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Aryestantya Fikri Dewanta

*Department of Accounting, Universitas Islam Indonesia, Yogyakarta, Indonesia*  
fikridewanta@gmail.com

Johan Arifin

*Department of Accounting, Universitas Islam Indonesia, Yogyakarta, Indonesia*  
johan.arifin@uii.ac.id

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# Corporate risk-taking behaviour: Corporate governance perspective

Aryestantya Fikri Dewanta<sup>1</sup>, Johan Arifin<sup>2\*</sup>

<sup>1,2</sup>Department of Accounting, Universitas Islam Indonesia, Yogyakarta, Indonesia

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**\*Corresponding Author:**

johan.arifin@uii.ac.id

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**Abstract**

This study examines the effect of corporate governance which represented by the board of directors, audit committee, managerial compensations, and ownership concentration toward corporate risk-taking behaviour in Indonesian manufacturing companies during the period of 2013-2017. Samples were collected using a purposive sampling method with a total of 69 companies, thus there were 345 observations over 5 years. Regression analysis shows that managerial compensations and ownership concentration positively affect corporate risk-taking. The members of the board of directors negatively affect corporate risk-taking. Meanwhile, the size of the audit committee does not significantly influence the company's risk-taking behaviour in manufacturing companies listed on the Indonesia Stock Exchange.

**Introduction**

Corporate governance is consisting of the legal, contractual, and implicit frameworks that define the exercise of power within a company, that influences decision making allowing the stakeholders to make an assumption on their responsibilities, and to make certain on the point that their privileges and rights are appreciated (Feils et al., 2018). Based on this definition, it is expected that corporate governance involves exercising power to create true economic value within certain limits and constraints. Through the implementation of good corporate governance, it can push the efficiency of corporate resources performance as well as producing sustainable long term economic value (Sunaryo et al., 2019).

Based on the traditional definition of governance, the power is delegated by the board of directors, which acts on behalf of and in the interest of the shareholders. Because shareholders usually do not have the special ability to manage the company, therefore, they delegate the responsibility to people who can manage it well. That is why at this point that legal and regulatory constraints intervene to reconcile the interests of the principals and the agents themselves (Page, 2005). For example, corporate law is founded on the director's obligation to act as a 'prudent administrator' which requires him or her to act with prudence and diligence so as not to bring the company to unnecessary risks. In other words, the agents and principals have to manage the risk in such a well-prepared risk so that the company that they run will sustain.

Corporate governance is very important to a company's sustainability issue. Good corporate governance ensures organizations can conduct business ethically and fairly, as it takes into account the interests of all stakeholders for reasons of long-term growth sustainability (Probohudono et al., 2019). As Claessens and Yurtoglu (2013) argued that during the Asian financial crisis in 1997, many companies that corporate governance is weak had face a high level of dropped in their shareholder's value. For those who involved in the global financial crisis in 2007,

it brings an emerging issue that risk-related subject has been increasing rapidly (Miyamoto, 2019). Risk-taking done by the executives is controlled by some stakeholders within the company, such as the board of directors, audit committee, and also shareholders itself.

Relating to risk-taking, the study of Venuti and Alfiero (2016) had attempted to develop empirical research on the nature and consequences of corporate governance on Eurozone Insurance Industry risk-taking attitude. They found that most of the findings provide negative significant correlations except for the company dimension and technical reserves that provide a positive significant correlation. The other study by Eling and Marek (2014) had found that the higher levels of compensation increased monitoring (more independent boards with more meetings), and more block holders are associated with lower risk-taking in the U.K and German insurance markets.

Al-dhamari et al. (2016) had tested the ownership concentration, the managerial compensation, the number of board of directors and also the gender and nationality diversity of the board of directors in a company toward the corporate risk-taking behaviour. For the last variable, it is still arguable because the results of the study are still inconclusive. Even a study done by Firdaus and Adhariani (2017) showed that there is no relationship between the board of directors' gender diversity and corporate risk-taking in Indonesia. They believed that it happens because of the relatively low percentage of the variable. Therefore, the researcher chooses not to use the variable of gender and nationality diversity in this research. Besides, the researcher adds one variable represented by the audit committee due to the important role that they have within a firm. The existence of an audit committee can perform important corporate governance functions, such as strengthening the board of directors' independence, especially outside directors, providing advice to the operational of the company, and of course auditing (Adams & Jiang, 2016). Their contribution to advising operational activities can lead to risk management done by the executives of the company.

