International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2020): 7.803

The Effect of Enterprise Risk Management (ERM) on Firm Value (Case Study of BUMN Companies Listed on the Indonesia Stock Exchange (IDX) for the Period of 2015-2019)

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Abstract: ***Currently, the development of policies was so rapid and underwent many changes that increased the urgency of public policy in the context of the governance process. One of the Public Institutions is State-Owned Enterprises (BUMN) whose operational activities represent state ownership. The presence of Enterprise Risk Management (ERM) is believed by many studies to increase the value of a firm, so that it is also expected to apply to BUMN companies in Indonesia. This study aims to determine and analyze the influence of Enterprise Risk Management (ERM) on firm value. With the control variables consisting of Managerial Ownership, Return of Assets (ROA), and Firm Size. The research sample is state-owned companies listed on the Indonesia Stock Exchange (IDX) for the period of 2015-2019. The method used in this study is Multiple Regression and Hypothesis Testing using T-test. The results of this study indicate that Enterprise Risk Management (ERM) has a positive and significant effect on the value of BUMN. Firm size has a significant effect but gives a negative coefficient. While the Return of Assets (ROA) provides a positive coefficient but does not have a significant effect. Managerial ownership has a negative effect on firm value.***

Keywords: Enterprise Risk Management, Managerial Ownership, Return of Assets, and Firm Value

1. Introduction

The urgency of a public policy in the context of the governance process is the spearhead in determining strategic steps in a period of government which will certainly have an impact on the community. One of the Public Institutions, namely BUMN, whose operational activities represent state ownership is running by following various rules attached to it as part of the firm. The presence of Enterprise Risk Management (ERM) is believed by many studies to increase the value of a firm, so that it is also expected to apply to BUMN companies in Indonesia. Enterprise Risk Management in Indonesia is part of the Government's Internal Monitoring System (SPIP) which is regulated in Government Regulation No. 60 of 2008.

Stulz (2015) specifically said that risk management is very important for organizations, more specifically financial institutions, to maintain the health of their financial systems. According to Hoyt and Liebenberg (2011), it is believed that the application of risk management can improve the performance of an organization or firm. Meanwhile, Bertinetti, et al (2013) argue that support for organizational performance development will increase value by using the concept of risk management.

The purpose of this study is to determine and analyze the effect of Enterprise Risk Management on Firm Value with several control variables. The results of this study are expected to increase the wealth of knowledge related to Risk Management. Specifically for public institutions, so that the results can be used in the preparation of public policies.

2. Literature Review

Enterprise Risk Management

In the context of public sector risk, Tworek (2015) defines public risk as the public's opportunity to face threats, damage, loss, and other dangerous conditions. In public sector organizations, strategic risk and operational risk will be related to the provision of services to the community or stakeholders. The ability of organization to manage these risks will affect its level of adaptability to the dynamic organizational environment.

Zhao et al. (2015, p. 34) states that risk management is a management activity to monitor and control the impact and possibility of a risk threat to the organization through the support of the available resources.

Risk Management based on COSO Enterprise Risk Management and ISO 31000

COSO focuses on the risk management process whose series is interrelated with several activities, namely adjusting risk appetite and strategy, improving decisions that respond to risk, reducing the potential for surprises that lead to losses in the operational process. In addition, COSO also identifies and manages the so-called “multi-risk” and “inter-risk” in the firm, able to seize opportunities, and those also increase the spread of capital.

ISO 31000 is a standard introduced by the International Standards Organization which regulates the principles and guidelines of the risk management process. According to Hanggareni (2015), in general, the risk management process according to the ISO 31000 standard consists of three stages, namely building context, assessing risk, and managing risk. Where the risk assessment in question consists of a process of risk identification, risk analysis, and risk evaluation.

Firm Value

Corporate Value, defined by Bringham and Daves (2014) are various policies implemented as an effort to increase the firmvalue so as to have a positive influence on increasing the prosperity of the owners and/orshareholders of the firm. Firm value is the perception of investors before they decide to buy or even acquire firm shares. This becomes very important because the maximum firm value will be followed by the high prosperity of shareholders and shareholders (Bringham and Gapenski, 1996).

