

# Intellectual Capital, Disclosure and Value of Mining Companies on IDX

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**Abstract.** In managing a company that is expected by the owner of the company is increasing the value of the company. Company value is closely associated with company managers, investors and shareholders. This paper is conducted with the aim of analyzing the intellectual relationship of capital, its disclosure and the value of mining companies on IDX. The data used in this study is data from mining company financial statements 2013-2015. The results find that value added capital employed and intellectual capital disclosure affect the value of the company. While the value added human capital and structural capital value added do not have a significant relationship.

**Keywords:** Company Value · Intellectual Capital · Disclosure · IDX

## 1 Introduction

Nowadays, the exist of a company depends on the ability of a company to create its company's value. The company's value is a long-term contribution for company to survive [1]. [2] state that for the public, the company's value is reflected in the stock price in which a company possessing a high share price means the company's value is high and vice versa. Even though, In the signaling theory, capital market practitioners or investors return to participate in trading at an issuer announcing its company's prospect [3].

In the past, company's managers thought that the company's prospect was only reflected in economic or financial-based knowledge. But it is not enough today, the company's managers need to increase their knowledge too on a non-economic or non-financial basis [4]. [5] state to understand asset-based knowledge for the company's managers is essential. In this case, it is related to intellectual capital (IC). This paper is conducted to examine the influence of IC factor and its disclosure on company's value. Since the IC disclosure is a vital term too [6] and [7].

Some empirical studies that have been conducted find the importance of understanding IC and its disclosures which influence company's value. [8] and [9] analyze using data in Italy in which it finds an association of IC with firm's value. [10] uses small company's data using advanced technology and not using it in Italy.

It explains the is a relationship between IC and company's performance. The resemble case is conveyed by [11] who researches in Russia. He found there are influence of IC on industrial performance. [12] explain the importance of understanding intangible assets in creating corporate value in companies in Tunisia. While research in the Baltic countries, [13] find the IC use affects to the market value of the company. [14]'s researches using data in India state all of IC are a vital component in achieving the company's sustainable growth. [15], companies which deliver a better ICD lead to better corporate value achievement.

Further, several studies in Indonesia relating to IC and ICD show various results. [5],[16], IC has a positive impact to company's performance but IC is not related to market value. [3] say ICD is negatively related to firm value. In the contrary, [17] finds that there is not related to IC and company's performance. [1] conducts a research in Indonesia and Malaysia in which it gives a positive impact on firm value. According to [18], the company does not apply the IC optimally. Research conducted by [4] reveals the ICD before the Jokowi Era is not significant even negative in the company's value when it is associated with a time period.

## 2 Data and Method

The data used in this study are secondary data on eight mining companies in Indonesia for period of 2013-2015 accessed from the official IDX's site. The company's data has published an annual report containing value added of capital employed, value added of human capital, structural capital value added and intellectual disclosure. These indicators are part of IC used as an independent variable while the company value in this study uses book values. All of these companies did not suffer losses in the study period.

This study uses multiple regression models because a view number of companies and years of research as a period of observation. Hence, the research model is:  $PBV = \alpha + \beta_1VACA + \beta_2VAHU + \beta_3STVA + \beta_4ICD + \epsilon$ . As this research is a multiple regression research model, the process of the research method uses multiple regression methods, such testing the classical assumptions for testing the regression model.

## 3 Result and Discussion

The given Table 1 depicts Jarque Berra value as many as 0.3562 with a probability of 0.8368 (not significant 5%). It means the data is normal. Furthermore, the value of the white heteroskedasticity test is 1,378 with a probability of 0.5174 (not significant 5%). In brief, it can be interpreted that this research is free from heteroscedasticity in other words the data has homoscedasticity. Likewise, the autocorrelation test results tested using breusch-godfrey serial correlation lm test provides a value of 6.6756 with a probability of 0.9181 (not significant 5%) which means that this study is free autocorrelation.