In research done by Venuti and Alfiero (2016), they used insurance industries as the sample of the research. Meanwhile, this research was taking the sample of manufacturing company. The researcher used only one sector of industry, which is a manufacturing company, to avoid complications from the differences in the characteristics of firms engaged in different industries. Furthermore, the other reason that the researcher used manufacturing companies was that in a developing country with an emerging market like Indonesia, the manufacturing company is very important and also can give a high contribution to the economics of the country. The manufacturing company has significantly promoted industrial development in Indonesia and also give a high contribution to the national GDP from 1970 to the present day (Langit & Adhariani, 2018).

In this study, manufacturing companies used as the sample were the companies listed in the Indonesia Stock Exchange from 2013 to 2017. The 5 years used in this research because can give more accurate information on the condition of the company. Besides, the period used was relatively recent to maximize the degree of relevance of the data result. Furthermore, 5-years period used in this research was based on John et al. (2008) who required the measurement of risk-taking is based on the companies with available earnings and total assets for at least five years. The other reason to use the period of 2013-2017 is the establishment of the Indonesia Securities Investor Protection Fund (ISIPF) in the December of 2012 which gives the sign that risk management is important for the company listed in the Indonesia Stock Exchange. In addition, this study was conducted in the manufacturing industry because during 2015-2017 many manufacturing companies listed on the Indonesia Stock Exchange experienced a decline in company value (Price to Book Value-PBV) (Siregar et al., 2019). Therefore, it is necessary to conduct studies to determine the various potential factors that might cause this.

This study is aiming to find out and analyse the relationship between corporate governance and corporate risk-taking in Indonesian manufacturing companies. The researchers chose to discuss the topic since the risk-related issues in companies had arisen, especially after the global financial crisis. The research can help organizations to increase awareness of risk-taking issues. With this study, it is hoped that the users of this research can have value added to their knowledge.

## Literature Review

Agency theory can be defined as the relationship between shareholders (the principal) and the management of a corporate (the agent). According to Jensen and Meckling (1976), the agency relationship can act as a contract in which individuals or groups (the agent) are being engaged by the other persons (the principal) to give or to perform some services on their interest and the agent will assign the principal to delegate decision making liberty in terms of sustainability of the organization.

Most agency relationship will incur positive monitoring and bonding costs (monetary and non-monetary) between the principal and the agent (Jensen & Meckling, 1976). Since the relationship between the stockholders and the managers of a corporation fits the definition of a pure agency relationship, it should come as no surprise to discover that the issues associated with the “separation of ownership and control” in the modern diffuse ownership corporation are intimately associated with the general problem of agency. Companies should seek to minimize these situations through solid corporate policy. The role of corporate governance is also important to minimize the problem. When the problem encountered, the risk in the company will be well-managed.

The decision-making authority that agents have can lead them to manage the risk within the company. However, in managing risk-taking decision, it is not only the agent can deal with it. The principals (shareholders) also influence corporate risk-taking (Faccio *et al.*, 2011). As Koerniadi *et al.* (2014) stated, large shareholders can facilitate a higher rate of risk-taking decision of the firm. It is exactly beneficial that the large shareholders, with the high level of funding, will increase the level of corporate risk-taking because, with the high risk that they took, the agent will be motivated to perform better every period of time. Haider and Fang (2016) stated in their research that board of directors’ role in the company is to reduce the problem arise from the agency theory between the shareholders and the management by monitoring, supervising and evaluating the leading executives. By monitoring the executives, it is expected that the risk management will avoid them from excessive risk-taking behaviour.

In the other study, Eling and Marek (2014) believed that the relationship between shareholders and management can be aligned with compensation schemes. When shareholders provide the managers with a high bonus, it triggers the executives to manage high risk. It leads to a positive correlation between the level of compensation over the business risk. In addition, Jermias and Gani (2014) asserted in their study that based on the agency theory view, it assumed that audit committee with a regular meeting and qualified members have controlling role toward the boards’ behaviour. Besides, the agency theory also assumed that a strong audit committee can manage an organization to distinguish itself from others through improving risk-taking behaviour (Connelly *et al.*, 2011). The existence of an audit committee expected can minimize the conflict of interest in agency theory by controlling boards’ behaviour within firms.

