CHAPTER IV
RESULTS AND DISCUSSIONS

4.1 Research Object Description

In this chapter, the researcher discussed and analysed the data processing results on the effect of corporate governance toward the corporate risk-taking. The data used in this research was secondary data from the financial report of manufacturing companies. The samples used were manufacturing companies listed in the Indonesia Stock Exchange (IDX) during the period of 2013-2017. The method in choosing the sample was using the purposive sampling which the sample was not chosen randomly, but based on some criteria that met the researcher's requirement in doing this research. The result of sampling was shown in the table:

Table 4.1

Summary of Research Object Description

No.	Explanation	Total
1.	Manufacturing companies listed in IDX for the period of 2013-2017	127
2.	Manufacturing companies that did not provide complete information during 2013-2017	(52)
3.	Manufacturing companies that experienced negative equity in the period of 2013-2017	(6)
4.	Total manufacturing companies used as samples	69
5.	Total observation (69 x 5 years)	345

The results of how the researcher chose the manufacturing companies used as sample can be seen from the above table. The list of manufacturing industries that published their annual report to IDX from 2013 period were 127 companies.

However, from all of the companies listed, the researcher found that some annual reports of those companies cannot be collected due to some factors, such as the data of annual reports was erased both in IDX database and company's website and also the website of the company was under maintenance. The researcher was also excluded the companies that had a negative equity in their financial statements due to potential excessive risk-taking that the company dealt.

4.2 Descriptive Statistics Analysis

Descriptive statistics is used to depict a data statistically. In this research, the descriptive statistics was done based on the standard deviation, mean, minimum and maximum score of all variables, both independent variables (managerial compensation, ownership structure, audit committee size, and board of directors' size) and dependent variable (corporate risk-taking). All the variables were shown in the table:

Table 4.2

Summary of Descriptive Statistics Result

Variable	n	Minimum	Maximum	Mean	Std. Deviation
Corporate risk-taking	345	.0028759	.1018802	.0401386	.02309722
Managerial compensation	345	18.00	26.37	23.2426	1.33893
Ownership structure	345	.2366	.9818	.748601	.1514725
Audit committee size	345	2.00	6.00	3.1130	.43332
Board of director size	345	2.00	16.00	5.2435	2.48925

Source: Descriptive Statistics Data Processing Result, 2019

From the descriptive statistics results, the explanation can be discussed as follows:

1. From the total of 345 observations of 69 companies in 5 years' data, the result of corporate risk-taking showed that the minimum score of risk-taking in company is 0.29% experienced by PT Pabrik Kertas Tjiwi Kimia and the maximum score of risk-taking that the company had in sample is 10.19% by PT Arwana Citramulia. Meanwhile, the mean for corporate risk-taking variable is 0.0401 and the standard deviation is 0.0231. The score of standard deviation in this variable is lower than the mean score which indicate that the variable data is homogenous. It showed that the mean score can represent the data well.
2. For the managerial compensation, the researcher used natural logarithm of the compensations' value. The minimum score for managerial compensation in the shown table is 18.00 by PT Eratex Djaja in 2017 and the maximum score is 26.37 by PT Japfa Comfeed Indonesia in 2017. The mean score for this variable is 23.2426 and the standard deviation is 1.3389. The data in this variable is homogenous and a good model since the standard deviation is lower than the mean score.
3. The minimum score of ownership structure in this research is 23.66% by PT Bumi Teknokultura Unggul in 2015 and the maximum score is 98.18% by PT HM Sampoerna in 2013 and 2014. For the ownership structure, the mean score is 0.7486 and the standard deviation 0.1514. Again, the lower

score of standard deviation is greater than the mean indicating that the variable is not heterogeneous.

4. The total members of audit committee are also being analysed in this descriptive statistics results. The result showed that the minimum member of audit committee in manufacturing companies is only 2 and the maximum member is 6. The average of audit committee members in manufacturing companies in this research is 3.113 and the standard deviation is 0.433. The data in this variable is homogenous.
5. For the size of board of directors, the minimum member is 2 boards of directors and the maximum member that a company had for their board of directors is 16. For this variable, the average of board of directors' members in manufacturing companies is 5.2435 and the standard deviation is 2.4892. The lower score of standard deviation which is over the mean indicating that the data in this variable is homogenous.

