Islamic economic education background.

In campus without Islamic economic as mandatory course such as accounting curriculum of UNY, the course discussing about Islamic aspect is just Religion 1. Sharia accounting course is just for elective course not as the mandatory course. For accounting curriculum of UPN, the course discussing about Islamic aspect is just Religion 1. Like UNY in UPN has sharia accounting course for elective course not as the mandatory course.

In campus with Islamic economic education background, Islamic perspective is involved in each class. All classes involve Islamic perspective even though the course doesn’t have relation with Islamic accounting. In UIN, for each semester, there is always a subject related with Islamic course such Fiqh Muamalah. In UMY, there are Religion 1, Fiqh Muamalah and Sharia accounting as the mandatory course.
The reason in choosing sample of Muslim students with Islamic economic education background and without Islamic economic education background is because of the fact that even the majority of Indonesia people are Islam, the number of Full fledged Sharia banking is lower than commercial bank (OJK, 2017). Other reason is Muslim students with the background of Islamic economics education in still use commercial bank account in their life. Research conducted by Faisal (2016) also states that eventhough Muslim students already study about Islamic economic education, there still exist students who don’t have Full fledged Sharia bank account. Two facts above make this research use two different group of sample students with Islamic education background and without Islamic education background to know whether Islamic education gives impact on their bank selection criteria or not.

B. Type of Data

The data used in this research are primary data. Primary data are data collected directly by the researcher using questionnaire that consist of some questions answered by the respondents.

C. Technique of Sampling

Population is all people living in the certain area who have social interaction between each other. Population used in this research comes from university in Yogyakarta consisting of Universitas Muhammadiyah Yogyakarta (UMY), Univeritas Islam Negeri Sunan Kalijaga Yogyakarta (UIN), Universitas Negeri Yogyakarta (UNY), and Universitas Pembangungan Nasional Yogyakarta (UPN).
Sampling technique is used to obtain the sample (Sugiyono, 2013). The technique of sampling in this research is purposive sampling, meaning that there are some criteria of sample that must be fulfilled by respondents. Purposive sampling method is useful to obtain representative based on some criterias.

There are some criterias of sample used in this research:

1. Sample is active accounting Muslim students from university in Yogyakarta

2. Sample is divided into two groups. The first group must be accounting students who don’t have Islamic education economy background in their university lesson. The second group is accounting students who have Islamic economic education background subject in their university. The first group comes from students of UNY and UPN, while the second group comes from UMY and UIN.

D. Data Collection Techniques

This research carries out survey method by giving questionnaires to respondents. The questionnaire consist of question list that will be answered by respondents using the likert scale to measure the answer with the explanation as follow:

Number 1 means SD : Strongly disagree
Number 2 means D : Disagree
Number 3 means NAD : Neither agree nor disagree
Number 4 means A : Agree
Number 5 means SA : Strongly Agree
At the end of the questionnaire, there is open question consisting of descriptive question given to respondents. The descriptive question is about the other factors that maybe effect students willingness in saving at Full fledged Sharia bank. The answer is based on their opinion not based on factors used in this research study. Their answer is useful as additional information in this research and also useful as reference for next researchers who focus on Sharia banking in their research.

E. Operational Definition of Research Variable

1. Dependent Variable

Dependent variable is variable that will be affected by the independent variable. The dependent variable in this research is willingness of Muslim students. Willingness of Muslim students in saving at Full fledged Sharia bank is feeling when someone is interested to Full fledged Sharia bank and willingly select Full fledged Sharia bank without any pressure from other people. At the end of the questionnaire, there is a question about their willingness in saving at Full fledged Sharia bank measured using their decision in saving at Full fledged Sharia bank. The questionnaire of willingness in this research is compilation and modification from research conducted by Nurhipnudin (2015) and Istiqomah (2015). All the questions used in questionnaire are written in Bahasa (Indonesia). Items of question are:

1. After reading this questionnaire, I am interested to become Full fledged Sharia bank’s customer.
2. I want to become customer of Sharia bank because it uses profit sharing method.

