Ownership Factor Towards Performance of Intellectual Capital in Mining Industry

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Abstract. This study aims to empirically prove the influence of managerial ownership, institutional ownership, foreign ownership and government ownership on the performance of intellectual capital as the dependent variable. The sample in this study was mining sector companies listed on the Indonesia Stock Exchange for 2016-2018 periods. using the purposive sampling method. The data analysis technique used is multiple linear regression analysis. The results of this study indicate that managerial ownership, institutional ownership and foreign ownership have a positive effect on the performance of intellectual capital, while government ownership has no effect on the performance of intellectual capital.

Keywords: managerial ownership, institutional ownership, foreign ownership, government ownership and intellectual capital performance.

1. Introduction

Innovation in technology and business competition intense in this century, forced companies to change the way to do business. For companies to continue survive, companies must quickly change their strategies from businesses that are based on labor to businesses that are based on knowledge so that the main characteristics of their companies is become knowledge-based companies [1]. Along with changes in the economy-based knowledge with the implementation of knowledge management, the prosperity of a company will depend on a transformation of creation and capitalization of knowledge itself [2]. New economic developments, which are controlled by information and knowledge, will bring increased attention to intellectual capital [3].

One thing that concern to a number of academics and practitioners is the benefit of intellectual capital as a tool to determine the value of a company [4]. Intellectual capital research is a challenge that deserves to be developed. Therefore, some authors suggest not to form a management and reporting system that can increase the lack of system relevance because, the system cannot provide executives with information that is essential for the management process based on knowledge and intangible sources [5].

The performance of intellectual capital is the intellectual ability of a company that shows a coherent picture of the physical capital used and human capital [6]. Both capital is needed in production because, the ability of physical capital and intellectual capital is important to create value of the company [7].

Agency theory explains the relationship between principal and agent. An agency relationship arises when one party referred to as the principal contracts another party which is referred to as

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the agent for performs some services for its interests which involve the delegation of some decision-making authority to the agent [8].

Managerial ownership is the proportion of shareholders from management who are actively involved in the company's decision making process [9]. When the manager's ownership of the manager is high, the manager will be more productive to increase the value of the company so that contract costs and supervision costs will be low. The greater the manager's ownership in the company, the more social information the manager will disclose.

One factor that can affect company performance is institutional ownership. The existence of institutional ownership in a company will encourage increased supervision to be more optimal for management performance, because ownership of shares represents a source of power that can be used to support or vice versa on management performance.

Foreign ownership is the proportion of shares owned by foreign parties. The existence of foreign investors in a company can improve company performance so that companies can implement a good corporate governance system because foreign investors are those who are considered to care about it [10].

The managerial ownership has positive effect on the performance of intellectual capital [11], but in another research the managerial ownership is negative and not significant on the performance of intellectual capital [12]. While the managerial ownership does not affect the value added on the performance of intellectual capital [13].

The institutional ownership has positive influence on the performance of intellectual capital [10] and the institutional ownership has no effect on the performance intellectual capital [11]. The foreign ownership has positive effect on the performance of intellectual capital [10], while foreign ownership does not affect on the performance of intellectual capital [14].

The government ownership has positive effect on the performance of intellectual capital [15] and the government ownership has negative influence on vallue added the performance of intellectual capital [13]. Also show that government ownership has no effect on the performance of intellectual capital [16].

Based on the explanation previously described, the objectives of this study are:

1. To prove empirically managerial ownership has a positive effect on intellectual capital performance
2. To prove empirically that institutional ownership has a positive effect on intellectual capital performance
3. To prove empirically foreign ownership has a positive effect on the performance of intellectual capital

To prove empirically government ownership has a positive effect on the performance of intellectual capital.

2. Literature Review

This study uses Resource Based Theory (RBT) which explains that the creation of a sustainable competitive advantage is closely related to the company's ability to maintain valuable, scarce, and irreplaceable resources and allocate and distribute these resources effectively [17].

In addition, this study also uses agency theory which explains the relationship between principal and agent. An agency relationship arises when one of the parties referred to as the

principal contracts another party who is referred to as an agent to perform several services for its interests which involve delegating some decision-making authority to the agent [8]. Agency theory assumes that all individuals act in their own interests. The principal wants the maximum possible return on the invested capital, while the manager as an agent wants his interests to be fulfilled by providing compensation, bonuses, incentives and maximum remuneration for his performance. The conflict of interest between the agent and the principal in order to achieve the prosperity they want is referred to as an agency problem.

