Corporate Governance Structure and Firm Performance in the Indonesian Capital Market

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Abstract

This research examines the effect of the board of institutional, the independent board and the board size to the firm performance. Using fixed effects data panel regression, this research investigated 293 firms listed on the Indonesia Stock Exchange during 2010-2015. Firm performance was proxied by market measure (Tobin's Q). The findings of this research suggested that the board of institutional, the independent board of commisioners had positive impact only to Tobin's Q value, while the board size could increase both Tobin's Q. On the other hand, this research found that the debt, and risk gave no impact to firm performance. This research also found that the board size had non-linear relationship with investment as proxied by IOS. While the IOS variables were able to mediate the effect of the board size to firm performance.

Keywords: board of institutional; independent board of commisioners; board size; firm performance.

1. Introduction

The attempts to achieve the economic growth rate have been numerously conducted by the government. Indonesia where about is still relying on commodity exports, and they should immediately diversify the economy to overcome the worsening of world commodity prices (Handriani and Robiyanto, 2018b, Handriani and Robiyanto, 2018a). A manufacturing industry has a cash feature that is able to earn a high income and hire a lot of labors, while, in this situation, it reduces the unemployment rate.

A current research conducted by Patiro and Budiyanti (2016) produced information that the manufacturing industry in Indonesia grew very well in the early of 1990s. Its growth is always above 9 percent annually. Sadly, when the economic crisis hit Asia in 1998, the manufacturing industry slumped sharply to minus 11.4 percent. Recovering from the crisis, the manufacturing industry rocketed but the climb was still not as large as in the early 1990s. A manufacturing sector is a fairly stable sector and one of the sectors supporting the country's economy amid the uncertainty of the world economy with its growth rate and its contribution to Gross Domestic Product (GDP) since 1999, and still keep being secure right away.

Although in 2008-2009, there was a global financial crisis, but Indonesia's manufacturing industry was quite stable and did not experience the sharp decline of the Asian crisis in 1998 which resulted once in Indonesia's manufacturing industry. Based on data from BPS (2016) or known as Central Bureau of

Statistics of Republic Indonesia, the contribution of non-oil/gas manufacturing sector to GDP in 2015 reached 18.18 percent with the value Rp 2.098 trillion. This contribution increases when it is compared to the year of 2014 which reached only 17.89 percent with the value Rp 1.884 trillion.

The internal effort of the company is to maintain the organization's governance and its capital structure. The optimal utilization of capital structure has an effect on to company debt level. According to Pecking Order theory, the order of capital structure is one of the most important theories in corporate debt. This theory supports the existence of adverse selection, namely the existence of hierarchy toward the funding of the company. The hierarchy prefers its choice on internal funding to external funding. When the external sources of funding are needed, the companies which support this theory will prefer debt to equity, as the lower agency costs related to debt problems.

Hence, this paper examines the effect of capital structure on the performance of manufacturing companies. In particular, it directly tests the effects of good corporate governance on corporate performance, and follows the agency theory introduced by Jensen and Meckling (1976) as well as Jensen (1986)'s free cash-flow theory. These theories predict that the choice of capital structure can affect the company's performance.

Corporate governance is a mechanism that has a purpose to convince investors to have corporate management activities in harmony with the interests of investors. As a corporate governance mechanism, it is expected to provide trust that investors will receive in return on the fund they have invested. A corporate

governance is based on the agency theory with regard to convincing investors that managers will benefit by investing money in profitable projects and how investors' mechanisms for managers' control functions (Shleifer and Vishny, 1997). Monks and Minow (2011) argued that corporate governance clarifies the relation.

2. Literature review and hypothesis development

Agency theory is developed by Jensen and Meckling (1976) which explained the agency relationship that arises on the contract between the agent (management) and the principal (owner). In a contract, there is a delegation of some decision-making authorities from the principal to the agent. For each party is assumed as a utility maximizer, then there is no reason to fully believe that the agent will act on behalf of the best interests of the owner. It can be seen, for example, on managers as agents who do not work earnestly in maximizing the value of the company. Aligning to this behavior, in order to maximize the wealth of the principal, the agent is an agency problem. This problem in turn will give a rise to agency costs consisting of monitoring cost, bonding cost, and residual loss (Jensen and Meckling, 1976, Wahyudi et al., 2018).