3. If I have possibility to make a bank account, I will make a Full fledged Sharia bank account.

4. Based on the providable information, I am encouraged to have transaction in Sharia banking.

5. I want to become customer of Sharia bank because it applies Sharia principle well.

   The answer is measured by using the licert scale with 36 indicators, five points for five questions of (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree and (5) Strongly Agree

2. Independent Variable

   Independent variable is the variable that will effect the dependent variable. The dependent variable in this research is willingness. Thus, the independent variables in this research are factors that will affect students willingness. The factors are such as parents recommendation, location, religiousity, knowledge and financial information disclosure.

   a. Parents recommendation

   Parents recommendation is advice, suggestion or motivation from parents to their children to use same product or service like them. Measuring parents recommendation variable is done by using parents suggestion and parents guidance. The questionnaire of parents
recommendation in this research is modification from research conducted by Rifa (2015). All the questions used in questionnaire are written in Bahasa (Indonesia). The items of question are:

1. My parents give guidance to save money in bank.
2. My parents have Sharia bank account.
3. My parents order me to open Full fledged Sharia bank account.
4. Higher pocket money will influence me in saving.
5. My parents suggest me to open Full fledged Sharia bank account.
6. My parents influence me in saving at Full fledged Sharia bank.

b. Location

Location is factor that students need to consider when they save on bank. They consider how much cost need to arrive to the bank. Location variable is measured using trade area characteristics and competitive situation feature. The questionnaire of location used in this research is modification from research conducted by Kasmir (2002) and also used by Asnawi (2016). All the questions used in questionnaire are written in Bahasa (Indonesia). The items of question are:

1. Location of the Full fledged Sharia bank is near with campus.
2. Location of the Full fledged Sharia bank is near with house or boarding room.
3. Full fledged Sharia bank has many ATM machines.
4. Location of Full fledged Sharia bank and ATM are available in shopping center and recreation center.
5. Location of the Full fledged Sharia bank is near with office area.

c. Profit sharing

**Profit sharing** is distribution of profit between bank and customer by using agreed *nisbah*. Measuring profit sharing variable is done by using aspect of *nisbah* and amount of profit that will be obtained. The questionnaire of profit sharing used in this research conducted by Iswantoro (2004), Mustaqim (2006) and also used by Asnawi (2016). All the questions used in questionnaire are written in Bahasa (Indonesia). The items of question are:

1. Agreed profit sharing determined by bank is appropriate with my wish.
2. Profit of Full fledged Sharia bank will also effect customer’s profit.
3. When saving at Full fledged Sharia bank, I consider *nisbah* provided by Full fledged Sharia bank.
4. Profit on Full fledged Sharia bank is higher than other banks.
5. If I have higher money, I will choose product with higher *nisbah*

d. Religiousity

**Religious stimuli** means that when someone chooses an activity especially economic activity, they will consider whether the activity will violate their religion principle or not. Measuring religiosity variable is done by using aspect of loyalty to religion and product understanding. The questionnaire of location used in this research is modification from research conducted by Rahmawaty (2008), Wibowo (2005) and Asnawi (2016). All the
questions used in questionnaire are written in Bahasa (Indonesia). The items of question are:

1. Selecting Full fledged Sharia bank is a form of obeying to the religion.
2. Performance of Full fledged Sharia bank is appropriate with religion (Islamic) principle.
3. Profit sharing on Full fledged Sharia bank is same with interest on conventional bank.
4. Selecting Full fledged Sharia bank is because it is a Sharia bank.
5. Product of Full fledged Sharia bank is appropriate with Islamic value.

**e. Knowledge**

Knowledge comes from education, experience and training. Measuring knowledge variable is done using the aspect of understanding on mechanism and system in Full fledged Sharia bank. The questionnaire of knowledge in this research is modification from research conducted by Faisal (2016). All the questions used in questionnaire are written in Bahasa (Indonesia). The items of the question are:

1. Three main duties of Full fledged Sharia bank are distributing the fund, collecting the fund and giving service.
2. Trade principles of Full fledged Sharia bank are Mudharabah financing, Salam financing, Istishn financing and Ijarah financing.
3. Profit sharing method in Full fledged Sharia bank are Musyarakah and Mudharabah.
4. There is Sharia Supervisory Board who obligates to supervise the operational of Full fledged Sharia bank.