4.3 Classical Assumption Test

Classical assumption test is used to test the feasibility of the regression model in order to achieve good data and generate a good model. The tests conducted in this analysis are as follows:

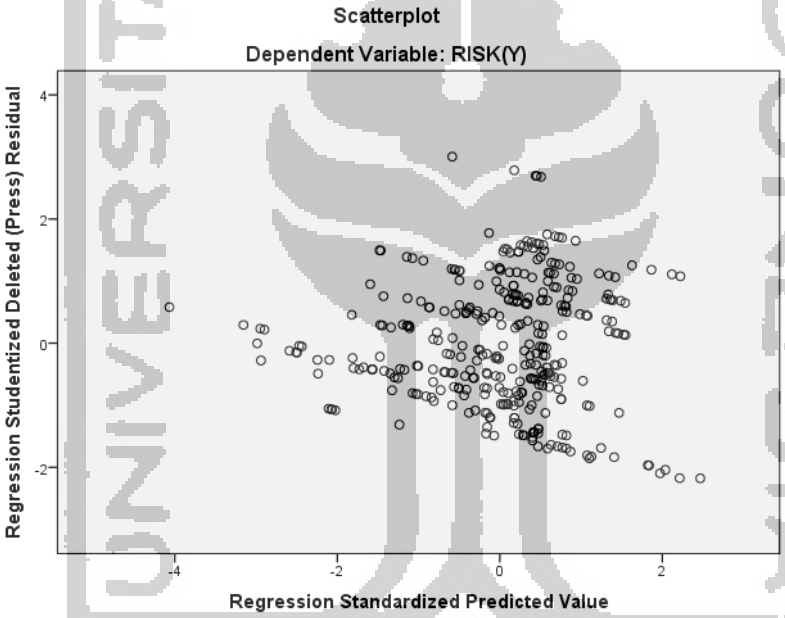
4.3.1 Heteroscedasticity Test

Heteroscedasticity test is used in a statistical analysis, especially in the context of linear regression or for time series analysis. The test is to describe the case where the variance of errors or the model is not the same for all observations, while often one of the basic assumption in modeling has the variances which are

homogeneous and the errors of the model are identically distributed. This research used the scatterplot graph to test the heteroscedasticity in this model. The indicator of the graph is SDRESID as the Y and ZRESID as the X. The result of the scatterplot graph is as follows:

Graph 4.1

Heteroscedasticity Test Result



The regression is a good model if the dots in the graph are spread randomly above 0 and below 0 in Y axis. In this research, it can be seen from the table that the dots were spread randomly above and below 0 number in Y axis. The random spread dots in the graph indicates that the data results are not heteroscedastic and it is a good model.

4.3.2 Normality Test

A normality test is used to determine whether the sample data have been drawn from a normally distributed population (within some tolerance). The test used in this research is Kolmogorov-Smirnov test. The result of the test was shown in the table below:

Table 4.3
One-Sample Kolmogorov-Smirnov Test Result

		Unstandardized Residual
n		345
Normal Parameters [a,b]	Mean	0E-7
	Std. Deviation	2.21249787
Most Extreme Differences	Absolute	.060
	Positive	.060
	Negative	-.040
Kolmogorov-Smirnov Z		1.115
Asymp. Sig. (2-tailed)		.166

a. Test distribution is Normal.
b. Calculated from data.

Source: Normality Test Data Processing Result, 2019

Based on the Kolmogorov-Smirnov test, the data is distributed normally if the significant value is closer or more than 0.05. The table above showed that the significant value is 0.166 which means that it is more than 0.05. Thus, it can be concluded that the data is distributed normally and can be used for analysis.

4.3.3 Multicollinearity Test

Multicollinearity test is used to test whether there is a correlation between independent variables that results in high correlation in the regression model. This research used multicollinearity test by looking at the tolerance value and the Variance Inflation Factor (VIF). The result of the test was shown in the table:

Table 4.4

Summary of Multicollinearity Test Result

Model	Collinearity Statistics	
	tolerance	VIF
COMP(X1)	.645	1.550
OWN(X2)	.956	1.046
ACS(X3)	.974	1.027
BODS(X4)	.673	1.486

Dependent Variable: RISK
Source: Data Processing Result of Multicollinearity Test, 2019
Legend: COMP= managerial compensations, OWN= ownership concentration, ACS= audit committee size, BODS= board of director size.

The variables are not inter-correlated if the tolerance value is more than 0.1 and the VIF value is less than 10. Based on the table, it is known that all the tolerances variables value are more than 0.1 and the Variance Inflation Factor (VIF) is less than 10. It means that there is no strong correlation between all independent variables being analysed in this research or there is no indication of multicollinearity issue.

