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Corporate Governance and Firm Value: The Mediating Effect of Financial Performance and Firm Risk

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Abstract
This study aims to analyze and explain the relationship between the corporate governance and the firm value, either direct, or indirect through the financial performance and the firm risk. The research object is the mining sector companies listed in Indonesia Stock Exchange for the period of 2009-2014. The corporate governance is measured from information disclosure index based on OECD principles of corporate governance. The firm value is quantified from the Tobin's q and Price to Book Value (PBV). Return on Assets (ROA) and Net Profit Margin (NPM) are used to determine the financial performance. The firm risk is computed from the systematic risk and idiosyncratic risk. A Structural Equation Modeling (SEM) is utilized to analyze the data. The research result shows that the corporate governance has positive significant effect to the financial performance and negative significant effect to the firm risk, but it has no direct significant effect to the firm value. The corporate governance has significant effect to the firm value through the financial performance. Meanwhile, the corporate governance has no significant effect to the firm value through the firm risk. In addition, the financial performance has positive significant effect to the firm value, while the firm risk has no significant effect to the firm value.
Keywords: corporate governance, financial performance, firm risk, firm value

1. Introduction

Discussion about the corporate governance issue is still relevant nowadays, especially after the global economic crisis in 2008 that impacts developed and developing countries. Weak implementation of corporate governance is supposed as one of the cause of the global economic crisis. Learning from that experience, there is a global awareness about the importance of acceleration in the implementation of good corporate governance.

The corporate governance is one of the key elements in improving the economic efficiency and growth, as well as enhancing the trust from investors. The corporate governance involves a set of relationships between the management of the company, the board member, the shareholders, and the other stakeholders (OECD, 2004). The corporate governance also provides the structure to set the objectives of a company, the procedure to reach those objectives, and the performance monitoring. The presence of an effective system of the corporate governance in an organization or company, as well as in overall economic matters, helps to give a trust level needed for well-functioning financial sector, particularly in the capital market.

The assessment done by The Indonesian Institute for Corporate Directorship to 100 public companies with the largest market capitalization shows that the average total corporate governance score is 43.4%, with the maximum score is 75.4% and the minimum score is 20.8%. The relatively low average score indicates that the majority of the publicly listed companies (PLCs) in Indonesia do not yet practice internationally based corporate governance principles (Asian Development Bank, 2013). It is because more companies apply the practice of the corporate governance with minimum standard, as an obedience to the rules. Thus, PLCs need to improve their compliance with the rules.

The role of corporate governance is manifested in creating value for the corporation and supporting transparency (Lamm, 2010). Good corporate governance is a must in ensuring the values required by different stakeholder groups and it enhances the performance of corporations (Ganescu and Gangone, 2012). The application of the corporate governance practice may support the continuity of a company and help increasing the trust from the society and investors.

Many previous researches include the corporate governance framework in the financial performance and the firm value analysis. Various results obtained may be caused by difference in research methodology and the measurement of the variables. Ammann *et al.* (2011) investigate the relationship between firm-level corporate governance and firm value from 22 developed countries over the period of 2003-2007. The research result shows that there is a strong and positive relationship. Ranti (2011) analyses the relationship between the corporate governance mechanism and the financial performance of banks in Nigeria. The research result shows that the corporate governance disclosure index has positive significant effect to the financial performance of banks. The researches of Gompers, *et al*. (2003), Drobetz, *et al*. (2004), Black, *et al*. (2006), Oesch (2011), Wellalage, N.H. (2012), Krafft, *et al.* (2013), and Cheung, *et al*. (2014) also show positive relationship between the corporate governance and the firm value as well as the financial performance of the firm.

Abdelkarim (2009) and Albassam (2014) obtain conflicting results on the link between the corporate governance and the firm performance. Moreover, Wessels, *et al.* (2015) discover negative relationship between the corporate governance arrangements and the financial performance. Meanwhile, Gupta, *et al.* (2009) does not find any relationship between the corporate governance score and various measures of the firm value.

