A Comprehensive Analysis of Firm's Value: A Study of Selected Firms in Indonesia

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Keywords: Management Change, Investment Decision, Audit Committee, Good Corporate Governance, Capital Structure and Firm's Value

Abstract: The main objective of this study is to determine the influence of Management Change, Investment Decision, Audit Committee, Good Corporate Governance and Capital Structure on Firm's Value. A sample of 15 firms listed on Indonesia Stock Exchange (ISE) for a period of 4 years from 2014-2017 was used. Data were sourced from annual reports of selected firms. The Multiple Linier Regression (MLR) statistical technique was used for data analysis and hypothesis testing. The study revealed that there is a significant influence of Management Change, Investment Decision, Good Corporate Governance and Capital Structure on Firms' Value. But there isn't a significant influence of Audit Committee on Firms' Value. The study therefore recommends that Investment Decision and Capital Structure are optimized by firms to aid maximization of firms' value.

1   INTRODUCTION

All small firms, medium firms and large firms need funds to activate. Among them, large firms really need funds to do day to day operations and sometimes try to expand domestically and abroad for their activities. The main objective of the firms are to get much profit, to maximize their stockholders welfare. To make it succeed, they need funds to finance their operations and activities. It is important to improve the firms' performance by changing the management, investment decision, creating Good Corporate Governance, form Audit Committee and also good financing strategy such as arranging capital structure (financing source) which are devided into two: Reserve and retained earnings as the internal financing and long term loans, issuance of bond payables, common stock and preferred stock.

Firms must choose the best Directors to manage the firm, investment decision should be done carefully. The aim of decision investment is to get high profit margin with certain risk. It is expected to increase firms' value. It is also meant to increase stockholders' welfare. Stockholders worth can be measured by stock price. it can be counted from amount of common stock outstanding times stock price at that time. Market price is reflected from various decision and policy done by management so it could be said that firms' value is derived from management actions. According to the Cadbury Report, 1992, the Combined Code, 2003, 2006, and the FRC, 2016, a board of directors should established Audit Committee, Audit remuneration, Audit nomination , etc., to improve efficiency. This research aims to narrow down and focus on Audit Committee adoption as being one of the most important function of board of directors.

A variety of research in financial management has been widely performed and contributed useful financial theory to science and management policies, such as the capital structure theory (Modigliani and Miller, 1958 and 1963) and agency theory (Jensen and Meckling, 1976) etc. Therefore, the activities within the company play an important role in the survival of the company. The main goal of the firms' policy are commonly aimed at the development of the company by increasing fims' value.

2   THEORICAL FRAMEWORK

At least eight theories and theoretical frameworks have been developed relating 6 factors influencing firms' value (Kumar, 2007), these are:

1. Irrelevance Theory by Modigliani and Miller (M&M) in 1958
2. Static Trade-off Theory (STT) by Myers and Majluf in 1984
3. Asymmetric Information signaling framework by Ross in 1977
4. Model based on agency cost by Jensen and Meckling in 1976
5. Pecking Order Framework (POF) by Majluf and Meyers in 1984
6. The legal environment framework of capital structure by La Porta et. al in 1997
7. Target leverage framework or mean revision theory by Fisher et al in 1989
8. Transaction cost framework by Williamson in 1988

The principle of agency conflict and agency theory

Agency theory is defined as " one in which one or more persons (the principal (s)) engange another person (the agent) to perform some service on their behalf which involve delegating some decision making authority to the agent" (Jensen and Meckling, 1976).

The relationship between the principal and the agent possesses two major interdependent problems. The first is the problem of information asymmetry between the principal and the agent. The second is the possibility of conflict or a divergence of interest between the principal and the agent (Hill and Jones, 1992). In term of divergence of interest, the agent does not necessarily make decisions in the best interests of the principal. The agent (manager) may prefer to persue their own personal objectives instead of primary objective of wealth maximization for shareholders (Huse, 2007; Eisenhardt, 1989; Berle and Means 1932).

The formation of an audit committee by board of commissionaires is design to overcome agency problems and helps enhance the firms' monitoring and effectiveness. However, Khosa (2017) indicates that the presence of an audit committee can mitigate the agency costs between managers and shareholders. Also, the establishment of an audit committee helps to align the interest of management with those of shareholders (Hillman and Dalziel, 2003). The establishment of an audit committee as part of best corporate governance practice helps to reduce agency costs and information asymmetry by ensuring that a firms' activities are conducted in line with the expectations of the principal and agent.

2.1 Prior Audit Committee Studies and Hypotheses Development

The benefits gained by firms as a result of establishing an audit committee, prior studies indicate that the presence of an audit committee can have no impact or a negative impact on a firm. Empirical research by Khosa, (2017) indicates that audit committee independence is negatively associated with firm value. This research is consistent with the findings of Yermack (1996). He showed that the establishment of an audit committee board had a negative correlation to a firm's Tobin's Q.