4.4 Multiple Linear Regression Analysis

The analysis that used in this research is multiple linear regression analysis. This analysis is aiming to measure the strength and direction of the relationship between managerial compensation, ownership concentration, audit committee size, and board of director size toward the company's risk-taking. Based on the results of data processing using IBM SPSS Statistics 20, the multiple linear regression is as follows:

Table 4.5

Summary of Multiple Linear Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t.statistic	Sig.
	B	Std. Error	Beta		
(constant)	-.023	.028		-.851	.395
COMP(X1)	.002	.001	.144	2.172	.031
OWN(X2)	.021	.008	.140	2.579	.010
ACS(X3)	-.001	.003	-.013	-.246	.806
BODS(X4)	-.002	.001	-.164	-2.523	.012

Dependent Variable: RISK(Y)
Source: Multiple Linear Regression Data Processing Result, 2019
Legend: COMP= managerial compensations, OWN= ownership concentration, ACS= audit committee size, BODS= board of director size.

From the result of multiple linear regression analysis above, the formula developed for this research is as follows:

RISK= -0.023 + 0.002COMP + 0.021OWN - 0.001ACS - 0.002BODS

The formula above explained the effect of independent variables to dependent variable. The explanation of the coefficients regression is:

1. The intercept score of constant is -0.023. This score indicated that if the managerial compensation, ownership structure, audit committee size, and board of director size value is 0, the company's risk-taking value will be -0.023.
2. The coefficient regression of COMP is 0.002. This score indicated that if the managerial compensation is increasing 1 unit, the company's risk-taking will increase as much as 0.002. It assumed that the other independent variables are constant.

3. The coefficient regression of OWN is 0.021. This score indicated that if the ownership concentration is increasing 1%, the company's risk-taking will increase 0.021 with the assumption that other independent variables are constant.
4. The coefficient regression of ACS is -0.001. This score indicated that if the audit committee size is increasing 1 unit, the company's risk-taking will decrease 0.001 with the assumption that other independent variables are constant.
5. The coefficient regression of BODS is -0.002. This score indicated that if the board of director size increasing 1 unit, the company's risk-taking will decrease 0.002 with the assumption that other independent variables are constant.

4.5 Coefficient Determination (R^2)

The coefficient determination measures on how the independent variables can describe the dependent variable. The value of coefficient determination is ranged from 0 to 1. When the R^2 value is closer to 1, it indicated that there is a strong correlation between independent variables and dependent variable. On the other hand, if the R^2 value is closer to 0, it means that there is no strong correlation between independent variables and dependent variable or the independent variables cannot describe more about dependent variable. The result of the coefficient determination is shown in the table:

Table 4.6

Summary of Coefficient Determination Result

Model	R	R square	Adjusted R square
1	0.309	0.095	0.085

a. Predictors: (Constant), BODS(X4), OWN(X2), ACS(X3), COMP(X1)
b. Dependent Variable: RISK(Y)
Source: Data Processing Result of Coefficient Determination, 2019

From the table above, the adjusted R^2 value is 0.085 or 8.5%. Those values indicated that the managerial compensations, ownership concentration, audit committee size, and board of director size can only describe 8.5% of company's risk-taking behaviour. The remaining 91.5% is explained by the other factors outside the model.

4.6 Hypothesis Testing

This research was used t-statistics to test the hypothesis. The result of the test can be seen in the table 4.3. T-test is used to prove the effect of managerial compensations, ownership concentration, audit committee size, and board of director size toward the company's risk-taking individually (t-statistic) with the assumption that the other factors are constant. Based on the result of regression using IBM SPSS 20 Statistics, the discussions for the result are as follows:

4.6.1 The result on the effect of managerial compensations (X1) on the company's risk-taking (Y)

As shown in the Table 4.3, the hypothesis testing was done to test the coefficient significant of managerial compensations toward corporate risk-taking.

The first hypothesis stated that managerial compensation is positively significant associated with corporate risk-taking. Based on the result, the coefficient regression value is 0.002 and the significant value is 0.031. At the significant level of $\alpha = 5\%$, the result showed that the significant value is $0.031 < 0.05$ which means that the independent variable significantly and positively affects the dependent variable. It indicated that the managerial compensations significantly and positively affect the corporate risk-taking behaviour. The hypothesis was supported for this variable model.

In this research, the managerial compensations refer to all of the compensations received by all of key managements. The positively significant effect of managerial compensations over company's risk taking indicated that the higher the compensations that the key managements get, the higher the risk that they will take. Nowadays, managers work for companies in which they receive the highest utility in a free market with utility-maximizing managers. The higher probability of losing a job due to insolvency tends to give the managers a higher compensation. Managers of high-risk companies should eventually receive higher compensation since they will face the uncertainty of future employment due to their risk-taker behaviour (Eling & Marek, 2014). This result of study supports the research from Venuti and Alfiero (2016) and Bolton *et al.* (2015) which stated that the compensations of managers affect the company's risk-taking behaviour.