In addition to the general perception of investors, as a firm with the largest percentage of shares owned by the government, BUMN in Indonesia is also considered important to maintain the firm valuein order to get a positive image by the public. Because, referring to the opinion of Rodiyah and Sulamiyati (2018) that firm value is a representation or general picture value by the public of the overall performance of the firm and this can be measured by the public by looking at stock prices in the market.

Measuring Firm Value with Tobin's Q Theory

Tobin's Q theory is a method to measure value of a firm, and it also a ratio measuring tool that defines firm value as a form of tangible asset value as well as intangible assets. This measure can be described by the following formula:

$$\text{Tobin's Q} = \frac{(MVS + MVD)}{RVA}$$

MVS= Market Value of all Outstanding Stock
MVD= Market Value of all Debt
RVA= Replacement Value of all Production Capacity

Firm size

Firm size is a measurement in order to know the size of a firm. The measurement method is to look at the total assets, total sales, and total shares owned by the firm. In this study, the size of firm can be calculated by the amount of assets owned, then the size of this asset is measured by total assets. The formula for calculating firm size is as follows:

$$\text{Firm Size} = \text{Ln (Total Asset)}$$

Profitability (Return of Assets)

Profitability is a description of a firm's ability to generate profits or profits by utilizing all the resources owned by the firm. Following Ross (2007) statement that description of return of asset or profitability is the result of the ratio between net profits to total assets. This profitability can be described by this following way:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$$

Managerial Ownership

Referring to the definition put forward by Sarah and Devi (2019), they said that managerial ownership is the result of the total shares owned by management. Total shares owned by management means directors and commissioners who are actively involved in the decision-making process. To find out the amount of managerial ownership, the following is the measurement form:

$$\text{Managerial Ownership} = \frac{\text{Total Shares owned by management}}{\text{Total Shares outstanding}}$$

Conceptual Framework

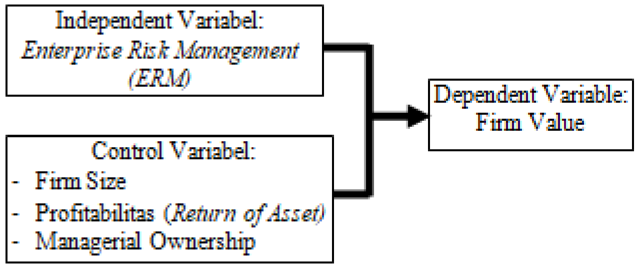

Figure 1: Analysis Model of the Effect of Risk Management on Firm

Research Hypothesis

The hypothesis of this paper is state that Enterprise Risk Management carried out by the BUMN companies has a positive influence on firm value.

3. Research Method

3.1 Research Approach

In principle, this study aims to determine and analyze the effect of Enterprise Risk Management (ERM) on the value of companies listed on the Indonesia Stock Exchange in 2015-2019. Departing from the theme of problem formulation, the research approach used in this paper is a positivist approach that emphasizes hypothesis testing.

3.2 Types of Research

This research paper use explanatory research approach, that takes careful measurement of risk management which is considered to have an influence on firm value. This research tries to present a theory related to the variables, either independent or control, that in the literature have an influence between risk management and firm value.

Then, multiple regression analysis is used to explain how the influence of risk management variables and control variables such as managerial ownership, profitability, and firm size. Attempts to determine whether the hypothesis is accepted or rejected in this study by conducting a significance test. Singarimbun and Effendi (1995) say that if the data obtained are the same, the author can explain the existence of a causal relationship between variables by using hypothesis testing. Thus, the research conducted is no longer called descriptive research, but a hypothesis testing research or explanatory research.

3.3 Data Collection Techniques

The data collection technique used in this research is to collect data related to the firm in the form of an annual report which will then be audited during the period of 2015-2019.