This research analyses the relationship between the corporate governance and the firm value, either direct, or indirect through the financial performance and the firm risk. The corporate governance is measured from information disclosure index based on OECD Principles of Corporate Governance. The firm value is quantified from the Tobin's q and Price to Book Value (PBV). Return on Assets (ROA) and Net Profit Margin (NPM) are used to determine the financial performance. The firm risk is computed from the systematic risk and idiosyncratic risk (unsystematic risk).

This research is expected to deliver additional literature review about the relationship between the corporate governance and the firm value, and to test the role of the financial performance and the firm risk as the mediating variables.

2. Literature Review

2.1 Agency Theory

One of the relevant theories in studying the structure of the corporate governance is the agency theory. The agency theory (Jensen and Meckling, 1976) describes the relationship between the shareholders and the management of a company as the agency relation between a principal and an agent. Based on the assumption that each individual acts to maximize a self-interest, there will be difference that triggers conflict between the principal and agent. It generates the agency cost.

One of the methods used to monitor the agency relationship is through the corporate governance mechanism. The perspective of the agency theory considers the corporate governance mechanism as a way to reduce the agency cost.

2.2 Stakeholder Theory

The stakeholder theory is an organizational management and business ethic theory that examines the principles and values in managing organization. Edward Freeman (1984) in the book of Strategic Management: A Stakeholder Approach, identifies and models groups who become the stakeholder of a company, that is the employee, customer, supplier, financier, society, government, et cetera.

The existence of a company is not only to maximize the wealth of the shareholders, but also the stakeholders (Jones, 2005). There is a change of perspective from the traditional financial theory that views a company as a shareholder value maximizer, to further expansion in the stakeholder theory that considers a company as a stakeholder value maximizer.

2.3 Asymmetric Information Theory

The asymmetric information is the difference of information obtained by one side and the other sides in economic activities. For example, this asymmetric information happens among the investor candidates in the capital market.

The term "asymmetric information" is used by George Akerlof (1970) in his work "The Market for Lemons". Spence (1973) also analyses the asymmetric information in the labour market, while Rothschild and Stiglitz (1976) analyses it in the insurance market. The corporate governance is directed to reduce the asymmetric information between the principal and agent.

2.4 Corporate Governance and Financial Performance

The corporate governance deals with the way how firms are managed and controlled and how accountability is assured. Efficient corporate governance in a company organization may help the company to reach its objectives, including its financial performance. The corporate governance mechanism ensures the management acts for the best interest of the company and minimizes the agency cost.

The corporate governance framework is one of the important keys in increasing the efficiency in company monitoring. The implementation of the corporate governance is expected to attain a balance of many interests that give benefit to the company.

2.5 Corporate Governance and Firm Risk

The agency theory assumes that every individual acts for a self-interest. Therefore, an agent can make a decision that gives benefit for his own interest, but has potency to harm the shareholder or stakeholder.

One of the methods used to evade a company from the risk of the conflict of interest is through the corporate governance mechanism. The corporate governance structure determines clearly the right and obligation for different parties in an organization, that is the management, the board members, the shareholders, and the other stakeholders.

2.6 Corporate Governance and Firm Value

The corporate governance has significant effect for the growth of a company and overall economic development. It is since a proper corporate governance practice can reduce the risk for the investors, attract investment capital, and improve the value of companies (Spano, 2005). The corporate governance is directed to reduce the asymmetric information so that the investors have sufficient information in taking the investment decision. At the end, it will affect the firm value.

3. Hypotheses

Based on the previous explanations, this study aims to test the following hypotheses:

H_1 : The corporate governance has positive effect to the financial performance.
H_2 : The corporate governance has negative effect to the firm risk.
H_3 : The corporate governance has positive effect to the firm value.
H_4 : The financial performance has positive effect to the firm value.
H_5 : The firm risk has negative effect to the firm value.
H_6 : The corporate governance affects the firm value through the financial performance.
H_7 : The corporate governance affects the firm value through the firm risk.