A corporate governance, which is a concept based on agency theory, is expected to serve as a tool to give investors a trust that they will receive in return on the fund they have invested. A corporate governance deals with how investors believe that managers will benefit them, making sure that managers will not embezzle or invest in unprofitable projects with funds invested by investors. As what has been stated, agency theory highlights the aspects of internal corporate governance mechanism (Eisenhardt, 1989).

Therefore, this research uses internal corporate governance structure which is proxied with institutional ownership, independent board of commisioners, and board size. While the dependent variable is firm performance, which is proxied in Tobin's q and the variable of investment decision based on company growth is proxied with (Kibig) as introduced by Handriani (2016). The independent variables are firm size, debt, age, and risk. In other hand, the independent variable that describes the corporate governance policy is the structure of corporate good governance, which consists of; first, institutional ownership that is proxied by using the percentage indicator of the number of shares owned by institution, second, the composition of independent board of commissioners that is proxied by using the percentage indicator of the board of commissioners come from outside the company, third, the size of the board of commissioners that is proxied by using indicators of the number of members of the board of commissioners of a company.

The problem will be formulated into a simultaneous model, i.e. a model formed by one dependent variable described by one or more independent variables, where a dependent variable at the same time will act as an independent variable for other tiered relationships (Ferdinand, 2005). The corporate governance structure, firm size, debt, age, corporate risk are independent variables.

A corporate governance control mechanism is divided into two, namely internal and external mechanisms. The external mechanism includes: capital markets, funders, consumers, and regulators. Walsh and Seward (1990) argued that the external control mechanism is a firm control based on market for corporate through a capital market effectiveness (Fama and Jensen, 1983), product and service markets (Grossman and Hart, 1982), and managerial labor market (Fama, 1980).

Internal mechanisms, consist of: controls exercised by the board of commissioners (Fama and Jensen, 1983) including subordinate committees, boards of directors, managements and shareholders, or it is through an attractive and competitive incentive scheme for management (Fama, 1980). The agency

theory highlights the aspects of internal corporate governance control mechanism (Eisenhardt, 1989). Therefore, this study uses an internal corporate governance structure consisting of the institutional ownership, the composition of independent board of commissioners, and the size of the board of commissioners.

2.1. Corporate governance and firm performance

Corporate governance has been well known in the community. In general, it is a good structure and system for managing a company with the objective of increasing shareholder value and accommodating various stakeholders such as creditors, suppliers, business associations, consumers, workers, government and wider community. This concept is quickly accepted by the public even the performance of a company's stock is now determined to what extent its seriousness in implementing corporate governance (Utama and Utama, 2005). However, some academic research have proven that there is no significant relationship between corporate governance structure, mechanisms, and financial performance (Balasubramanian et al., 2008, Bebchuk and Cohen, 2005, Black and Khanna, 2007, Blackley, 2000, Gompers et al., 2003, La Porta et al., 2002, Yermack, 1996, Handriani and Robiyanto, 2018b, Handriani and Robiyanto, 2018a, Utama and Musa, 2011, Brahmana et al., 2018).

2.2. Measuring institutional ownership and firm performance

This research is based on the agency theory. The concept of agency problem conducted by Jensen and Meckling (1976) stated that the agency problem will occur if the proportion of institutional ownership of company stock is less than 100%, which makes the managers become selfish and the implementation is not based on maximizing corporate value in making investment decision. At a very high level of ownership, there is a tendency of institutional investors to enforce certain policies that are not optimal, regardless of the interests of minority shareholders through the voting power they possess. Shleifer and Vishny (1997) argued that the degree of institutional ownership in substantial proportions will affect the market value of the firm. The basis of this argument is that the greater the institutional ownership, the more effective the control mechanism on the performance of management.