**Table 1.**

Jarque Berra Test : 0.3562		Prob. 0.8368				
Uji White Heteroskedasticity Test: Obs*R-squared= 1.3178		Prob. 0.5174				
Breusch-Godfrey Serial Correlation LM Test: 6.6756		Prob. 0.9181				
Variables	Correlation					
	NP	VACA	VAHU	STVA	IC	
NP	1.0000	-0.3162	-0.4279	-0.1261	1.0000	
VACA	-0.3162	1.0000	0.6623	-0.1946	-0.3162	
VAHU	-0.4279	0.6623	1.0000	0.0095	-0.4279	
STVA	-0.1261	-0.1946	0.0095	1.0000	-0.1261	
ICD	1.0000	-0.3162	-0.4279	-0.1261	1.0000	
Result Estimation						
Variables	Coefficient	Std. Deviation	t.statistic	t.tabel	F. statistic	F. table
C	-11.1568	3.6932	-3.0208***			
VACA	0.3190	0.1301	2.4509**			
VAHU	-0.0269	0.3383	-0.0433		3.6300***	
STVA	0.1728	3.9851	0.0433			
ICD	21.1826	7.8630	2.6939**			
R-squared: 0.4331						

In addition, the same thing applies to the multicollinearity test using the correlation between obtained variables with no correlation value between independent variables that its value is not over 0.80. This can also be concluded that there is no relationship between variables or there is no problem with multicollinearity.

Furthermore, the table 1 provides research results with the following equation model:  $PBV = -11.1568 + 0.3190VACA - 0.0269VAHU + 0.1728 STVA + 21.1826IC$ . This model can be explained:

- 1 Negative constant 11.1568, which means if all the independent variables cash, the value of the company remains negative 11.1568.
- 2 The VACA coefficient is 0.3190, which means that if a one-point VACA is improved, it increases the value of the company's base points
- 3 VAHU coefficient is negative 0.0269, which means an increase in VAHU by 1 point decreases the value of the company of 0.0269 basis points.
- 4 STVA coefficient of 0.1728, which means an increase of 1 point for STVA increases the value of the company as many as 0.2178 basis points.
- 5 IC coefficient 11.1568 meaning that if the IC values inclines by 1 point, it increases the value of the company as much as 21.1826 basis points.

Meanwhile, if overall, F value is 3.3600 with a significant 1%, it means that all variables used in this study affect the company's value. However, the ability of all independent variables used is still weak in term of explaining firm value. This can be found from the R square value of 0.4331 or 43.31%. It means that there are other variables which can affect the company's value approximately over 46%.

Based on the aforementioned research results, it is found that not all IC variables affect the company's value partially. Only the value added of capital employed (VACA) variabl has a significant impact to firm value. While value added of human

capital, structural capital value added (VAHU and STVA) do not affect the company's value.

The study results indicate that in Indonesian mining companies, VACA indicators reflecting the use of inputs and materials are vital factors in increasing company's value. This is understandable because mining companies in Indonesia are more concerned with inputs and materials in increasing company's value. Of course, this needs other IC components such as VAHU and STVA. In other words, the use of IC is not optimal yet as disclosed [18]. But overall, IC affects to the company's value. This result is in accordance with most previous studies such as: [10] and [1].

On the ICD side, it affects the value of mining companies in Indonesia too. This finding indicates mining companies have revealed ICD better. This finding is shared with [15] who finds the ICD has a positive effect on company's value.

#### 4 Conclusion

This study finds that not all IC components affect to the mining company's value in Indonesia. Only the VACA component influences company's value. This finding provides an indication of mining companies in creating corporate value based on materials and physical assets possessed. Another finding in this research finds that the implementation of intellectual capital disclosure in mining companies has been optimal. For future research, it needs to add other variables such as the use of Tobin's Q as the dependent variable. In addition, research is also needed on small and medium companies in the implementation of the IC and ICD.

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