3.4 Population and Sample

a) Population

Quoting Sugiyono (2011), said that the population is a generalized area and consists of: objects or subjects that have certain qualities and characteristics determined by the researcher. Thus, the population in this study are state-owned companies listed on the Indonesia Stock Exchange.

b) Sample

While the sample, quoting from Arikunto (2009) and Sugiyono (2011) that the sample is a small part of the number and characteristics possessed by the population. Thus, the sample in this study is BUMN companies listed on the Indonesia Stock Exchange which have annual reports in the 2015-2019 period.

3.5 Data Analysis Techniques

F Test

F test is used to test the significance or effect of the independent variables and control variables simultaneously on the independent variables.

T Test

T test is used to determine the effect of each independent variable and control variable simultaneously on the dependent variable.

Multiple Regression Analysis

Regression method is basically a study of the dependence of the dependent variable with one or more independent variables. This method aims to estimate and predict the population mean.

The analytical technique used to test and prove hypothesis in this research is multiple regression. In addition, the T test is used to show how far the influence of the one independent variable on the dependent variable is by assuming the other independent variables are constant (Ghozali and Ratmono, 2013). The test uses the application of Statistical Product and Service Solution (SPSS).

3.6 Measurement and Research Instruments

3.6.1 Enterprise Risk Management

Adopting the measurement of Enterprise Risk Management conducted by Pagach and War (2010). Corporate Risk Management is assessed using the dummy variable method which sees whether there is a Chief Risk Officer or in some state-owned companies known as the Risk Management Committee (KomiteManajemenRisiko). Enterprise Risk Management is measured by a dummy variable, a value of 1 for companies that implement ERM and 0 for others.

3.6.2 Firm Value

Measuring Firm Value with Tobin's Q Theory

Tobin’s Q theory is a method to measure value of a firm, and it also a ratio measuring tool that defines firm value as a form of tangible asset value as well as intangible assets. This measure can be described by the following formula:

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3.6.3 Managerial Ownership

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3.6.4 Profitability (Return of Assets)

Description of return of asset or profitability is the result of the ratio between net profits to total assets. This profitability can be described by this following way:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$$

3.6.5 Firm Size

Firm size is a measurement in order to know the size of a firm. The size of firm can be calculated by the amount of assets owned, then the size of this asset is measured by total assets. The formula for calculating firm size is as follows:

Firm Size = Ln (Total Asset)

4. Data Processing, Analysis and Discussion

Data Processing

Table 1: F Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	85.968	4	21.492	5.054	.006[b]
	Residual	80.802	19	4.253		
	Total	166.770	23			

a. Dependent Variable: Nilai_Perusahaan
b. Predictors: (Constant), Ukuran_Perusahaan, Kepemilikan, ERM, ROA

The F test shows a significance of 0.006 < 0.05, it can be concluded that the independent variable and the control variable have a simultaneous effect on the dependent variable.

Table 2: Results of the Coefficient of Determination and Correlation Coefficient
Model Summary

Model	R	R Squares	Mean Square	Std. Error of the Estimate
1	.623[a]	.388	.259	2.31847

a. Predictors: (Constant), Ukuran_Perusahaan, Kepemilikan, ERM, ROA

Based on the table above, Adjusted R Square that show the coefficient of determination is 0.259 or equivalent with 25.9 percent. This result is meaning that Enterprise Risk Management simultaneously with other variables affects to the firm value. While the remaining 74.1 percent is influenced by other variables outside this research or variables that are not examined.

Table 3: Results of Multiple Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
1	(Constant)	27.639	7.441		3.715	.001
	ERM	2.378	.911	.445	2.609	.017
	Kepemilikan	-.261	.220	-.197	-1.184	.251
	ROA	1.821	11.091	.029	.164	.871
	Ukuran_Perusahaan	-.852	.235	-.614	-3.621	.002

a. Dependent Variable: Nilai_Perusahaan

Source: 2015-2019 State-Owned Enterprises Annual Report processed by the Author

Based on data analysis using SPSS, the results of the regression equation are as follows:

Y = 27.639 + 2.378 X1 - 0.261 X2 + 1.821 X3 - 0.852 X4

Accordingto the table above, there are two variables, ERM and Firm Size that have a significant effect. While the others, Ownership and ROA or profitability have no significant effect.