4. Research Design

This research uses secondary data published by the companies in the annual report, financial statement, and information disclosure from the Indonesia Stock Exchange website. The exogenous variable is obtained from the data of the year 2009-2013, while the endogenous variable is from the data of the year 2010-2014. The data analysis is done by employing the Structural Equation Model (SEM) with SmartPLS 3.0. It aims to examine the relationship between variables studied and to prove the research hypotheses (Hair, *et al*., 2009).

4.1 Population and Sample

Population is the collection of all individuals or items under consideration in a statistical study (Weiss, 2012). The population of this research is 44 mining sector companies listed in the Indonesia Stock Exchange in the year period of 2009-2014. Sample is part of the population from which the information is collected (Weiss, 2012). Sampling method is saturated population or census. From the whole available sample, the mining companies that have been listed before 2009 are 30 companies. During the research period, there are 5 companies that do merger or acquisition, and 11 companies with incomplete data. Thus, the total sample is 14 companies.

4.2 Research Variables

The exogenous variable used in this research is the corporate governance (X). The corporate governance is measured from the indicator of practicing the corporate governance based on the Organization for Economic Cooperation and Development (OECD). OECD principles of the corporate governance (2004) consist of the right of the shareholder ($X_{1,1}$), the equitable treatment of the shareholder ($X_{1,2}$), the role of the stakeholder ($X_{1,3}$), the disclosure and transparency ($X_{1,4}$), and the board responsibility ($X_{1,5}$). The method of content analysis is employed to disclosure the corporate governance in the annual report (Moloi, 2008). The corporate governance index is calculated by rating the number of disclosure for each indicator of the corporate governance to the expected number.

The endogenous variables are the financial performance (Y_1), firm risk (Y_2), and firm value (Y_3). The financial performance is determined by ROA ($Y_{1,1}$) and NPM ($Y_{1,2}$) (Brigham and Houston, 2009). The firm risk is computed from the systematic risk ($Y_{2,1}$) and idiosyncratic risk ($Y_{2,2}$). Systematic risk (β) is formulated with single index method as follows (Bali and Cakiki, 2008):

$$R_{it} = \alpha_i + \beta_i R_{Mt} + e_{it} \quad (1)$$

The idiosyncratic risk is measured from the standard deviation of the residual, with the formula as follows (Bali and Cakiki, 2008):

$$IVOL_{it} = \sqrt{var\ (e_{it})} \quad (2)$$

The firm value is quantified from the Tobin's q ($Y_{3,1}$) and PBV ($Y_{3,2}$).

5. Results and Discussion

5.1 Goodness of Fit Test

Evaluation on the Goodness of Fit for the structural model is measured by using the predictive-relevance value (Q^2). It is calculated with the formula as follows:

$$Q^2 = 1 - (1- R_1^2)\,(1- R_2^2)\ldots(1- R_n^2) \qquad (3)$$

The R^2 value for each endogenous variable is shown in Table 1.

Table 1. Results of *R*-Square

Variable	*R*-Square
CFP	0.391
FR	0.292
FV	0.361

Based on Table 1, the predictive-relevance value is 0.3261, meaning that the model is able to explain the phenomena of the firm value in the amount of 32.61%. The remaining 67.39% is explained by the other variables that have not been included yet into the research model and the error.

5.2 Hypothetical Testing

The path analysis shows the effect among the latent variables. The path analysis result is displayed in Fig.1.

