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RESEARCH ARTICLE

Enterprise Risk Management, Corporate Governance and Firm Value: Empirical Evidence from Indonesian Public Listed Companies

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Abstract

The agency conflict in modern companies could be impact to firm value reducing. To solve this problem should be implemented the good corporate governance and enterprise risk management (ERM) This study aimed to test whether the ERM implementation and corporate governance can enhance shareholder value. It uses the multiple regression analysis of 110 companies for the year 2010 to 2013. Results of this study concluded that the implementation of ERM positive effect on firm value. It means that the better implementation of ERM will be followed by increasing firm value. Furthermore, the size of the board of directors is also a positive influence on firm value it implies that the greater the number of director, the more effective supervision of the company so that the company's value will increase. This study also height the positive relationship between the independent board and firm value. It indicates that the higher the proportion of independent directors on the board of a company, the better the value of the company. Instead research shows managerial ownership negative effect on the value of the company. These results contradict the agency theory which states that one of the solutions to the agency conflicts is to increase managerial ownership.

Keywords: *ERM, Board Size, Independent Board, Managerial Ownership, and Firm value*.

Introduction

Investors founded the company in order to increase its prosperity reflected in profitability and corporate value is high, the higher the value of the company, the higher and the prosperity of our shareholders. The prosperity of the shareholders represented by the market price of shares is a reflection of the investment decision, financing, and asset Management Company [1].

However Objective of the company to prosper shareholders by increasing the value of the company cannot always be achieved with good, which is in line with agency theory that the purpose of the shareholders *(principal)* and the manager *(agent)* are not always the same, which lead to conflict agency [2].

But companies with a small *agency conflict* have the potential to create high value of the company. Some empirical research that examines issues affecting agencies and corporate policy decision to increase the company's value.

On the other hand, the agency conflict happens; the next stage will cost the agency. Reference [3] explains that one way to reduce the agency problem and increase the value of the company is the implementation mechanism of corporate governance and enterprise risk management (ERM). On the other hand, to ensure that the organization has implemented ERM, it needs corporate governance mechanism especially in the process of implementation and evaluation of the implementation ERM [4].

Corporate governance mechanisms aimed at monitoring the behavior of managers for their actions is helpful for companies (the owner) or the manager himself. Reference [5] stated that in general the implementations of good corporate governance are believed to enhance the performance or value of the company. This study aimed to examine the effect of corporate governance and ERM on firm value.

Literature Review and Hypothesis Development

Enterprise Risk Management (ERM) and Firm Value

The Committee for Sponsoring Organizations of the Trade way Commission defined ERM as: "A process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives."[6].

The implications of the adoption of ERM is enabling the company to better inform risk profile and which serves as a signal of their commitment to risk management, along with the increasing openness of risk management. Applying ERM can help management make the company's strategy to achieve the goal; especially in providing added value to shareholders will be able to measure the success of the company. ERM studies that examine the impact of the company found that there is a positive relationship between ERM and the company [7]. Reference [8] concluded that there is a positive and significant relationship between ERM and firm value of the banking industry in Indonesia. Meanwhile, Reference [9] found that there is no significant effect of ERM and the firm value of Malaysia Stock Exchange listing companies. From the argument, the hypothesis is as follows.

H1: There is a significant positive relationship between ERM and company's value.

Board Size and Firm Value

Board of directors responsible for oversight and advise the managements of the firm. In order to play an important role board of director should have sufficient and over members. Reference [10] concluded that the small size of board companies have a higher firm value than the large board size companies. Moreover, Reference [10] explains that more members in the board of director will be followed by slow in decision making process. However, Reference [11] states that the large board size company have the ability to push managers to reduce capital costs and improve performance. Reference [8] showed that the size of the board in the governance structure does not affect firm value of the banking company in Indonesia. Furthermore, Reference [5] concluded that the board had a positive effect on firm value. Hence, the hypothesis is as below.

H2: There is a significant positive relationship between board size and firm value.

Independent Board and Firms Value

An independent board member who comes from an independent party that is not associated with the company. In carrying out it functions independent board is normally given the rational and prudent judgments and opinions which impact to firm value creating. Reference [12] showed that the presence of independent directors to improve the quality of supervision over the implementation of risk management and audit quality in order to reduce fraud and opportunistic behavior of managers.

Reference [8] show that independent directors have significant impact on the banking company in Indonesia. Reference [13] also concluded that independent directors play an important role in enhancing shareholder value in Indonesia. Moreover, Reference [14] concluded that the company which had a 50% independent director can achieve the high Tobin's Q of 0.13. In other words, independent board could improve the company's performance. Instead the research Reference [15] found that there was no link between the independent directors to the firm value proxy by Tobin's Q. Reference [16] and [17] found a strong positive correlation between independent board and corporate performance. Therefore, the following hypothesis formulated.

