

Chapter III

RESEARCH METHOD

3.1. Population and Samples

The sampling technique was done by purposive sampling method. Its characteristics are property, real estate, and construction industry which listed in Indonesia Stock Exchange (IDX) , in the period of 2012-2017

Table 3.1
List of Samples

Year		Property, Real Estate and Building Construction
Before Jokowi's era	2012	56
	2013	57
	2014	63
In Jokowi's era	2015	63
	2016	63
	2017	64
Total		366

3.2. Source of Data

The data were collected from Indonesia Stock Exchange (IDX) website (<http://www.idx.co.id/>) and Newspaper and Online Newspaper.

3.3. Operations Definition Research Variables

Dependent variables are variables that are affected or are due, because of the existence of independent variables. The variable that affects the dependent variable, both positive and negative ones. Often called as an independent variable. In this study, the independent variables included dividend policy, debt policy, and insider ownership.

a. Firm Value

In this study, the value of the company defines as price to book value as a dependent variable. To calculate the price to book value, the market price of a share divided by the book value per share (book value stock). According to Brigham and Huston (2011), price book value (PBV) was formulated as follows:

$$\text{Price to Book Value} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}} \times 100\%$$

b. Dividend Policy

Dividend policy is a policy that produces a balance between current dividends, future growth and maximizes the company's share price. According to Brigham and Houston (2011), the formula of Dividend Policy is

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share}}{\text{Earnings Per Share}} \times 100\%$$

c. Debt Policy

DER is the ratio used to evaluate a company's financial leverage. The debt/equity ratio is also referred to a risk or gearing ratio. The formula for calculating the DER is:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Shareholder's Equity}} \times 100\%$$

d. Insider Ownership

Insider ownership is management that actively participates in the decision making of both commissioners and directors. Insider ownership can be formulated as

$$\text{Insider Ownership} = \frac{\text{Share Ownership of Directors + Commissioners + Management}}{\text{Total of Outstanding Shares}} \times 100\%$$

e. Dummy

Dummy variable is used as a differentiating variable between property companies, real estate, construction in the Jokowi era and before the Jokowi era. The problem faced is the difference in independent variables in property, real estate, and construction in the Jokowi era with the era before Jokowi. Then in the regression model, the variable must be expressed as a dummy variable by giving the code 0 (zero) to before the Jokowi era or 1 (one) to the Jokowi era. Each dummy variable represents one category of independent

variables. In the regression model used, variable D is an intercept variable.

3.4. Hypothesis Testing

The data analysis technique used in this study is multiple linear regression analysis. This analysis technique was used to explain the relationship and the influence of the independent variables which are insider ownership, dividend policy, and debt policy on the dependent variable firm value in property, real estate and construction companies listed on the Indonesia Stock Exchange in the period 2012-2017.

3.4.1. Multiple Regression Analysis

Multiple regression analysis was used to estimate the value of a variable (Y) on a certain variable value (X), so that it can be known how much influence a variable has on other variables.

The multiple regression formula for this study, between the variables X and Y are as follows:

$$FV_i = \alpha_0 + \beta_1 DPR_i + \beta_2 DER_i + \beta_3 INSDR_i + \beta_4 DDPR_i + \beta_5 DDER_i + \beta_6 INSDR_i$$

α_0 = Basic Constant.

$\beta_1 \beta_2 \beta_3 \beta_4 \beta_5 \beta_6$ = Coefficient of Regression

FV_i	= Firm Value (PBV)
DPR_i	= Dividend Policy
DER_i	= Debt Policy
$INSDR_i$	= Insider Ownership
D	= Dummy of Jokowi Era
e	= Error term

3.4.2. Classical Assumption Test

a. Multicollinearity Test

Multicollinearity is a situation where there is a strong relationship among independent variables. According to Ghozali (2006), multicollinearity test aims to test whether there is a correlation regression model found a correlation between independent variables in the regression model. In the regression model, there should not be a correlation among the independent variables. If the independent variables correlate with each other then the variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is zero.

b. Heteroscedasticity Test

Heteroscedasticity test aims to test whether in the regression model there are similarities or differences in variance between one observation to another observation. According to Ghozali (2006), heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual one observation to another observation remains, it is called heteroscedasticity and if different heteroscedasticity. A good regression model happens if there is no homoscedasticity.

a. Autocorrelation Test

The autocorrelation test aims to determine whether there is a correlation between confounding errors in period t (analysis period) and confounding errors in period $t-1$ (previous period) (Ghozali, 2006). To determine the presence or absence of autocorrelation in a regression model, a test was conducted using the Durbin-Waston Test (Dw Test).

3.4.3. Simultaneous Test (F test)

The F statistical test basically points to whether all the independent or independent variables included in the model have a joint effect on the dependent variables (Ghozali, 2006). Proof is done by comparing the critical value F (Ftable) with the F count value contained in the table analysis of variance SPSS. If F count is greater than F table, the decision rejects the null hypothesis (Ho) and accepts the alternative hypothesis (Ha). The statistical meaning of the data used proves that all independent variables affect the value of the dependent variable.

3.4.4. Individual Parameter Significance Test (t Test)

Individual Parameter Significance Test (t Test) test basically shows how far the influence of an explanatory variable or individually independent in explaining the variation of the dependent variable (Ghozali, 2006). The way to do the t test is to directly see the number of degrees of freedom. If the number of degrees of freedom is 20, and the degree of trust is 5%, H0 which states $b_i = 0$ can be rejected if the value of t is greater and 2 (in absolute value). In other words, we accept the alternative hypothesis which disables that an independent variable individually affects the dependent. Another way is to compare the statistical value of

t with the critical value according to the table. If the statistical value t of the calculation result (t count) is higher than the value of t table, then the alternative hypothesis is accepted which states that the independent variables individually affect the dependent variable.