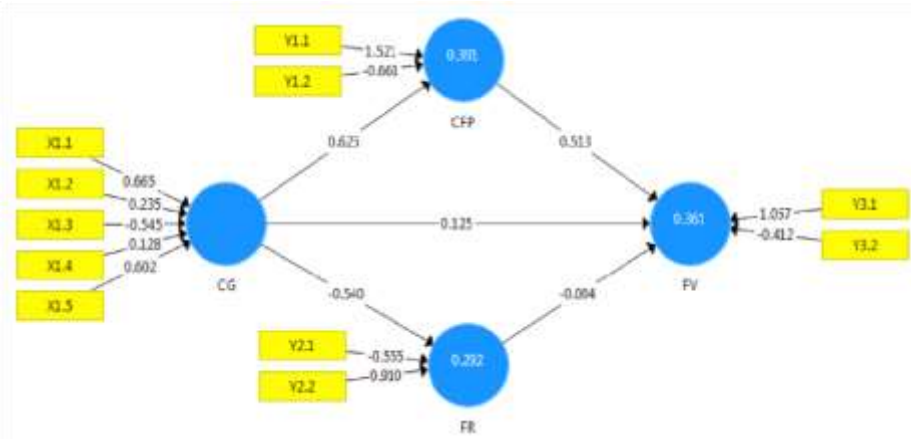

Figure 1. Ouput of Algorithm in the form of Path Diagram

The hypothetical testing is done by Bootstrap resampling method, and the result is shown in Fig.2.

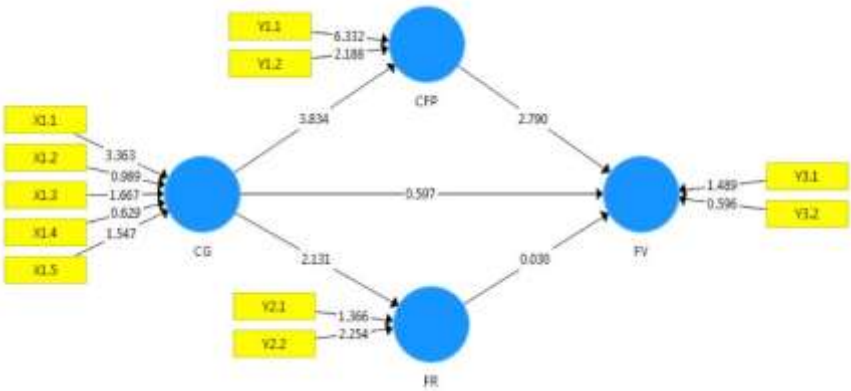

Figure 2. Ouput of Bootstrapping analysis in the form of Path Diagram The result for the direct effect values can be seen in Table 2.

Table 2. Result of the direct effect values

Variables Relationship	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Significance (α = 5%)

CG -> CFP	0.625	3.834	0.000	significant
CG -> FR	-0.540	2.131	0.034	significant
CG -> FV	0.125	0.597	0.551	insignificant
CFP -> FV	0.513	2.790	0.005	significant
FR -> FV	-0.004	0.030	0.976	insignificant

The indirect effect of the corporate governance to the firm value is displayed in Table 3.

Table 3. Result of Indirect Effect

No.	Independent Variabel	Dependent Variabel	Intervening Variabel	Sobel Test Output Statistic Test	p-value	Significance (α = 5%)
1	CG	FV	CFP	2.25495	0.02414	significant
2	CG	FV	Risk	0.02941	0.97654	insignificant

5.2.1 Corporate Governance and Financial Performance

The corporate governance has positive significant effect to the financial performance of the firm. The path coefficient is 0.625, with t-statistics 3.834 and p-value 0.000 (positive and significant). Therefore, hypothesis 1 is accepted. The positive path coefficient means that a good corporate governance will increase the financial performance. The implementation of the corporate governance leads to a better financial performance that is shown by the ROA and NPM.

This study confirms the research of Gompers, *et al.* (2003), Ranti (2011), Wellalage, N.H. (2012), Krafft, *et al.* (2013), and Albassam (2014). The corporate governance encourages the efficiency in the company monitoring, therefore it increases the financial performance of the firm.