The institutional ownership as one of the proxy variables of corporate governance structure acts as a control mechanism for the future investment determinants of the company. A company investment requires opportunity, plan or project that can be selected to achieve its objectives, namely profitability. The companies with large investment opportunities indicate its bright future outlook, then it will have a positive impact on the value of the company. This is what Modigliani and Miller (1958) argued that corporate value is determined by the ability to generate high profitability and investment. Therefore, at a very high level of ownership, there is a tendency of institutional investors to impose certain policies that are not optimal by neglecting the interests of minority shareholders through the voting power they possess.

Having consistent with the concept, corporate governance is a control mechanism for firm performance if the increasing mechanism of institutional ownership control increases the firm performance. In this research, firm performance is proxied by Tobin's q = Market Value of Equity (MVE) + Debt / Total Asset. The institutional ownership is proxied by the percentage of the number of shares held by the institutional investor, and the investment is proxied by the Investment Opportunity Set (IOS), following Chen et al. (2000), Handriani and Robiyanto (2018b), Handriani and Robiyanto (2018a), MacKie-Mason (1990), Skinner and Soltes (2009), Utama and Sulistika (2015) used investment-based proxies, research and development expense to book the value of total assets is believed in a high level of

investment activity related to the value of a company Investment Opportunity Sets (IOS).

Concerning to those cases mentioned above, then hypotheses 1a, 1b and 1c are formulated as follows:

Hypothesis 1a is an institutional ownership positively affects to firm performance, hypothesis 1b is an institutional ownership affects to investment and hypothesis 1c is an investment mediates the influence between institutional ownership and firm performance.

2.3. Board independent and firm performance

The previous study was conducted by Beiner et al. (2004) on a set of companies listed on the Swiss Stock Exchange, with the aim of examining the impact of board size on company performance. The result of the study suggested that the board size is an independent control mechanism. Hypothesis 2 in this study is in accordance with agency theory proposed by Jensen (1986) who explained that conflict of interest of manager with shareholder's interest occurs with the assumption that shareholders and agent (each manager) wants a high return on investment projects but in a different interest towards the risks.

A corporate governance is the structure and control mechanism for managing a company by means to improving corporate prosperity and accountability, whose ultimate goal is to make shareholders value (Handriani and Robiyanto, 2018a). The independent board is one of the variables of internal corporate governance structure that is expected to affect the investment. The independent board in this study is proxied by the percentage of the number of independent board members of the total number of boards of commissioner's members.

Thus, it can be assumed if firm's board size is high, it will have a positive effect on firm performance and corporate investment. Hence hypotheses 2a, 2b and 2c are formulated as follows:

Hypothesis 2a is independent board has a positive effect on firm performance, hypothesis 2b independent board which has a positive effect on investment and hypothesis 2c is investment mediates the influence between independent board and firm performance.

2.4. Board size and firm performance

A research on the impact of board size on firm value has a significant positive impact on firm value. The previous research stated that a company with large board size is able to make a better decision so as to improve performance for the achievement of company value (Eisenberg et al., 1998, Jensen, 1994, Lipton and Lorsch, 1992, Yermack, 1996). The latest research in line with the above results are Garg (2007), Haron et al. (2013) which found the evidence of board size and independence of members of the board of commissioners both for companies with family ownership and non-family ownership have a strong and significant positive effect on the financial performance of the company.

Thus, based on the description above, it can be assumed that if the firm's board size is high, it will have a positive effect on firm performance and investment, then hypotheses 3a, 3b and 3c can be proposed as follows:

Hypothesis 3a is the board size has a positive effect on firm performance, hypothesis 3b is board size affects to investment, and hypothesis 3c is investment mediates the influence between board size and firm performance.

2.5. Firm size and investment

The problem of firm size is an important factor in the perspective of capital structure. The size of a company is an important indicator in an economic system that has generated interest among researchers. Prior empirical research has explored the size of the firm and has provided much evidence that firm size has a significant effect on investment. The previous researches were run by Axtell (2001), Coad (2009), Kaizoji et al. (2006). In general, the result of previous researches allowed us to draw the conclusion that firm size plays an important role in corporate investment policy. This means that the company has a huge potential to choose different investment opportunities in getting a positive NPV from a number of investments. The NPV will contribute to cash inflows, and then accumulate in increased profitability. Thus, based on the description above, it can be assumed that if firm size is high, it will have positive effect on investment, then the fourth hypothesis proposed in this study is firm size has a positive effect on investment.