5. Analysis and Discussion

Effect of Enterprise Risk Management (ERM) to Firm Value.

Based on the results of the analysis conducted with data processing in this study, the results showed that the Enterprise Risk Management (ERM) variable had a significant positive effect on the Firm Value. These results are in line and consistent with the outputs that were also investigated by several studies such as Hoyt and Liebenberg (2011) and Bartinetti et al. (2013).

In addition, DewiHanggraeni (2015) also said that the existence of adequate risk management with the implementation of Enterprise Risk Management (ERM) which is marked by the presence of a Risk Management Committee or Chief Risk Officer (CRO) makes an alert (early warning system) for BUMN companies.

The Effect of Managerial Ownership to Firm Value

Based on the results of the analysis carried out with data processing in this study, the results showed that the Managerial Ownership variable had a negative coefficient value on the Firm Value variable. This shows that a high level of managerial ownership will have a decreasing impact on the value of a state-owned firm. The result of this research is in line with the result of the hypothesis presented by Stulz (1980) and paper by Iswajuni, et al (2018) which states that high managerial ownership will have a decreasing impact on the value of a firm.

This output cannot be separated from the existence of a policy that requires the majority or more than 51% of state-owned enterprises to be owned by the Republic of Indonesia. This regulation is ruled by the Regulation of the Minister of State-Owned Enterprises Number PER-03/MBU/02/2015.

The Effect of Profitability (Return of Assets) to Firm Value

Based on the results of the analysis carried out with data processing in this study, the results showed that the Return of Assets (ROA) or Profitability variable had a positive but not significant effect on the Firm Value variable. This result is accordance with the conclusion produced by Prasetyorini (2013) that a high profitability ratio in a firm will attract investors, which is reflected in the value of BUMN companies although in this study it has no significant effect.

The Effect of Firm Size to Firm Value

Based on the results of the analysis carried out with data processing in this study, the results showed that the Firm Size variable did not have a positive effect on the Firm Value variable. This result is accordance with the conclusion produced by Niesh & Velnampy (2014).Similar results were carried out by Hirdinis (2019) on mining sector companies listed on the Indonesia Stock Exchange (IDX) that firm size gave a negative coefficient on firm value.

6. Conclusions and Suggestions

6.1 Conclusion

Based on the description above, this paper concludes that the implementation of ERM has a significant positive effect on the BUMN (State-Owned Enterprises)Valuelisted on the Indonesia Stock Exchange (IDX) in 2015-2019. In addition, the Firm Size variable also has a significant effect but provides a negative coefficient on firm value. Thus, for stakeholder policy makers, an in-depth study is needed before restructuring BUMN in the form of holding.

While the variables of Managerial Ownership and Profitability (Return of Assets) do not have a significant effect on the BUMN (State-Owned Enterprises)Value listed on the Indonesia Stock Exchange (IDX) in 2015-2019.

6.2 Research Implication

The results of this study indicate that the application of Enterprise Risk Management (ERM) or corporate risk management has a positive and significant effect on the value of BUMN. The results of this study are expected to become literature for stakeholders both in formulating policies in the BUMN environment and as material in enriching literature in the field of Administration and Public Policy.

6.3 Suggestion

The existence of the Risk Management Committee or Chief Risk Officer (CRO) which in the early years of implementing regulations related to SPIP and Risk Management, should be maintained. This is in accordance with the reference that the existence of the committee is expected to be able to provide alerts (early warning system) or future oriented handling.

In addition, the findings of this study are expected to illustrate that risk management practices that tend to apply only to the private sector can also be maximized in public sector organizations such as state-owned companies whose existence is profit oriented.

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