H3: There is a significant positive relationship between independent directors and firm value.

Characteristics of the Audit Committee and Firm Values

The audit committee is a committee established by and responsible to the board of directors. The main responsibility and duty of audit committee is to ensure that the principles of *good corporate governance,* especially transparency and *disclosure,* consistently applied and adequately by the executive [18].

A monitoring mechanism is in particular is to oversee the company's financial reporting process. Reference [19] suggested that the characteristics of the audit committee are important to increase the effectiveness of their role. Furthermore, Reference [20] and [21] states that the audit committee must have members who are independent and have financial expertise, as well as meet regularly. However, the results showed that the audit committee has not so responsible for driving the company value. Reference [8] and [22] concluded that the audit committee size is not influence firm value for Indonesian banking company.

These results are consistent with research [23] study on the Kohati index companies included banking, concluded that the size of the audit committee has no effect on firm performance. Likewise, the results of research [24] revealed the positive relationship between audit committee size and meeting are not influence firm value.

On the other hand, they found that the negative relationship between audit committee independent and the company's performance. Meanwhile, Reference [25] found that the independence of audit committee and overall characteristics audit committee positively associated with the firm value. Therefore, we state the prediction hypothesis as follows.

H4a: There is a significant positive relationship between the independence of the audit committee and firm value.

H4b: There is a positive relationship between financial expertise of audit committee and firm value.

H4c: There is a positive correlation between the size of the audit committee and firm value.

H4d: There is a positive relationship audit committee meetings and firm value.

Managerial Ownershipp

Managerial ownership is defined as the percentage of shares held by management and actively participates in the decision-making. Ownership is usually grounded to short-term goals related to profitability results. Reference [26] suggests that potential conflicts of interest arise between corporate managers and scattered shareholders when managers have no ownership interest in the company. Furthermore Reference [27] concludes that when managerial ownership decreases, agency costs increase. Therefore, managerial ownership becomes the solution in reducing agency conflict. However some studies have found different results. Reference [28] concludes that there is no relationship between ownership structure and profitability.

Reference [29] concluded that managerial holdings related to the company's future performance, and managers who have significant stakes in the company are factors that increase *corporate governance.* The research results [30] and [16] concluded that managerial ownership has a positive effect on company performance. In contrast, the results of research by [31] and [32] found a non-linear relationship between firm value and inner ownership. Where if the ownership is too concentrated, the value of the firm will decrease. From the above argument, the hypothesis is as follows.

H5: There is a negative correlation between managerial ownership and firm value

Research Methods

Population and Sample

The population is of non-financial companies listed on the Indonesian Stock Exchange (BEI) from 2010 - 2013. The selection was done using the *single-stage cluster sampling* (one-stage cluster sample), where the sample is selected by classifying the population into in clusters/groups will then randomly selected sample of subjects required by cluster/group [33]. Grouping is done by industry of the study population. Once divided into industry groups, random sample selection is done by listing the numbers of sample firms by number 1 to number 412 as the sampling frame.

Variable Measurement and Data Analysis Techniques

This study, the dependent variable is the independent variable is firm and enterprise risk management, board size, independent directors, independent audit committees, audit committee membership, the size of the audit committee, audit committee meetings and managerial ownership. Table 1 below provides a summary of the study variables.

Table 1: Summary of variables measurement

Variable	Measurement
Firm Value (FV) :	Tobin's Q calculated by comparing the market value of equity plus total debt divided by the book value of equity plus total debt.
Enterprise Risk Management (ERM):	ERM was calculated by summing the purpose of ERM; Strategy, Operation, Reporting and Compliance [34].
Mechanism of Corporate Governance (CG):	
Board Size (BS) :	The percentage of the number of independent directors of the entire board of directors.
Independence Board (IB) :	The total board of director members
Characteristics of the Audit Committee:	
Audit committee independence (AC_Indp)	Percentage of audit committee of independent directors who came to the number of audit committee.
Audit committee financial expertise (AC_Expt)	Percentage of audit committee educational background in accounting and finance to the amount of the audit committee.
Size of the audit committee (AC_Size)	The total number of audit committee
Audit committee Meeting (AC_Dilgc)	Tne value equal to 1 if the number of meetings held is four times or more a year, 0 if less than four times
Managerial Ownership (MO) :	The percentage of shares owned by management

The relationship between independent variables and the dependent variable was analyzed using the following model.

