CHAPTER III

RESEARCH METHOD

A. Research Object

This research discusses the effects of independent variables such as board commissioner size, independent commissioners, role duality, institutional ownership, audit committee, and auditor industry specialization to the dependent variable that is audit delay. As for the objects of this research were manufacturing companies listed on the Indonesia Stock Exchange (IDX) year 2015 until 2017.

B. Type of Data

The data used in this research were secondary and quantitative data types in the form of annual financial statements and independent auditor report of manufacturing companies listed on the Indonesia Stock Exchange period 2015-2017.

C. Sampling Technique

Sampling technique in this research used purposive sampling where the sample was adjusted on the basis of sample characteristics with the determination of sample selection criteria, while the population in this research were all manufacturing companies listed on the Indonesia Stock Exchange period 2015 to 2017. Criteria for the selection of samples performed are on the basis of:

1. Manufacturing companies listed on the Indonesia Stock Exchange period 2015-2017.

2. Manufacturing companies that published complete independent audit report and annual financial statements respectively from 2015 to 2017.
3. Manufacturing companies that have published a financial report as well as annual reports for the period ending December 31, 2015, 2016 and 2017. This is in order to improve comparability or appeal.
4. Financial reports that were included as samples must use the Rupiah currency so that there is no exchange rate difference.
5. Manufacturing companies that demonstrate complete data and information to analyze the influence of corporate governance characteristics and auditor industry specialization on audit delay of 2015-2017.

D. Data Collection Technique

Data collection technique used in this research was documentation technique. Data documentation were done by downloading the annual financial report and independent auditor's report from the manufacturing companies listed on Indonesia Stock Exchange (IDX) by accessing the website www.idx.co.id.

E. Operational Definition of Research Variable

1. Dependent Variable

Dependent variable used in this research was audit delay. In their research, Ashton et al. (1987) used the term audit delay to describe this where they define audit delay as the length of time that occurs from a company's fiscal year-end to the date of the auditor's report. Based on

the research of Aditya and Anisykurlillah (2014), this variable is measured from the difference of the closing date of the financial year to the date of the audit report.

ADELAY = Number of calendar days counted from fiscal year-end until the date of independent auditor's report is signed

2. Independent Variables

a. Corporate Governance

The Forum for Corporate Governance in Indonesia defines corporate governance as a system or governance that regulates and controls a company whose purpose is to serve both internal and external interests (FCGI, 2001). The mechanisms of corporate governance which were used as independent variables in this research were members on the board of commissioner, the independent commissioner, the role duality, institutional ownership, and audit committee.

1) Board Commissioner Size (BSIZE)

In corporate governance mechanisms as internal controls, there is a measure of the board as the ultimate control mechanism for top management (Fama and Jensen in Thesarini, 2016). In practice, the board commissioner carries out the role of an intermediary among persons involved in financial reporting as well as a key control function. The size of the board for each company is different from each other, but the applicable

provisions require a minimum of two people work as board commissioner in a company. Wardhani and Raharja (2013) measured this variable using the total number of an existing board member.

BSIZE = Total number of board commissioner members of a company

2) Independent Commissioners (BIND)

The board of commissioner as a whole does not come from the internal company, some of the members are external parties who work independently. This is to reduce the internal opportunistic actions and the level of independence of the board is considered to reduce management collusion action to deceive shareholders (Fama and Jensen in Kusumah and Manurung, 2017). Alfraih (2016) measured this variable by comparing the proportion of independent board to the total board within the enterprise.

$$\text{BIND} = \frac{Number\ of\ independent\ commissioners}{Total\ number\ of\ commissioners} \text{ x } 100$$

3) Role Duality (DUAL)

In a corporate structure, it is not possible that a person holds two controls or two roles at the same time. The duality role described as a condition in which the board of commissioners at the same time also acts as CEO. Also if there are family relationships between two individuals who are on the board of

directors and the board of commissioners then it will be considered as role duality. In this research, the variable role duality which then abbreviated DUAL will be measured using dummy variable as referred in Alfraih's research in 2016. Number 1 is given if the duality situation occurs and the number 0 is given for the opposite condition.