In contrast, Chan and Li's (2008) research reveals that the establishment of these committee (audit, nominating and compensation) have a positive impact on firm value since their knowledge and experience can be shared during board meetings. Also, the information given by a committee can enhance the overall insight of a board of directors into their firm. However, given the mixed empirical evidence, this research predicts that audit committee can have either a positive or negative association with firm value. Henceforth, the main hypotheses to be tested are as follows:

Ha1: *there is a positive and statistically significant relationship between the existence of an audit committee and a firm's value.*

2.2 Prior Institutional Ownership Study and Hypothesis Development

Analyzing the effect of dominant institutional investors on firm value Mallorqui and Martin (2011) found that the ownership of investment funds is positively related to firm value but the ownership of banking institutions is negatively related to firm value.

The existing empirical evidence regarding the relationship between institutional ownership of firm value remains inconclusive. McConnell and Servaes (1990) found a significant positive relationship between institutional ownership and Tobin's Q. Consistent with these arguments, the following hypotheses is proposed:

Ha2: *There is a positive effect between institutional ownership and firms' value*

2.3 Prior Capital Structure Study and Hypothesis Development

Woolridge and Snow (1990), found a significant positive abnormal return at the level of 0.71% of the overall investment announcement. They are categorized into several types of investment announcement, joint ventures, R & D project, diversify markets/products, and capital expenditure. Significant positive market reaction and long term investments, the investment is more than 3 years.

Capital structure is one policy influencing firms' value. According to Weston and Copeland (1997), capital structure is a permanent financing consist of long term liabilities, preferred stock and stockholders equity. Capital structure shows the proportion on using payables to finance the investments. Investors try to balance between risk and return.

Research conducted Anuchitworawong (2000) after crisis in Thailand, and Guo (2006), found that capital structure has a negative and significant effect on Return On Asset (ROA). Rayan, K (2008) found financial leverage has a negative and significant effect on firm value. Salehi, M (2009) who conducted research in Iran, also found that financial leverage has a negative impact on corporate performance, While Bhatti, et al (2010), found that high levels of leverage that will create a high systematic risk and high volatility in stock prices. Henceforth, the main hypotheses to be tested are as follows:

Ha3: *There is a positive and statistically significant relationship between capital structure and firms' value.*

2.4 Prior Investment Decision Study and Hypotheses Development

The aim of investment decision is to get high profit margin with certain high risk. The highest of profit margin followed by the highest the management risk. It is expected that increasing firms' value means increasing stockholders' welfare. Capital expenditure related to investment policy, where the policy is part of the financial policies that have significance to make the value of the company increases. This policy is usually done when the company expanded the business by adding production capacity, modernization or building factories and capital budgeting changes. Woolridge and Snow (1990) has been treated as capital expenditure expansion of production capacity, plant modernization and changes in capital expenditure as capital expenditure. Henceforth, the main hypotheses to be tested are as follows:

Ha4: *There is a positive and statistically effect of investment decision on firms'value.*

2.5 Prior Management Changes Study and Hypotheses Development

Management changes in a firm can also change the vision, mission and firms business strategies, and at last it needs organization restructuring. This changing is expected to increase value of the firm. Usually organization restructuring will be followed by management changes. Based on this description, the hypotheses is as follows:

Ha5: *There is a significant effect of management changes on firms value*

3 RESEARCH METHOD

The research paper uses secondary data from www.idx.co.id (annual report from food and beverage companies) and covers a 4-year period of 15 financial firms' annual reports (From December 2014 to December 2017). The financial firms are focus on Food and Beverage Companies listed in Indonesia Stock Exchange.

The firms were selected to be part of the sample by using the criteria that they have had 4 consecutive years of annual reports, and that the independent variables (Audit committee, institutional ownership, management changes, investment decision and capital structure), dependent variable (Tobin's Q).

The 15 firms generate 60 firm-year operations, which are sufficient to help answer the research questions and make a meaningful contribution to the firms' value literature. Also, selecting data from 2014-2017 is appropriate to the research objectives and the rationale behind this study.

Data gathered were analyzed using regression analysis method. Regression analysis is a statistical tool for estimating relationships among variable especially when focus is on the relationship between a dependent variable and one or more independent variables. Regression is also used to understand if the independent variable is related to the dependent variable and to explore the form of this relationship and also infer the causal relationship (effect) between the variables (dependent and independent). However, the multiple linier regression method was specifically employed, using the Ordinary Least Squares (OLS) method to estimate the parameters. The Ordinary Least Squares (OLS) method was employed because it is the best linier unbiased estimator.