$$\boldsymbol{FV} = \beta 0 + \beta 1ERM + \beta 2BS + \beta 3IB + \beta 4AC\_Indp + \beta 7AC\_Meet + \beta 6AC\_Size + \beta 5AC\_Expt + \beta 8MO + \varepsilon$$

Where:

FV = Tobin s'Q.
β0 = Intercept
ERM = Enterprise Risk Management
BS = Board Size
IB = Independence Board
AC_Indp = Audit committee independence
AC_Expt = Audit committee financial expertise
AC_Size = Audit committee size
AC_Meet = Audit Committee Meeting
MO = Managerial Ownership

Results and discussion

Sample Selection

The sample of this study was selected using single-stage cluster sampling (one-stage cluster sample). Based on that approach, the study obtained a sample of 110 companies fpr period four (4) years, the number of observations (n) in this study were 440 observations. The table 2 presents a breakdown of the number of samples based on the following industry groups.

Table 2: Number of samples based on industry clusters

No	Sector	Frequency	N	Percentage
1	Agriculture	5	20	4,5%
2	Mining	10	40	9%
3	And Chemical Industry Association	17	68	15,5%
4	Various Industries	10	40	9%
5	Consumer Goods	9	36	8%
6	Property and *Real Estate*	15	60	14%
7	Infrastructure, Utilities, and Transportation	14	56	13%
8	Trade, services and investment	30	120	27%
Total		110	440	100%

Descriptive Statistics

Descriptive statistical analysis was conducted to provide information on the average, minimum, maximum, and standard deviation for each variable of the study. The results of descriptive statistical analysis presented in Table 3. below.

Table 3: Descriptive statistics

Panel A				
Variable	**Minimum**	**Maximum**	**Average**	**Std. Deviation**
FV	0.284	12.587	1.573	1.470
ERM	0.000	5.560	0.982	0.819
BS	2	22	4.311	2.317
IB	0.250	0.750	0.396	0.094
AC_indp	0.250	0.667	0.361	0.086
AC_expt	0.250	0.750	0.488	0.159
AC_Size	2	7	3.120	0.496
MO	0	0.5036	0.042	0.077

Panel B		
Variable category	Number	Percentage
KA_Dilgc		
The number of meetings about 4 times	20	5%
The number of meetings over 4 times	420	95%
Total	440	100%

Table 3 shows that the average enterprise value (FV) as shown by Tobin s'Q value of 1.57, while the rate of implementation of ERM average of 0.98. the average number of commissioners (BS) is 4, with the proportion of independent board (IB) of 39.6%.

This shows that the average proportion of independent directors in the company has complied with the provisions of public Indonesia (Bapepam Regulation and FCGI Code). The proportion of independent audit committees (AC_Indp) has an average of 36%, and the audit committee that has an educational background in accounting and finance (AC-Expt) is 48.8%, while the average number of audit committees is (AC_Size) amounted to 3, with the number of meetings (AC_Meet) more than 4 times a year. The number of audit committees and the number of audit committee meetings in accordance with the recommendations of regulation and FCGI Code that minimal amounts of the audit committee of at least three people and conduct meetings at least 4 times a year. Furthermore, the average ownership (MO) public company in Indonesia was low, at 4.2%.

Correlation Analysis

Based on Pearson correlation analysis that there is a relationship between all variables studied in this research. These results are consistent with [35] and [36], states that multicollinearity occurs if the correlation between variables above 0.8. In this study, Table 4 presents the correlation matrix, where none of the correlation variable indicates the number above 0.8, so it can be concluded that there is no multicollinearity.

Table 4: Correlations

	FV	**ERM**	**BS**	**IB**	**ACI**	**ACE**	**ACS**	**ACM**	**MO**
FV	1								
ERM	0.14 ***	1							
BS	0.13 ***	-0.13 ***	1						
IB	0.07	-0.02	-0.10 **	1					
ACI	-0.03	-0.10 **	0.05	0.16 ***	1				
ACE	0.02	0.05	-0.04	0.12 ***	-0.10 **	1			
ACS	0.05	-0.03	0.27 **	0.03	0.11 **	0.05	1		
ACM	0.01	0.00	0-.04	0.02	0.09 **	0.04	0.03	1	
MO	-0.11 *	0.02	-0.13 **	-0.08 *	-0.04	-0.21 **	-0.04	-0.06	1

* Significant at 0.10 level, ** Significant at 0.05 level, *** Significant at 0.01 level

Testing the Hypotheses and Discussion

Hypothesis testing results showed that the hypothesis 1, 2, 3 and 8 are supported, while hypothesis 4, 5, 6 and 7 are not supported. Test results using multiple regression, where the overall research model is fit, which is indicated by the F-statistic of 3.392, with a significance level of 1% of the 0001 level, and r-square value of 5.9%.