This study examines the effect of independent variables on the dependent. The independent variables of this study are managerial ownership, institutional ownership, foreign ownership, and government ownership. Meanwhile, the dependent variable of this researcher is the performance of intellectual capital which is measured using value added intellectual capital.

Managerial ownership is used as a way to resolve agency conflicts in the company [8]. With the increase in managerial ownership, managers will be motivated to improve their performance in order to obtain incentives, compensation, bonuses and remuneration from the company. The managerial ownership has a positive effect on intellectual capital performance [11], but the managerial ownership is negative and insignificant on intellectual capital performance on intellectual capital performance [12]. The managerial ownership has no effect on value added intellectual capital [13].

Institutional ownership is the proportion of shares owned by an institution. The existence of institutional investors is considered capable of optimizing monitoring of management performance by monitoring every decision made by management as company managers [18]. Research conducted that institutional ownership has a positive effect on intellectual capital performance [10] and research conducted that institutional ownership has no effect on intellectual capital [11].

Foreign ownership is the proportion of shares owned by foreign parties [19]. The existence of foreign investors in a company can improve the company's performance so that the company can implement a good corporate governance system because foreign investors are the ones who are considered to care about this [10]. Research conducted shows that foreign ownership has a positive effect on intellectual capital performance [10], whereas research foreign ownership has no effect on intellectual capital performance [14].

Research states that government ownership has a positive effect on intellectual capital performance [15]. Research conducted shows that government ownership has a negative effect on vallue added intellectual capital [13]. Also show that government ownership has no effect on intellectual capital performance [16].

Based on theoretical descriptions and research results, the research model of the results of this study is as follows:

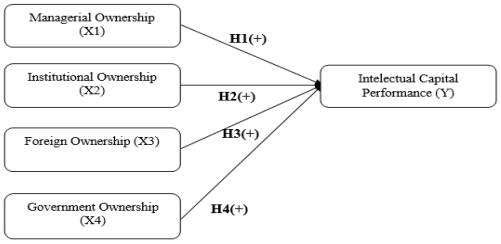

Fig.1. research model

Based on theory, previous research and research models, the hypotheses proposed in this study are as follows:
H1: Managerial ownership has a positive effect on intellectual capital performance
H2: Institutional ownership has a positive effect on intellectual capital performance
H3: Foreign ownership has a positive effect on the performance of intellectual capital
H4: Government ownership has a positive effect on intellectual capital performance.

3. Method

This type of research is quantitative research, which is research in the form of numbers. The data used are secondary data derived from the 2016-2018 mining sector financial statements listed on the Indonesia stock exchange. The population in this study are go public manufacturing companies and are listed on the Indonesia Stock Exchange (IDX). The samples in this study were companies in the mining sector in 2016-2018. The sampling technique in this study is the purposive sampling method.

Operational definitions of variables and measurement of variables

a. Managerial Ownership (XI)
   Managerial ownership is a proportion of share ownership owned by the executive manager, this executive manager includes the directors, and the board of commissioners [10].
b. Institutional ownership (X2)
   Defines institutional ownership as a percentage of share ownership owned by institutional parties of the total number of company shares [20]. This variable is measured by the percentage of shares owned institutionally at the end of the year.
c. Foreign ownership (X3)
   Foreign ownership is the ownership of company shares owned by foreign investors including foreign business entities. Measurement of foreign ownership [10].
d. Government Ownership (X4)
   Government ownership is the number of shares owned by the government (government) of all managed capital [21].
e. Value Added Intellectual Capital (VAIC)
   The performance of intellectual capital uses the ratio of value added intellectual capital (VAIC). VAIC indicates an organization's intellectual capital capabilities which can also be considered as BPI (Business performance indicators).

$$\text{Managerial Ownership} = \frac{managers\ shares}{Number\ of\ shares\ outstanding} \times 100\%$$

   VAIC is the sum of the 3 previous components namely human capital efficiency, efficiency, capital employed efficiency [6].

The advantage of the VAIC method is the data needed is relatively easy to obtain from various sources and types of companies.