4) Institutional Ownership (IO)

Institutional ownership is a condition in which the total shares of the company are shares that are owned by other institutions for example financial institutions, legal institutions, governments, and other institutions. As in the research of Surpasada and Putri (2017), this variable will be measured using a percentage of share ownership by other institutions.

$$\text{IO} = \frac{Shares\ owned\ by\ the\ institution}{Total\ outstanding\ shares} \text{ x } 100$$

5) Audit Committee (ACOM)

In order to achieve a good implementation of corporate governance, the board will then establish an audit committee to assist the board of commissioners in the oversight function of a company. The applicable regulations require a minimum of three peeple in the audit committee. However, the proportion of audit committees in Indonesia varies with each company. Sulistya in Haryani and Wiratmaja (2014) measured this variable using the

level of percentage of the proportion of audit committees to the total existing board of commissioners.

$$\text{ACOM} = \frac{The\ total\ audit\ committee}{The\ total\ commissioners\ board} \text{ x } 100$$

b. Auditor Industry Specialization (SPEC)

As it has been defined previously, the auditor industry specialization defines as the number of services that have been provided or clients that have been handled with similar industry. This variable was measured using a dummy variable where number 1 was assigned to industry specialization auditors and number 0 for auditors who did not have industry specializations. The measurement of the auditor of industrial specialization in this study which is used to identify the auditor of industry specialization refers to the research of Gul et al. in Rahadianto (2012) as follows:

$$\text{SPEC} = \frac{KAP\ clients\ in\ the\ industry}{Companies\ listed\ in\ the\ industry} \text{ x } \frac{Average\ assets\ of\ KAP\ clients\ in\ the\ industry}{Average\ assets\ of\ companies\ listed\ in\ the\ industry}$$

Auditors who are considered to have specialties if the results obtained are 15% or more. This means that 1 will be given if the results obtained are 15% more and 0 will be given if the results obtained are less than 15% (Primantara and Rasmini, 2015).

F. Data Analysis and Hypotheses Testing Method

1. Data Analysis Method

a. Descriptive Statistics Analysis

Ghozali (2013) explained that descriptive statistics are used to provide an overview of the data used through statistical tests. The

data description is seen from the minimum and maximum values, the average value, and the standard deviation. In this research, descriptive analysis was used to describe board commissioner size, independent commissioners, role duality, institutional ownership, audit committee, auditor industry specialization, and audit delay.

Maximum and minimum scores in the descriptive analysis were used to see the maximum and minimum scores of the population in this research. The mean was used to estimate the average population size estimated to be the research sample. Standard deviation was used to assess the average dispersion of the samples in this research.

b. Classic Assumption Test

The classical assumption tests that used in this research were normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

1) Normality Test

Normality test is described as a testing tool to determine whether the distribution of residual value is normal or not. A good and decent regression model must have data that is normally distributed. In this research the process of normality test data using the Kolmogorov-Smirnov statistical test. The basis of decision making used is if the significance value is> 5% (0,05), then the data is normally distributed. Whereas if the

significance value is <5% (0,05), the data is abnormally distributed (Nazaruddin and Basuki, 2017).

2) Multicollinearity Test

In a good regression model, there should be no correlation between independent variables. Multicollinearity detection can be assessed through Variance Inflation Factors (VIF) and Tolerance score. Multicollinearity test in this research used to show a linear relationship between independent variables as a modifier in the multiple regression model. If independent variables have a significant relationship can affect each other, then the multicollinearity can occur. The basis of decision making used is if the VIF value is < 10 and the Tolerance value is > 10% (0,10), it can be assumed that there is no multicollinearity. Whereas if the VIF value is > 10 and the Tolerance value is < 10% (0,10) then it can be assumed that multicollinearity occurs (Nazaruddin and Basuki, 2017).

