CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

1. Object / Subject of the Research

The populations in this research are manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2014 until 2016. Sample used in this research are company's financial statements listed in BEI include derivative transactions, corporate social responsibility disclosure and political connections in 2014 to 2016. The reason of sample selection is because manufacturing companies have large number, so there are more data variations. Besides that, manufacturing companies also process their own raw materials into finished goods, so there are more opportunity to manipulate expenditure or expense.

2. Data Type

The type of data in this research is secondary data which is obtained from publication of financial statements by Indonesia Stock Exchange (IDX) in 2014 to 2016.

3. Sampling Technique

Sampling method that used in this research is purposive sampling, which the researcher selects the samples based on

consideration and certain specified criterion. The sampling technique of the companies in the research is based on the following criteria:

a. Manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014 to 2016 and publish annual report which can be accessed at www.idx.co.id.

b. Company never suffered losses in 2014 to 2016. The company that suffered losses included may harm the research result.

c. The financial statements of manufacturing companies taken as samples must use rupiah currency in order not to cause any difference in exchange rate.

d. Manufacturing companies that disclose reports corporate social responsibility report in 2014 to 2016

e. Company that have completes data required in this research.

4. Data Collection Technique

Data collection technique in this research uses literature method which conduct literature review, explore and examine literature variety such as books, journals, issues, literature, and other resources related to this research.

5. Operational Definition of Research Variables

a. Dependent Variable

Dependent variable in this research is tax avoidance (TA). Tax avoidance is proxied by Cash Effective Tax Rate (ETR). Cash

ETR compares the cash used by company to pay taxes with income before tax. (Armstrong et al, 2012). Cash ETR calculation is:

$$Cash\ ETR = \frac{Paid\ Tax}{Income\ Before\ Tax}$$

The higher Cash ETR is approaching corporate income tax rate of 25%, indicate the lower tax avoidance performed. Conversely, the lower Cash ETR rate, indicate the higher corporate's tax avoidance performed (Dewinta and Setiawan, 2016).

b. **Independent Variables**

Independent variables in this research are derivative transactions, corporate social responsibility disclosure, and politic connections.

1) Derivative Transactions

One of independent variables in this research is derivative transactions (DEV). This is dummy variable that give one to its value for financial derivatives user company and give zero to its value for companies that does not (Oktavia and Martani, 2013).

2) Corporate Social Responsibility Disclosure

Measurement variable of corporate social responsibility disclosure (CSR_D) is undertaken by using a check list based on the Global Reporting Initiative (GRI G.4) obtained from www.globalreporting.org and refers to research by Rini et al, 2015. In CSR disclosure report concept according

to GRI there are 91 CSR disclosure items, consisting of 9 economic indicators, 34 environmental indicators, 16 indicators of labor practice and work convenience, 12 human rights indicators, 11 community indicators, and 9 indicators of responsibility of product. The expected number of items to be revealed disclosed by company are 91 items.

This measurement is undertaken by matching between check list items with disclosed items in the company annual report. If an item i is disclosed, it will become 1 and if it doesn't, it will become zero on check list. The formula to calculate the CSRI as follows:

$$CSRIi = \Sigma Xiy \,/\, ni$$

CSRIi : Index of corporate social and environmental responsibility disclosure areas i.

ΣXiy : Value 1 if item i is disclosed; value 0 if item i is not disclosed.

Ni : Number of items for company i, ni $\leq$ 91.

3) Political Connections

In this research, to assess political connections (PC) of a company, it used proxy of direct company ownership by the government. This measurement consistent with research by Adhikari et al (2006) and Nugroho (2011). Besides that, the available company financial report is shareholder which contains description of parties who own shares of the company.

Political connection owned by company is measured with minimum share ownership of 25% by government that is in accordance with Article 18 of Law No. 36 of 2008 regarding special relationship (Lestari and Putri, 2017). Beside that, Faccio (2006) stated that a company is classified to has political connection if it has one or more large shareholders (anyone who control at least 10 percent of voting shares), or one of whether it's top officer (president, vice-president, CEO, secretary, or chairman) is part of minister, parliament, or is closely related to a top politician or party. Closed relation that mentioned by Gomez and Jomo (1997) and Johnson and Mitton (2003) are:

a) when top officer or large shareholder is friend of president, ministers or members of parliament

b) when top officer or large shareholder is a politician in another country

c) when top officer or large shareholder is known to be associated with a political party.