4. Results And Discussion

4.1 Descriptive Statistics Analysis

Descriptive statistics aim to provide an overview of the research variables. The results of the descriptive analysis are as follows:

Table 1. Descriptive Statistics Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
MNJR	126	0,000	0,990	0,07012	0,169703
INST	126	0,000	0,970	0,32272	0,274034
ASNG	126	0,000	0,970	0,18064	0,246481
PMRT	126	0,000	0,650	0,02580	0,127401
VAIC	126	-140961,946	811,593	-1095,70038	12560,175330
Valid N (listwise)	126				

Source: Secondary data processed in 2019

The table above shows descriptive statistics for the independent and dependent variables of 126 samples.

3.2 Classical Assumption Test: Normality Test, Multicollinearity Test, Heteroscedasticity Test, Autocorrelation Test.

From the test results carried out, it can be seen that the data used have passed the classic assumption test. The classic assumption test in this study can be explained as follows:

Normality test used Kolmogorov-Smirnov Non-Parametric Statistical Test (K-S Test). K-S test is done by looking at the significant value, with a significance level of 0.05 [22]. Normality test results show a significance value of 0.053 or 0.053 > 0.05. (Source: SPSS data for 2019)Multicollinearity test in a regression model can be seen from the Tolerance Value and its opposite Variance Inflation Factor (VIF). The general limits used to indicate the presence of multicollinearity are tolerance values > 0.10 and VIF < 10.00 [22]. In this research shows that tolerance > 0.10 and VIF < 10.00. (Source: SPSS data for 2019).

Based on the results of Heteroscedasticity test obtained X2 calculated value of 17.889 of n x R2 (109x0.158) and X2 table value of 22.336 of df (0.05.13). Because the calculated X2 value of 17,222 < X2 of table 22,362 then the regression model does not occur heteroscedasticity symptoms (Source: SPSS data for 2019).From the results of tests conducted, it can be seen that the data used have passed the Classic Assumption test.

4.3 Multiple Linear Regression Analysis.

The following is a table of Multiple Linear Regression Test Results.

Table 2. Multiple Linear Regression Test Results

Coefficients[a]					
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3,021	1,317		2,294	0,024
	LAG_MNJR	8,833	5,039	0,170	1,753	0,083

LAG_INST	10,103	3,241	0,349	3,117	0,002
LAG_ASNG	14,527	3,526	0,453	4,120	0,000
LAG_PMRT	-0,045	5,239	-0,001	-,009	0,993

Source: Secondary data processed in 2019

a. Dependent Variable: VAIC

VAIC = 3,021+ 8,833 MNJR + 10,103 INST + 14,527 ASNG + -0,045 PMRT

a. Constants (α) = 3,021

The constant value in the regression equation is 3.021. that is, if the managerial ownership, institutional ownership, foreign ownership and government ownership variables are 0, then the performance of intellectual capital is 3.021

b. Managerial ownership = 8,833

The regression coefficient value of managerial ownership variable is 8.833 meaning that, if there is an increase in managerial ownership variable by one percent, then the performance of intellectual capital will increase by 8.833 with the assumption that the other variable is zero.

c. Institutional ownership = 12,702

Regression coefficient value of institutional ownership variable is 12.702 meaning that if there is an increase in institutional ownership variable by one percent, the performance of intellectual capital will increase by 12.702 assuming the other variables are zero.

d. Foreign ownership = 16,881

The regression coefficient value of foreign ownership variable is 16,881 meaning that if there is an increase in the foreign ownership variable by one percent, the performance of intellectual capital will increase by 16,881 assuming the other variables are zero.

e. Government ownership = -0,045

The regression coefficient value of the government ownership variable is equal to -0.045 meaning, if there is an increase in government ownership variable by one percent, the performance of intellectual capital will decrease by -0.045 assuming the other variables are zero.

4.4 Hypothesis Testing

The coefficient of determination (R^2) measures how far the model's ability to explain variations in the dependent variable.

Table 3. Determination Coefficient Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,399[a]	0,159	0,127	6,59071

Source: Secondary data processed in 2019

Based on the following table 3, it is known that the Adjusted R^2 Square value is 0.129. This value indicates that the independent variable can explain the variation of the dependent variable by 12% and the remaining 88% is explained by other variables outside the regression model.

F statistical test aims to test the suitability or eligibility on the model.