3) Heteroscedasticity Test

The heteroscedasticity test in this research purposed to show the unequal variances of residuals of different independent variables. To meet the requirements of this model is the existence of the same variance of residuals of different independent variables or also called homoscedasticity. The heteroscedasticity test used in this study is the Park test. The

Park test is done by squaring the residual value which is then transformed by the value of the natural logarithm. This value is then used to register the independent variable. The basis of decision making uses is if the significance value obtained is > 0,05 then it can be assumed that there is a heteroscedasticity. Whereas if the significance value is < 0,05, it can be assumed that there is no heteroscedasticity (Ghozali, 2013).

4) Autocorrelation Test

In this research, the period used is from 2015 to 2017 or more than one years. Therefore, an autocorrelation test is required. Autocorrelation test in this research was used to know whether or not there is deviation of classical autocorrelation assumption that is correlation happened between residual exist in the regression model. The test method used was the Durbin-Watson test. The basis of decision making uses is if the Durbin-Watson test results fulfill the provision of dU < DW < (4-dU). If the provision is fulfilled then the autocorrelation does not occur. The values of dU are derived from the Durbin Watson statistics table (Nazaruddin and Basuki, 2017).

2. Hypotheses Testing Method

This study used multiple regression analysis to test the hypotheses because there is more than one independent variable. This analysis was used to determine the relationship between the dependent variable which

is audit delay with independent variables including board commissioner size, independent commissioners, role duality, institutional ownership, audit committee, and auditor industry specialization. Regression equation used in this research as follows:

$$\mathbf{ADELAY = \alpha + \beta 1\ BSIZE + \beta 2\ BIND + \beta 3\ RD + \beta 4\ IO + \beta 6\ ACOM + \beta 7\ SPEC + e}$$

Where:

ADELAY	= Audit Delay
β1, 2, 3, 4, 5, 6, 7	= Coefficient
BSIZE	= Board Commissioner Size
BIND	= Board Independence
DUAL	= Role Duality
IO	= Institutional Ownership
ACOM	= Audit Committee
SPEC	= Auditor Industry Specialization
e	= Error

Furthermore, from multiple regression analysis conducted several tests as follows:

a. Coefficient Determination Test

The coefficient determination (R^2) used to measure the extent of the model's ability to explain the variation of the dependent variable (Ghozali, 2013). In this study, the basis to determine the coefficient determination can be seen from the adjusted R square

score instead of R square score because this study used multiple regression. Through the adjusted R square score, the suitability or significance level of the relationship between the independent variable and the dependent variable can be known. The adjusted R square score is between 0 and 1 where smaller than the ability of independent variables can explain the variation of the dependent variable is very limited. Whereas if the adjusted R square score approaches the number one then the variation of the dependent variable can be explained by the almost perfectly by the independent variable.

b. Simultaneous Significance Test (F Test)

Simultaneous significance test or better known as F test is a test conducted to find out the influence of the variable independent simultaneously on the dependent variable. In this study, the F test performed using the significance level of 5% or alpha 0,05. The basis of the determination is if the significance value is < 5% (0,05), it can be stated that the independent variables simultaneously have a significant effect on the dependent variable. Whereas if the significance value is > 5% (0,05), it can be concluded that the independent variables simultaneously do not significantly influence the dependent variable (Nazaruddin and Basuki, 2017).

c. Significant Test of Individual Parameters (t Test)

A significant test of individual parameters or better known as t test was used in this study to find out the influence of each independent variable partially on the dependent variable. The t test also performed using the significance level of 5% or alpha 0,05. The basis of the determination is if the significance value is < 5% (0,05), it can be stated hypothesis that the independent variables individually or partially influence the dependent variable accepted. Whereas if the significance value is > 5% (0,05), it can be concluded hypothesis that the independent variables individually or partially influence the dependent variable rejected (Nazaruddin and Basuki, 2017).

In addition, the t test was also used to determine the direction of the hypothesis whether it is accepted or not. The direction in question is the direction of the regression coefficient where the direction states the change in the average of the dependent variable for each independent variable change of one unit. The basis of the determination used is to look at the signs on the results of the Unstandardized Beta Coefficients.