2.6. Debt and investment

A debt policy is the decision of the extent of debt usage to manage and run the company's activities by using debt to equity ratio, where it can be obtained by dividing the total liabilities by the company with their own capital. The management of the company should pay attention to the amount of the loan considering the other parties who have an interest in the company's ability to pay the interest and loan principal.

The measurement of the company's debt level is based on the data derived from the company's balance sheet and the ratio which is typically used in financial leverage. This is because the higher the level of debt, the more funds available to pay dividends. The highest dividend payouts can provide a positive signal that cause a raise on one's company's value (Ernayani et al., 2017). To measure the amount of financial leverage in which it measures the extent to which the company is financed by debt.

An investment policy is a decision that concerns to the allocation of internal and external funds to various forms of investment. Thus, based on the description above, it can be assumed that if the company's debt is high, it will have a positive effect on the investment, then the 5th hypothesis proposed in this study is debt has a positive effect on the investment.

2.7. Age and investment

Theoretically, long-standing companies will be trusted by investors rather than newly established companies, since they are assumed to be able to generate higher profits than newly ones. As a result, newly established companies will find it difficult to obtain funds in the capital market so that they rely more on their own capital. The age of the company is expected to affect its investment desire because older companies have a good experience of investment activity.

The long-standing companies will increase their profits due to the experience of previous management in business, so they have a force to run a profitable investment, with a good investment capability, the company is certainly good at managing risks as well. Thus, based on the description above, it can be assumed that firm age has a positive effect on investments, then the 6th hypothesis filed in this study is firm age has a positive effect on investment.

2.8. Systematic risk and firm performance

Systematic risk is associated with risk factors that affect the market as a whole. The systematic risk comes from factors that systematically affect most companies such as; war, inflation, recession, exchange rate changes, and high interest rates (Brigham and Houston, 2012). These risks affect the securities as a whole, and most stocks tend to be negatively affected by these risks, so the consequences cannot be diversified (Brigham and Houston, 2012).

A research by Kapoor and Pope (1997) stated that

systematic risk or market risk affects firm performance. A company as business institutions is particularly vulnerable to the pressures of these macroeconomic fundamental factors. In this study, systematic risk is proxied by using Beta (β). The concept used is single-index model, the value of Beta (β) of each company is calculated by regressing the stock return of each company with market return during the study period. Thus, it is assumed that if systematic risk is high, it will negatively affect the investment. Henceforth, the seventh hypothesis proposed in this study is systematic risk negatively affects the investment.

2.9. Investment and firm performance

An investment decision is a capital expenditure of a current situation to get the result or profit in the future. The shareholders always want managers to be able to choose and create investment decisions that can increase future profits. These benefits will improve the company's performance from the point of view of investors so as to provide a positive signal to investors that will increase stock prices and firm performance. Thus, it is assumed that when the investment is high, it will have a positive effect on firm performance. Then the 8th hypothesis proposed in this study is the investment positively affects on firm performance.

3. Data

We use manufacturing firms which were listed on the Indonesia Stock Exchange from 2010 to 2015 as samples. The sample firms had to meet such requirements: The firms must be listed on the Stock Exchange in the year 2010-2015, it had a positive asset growth at each year from 2010-2015, and had financial reports and data for five years started from 2010 to 2015. The firms' financial reporting period ended on December 31st at each. These shares had a size and book to market value ratio in December of each year. The data were available in the annual balance sheet of each firm issued in the form of annual reports by IDX.