Table 4. F Statistical Test Result

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	847,022	4	211,756		0,001
	Residual	4474,061	103	43,437		
	Total	5321,084	107			

Source: Secondary data processed in 2019

t statistical test aims to show how far the influence of one variable individually in explaining the variation of the dependent variable.

Table 5. t Statistical Test Result

Coefficients[a]					
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3,021	1,317		2,294	0,024
	LAG_MNJR	8,833	5,039	0,170	1,753	0,083
	LAG_INST	10,103	3,241	0,349	3,117	0,002
	LAG_ASNG	14,527	3,526	0,453	4,120	0,000
	LAG_PMRT	-0,045	5,239	-0,001	-,009	0,993
a. Dependent Variable: VAIC						

Source: Secondary data processed in 2019

4.5 Results of testing the first hypothesis

Based on the results of partial test calculations on managerial ownership variables, the value of tcount is 1.753 with a significance value of 0.083. Because the significance value is more than 0.10 and the tcount is 1.753> ttable 1.65895. Then it indicates there is no influence of managerial ownership on the performance of intellectual capital. Thus, the first hypothesis is accepted. With managerial ownership will reduce agency conflicts that can arise in the company. This is caused by the managerial side that has a stock action both as an principal and agent. In this study in line with agency theory related to managerial ownership of the performance of intellectual capital in agency theory explains that agency problems can occur due to information asymmetry between the principal and agent. This information asymmetry occurs when managers have more internal company information and get relatively more information quickly compared to external parties, such as investors and creditors [8]. The results of this study are in line with research [11].

4.6 The results of testing the second hypothesis

Based on the results of the partial test calculation on the institutional ownership variable, the value of tcount is 3.117 with a significance value of 0.002. Because the significance value is less than 0.10 and the tcount is 3.117> ttable 1.65895. Thus, the second hypothesis is accepted. This research is in line with agency theory related to institutional ownership of the performance of intellectual capital. This can reduce the conflict of interests between principals and agents by increasing institutional share ownership. Based on agency theory, the conflict of interest between principal and agents through a mechanism of control by institutional investors to direct, control, and supervise managers as agents act in the interests of shareholders. Institutional investors prefer policies to increase the company's long-term profits, one of which is by managing intellectual capital. Optimal intellectual capital management will result in high intellectual capital performance [10]. The results of research are in accordance with research

[23], which states that institutional ownership has positive effect on the performance intellectual capital [10].

4.7 The results of testing the third hypothesis

Based on the results of the partial test calculation on the foreign ownership variable, the value of tcount is 4.120 with a significance value of 0.000. Because the significance value is less than 0.10 and the value of tcount 4.120> ttable 1.65895 Then it indicates a positive influence between the variables of foreign ownership on the performance of intellectual capital. So that the third hypothesis is accepted. The results of the study are in line with agency theory related to foreign ownership of the performance of intellectual capital with the presence of foreign investors. Management can improve the performance of intellectual capital. The company has full support and optimal supervision from foreign shareholders so the efficiency of management and utilization of intellectual capital will increase. Show that foreign ownership has positive effect on the performance of intellectual capital [10].

4.8 The results of the fourth Hypothesis test

Based on the results of the calculation of partial tests on government ownership variables, the value of tcount is -0.009 with a significance value of 0.993. Because the significance value is more than 0.10 and the tcount 0.009<table 1.65895. Then it indicates the absence of influence of government ownership variables on the performance of intellectual capital. Thus, the fourth hypothesis is rejected. Based on the company's sample data, government ownership does not affect the performance of intellectual capital because not all mining companies have a proportion of government ownership. Of the 99 mining company samples that were sampled, only 3 companies (2%) were owned by the government. So that government ownership cannot affect the performance of intellectual capital. The results of research in accordance with the research [16] and show that government ownership has no effect on the performance of intellectual capital [19].

5. Conclution

Based on the results of research that has been done, it can be concluded that managerial ownership, institutional ownership, and foreign ownership have a positive effect on the performance of intellectual capital in mining sector companies listed on the Indonesia Stock Exchange from 2016-2018. Meanwhile, government ownership has no effect on the performance intellectual capital on mining sector companies listed on the Indonesia Stock Exchange from 2016-2018.

Based on the conclusions and limitations that have been explained, the researcher can provide suggestions for further research that is to conduct further research by adding other variables that can affect the performance of intellectual capital such as family ownership and further research is expected to examine other companies in the sector such as manufacturing companies.

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