Table 5: The results of hypothesis testing

Independent variable	Beta	t-stat	p-value
(Constant)	0.226	0.656	0.512
ERM	0.320	3.377	0.001 ***
BS	0.104	2.793	0.005 ***
IB	1.430	1.870	0.062 *
ACI	-0.866	-1.010	0.313
ACE	-0.240	-0.475	0.635
ACS	0.067	0.393	0.694
ACM	0.057	0.176	0.861
MO	-2.033	-1.940	0.053 *
F-Stat	3.392		
Sig F	0,001		
R-square	0.059		

* Significant at 0.10 level , ** Significant at 0.05 level , *** Significant at 0.01 level

Results should hypothesis in Table 5, indicate that ERM significant positive effect on the firm value, as indicated by the (β = 0.320, t = 3,377, p <0.01). These results indicate that better implementation of ERM will increase the company's value. These results are consistent with [3] that can be used as an indicator of applying ERM to reduce agency problems and enhance shareholder value. The results are consistent with the results of research [7], [8], that the implementation of ERM positive effect on firm value. Instead these results are not in line with research [9] which concluded that there was no significant effect of ERM and its value.

Furthermore, the size of the board is also significant positive effect on the company with an indication (β = 0.104, t = 2,793, p <0.05). These results indicate that the higher the number of directors will be more effective supervision of the company, thus increasing the company's value.

These results concur with those of [11] that the company has a number of commissioners that many have the ability to push managers to reduce capital costs and improve company performance. Likewise, the results of research [5] that the directors have a positive effect on firm value. However, these results differ from the results of research [10] concluded that a number of directors that may enhance the company's performance, arguing that the number of directors that many will slow in decision making. Likewise, the results of research [8] on the banking companies in Indonesia show that board size does not affect the value of the company.

The results of further testing that is independent directors positive effect on the company's value (β = 1.430, t = 1.870, p <0.10). These results indicate that the higher the proportion of independent boards of a company, the better the value of the company. These results are in line with expectations regulator, Bapepam and FCGI Code regarding the importance of independent directors in corporate structure in Indonesia.

It is expected that the presence of independent directors can improve the quality of supervision over the implementation of risk management and audit quality in order to reduce fraud and opportunistic manager behavior [12].

The results are consistent with the results of research [8] that showed the independent directors have significant impact on the banking company in Indonesia, which is consistent with the results of research [13], [14], [16], [17] found a strong positive correlation between independent *(non-executive independent directors)* with company performance, so that independent directors may increase the company's performance. Instead these results are not in line with the results of research [15] which concluded that there was no relationship between independent directors and the company's performance.

Furthermore, the results of this study indicate that the variable characteristics of the audit committee has no effect on the company. This result is shown by the independence of the audit committee (*β* = -0,866, t = -1,010, p> 0.10), the membership of the audit committee (*β* = -0,240, t = -0475, p> 0.10), the size of the audit committee (*β* = -0.067, t = 0,393, p> 0.10), and the audit committee meeting (*β* = 0.057, t = 0.176, p> 0.10).

These results suggest that the presence of the audit committee on public enterprises in Indonesia has not been able to increase the company's value. This indicates that the existence of an audit committee in Indonesia is still at the stage of fulfillment of existing regulations, as a rule Stock Exchange and Bapepam. The results of this study are consistent with studies [8], [22], [23], which concluded that the size of the board audit committee has no effect on the company.

These results are also consistent with the results of [24] revealed size audit committee meeting the independence of the audit committee and the audit committee has no effect on the company's performance. However, these results contrast with the results of research [25] which concluded that independence audit committee positively associated with the company's performance, and overall characteristics The audit committee also has a positive impact on the company's performance. Finally, managerial ownership variable has significant negative effect on firm value (β = -2,033, t = -1,940, p <0.10), this result indicates that the higher managerial ownership will decrease company value. These results support arguments [32] and [31], and in contrast to [30], [16], [27].

Conclusion

This study aimed to test whether the ERM implementation and corporate governance can enhance shareholder value. Results of this study concluded that the implementation of ERM positive effect on firm value. It means that the better implementation of ERM will followed by increasing firm value. Furthermore, the size of the board of directors is also a positive influence on firm value it implies that the greater the number of director, the more effective supervision of the company so that the company's value will increase.

This study also highlited the positive relationship between independent board and firm value. It indicates that the higher the proportion of independent directors on the board of a company, the better the value of the company. Instead research shows managerial ownership negative effect on the value of the company. These results contradict the agency theory which states that one of the solutions to the conflicts agency is to increase managerial ownership.

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