6. Data Analysis

Data analysis method is a procedure or technique to test the research hypothesis. This method uses descriptive statistics analysis, classical assumption test and multiple linear regression analysis.

a. Descriptive Statistics Analysis

Descriptive statistics describe a data that can be seen from mean, standard deviation, maximum, and minimum (Ghozali 2006). Descriptive statistics analysis is usually used to describe the sample data profile before utilizing statistical analysis techniques that serve to test the hypothesis (Nazaruddin and Basuki, 2016).

b. Classical Assumption Test

Classical assumption test consists of normality, multicollinearity, autocorrelation, and heteroscedasticity test.

1) Normality Test

Normality test used to whether distribution data normal or not. A good data is data that normally distributed. The purpose of normality test is to examine whether in regression model, dependent variable, independent variable or both have a normal distribution or not (Ghozali, 2006). Normality test in this research uses Kolmogorov-Smirnov statistic test. Level of Significant is 0.05. Data is normally distributed if the value of Asymp. Sig. (2-tailed) more than 0.05 (Nazaruddin and Basuki, 2016).

2) Multicollinearity Test

Multicollinearity test purpose is to examine whether there is any correlation between independent variables in regression model. A good regression model should not be

correlated among independent variables. Multicollinearity in the regression model can be seen from Variance Inflation Factor (VIF) values. If VIF less than 10, then there is not multicollinearity among independent variables. If VIF more than 10, then there is multicollinearity (Nazaruddin and Basuki, 2016).

3) Autocorrelation Test

Autocorrelation test purpose is to examine whether there is any correlation between the disturbance error at certain period and the disturbance error at previous period in linear regression. A good regression model is a regression that free from autocorrelation. This research uses Durbin-Watson test (DW test) that requires a constanta (intercept) in regression model and no more variables among independent variables (Ghozali, 2006). Based on Santoso (2012), autocorrelation in research can be determined by:

a)   There is positive autocorrelation if DW below -2

b)   There is no autocorrelation if DW between -2 to +2

c)   There is negative autocorrelation if DW above +2

4) Heteroscedasticity Test

Heteroscedasticity test purpose is to examine whether in the regression model has any inequality variance from residual one observation to another observation or not. A good

regression model is that does not have heteroscedasticity (homoscedasticity), where residual variance from one observation to another observation is stay still. There are several ways to test heteroscedasticity in variance error terms for regression model. This research use glejser test with basic analysis, that are:

a) If significant value more than 0,05, then there is not any heteroscedasticity.

b) If significant value less than 0,05, then there is a heteroscedasticity.

c. Hypotheses Testing

To find out the relationship between derivative transactions, CSR disclosure and political connections with tax avoidance, then this hypothesis test uses multiple linear regression analysis. In hypothesis testing, the first thing to do is testing the data that consist of descriptive statistics and classical assumptions test. The hypothesis testing equation model in this research is:

$$TA = \alpha + \beta 1\ DEV + \beta 2\ CSR\_D + \beta 3\ PC + e$$

Index:
TA   : Tax avoidance
DEV   : Derivative transaction
CSR_D   : CSR disclosure
PC   : Political connection
A   : Constant
β1, β2, β3 : Regression Coefficient
e   : Error

1) T Test

        T test or partial test purpose is to examine how influence of each independent variable individually to the dependent variable. This test is done by determining the level of significance and looking at the direction of regression coefficient. If the level of significance is less than 0.05 ($\alpha < 5\%$) and has the same direction as hypotheses, it means that the independent variable influences the dependent variable significantly.

2) F Test

        F test or simultaneous test is test to find out how the influence of all independent variables together to the dependent variable. If sig value less than 0,05, then the independent variables simultaneously have significant effect towards dependent variable.

3) Determinaton Test

        Coefficient of determination (R square) is used to find out how big the relation of some variables in clearer definition is. Determination test means that dependent variables can be explained by the independent variables with the provision that F test result in regression analysis is significant (Santosa and Ashari, 2005).

        This coefficient value is between 0 and 1, if the result is closer to 0, it means independent variables abilities to explaining

variable variations are very limited. But if the result is near 1, it means independent variables provide almost every information needed to predict dependent variables.