5. Investment of Full fledged Sharia bank is just on permitted (halal) activity.

f. Financial Information Disclosure

Financial information disclosure means giving information related to bank. The information is useful for stakeholder to make decision. Measuring the financial information disclosure variable is done using convenience and decision making. The questionnaire of financial information disclosure in this research is modification from research conducted by Dianto (2016). All the questions used in questionnaire are written in Bahasa (Indonesia) from Bahasa. The items of question are:

1. Financial information of Full fledged Sharia bank is useful to predict financial information of the bank.

2. When I need information, financial information of Full fledged Sharia bank is very useful.

3. Financial information of Full fledged Sharia bank is useful to make decision in saving.

4. Financial information of Full fledged Sharia bank is useful to give information that reflect my prospect in the bank.

5. Financial information in the financial statement of Full fledged Sharia bank is easy to understand.
F. Data Analysis Method

This research carries out multiple linear regression model. Multiple regression model is useful to know effect between two or more independent variable towards dependent variable.

1. Analysis Tools

This research uses quantitative data coming from licert scale as the result of questionnaire given to students. This research uses SPSS 15 to process the data into output that the researcher needs to analyze. The research carries out multiple linear regression consisting of data quality test, classical assumption test and hypothesis testing.

2. Multiple Linier Regression Model

The formula for this research is:

\[ W = a + \beta_1 PR + \beta_2 L + \beta_3 PS + \beta_4 R + \beta_5 K + \beta_6 FID + e \]

Description:
- \( W \) = Willingness
- \( PR \) = Parents recommendation
- \( L \) = Location
- \( PS \) = Profit sharing
- \( R \) = Religiousity
- \( K \) = Knowledge
- \( FID \) = Financial information disclosure
- \( a \) = Constanta amount (value Y, if X=0)
- \( \beta \) = Regression coefficient \( \beta \)
- \( e \) = Error tolerance / residual (5%)

3. Descriptive Analysis

According to Nazaruddin & Basuki (2017), descriptive statistics is the data of observation result consisting of all variable description.
Descriptive statistics contain important data such as the mean, minimum & maximum data, range of data and the standard deviation. Thus, from the table, we know the result of highest mean and highest standard deviation.

4. Instrument and Data Quality Testing

a. Validity Testing

Validity testing is useful to measure the accuracy of measurement tools. If the measurement tool is valid or able to measure what supposed to be measured, it means that the instrument is valid. Using the value of KMO and value of anti-image correlation to know the validity value, if the value of KMO and anti-image correlation higher than 0.5 meaning that the instrument is valid. If the data are not valid, we can delete the question and re-test the variable (Nazaruddin & Basuki, 2017). The validity test is applicable for all variable in this research.

b. Reliability Testing

Reliability testing is useful to measure the degree of consistency. When the questionnaire is used for more than one time and the result still same, it means that the instrument is consistent (Nazaruddin & Basuki, 2017). The reliability test is applicable for all variable in this research. To know the reliability, the Cronbach Alpha test is used. The criteria for value of Cronbach Alpha are:
TABLE 3.1
Reliability Criteria based on Cronbach Alpha Value

<table>
<thead>
<tr>
<th>Cronbach Alpha</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.4</td>
<td>Low</td>
</tr>
<tr>
<td>0.4 – 0.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.7 – 0.9</td>
<td>High</td>
</tr>
<tr>
<td>&gt; 0.90</td>
<td>Perfect</td>
</tr>
</tbody>
</table>

5. **Classical Assumption Testing**

   a. **Normality Test**

      Normality test is useful to know whether the residual value distributed normally or not. Good regression model if the result of the regression is normal. The Normal P-P Plot standardized residual will provide the normality result in visual. Normal residual is when the dots location are around the diagonal line. Another method to know the normality is by looking at the Test of Normality table by applying Kolmogorov-Smirnov or Shapiro-Wil test. We can conclude that the data are normal when the sig is more than alpha 0.05.

      Nazaruddin & Basuki (2017) explains if data are not normal, some methods are used to make data normal:

      1. If the sample is big, outlier value from data is eliminated.
      2. Transforming data.
      3. Using nonparametric analysis tools.

   b. **Multicolinearity Test**

      Multicolinearity test is useful to detect the correlation between dependent variables. Good regression model is if the correlation is not
too high meaning that there is no multicolinearity. Because high correlation of independent variable can disturb the dependent variable. (Nazaruddin & Basuki, 2017).

To detect whether there is multicolinearity or not in regression model, VIF (Variance Inflation Factor) value in coefficient table is used. The VIF value must be lower than 10. The other method is by looking at the tollerance value. The tollerance value must be higher than 0.1.