4.6.2 The result on the effect of ownership concentration (X2) on the company's risk-taking (Y)

The hypothesis testing was done to test the coefficient significance of ownership concentration towards corporate risk-taking. The second hypothesis stated that ownership concentration is positively significant associated with the company's risk-taking. Based on the model's result, the coefficient regression value is 0.021 and the significant value is 0.01. From the regression result, at significant level of 5%, the independent variable significantly and positively affects the dependent variable in this second hypothesis. It indicated that the ownership concentration significantly and positively associated with corporate risk-taking. The hypothesis developed was supported.

The ownership concentration in this study refers to the cumulative percentage of ownership held by the shareholders who own the shares of more than 5% in manufacturing companies. The result of the study indicates that the higher the ownership concentration, the higher risk-taking of the company. The higher the ownership concentration leads to more control by the owners over the managers. Based on the empirical literatures, the large shareholders are generally associated with high performances (Venuti & Alfiero, 2016). It needs more risk-taking behaviour to attain targeted performances expected by the owners of the company. From the result, it can be known that the large shareholders might have power to control the managers' behaviour and might force the managers to take more risks, since the high risks will give them high returns. The result of this

hypothesis is supported the previous study from Nguyen (2011) who stated that the ownership concentration is associated with higher risk-taking strategies.

4.6.3 The result on the effect of audit committee size (X3) on the company's risk-taking (Y)

The hypothesis testing was done to test the coefficient significant level of audit committee size towards corporate risk-taking. The third hypothesis stated that audit committee size is negatively significant associated with the company's risk-taking. Based on the regression model's result, the coefficient regression value is -0.001 and the significant value is 0.806. From the regression result, at significant level of 5%, the independent variable insignificantly and negatively affects the dependent variable in this second hypothesis. It indicated that the audit committee size insignificantly and negatively associated with corporate risk-taking. The hypothesis developed was not supported.

The result of the study showed that the members of audit committee are not affecting the risk-taking that the company deals with. The result that came into insignificant can be derived due to most of the firms in the study having three members of the audit committee. The hypothesis is not accepted in this model. The result is not consistent with the hypothesis developed. Despite there are some companies with members of five and six in the audit committee structure, the existence of audit committee in Indonesia cannot give effective contribution and effect to the risk management because the company only follow the rules by the higher authority to fulfilled the needs of audit committee based on regulation by BAPEPAM no. IX.1.5 KEP 29/PM/2004 about establishment and guidance of

implementation audit committee's work. The regulation stated that the existence of audit committee is needed and the authority of audit committee is only giving the opinion on financial statement process, risk management, and corporate governance and the decision will be on the commissioners. Based on the result, the size of audit committee is not effective in helping managing risk-taking behaviour within company. From the regulation, it might be known that the controlling role of audit committee in Indonesia is indirectly affect the risk management within manufacturing company. This result is consistent with the previous study done by Elamer *et al.*,(2018) which stated that there is a negative effect of audit committee size towards risk-taking, however, the relationship is not significant. Besides, a study by Adams and Jiang (2016) also found that the relationship of audit committee size and risk-taking behaviour is not significant.

4.6.4 The result on the effect of board of director size (X4) on the company's risk-taking (Y)

The hypothesis testing was done to test the coefficient significant of board of director size towards corporate risk-taking. The fourth hypothesis stated that board of director size is negatively significant associated with the company's risk-taking. Based on the regression model's result, the coefficient regression value is -0.002 and the significant value is 0.012. From the regression result, at significant level of 5%, the independent variable significantly and negatively affects the dependent variable in this second hypothesis. It indicated that the board of director size significantly and negatively associated with corporate risk-taking. The hypothesis developed was supported.

Based on the Table 4.3, the result showed that the total board of director members is associated with the risk-taking, but negatively affect. It showed that too large board of director size will lower the corporate risk-taking. Venuti and Alfiero (2016) stated that the larger board of director size had a tendentious of taking a less risky project because it is more difficult to convince a large number of board of directors that the risky project is worth to do. Besides, Pathan and Faff (2013) in their study stated that a large board of director size may lead to problems, such as poor communication and co-ordination and eventually give an impact to negative ability on monitoring their managers. From the result shown, it might be known that too many board of directors' member will find it hard for them to reach the same level of agreement in risk-taking. This result is consistent with some previous literatures (Venuti and Alfiero, 2016; Elamer *et al.*, 2018; Haider and Fang, 2016; Nakano and Nguyen, 2012). Those literatures found that the board of director size negatively significant affects the corporate risk-taking.