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# The influence of company characteristics, intellectual capital, and CSR toward company values on companies listed on BEI in 2014 to 2017

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**Abstract.** This research aims to influence the characteristics of the company, intellectual capital, CSR on firm value. The variables tested in this study consisted of independent variables namely ROA, DER, industry type, company size, intellectual capital, and the dependent variable namely PBV as measured by market price. The sample used in this study was taken using a purposive sampling method. After deducting some criteria, 1,953 companies were selected as samples. The analysis technique in this study uses linear regression analysis with the help of SPSS program version 24. The results of this study indicate that company characteristics affect firm value, but intellectual capital and firm size have no influence. The statistical test used in this study is multiple linear regression with a significant value of 5%. The results of this study found that disclosure of corporate social responsibility had no positive and significant effect on firm value. After the industry classification as a moderate variable is taken into account, disclosure of corporate social responsibility becomes insignificant for both sales growth and company value. It can be said that the high and low-profile industries in Indonesia are not significantly different in terms of their CSR actions.

**Keywords:** company characteristics, intellectual capital, CSR, company value.

## 1. Introduction

One interesting phenomenon to discuss about the issue of the rise and fall of the value of the company itself is the rise and fall of stock prices. The rise and fall of stock prices will affect the value of the company. The following phenomena are sourced from [investment.kontan.co.id](http://investment.kontan.co.id) regarding the ups and downs of share prices which are closely related to the value of the company: In 2016, the Salim Group whose business is mostly engaged in the consumer goods sector recorded the most positive stock price movements with an average increase high prices. The four Salim Group shares recorded an increase of 41% on average. These companies include PT Indofood Sukses Makmur Tbk (INDF) which recorded the highest increase of 49%. [1]

In second place was PT Salim Ivomas Pratama Tbk (SIMP), which recorded an increase of 48%. While the third and fourth positions were PT PP London Sumatra Indonesia Tbk (LSIP) and PT Indofood CBP Sukses Makmur Tbk (ICBP), which respectively increased by 39% and 30%. In contrast, the share prices of companies included in the Media Nusantara Citra Group (MNC) and the Lippo Group



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declined. Different from what happened to PT Bumi Resources Tbk (BUMI) shares. Since the beginning of 2016, this stock has remained at the price level of Rp 50 per share).

There are several factors that can cause an increase in company value including company characteristics, intangible assets, and corporate social responsibility. Company characteristics can be in the form of financial performance, type of industry or company size. Prasetyono and Utami (2016) suggested that one of the factors that influence the level of company value is the financial performance of a company. Companies with good financial performance will produce maximum profits so they can provide high investment returns. Thus, the increase in the value of the company is indicated by the high price of the company's shares [2].

The company's financial performance will reflect the company's value. An assessment of a company's financial performance can be done by analyzing financial statements. One of the financial analysis tools that can be used is financial ratios in the form of profitability ratios, solvency ratios.

Meanwhile, if the size of the company is small, then the share price in a company will be lower. Basically, the size of the company is only divided into three categories, namely large companies (large firm), medium companies (medium size), and small companies (small firm). And is an indicator that can indicate a condition or characteristics of an organization or company where there are several parameters that can be used to determine the size (large /small) of a company, such as the large number of employees used in the company to carry out company operational activities, the number of assets company owned, total sales achieved by the company in a period, as well as the number of shares outstanding.

This is strengthened by a research result showing that company size has a significant effect on stock prices, and reinforced by which from the results of this study that the company size variable has a positive impact on stock prices [3].

Company Size has no effect on stock prices. Knowledge and technology resources can be used as a source to improve competitiveness. Companies that invest in knowledge are expected to create an innovation or discovery for business continuity. Therefore, many companies began to emphasize the importance of knowledge, namely intellectual capital. This capital can be interpreted as capital based on knowledge owned by the company [4].