According to Nazaruddin & Basuki (2017), if data contain multicolinearity, some methods can be used to delete multicolinearity:

1. Changing or taking out variable containing high correlation
2. Adding number of observation and number of data
3. Transforming the data
4. Combining cross section data and time series data to make data panel
5. Using step wise method, best subset method, elimination backward method or forward selection method

c. Heteroskedasticity

Heteroskedasticity is the existence of unsimilarity of variance from residual for all observation in the regression model. If the variance from residual of one observation to another observation is
consistent, it means that there is homoskedastisity. Good regression model is when there is no heteroskedastisity.

To detect heteroskedastisity, Glejser test, Park test or White test can be used and this research carries out Glejser test. We can see that the result of heteroskedasticity can be seen by looking at the coefficient table. To fulfil the non-heteroskedastisity assumption, the sig value must be higher than alpha 0.05.

There are two method to solve heteroskedastisity problem. According to Nazaruddin & Basuki (2017), if data do not contain heteroskedastisity, we can transform into logarithm form or by dividing the variable that has problem in heteroskedastisity.

6. Hypothesis Testing

a. Coefficient Determination Test ($R^2$)

Coefficient determination test is useful to test the capability of model in explaining variance in independent variable. The test is done by looking at the result of model summary table and seeing the $R$ value. For simple linear regression, the result showed in $R^2$ and for multiple linear regression, the result comes from adjusted $R^2$ value (Nazaruddin & Basuki, 2017).

The value of $R^2$ explain the degree of independent variable able to explain dependent variable. If the value of $R^2$ or adjusted $R^2$ is 0.288, it means that the independent variable in research model is able to explain 28% of dependent variable. Because this research has more
than one independent variable, the value of adjusted $R^2$ is used in this research. The rest of percentage is explained in other factors which are not explained through this research model.

The $R^2$ value will increase if there is addition of independent variable in the research model. Thus, many researchers suggest to use adjusted $R^2$ because if there is addition in independent variable, the value of adjusted $R^2$ can be decreased or increased.

b. F-Test

According to Nazaruddin & Basuki (2017) F-test or simultaneous test is useful in multiple linear regression to know the effect of independent variable simultaneously. The test can be done by using this two methods, first is by comparing calculated F and F value on table, second is based on value of sig. The value of sig is used in this research by looking at the Anova table. If sig value is below 0.05 (alpha), so independent variable affects towards dependent variable simultaneously.

c. Partial Test (T-Test)

Individual parameter significant test is useful to know the effect of each independent variables partially shown in the result of coefficient table (Nazaruddin & Basuki, 2017). To know whether hypothesis is supported or not, the value of B can be used to see the direction and see the sig value to know whether the hypothesis is supported or not. The value of B in the unstandardized coefficients show the direction of
variable. If the value is positive (+), it means that there is positive effect on independent variable towards dependent variable. The increasing of independent variable will give an increase also in dependent variable. The significance of hypothesis is based on probability or sig value. If sig value is below 0.05 (alpha), there is effect on independent variable towards dependent variable. Thus, if the B value is positive (+) and sig value is below 0.05, it means that hypothesis is supported.

7. Chow Test

Chow test is test to know whether there is any significant differences of certain event or activity or not (Rangkuti, 2005). If result of the observation is divided into some groups, calculate the calculated $F$ and table $F$ to know whether there is different effect of independent variables towards dependent variable between group of sample (Pamungkas, 2013). To calculate the calculated $F$, this formula is used as follow:

$$\text{Calculated } F = \left(\frac{RSS_5}{k}\right) / \left(\frac{RSS_4}{n_1 + n_2 - 2k}\right)$$

Source : Pamungkas, 2013

Description:

$RSS_1$ = Residual sum of square from regression data group one and two

$RSS_2$ = Residual sum of square from regression data group one

$RSS_3$ = Residual sum of square from regression data group two

$RSS_4$ = $RSS_2 + RSS_3$

$RSS_5$ = $RSS_1 - RSS_4$
K = independent variable

To calculate Table F can use Microsoft Excel program by typing this formula below:

=FINV(0.05;df1;df2)

Source: Sukoco, 2017

Description:

Df1 = k-1

Df2 = n-k

After found calculated F and table F, compare the F. If calculated F is higher than table F, it means that there is different effect of independent variables toward dependent variable between sample of groups (Pamungkas, 2013).