4. Results

Testing the data of this study aimed to assess the goodness of fit model by using: chi-square and probability, goodness of fit indices (GFI), adjusted goodness of fit index (AGFI), root mean square error of approximation (RMSEA), expected cross validation index (ECVI), Akaike's information criterion (AIC) and the CAIC, also fit index. The test results of goodness of fit mode using indicators can be seen in Table 1 as follows:

Table 1. The Test Results of Goodness of Fit Model

Source: The result of data processing by LISREL

Fit Model Indicators	Value	Cut off Value	Conclusion
Chi-Square and Probability:			
1. Minimum Fit Function Chi Square	P = 0.37	P > 0.005	Fit
2. Normal Theory Weighted Least Square Chi Square	P = 0.37	P > 0.005	Fit
Goodness of Fit Indices (GFI)	1.00	P ≥ 0.90	Fit
1. Adjusted Goodness of Fit Index (AGFI)	0.92	P ≥ 0.90	Fit
2. Parsimony Goodness of Fit Index (PGFI)	0.69	P > 0.05	Fit
1. Root Mean Square Error of Approximation (RMSEA)	0.00	< 0.050	Fit
2. P-Value for Test of Close Fit (RMSEA)	0.081	< 0.050	Fit
1. Expected Cross Validation Index (ECVI)	0.22	1. ECVI (0.22) < ECVI for Saturated (0.28) Model	Fit
2. ECVI for Saturated Model	0.28	2. ECVI (0.22) < ECVI for Independence Model (2.38)	Fit
3. ECVI for Independence Model	2.38		
Akaike's Information Criterion (AIC) dan CAIC:			
1. AIC Model	66.99	1. AIC Model (66.99) < AIC Independence (984.11) and	Fit
2. AIC Independence	964.10	AIC Model (293.59) < AIC Saturated (300.35)	
3. AIC Saturated	90,00		
4. CAIC Model	293.59	2. CAIC Model (293.59) < Independence (964.10) and	Fit
5. CAIC Independence	984.11	CAIC Model (293.59) < AIC Saturated (311.35)	
6. Saturated AIC	300.35		
Fit Index:			
Normed Fit Index (NFI)	P > 0.70	0.95	Fit
Comparative Fit Index (CFI)	P > 0.80	0.97	Fit
Incremental Fit Index (IFI)	P > 0.80	0.97	Fit
Relative Fit Index (RFI)	P > 0.80	0.92	Fit

The table of results above shows that all *index goodness* of fit model structured are fit. This is seen from the model results value, which is appropriate by *cut off value* description.

4.1. Hypothesis Test

The hypothesis result can be seen based on the magnitude of t-value on Table 2.

Variables	Unstandardized Estimate	Coefficient Standardized	t-Value
Institutional Ownership to Firm Performance	0.12	0.06	2.74*
Independent Board to Firm Performance	0.04	0.01	1.74
Board Size to Firm Performance	0.11	0.81	4.66*
Investment to Firm Performance	0.71	0.48	2.25*
Institutional Ownership to Investment	0.30	0.34	3.37*
Independent Board to Investment	0.39	4.01	2.39*
Board Size to Investment	0.48	0.12	2.44*
Size to Investment	0.20	0.14	1.68**
Debt to Investment	0.06	0.25	4.87*
Age to Investment	0.00	0.02	0.53
Risk to Investment	0.00	0.02	0.76

Table 2. Direct Influence of Corporate Governance;
DEBT; SIZE; AGE; RISK; FP and INV
Source: The result of data processing by LISREL
Description: *) significant on α = 5%
**) significant on α = 10%

The first is the indirect influence on institutional ownership on firm performance through investment variables. Second, the influence of independent board to firm performance through investment and the third is the indirect influence on board size to firm performance through investment as measured by the Sobel Test shown in Table 3.

5. Discussion and conclusion

This study aims to examine the effect of good governance on firm performance. Test result on the first hypothesis is that institutional ownership has a positive effect on firm performance, which is supported empirically. This can be shown with a t-value of 2.74. While hypothesis 2 is shown with t-value of 1.74 and hypothesis 3 is shown with t-value 4.66. The results show that, institutional ownership is a positive determinant for company performance. However, an independent board has no significant positive effect on firm performance, and contrary, the board size has a positive effect on firm performance. The results of this study can be interpreted that corporate governance as a variable affecting firm performance would affect the reputation of companies in Indonesia.