Intellectual capital as all the knowledge of employees and companies that contribute to the company's competitive advantage that is sustainable. Intellectual capital is part of intangible assets or intangible assets [5].

## 2. Literature review

Signal theory (signaling theory) suggests about how a company should give signals to users of financial statements. Signal theory is a sign given by a company to investors as a clue about how to view the company's prospects. Companies with favorable prospects will avoid selling shares and will seek new capital in other ways, one of which is by using debt [6].

Thus, a conflict of interest arises between the capital owner or shareholder (investor) and the manager (agent). Owners are more interested in maximizing their turn and price of securities of their investments, while managers have extensive psychological and economic needs, including maximizing compensation. A contract made between the owner and the manager is expected to minimize conflicts between the two interests. Agency theory is considered to have a role as a basis or business practices undertaken to increase the value of the company and provide prosperity to the principal.

It is argued by some researchers that the group is the most important consideration for the company disclosing its information. According to stakeholder theory, a company is an entity that operates not only for the interests of the company itself but also must provide benefits to its stakeholders. It can also be concluded that the understanding of intellectual capital is the sum of what is produced by the main elements of the organization, namely human capital, structural capital, and customer capital relating to knowledge and technology that can provide more value to the company in the form of an organization's competitive advantage. Human capital or human capital is an important element. Human capital refers to the value of the knowledge, skills and experience possessed by company members. Human capital is

the power behind the company's innovation so that it can be said as the key to the company's success to be able to compete in the future [7].

Financial performance ratio is an analytical tool used to determine the financial condition of a company and review the performance of management in a certain period. Financial ratio analysis uses existing financial statement data as a basis for valuation. "Profitability ratios are the ability of companies to earn profits through all capabilities, and existing sources such as sales, cash, capital, number of employees, number of branches and so on" [8]. There is an argument that these ratios illustrate the extent to which owner's capital can cover debts to outside parties [8]. The smaller this ratio the better. This ratio is also called the leverage ratio. For the security of outsiders, the best ratio if capital is greater than the amount of debt or at least the same. However, for shareholders or management this leverage ratio should be large [8].

Debt to equity ratio (DER) can be formulated as follows:

$$DER = \frac{\text{Total Debt}}{\text{Owner's equity}} \times 100\% \quad (1)$$

Another meaning of sustainability as stated by economist Solow suggests sustainability as a result of society that allows future generations to at least retain the same natural wealth as the current generation [9]. Sustainability report is evidence that there is a commitment from the company towards its social environment that can be assessed by the parties who need that information. In addition, the Sustainability report is one of the instruments that can be used by an organization, both government and companies, in dialogue with citizens or their stakeholders as an effort to implement sustainable development education. Therefore, the preparation of sustainability reports at the present time occupies a position as important as the disclosure of social responsibility information as disclosed in the financial statements [9].

The value of the company is equal to the value of the shares (ie the number of shares multiplied by the market value per sheet) plus the market value of the debt [10]. However, if the amount of debt value is held constant, then any increase in the value of shares will automatically increase the value of the company. In this case an increase in the value of a company is identical to an increase in share prices. [10]

### 3. Methodology

A previous research found that ROA had a significant positive effect on stock returns for the next period. Therefore, ROA is one of the factors that influence the value of the company. In contrast to Sasongo and Wulandari's (2006) research which shows that ROA has no significant effect on firm value [11].

H1: Return on Assets affects the value of the company

Some researchers stated that the DER variable has a negative influence on stock prices [12]. However, other researches argued that the DER variable had no effect on stock prices. Based on the explanation above, the following hypothesis is formulated [12].

H2: Debt to equity ratio affects the value of the company

Industry type is measured using a dummy variable that is given a score of 1 if the company is included in the high profile industry and a score of 0 if the company is included in the low profile industry (Purwanto, 2011). [13]

H3: The type of industry influences company value.