5.2.2 Corporate Governance and Firm Risk

The corporate governance has negative significant effect to the firm risk. The path coefficient is -0.540, with tstatistics 2.131 and p-value 0.034 (negative and significant). Therefore, hypothesis 2 is accepted. The negative path coefficient means that better corporate governance practice reduces the risk of the firm.

The corporate governance has a strong role to play in the nature and intensity of risks taken by the firm. Companies with good governance practices are perceived by the market to have lower levels of risk. This study confirms the research of Lameira, *et al*. (2011), Alam and Shah (2013), and Wolfswinkel (2013).

5.2.3 Corporate Governance and Firm Value

The corporate governance does not affect significantly the firm value. The path coefficient is 0.125, with tstatistics 0.597 and p-value 0.551 (insignificant). Therefore, hypothesis 3 is rejected. This study confirms the research of Gupta, *et al.* (2009) and Albassam (2014). This result suggests that the impact of the corporate governance practice on the firm value may not be direct. It differs with the research of Gompers, *et al*. (2003), Drobetz, *et al*. (2004), Black, *et al*. (2006), Ammann *et al.* (2011), Oesch (2011), Wellalage, N.H. (2012), Krafft, *et al.* (2013) and Cheung, *et al*. (2014).

5.2.4 Financial Performance and Firm Value

Financial performance has positive significant effect to the firm value. The path coefficient is 0.513, with tstatistics 2.790 and p-value 0.005 (positive and significant). Therefore, hypothesis 4 is accepted. The positive path coefficient means that better financial performance increases the firm value.

5.2.5 Risk and Firm Value

Firm risk has negative insignificant effect to the firm value. The path coefficient is -0.004, with t-statistics 0.030 and p-value 0.976 (insignificant). Therefore, hypothesis 5 is rejected.

5.2.6 Corporate Governance and Firm Value through Financial Performance

Corporate governance significantly affects the firm value through the financial performance. The Sobel test statistic is 2.25495 and the p-value is 0.02414 (positive and significant). Therefore, hypothesis 6 is accepted. The implementation of the corporate governance may encourage the company to have efficient and accountable operation and thus increase the firm value through better financial performance.

5.2.7 Corporate Governance and Firm Value through Firm Risk

Implementation of the corporate governance is associated with a value generation through a decline in the market risk. The research result shows that the corporate governance does not significantly affect the firm value through the firm risk. The Sobel test statistic is 0.02941 and the p-value is 0.97654 (insignificant). Therefore, hypothesis 7 is rejected.

6. Conclusion

This research examines the effect of the corporate governance to the firm value, either direct, or indirect through the financial performance and the firm risk. The corporate governance is measured from information disclosure index based on OECD principles of corporate governance. The firm value is quantified from the Tobin's q and Price to Book Value (PBV). Return on Assets (ROA) and Net Profit Margin (NPM) are used to determine the financial performance. The firm risk is computed from the systematic risk and idiosyncratic risk.

From the result of the data analysis, we can conclude as follows:

1. A better corporate governance will lead to a better financial performance.
2. A better corporate governance will lower the firm risk.
3. The corporate governance has no direct effect to the firm value.
4. The increment of the financial performance will improve the firm value.
5. The firm risk does not significantly affect the firm value.
6. The corporate governance significantly affects the firm value through the financial performance as the mediating variable.
7. The corporate governance does not significantly affect the firm value through the firm risk as the mediating variable.

This research is expected to deliver a contribution to the enhancement of the corporate governance practice, especially in developing countries. The implementation of a good corporate governance will increase the efficiency and urge the economic growth. The presence of an effective corporate governance will help in increasing the trust level needed for well-functioning financial sector, particularly in the capital market.

This research is limited to the mining companies listed at the Indonesia Stock Exchange for the year period of 2009-2014. Further research can be implemented for several types of companies in longer time period. The goodness of fit of the model in this research is 32.61%, meaning that there are the other variables that have not been included yet in this study. It can be incorporated in future work.

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