In line with agency theory proposed by Jensen and Meckling (1976), it stated that the agency problems will occur when the

Variable	Statistical Test	p-value	Standard Error	Result	
Institutional Ownership to Investment to Firm Performance	0.75	0.6461	0.3436	p-value > 0.05	rejected
Independent Board to Investment to Firm Performance	0.14	0.0109	0.3557	p-value < 0.05	accepted
Board Size to Investment to Firm Performance	0.45	0.3267	0.3449	p-value > 0.05	rejected

Table 3. Direct influence of corporate governance; DEBT; SIZE; AGE; RISK; FP and INV
Source: The result of data processing by Sobel Test

proportion of managerial ownership of a company's stock is less than 100%, so the managers tend to act to pursue their self-interest and are not based on corporate value in funding decision making. Management did not assume the risk of making a decision, the risk was fully borne by the shareholders. Another cause of this conflict was that shareholders were concerned only with the systematic risk of the company's shares, as they invested in a well-diversified portfolio. Yet managers more concerned about an overall corporate risk.

The results of the second hypothesis test obtained an empirical support because it had a positive and significant influence. The third hypothesis is the influence of good governance toward investment including institutional ownership to investment indicated by the value of t 3.37, whereas the independent board hypothesis to investment is shown with the value of t 2.39 and board size hypothesis is shown with value 2.44. The results of this second hypothesis was that the corporate governance affected on investment activities of companies in Indonesia. The companies that made investments would certainly attract investors. In line with the signaling theory, that the level of investment chosen was one that maximized net present value. A future profit is financed from external and internal funding sources. Therefore, its utilization needs a good monitoring mechanism conducted by institutional ownership, independent board, and board size.

The result of fourth hypothesis was that the firm size had a positive effect on investment and it got an empirical support, shown by t 1.68. Thus, this study supported the results of previous research done by Jensen (1986), Kallapur and Trombley (2001), Kester (1984), Lewellen et al. (1987), Pindyck (1986), Siegel et al. (1988). The manufacturing companies in Indonesia had started investing and being diversified since the company was newly established. The company managers would always know more about the value of assets and opportunities than investors. This would show a fundamental thing as investment managers in getting to know that a project had a positive NPV.

A debt testing had a positive effect on investment and it got empirical support, shown by t 4.87. Thus, this study supported Fama and French (1998) on investment decisions. Fama (1978) stated that corporate value is solely determined by investment decisions. That opinion could be interpreted that the investment decision was important, because it achieved the company's goal to increase shareholders' value through corporate investment activities. The purpose of investment decisions was to obtain a high level of profit with a certain level of risks. A high profit accompanied by manageable risks were expected to increase the value of the firm, meaning that it would increase shareholder wealth. The use of funding sources for investments in accordance with Pecking Order Theory was first introduced by Donaldson (1961).

This theory demonstrates a hierarchy in fund-raising firms in which firm has a specific preference order of capital used to finance their business (Myers and Majluf, 1984). Due to asymmetry information between the company and potential investors, the company will prefer retained earnings in advance to pay dividends and investment opportunities. If the company requires external funds, it will prefer to choose the debt before external equity. The internal equity is got from retained earnings and depreciation. Then debt is obtained from a creditor loan, while external equity is obtained from the company which issues a new share. In short, this theory prefers internal financing (funding derived from the results of the company's operations in the form of retained earnings).

The sixth hypothesis, age affects on investments, it did not get empirical support. Getting proven with the value of t 0.53. This hypothesis showed that firm age had a positive effect and it was not significant to investment. The older companies had better market access and would be able to increase their investment activity. This study was in line with the research run by Humphrey-Jenner and Powell (2011), Pervan and Višić (2012), Srivastava and Laplume (2014).

The seventh hypothesis tested that the risk negatively affects investment obtained an empirical support to the t firm value at 0.76. The optimum capital structure implication targeted by the firm. It indicated that the balance between risk and return so that the stock price was maximized. The results of this study were consistent with Lyandres and Zhdanov (2013) and Raz and Amir (2014).

The test of the eighth hypothesis had a positive effect on investment to firm performance empirical supported to the t-value at 2.25. The implication of the research is that manufacturing companies in IDX have a positive effect on investment to firm performance, since large companies tend to have lower volatile income and net cash flow (Fama and French, 2000). This is consistent with researches conducted by Ameer (2014) and Sadath and Acharya (2015).

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