Based on a study done by Venuti and Alfiero (2016), several governance mechanisms have already been controlled the relationship between principals and agents in agency theory. The mechanism is divided into internal mechanisms and external mechanisms. The internal mechanisms supervise the matrix of the organization’s activity and correct the actions when the organization jump out from the goals. Some of the internal mechanisms are the characteristics of the board of directors, managerial compensation, insider ownership, debt and dividend policies, and large block holders. Meanwhile, the next terms are included as the external mechanisms, which are financial analysts, investor’s protection, legal environment, and the threat of takeover. The researcher took consideration into internal mechanisms since the objective of the research is to study the effect of corporate governance, which some of the internal mechanisms affected by the agent-principal relationship (agency theory). Meanwhile, the external mechanisms did not get affected that much by the theory used in this research.

Based on agency theory, higher manager compensation will affect the higher risk-taking that the company gets. It is known that the incentives paid to the Chief Executive Officer (CEO) to maximize shareholders value tend to motivate them in doing excess risk-taking (Bolton et al., 2015). Besides, it is also expected that the higher compensation that the manager gets will motivate them not only to take more risks but also can enhance the value of the firm itself (Kathan et al., 2016). Their results also found that there is a positive and significant relationship between managerial compensations and a company's risk-taking. Accordingly, the researcher expects that managerial compensation has a positive correlation to corporate risk-taking. The hypothesis suggested that the higher the compensations that key management received, the higher the risk that company will deal. On the other side, lower compensations tend to not attract managers in taking more risk since they don't have guarantee for their risk-taking behaviour (higher compensations). Thus, the hypothesis developed for this variable is as follows:

**H1:** Managerial compensation has a positive effect on a company's risk-taking.

According to the agency theory, lower monitoring activity associated with diffused ownership allows managers to take less firm-specific risks (Ebenezer, 2017). Higher ownership concentration meaning that more performance-boosting encouragement by the owners on the executives, which eventually forced executives to take more risks to achieve good performance. Empirically, larger shareholders are generally associated with higher performances, even if there are some mixed results (Rouyer, 2016). In addition, Nguyen (2011) stated that there is a positive correlation between ownership concentration and idiosyncratic risk. The higher concentration and better performance will lead to higher risk-taking levels. Meanwhile, a lower concentration which means a lower percentage of large shareholders will lead to lower risk-taking levels. Therefore, the hypothesis built for ownership concentration is:

**H2:** Ownership concentration has a positive effect on a company's risk-taking.

Based on the theory developed (agency theory), it assumed that the audit committee with a regular meeting and qualified members have a controlling role toward the boards' behaviour (Sellami & Fendri, 2017). The result of studies by some researchers varies toward the audit committee. A study by Jermias and Gani (2014) found that there is a negative significant between the audit committee and risk-taking behaviour. Meanwhile, Sun and Liu (2014) in their study showed that there is a positive significant between audit committee members with more additional directorships and risk-taking behaviour. Adams and Jiang (2016) found that there is no significant association between the variables. Though the result of the study varied, it is known that the control function of the audit committee will give effect to risk-taking within the company. Due to the control and supervision of risk management function, the higher audit committee size, which means more control, will lead to lower risk-taking behaviour that the company had. Otherwise, lower members of the audit committee, which means less effective of the control function, will affect higher risk-taking. Thus, the hypothesis developed based on the theory is as follows:

**H3:** Audit committee size has a negative effect on a company's risk-taking.

In agency theory, it is argued that too many members of the director resulting in less effective control over risk-taking behaviour (Jensen & Meckling, 1976). Baccar et al. (2013) argued that the large size of board directors will find it hard for them to force managers to control their desires in deciding on the company. Those managers are affected by their psychological biases. When there are too many boards of director, problems may increase because some directors may tag along as free-riders. A study by Nakano and Nguyen (2012) found out that firms in Japan with a larger number of board of directors perform lower bankruptcy risks, though it is not significant compared to the US firms. Haider and Fang (2016) also examined in their empirical studies in China that board of director size is negatively associated with future firm risks. This indicated that

the large size of the board will be less effective and resulting in lower risks that the boards will take for the company. The small size of board will be more effective in working and thus taking risk is good enough for them to improve the performance of the company. Therefore, the hypothesis for the board of director size in risk-taking is:

**H4:** Board of director size has a negative effect on a company's risk-taking.

## Research Method

### Population and Sample

The population used in this research are all manufacturing companies that are listed in the Indonesia Stock Exchange (IDX) and the Indonesian Financial Services Authority (OJK) between 2013 and 2017. The researcher chose manufacturing companies due to the importance of the information that will be gathered. The sample taken by the researcher in this research is by purposive sampling method which the sample is chosen based on the characteristics of the population and not randomly. The data collected was in the forms of annual reports of manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2013 and 2017. The research data was obtained from the website of the Indonesia Stock Exchange (IDX), [www.idx.co.id](http://www.idx.co.id), and websites of the manufacturing companies. Besides, this research was only conducted until 2017, because after 2017 the data showed that the value of manufacturing companies in Indonesia began to increase.

### Measurement Techniques

#### Dependent variable

The company's risk-taking is an important stipulation that the aim is to improve the efficiencies in the usage of assets and the resulting profitable opportunities, returns, and firm growth (Zhao & Xiao, 2016). The measurement of the risk-taking here was based on John et al. (2008), where corporate risk-taking estimations are based on a firm's earnings volatility. The measurement of corporate risk-taking was symbolized as RISK and expressed in the following equation:

$$RISK_{i,c} = \sqrt{\frac{1}{T-1} \sum_{t=1}^T \left( \frac{EBITDA_{i,c,t}}{TA_{i,c,t}} - \frac{1}{T} \sum_{t=1}^T \frac{EBITDA_{i,c,t}}{TA_{i,c,t}} \right)^2}$$

$RISK_{i,c}$  : Corporate risk-taking of firm  $i$  within country  $c$

$TA_{i,c,t}$  : Total assets of firm  $i$  and year  $t$  within country  $c$

$EBITDA_{i,c,t}$  : Earnings before interest, tax, depreciation and amortization of firm  $i$  and year  $t$  within country  $c$

$T$  : 5 years of earning volatility

#### Independent variables

The independent variable in this study is corporate governance, which is divided into several sub-variables including the size of the board of directors, the size of the audit committee, managerial compensation, and ownership concentration.

Board of director size refers to the total number of directors on the board of firms which is inclusive of the CEO and Chairman for each accounting period. The board of director size here will include outside directors, executive directors and non-executive directors (Goh & Gupta, 2016).

Managerial compensations here refer to both financial and non-financial compensation that managers get as a repayment from the service that they did for the firms. It can be in terms of bonuses, benefits, shares or call options on the firm's stock and also a mixture of salary. In this study, the indicator used as the measurement is remuneration received by the key management

between 2013 and 2017. The measurement is the natural logarithm of the total remuneration of all key management.

Ownership concentration refers to the amount of stock owned by individual investors and large-block shareholders (investors that hold at least 5 per cent of equity ownership within the firm). The calculation of ownership concentration is based on Koerniadi et al. (2014), which is the cumulative percentage held by shareholders with ownership  $\geq 5\%$ .

Adams and Jiang (2016) believed that the existence of an audit committee can perform important corporate governance functions, such as strengthening the board of directors' independence, especially outside directors, providing advice to the operation of the company, and of course auditing. The audit committee size will be calculated by the total members of the audit committee within the company.

### Data Analysis Method

The analysis method used in this research was descriptive statistics and multiple linear regression analysis. The descriptive analysis used to identify the characteristics of publicly traded manufacturing companies in Indonesia and describe the variables in the study. It is also aiming to summarize the data that the researcher used in the study.

Multiple linear regression analysis is a statistical methodology aiming at measuring the strength and direction of the relationship between independent variables and the dependent variable (Firdaus & Adhariani, 2017). The research conducted in this study analysed the effect of audit committee size, ownership concentration, board of director size, and managerial compensations on corporate risk-taking. The model of the analysis in this research is as follows:

$$RISK = \alpha + \beta_1 COMP + \beta_2 OWN - \beta_3 ACS - \beta_4 BODS + e$$

Where:

- RISK : Corporate risk-taking
- COMP : Managerial compensations
- OWN : Ownership concentration
- ACS : Audit committee size
- BODS : Board of director size
- $\alpha$  : Constant value
- $\beta_n$  : Coefficient Correlations
- e : Error value

### Results and Discussion

The list of manufacturing industries that published their annual report to IDX from the 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 has also excluded the companies that had negative equity in their financial statements due to potential excessive risk-taking that the company dealt with. Total manufacturing companies used as the sample is 69 companies with 5-years observation (from 2013 to 2017).