3.1 The Regression Design

The data given will be tested using the following regression model:

Tobin's Q$_{it}$ = α0 + α1 Audit Committee$_{it}$ + α2 Institutional Ownership + α3 Capital Structure + α4 Investment Decision + α5 Management Changes + ε$_{it}$

Where:
Tobin's Q$_{it}$ for firm i at time t is the dependent variable used as a proxy for firm valuation. That is, Tobon's Q will represent and serve as a firm-based organisational valuation measure. The term α0 is constant; α1, α2, α3, α4, α5 are the independent variables. The last term ε$_{it}$ is the model error for firm i at time t.

(i) Dependent variable Tobin's Q firm value

The dependent variable in this study is firm value, which has also been used in several prior studies; for example, (Agrawal and Knoeber, 1996; Yermack, 1996; Gompers et al., 2003; Klapper and Love, 2004; Beiner et al., 2006; Black et al., 2006; Haniffa and Hudaib, 2006; Henry, 2008; Guest, 2009; Ntim et al., 2015; Krause and Tse, 2016). Tobin's Q represents the financial valuation of corporate governance structures by investors (outsiders), (Lindenberg and Rose, 1981). Tobin's Q is measured as the ratio of total assets minus the book value of equity plus the market value of equity to total assets (Chung and Pruitt 1994, Beiner et al., 2006).

(ii) The Independent variables in this study are Audit Committee, Institutional Ownership, Capital Structure, Investment Decision and Management Changes.

3.2 Statistical Criteria

It is necessary to check the goodness of fit of the model and the statistical significance of the eatimated parameter; the statistical criterion used to check the goodness of fit was the coefficient of determination (R^2) and the T-tsest, Durbin Watson and F-test were the criteria used to check the statistical significance of the estimated parameters; the criteria are further explained below:

1. T-test: this test was used to test the significance of the parameters estimated at (n-k) degree of freedom, where n= number of observations and k = parameters.

2. Coefficient of Determination (R^2): this shows the percentage of the total variation of the dependent variable that can be explained by the independent variable (s). R^2 shows the extent to which the independent variable influences the dependent variable. A high value shows a high degree of influence and vice versa

3. F-test: this is used to test the significance of R^2 and thus test the significance of the model as a whole.

If F-calculated is greater than F-tabulated, reject the H_0 and if F-calculated is less than F-tabulated accept H_0 at 5% level of significance.

4. Durbin-Watson statistic: This is mostly relevant when using time series data. This criterion was used to test whether there is any evidence of autocorrelation in the residuals of the time series regression. The statistics ranges from zero to four, a value of two or close to two indicates no autocorrelation in the sample. A value far less than two indicate positive correlation while a value greater than two indicate negative correlation.

5. Audit committee connoted by AC is estimated by audit committee members in the firms. Institutional ownership is estimated by amount of institutional stocks or shares devided by total stocks times 100%. Management changes in this paper use dummy variable where 1 if management changes happened and 0 otherwise. Investment decision connoted by ID is proxied by Price Earnings Ratio (PER), estimated by stock price devided earnings per share times 100%. Capital structure or financial leverage connoted by CS is estimated by total debt/total equity, and its value is given in ratio. Firms' value connoted by FV is estimated using market value of the shares of sampled firms, and its value is given.

6. The listed firms are Food and Beverage period 2014-2017, the firms have closing price data and the stocks are actively traded. The firms also have financial ratios as research variable measurements.

4 ANALYSIS

The results of the OLS regression are analysed in the table below.

Table 1: Descriptive statistics

Variables	Mean	Std.Dev.	Observation
AC	3.115	0.379	52
IO	70.263	19.221	52
MC	0.289	0.457	52
ID	21.454	10.055	52
CS	1.146	1.328	52
FV	3.113	3.248	52

Source: SPSS 22

Table above highlights descriptive statistics of variables. Firm Value (FV) which is the dependent variable has a mean of 3,1154 and a standard deviation value of 3,24751. The mean value of Audit committee stood at 3,1154 and a standard deviation value of 0,37853. The mean value of Institutional ownership stood at 70,2625 and a standard deviation value of 19,2213. The mean value of Management changes stood at 0,2885 and a standard deviation value of 0,45747. The mean value of Investment Decision stood at 21,4538 and a standard deviation value of 10,05458. The mean value of Capital

structure stood at 1,1463 and a standard deviation value of 1,32821. The last column represents the number of samples in our observation.

Table 2: Normality Test

		Unstandar-dized Residual
N		52
Normal Parameters	Mean	0.000
	Std. Deviation	2.750
	Absolute	0.178
Most Extreme	Positive	0.178
Difference	Negative	-0.104
Kolmogorov-Smirnov Z		1.280
Asymp.Sig (2-tailed)		0.075
a. Test distribution is Normal		
b. Calculated from data		

Source: SPSS 22

The asymp.sig (2-tailed) shows that p prob value $0,075 > 0,05$. It means that normality assumption has been fulfilled.