**Table 1.** The Descriptive Statistics of the Model

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

From the total of 345 observations of 69 companies in 5 years' data, the results of corporate risk-taking showed that the minimum score of risk-taking in the company is 0.29% and the maximum score of risk-taking that the company had in the sample is 10.19%. Meanwhile, the mean for the 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 indicates that the variable data is homogenous. It showed that the mean score can represent the data well. For the managerial compensation, the minimum score in the shown table is 18.00 and the maximum score is 26.37. 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.

The minimum score of ownership structure in this research is 23.66% and the maximum score is 98.18%. For the ownership structure, the mean score is 0.7486 and the standard deviation of 0.1514. Again, the lower score of standard deviation is greater than the mean indicating that the variable is not heterogeneous. The total members of the audit committee are also being analysed in these descriptive statistics results. The result showed that the minimum member of the 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. For the size of the 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 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.

**Table 2.** Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t-statistic	Sig.
	B	Std. Error			
(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)

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

**Table 3.** The Coefficient Determination (R<sup>2</sup>) 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)

**Table 4.** T-test of the Model

Variable	Coef. Reg	T-value	Sig.	Conclusion
COMP(X1)	.002	2.172	.031	Supported
OWN(X2)	.021	2.579	.010	Supported
ACS(X3)	-.001	-.246	.806	Not-supported
BODS(X4)	-.002	-2.523	.012	Supported

Dependent Variable: RISK(Y)

Legend: COMP= managerial compensations, OWN= ownership concentration, ACS= audit committee size, BODS= board of director size.



Table 3 shows that 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 the company's risk-taking behaviour. The remaining 91.5% is explained by the other factors outside the model.

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 corporate risk-taking behaviour. The hypothesis was supported for this variable model.

In this research, managerial compensations refer to all of the compensations received by all key managements. The positively significant effect of managerial compensations over a 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 the 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.

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 a 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 literature, large shareholders are generally associated with high performances (Yusoff & Adamu, 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 the 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 by the previous study from Nguyen (2011) who stated that the ownership concentration is associated with higher risk-taking strategies.

The third hypothesis stated that the 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 a 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 the 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 an 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 fulfil 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 an audit committee is needed and the authority of the audit committee is only giving the opinion on the financial statement process, risk management, and corporate governance and the decision will be on the commissioners. Based on the result, the size of the audit committee is not effective in helping managing risk-taking behaviour within the company. From the regulation, it might be known that the controlling role of the audit committee in Indonesia is indirectly affecting the risk management within the 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 between audit committee size and risk-taking behaviour is not significant.

The fourth hypothesis stated that the 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 a 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 Table 4, the result showed that the total board of director members is associated with risk-taking, but negatively affect. It showed that too large a board of director size will lower corporate risk-taking. Gómez-Haro et al. (2011) 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 doing. 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 boards 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 literature (Elamer et al., 2018; Haider & Fang, 2016; Nakano & Nguyen, 2012; Venuti & Alfiero, 2016). The literature found that the board of director size negatively significant affects corporate risk-taking.

## Conclusion

Based on the results of this study, it can be concluded that the researcher attempts to empirically examine the effect of corporate governance on the company's risk-taking. The corporate governance's indicators in this study are managerial compensations, ownership concentration, audit committee size, and board of director size. The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2013 and 2017.

In summary, from four potential components including managerial compensations, ownership concentration, audit committee size, and board of director size, three of the components significantly affecting a company's risk-taking behaviour. Meanwhile, one component, which is the audit committee size insignificantly affecting the risk-taking within-firm in Indonesia.

Apart from that, the researcher suggests that in future studies it is necessary to consider research for other sectors, especially in the financial sector because it is more related to risk-taking behaviour. In addition, variations in predictor variables are also needed, especially the use of other potential variables to further explain the effect of corporate governance on corporate risk-taking. Furthermore, because corporate governance affects corporate risk-taking, companies need to consider good corporate governance mechanisms, especially the indicators used in this study in managing risk.

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