Table 3: Multicollinierity Test

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Audit Committee	0.943	1.060
Institutional Ownership	0.882	1.134
Management Changes	0.991	1.009
Investment Decision	0.849	1.178
Capital Structure	0.922	1.084

Source: SPSS 22

All variables showed that Variance Inflation Factor Value are below 10 and Tolerance value are above 0,1. It means that there is no multicollinierity among the variables.

Table 4: Autocorrelation Test

Run Test	Unstandardized Residual
Test Value	-0.3737
Cases < Test Value	26
Cases >= Test Value	26
Total Cases	52
Number of runs	28
Z	0.,280
Asymp.Sig (2-tailed)	0.779

Source: SPSS 22

Asymp.Sig (2-tailed) $0,779 > 0,05$ shows that there is no autocorrelation from the model.

Model Summary and Analysis of Result
The result obtained from the preliminary ordinary least square estimation technique is presented below:

Table 5: Ordinary Least Square Regression Result (Initial Output)

Variable		Coef.	T-Stat.	Prob.
Dep.	Indep.			
FV	AC	-0.167	-0.152	0.88
	IO	0.058	2.577	0.013
	MC	0.699	0.785	0.436
	ID	0.158	3.609	0.001
	CS	0.549	1.728	0.091
a. Dependent Variable: Firm Value				
R^2		0.283		
Adj R^2		0.205		
F-stat		0.007		

Source: SPSS 22

The coefficient of determination (R^2) with a value of 0,283 shows that about 0,283% of the total systematic variations in the dependent variable (FV) have been been explained by the explanatory variables taken together. The adjusted R-Square shows that after adjusting for the degree of freedom, the model could still explain about 0,205% of the total systematic variations in firm value (FV), while about 79,5% of the systematic variation in firm value (FV) was left unaccounted for, which has been captured by the stochastic disturbance term in the model. This indicates a moderate fit of the regression line and also the model has a high forecasting power. On the basis of the overall statistical significance of the model as indicated by the F-statistics, it was observed that overall model was statistically significance since sig. value $0,007 < 0,005$. On the other side, on the basis of the individual statistical significance, as shown by the t-statistic, it was observed that audit committee has Prob. Value 0,880; Institutional Ownership has Prob.Value 0,013; Management changes has Prob.Value 0,436; Investment Decision has Prob. Value 0,001 and Capital Structure has Prob. Value 0,091.

Hypothesis Testing
In order to test the hypotheses of the study, the t-statistic obtained from the regression result were used, the paper adopted 5% level of significance under the one-tailed test. Our decision rule is to accept the alternative hypothesis if Prob. Value is less than 0,005, otherwise we reject alternative and accept the null.

Hypothesis 1:

H$_{a1}$: *there is a positive and statistically significant relationship between the existence of an audit committee and a firm's value*

From the empirical analysis it was observed that Prob.Value from audit committee 0,633 and coefficient regression - 0,167, which states that audit committee influences negatively and not significant on firms value.

Hypoyhesis 2:

H$_{a2}$: : *There is a positive effect between institutional ownership and firms' value*

From the empirical analysis, it was observed that Prob. Value from Institutional ownership 0,05 and coefficient regression 0,058, means that Institutional ownership influence positively but not significantly on firms value.

Hypothesis 3:

H$_{a3}$: *There is a positive and statistically significant relationship between capital structure and firms' value.*

From the empirical analysis, it was observed that Prob. Value from capital structure 0,091 and coefficient regression 0,318, means that capital structure influence positively but not significantly on firms value.

Hypothesis 4:

H$_{a4}$: *There is a positive and statistically effect of investment decision on firms'value*

From the empirical analysis, it was observed that Prob. Value from investment decision 0,001 and coefficient regression 0,158, means that investment decision influence positively and significantly on firms value.

Hypothesis 5

H$_{a5}$: *There is a significant effect of management changes on firms value*

From the empirical analysis, it was observed that Prob. Value from management changes 0,436 and coefficient regression 0,999, means that management changes influence positively but not significantly on firms value.

5 CONCLUSIONS

The research examined the relationship among audit committee, institutional ownership, management changes, investment decision and capital structure on firms value. From all independent variables, only variable investment decision influence positively and significantly on firms value.

Firm investment decisions are shown to be directly related to financial factors, and they also related to firms value. Investment decisions of firms with high creditworthiness are extremely sensitive to the availability of internal funds; less creditworthy firms are much less sensitive to internal fund availability`

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