Some stated that company size has a significant influence on stock prices [3]. However, some argued that company size has no effect on stock prices. Based on the explanation above, the following hypothesis is formulated [4].

H4: Firm size influences company value

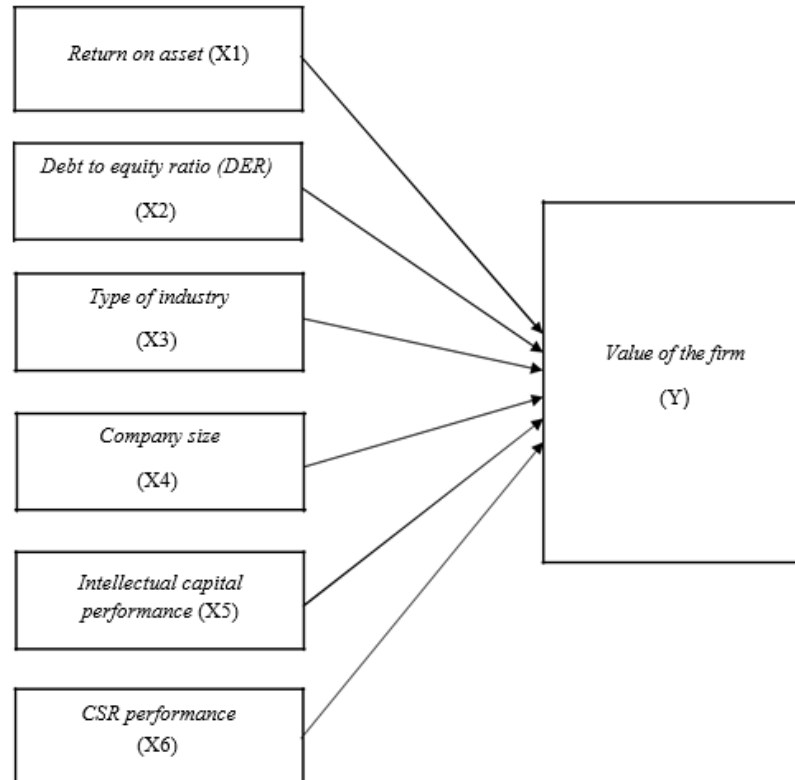
If IC increases, in the sense of being managed well, then this can increase market perception of the value of the company. Using VAIC<sup>TM</sup> as a measure for a company's intellectual abilities, the following hypotheses are formulated.

H5: The performance of intellectual capital affects the value of the company

Meanwhile, some researchers used a sample of non-financial sector companies listed on the IDX for 2005 showed results that had no effect of CSR disclosure on firm value. The hypothesis proposed in this study is as follows [14].

H6: Corporate social responsibility performance influences company value Research Object

The object of this research is financial statement data. The data used are secondary data consisting of financial reports and annual reports of all companies listed on the Indonesia Stock Exchange (BEI) for four years from 2014 to 2017. Companies listed on the Indonesia Stock Exchange are publicly traded companies whose annual and financial reports can be accessed through the Indonesia Stock Exchange website <http://www.idx.co.id>. Research framework is illustrated in Figure 1.



**Figure 1.** Research Framework

## 4. Results and discussions

**Table 1.** Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
PBV	-208	275	2,71	9,663
ROA	-1089	268	2,74	36,100
DER	-33076	9422	136,89	887,486
JI	0	1	,50	,500
Size	2	12	8,14	1,591
VAIC	-41192	38264	-3004,57	5509,940
CSR	0	90	4,34	14,576

The first analysis to do is to analyze the data using descriptive statistics. As seen in Table 1, the average dependent variable Price to Book Value (PBV) has an average of 2.71 and a standard deviation of 9.683. The independent variable ROA has an average of 2.74 with a standard deviation of 36,100. The independent variable DER has an average of 136.89 and a standard deviation of 887,486. The independent variable Industry Type (JI) has an average of 0.50 and a standard deviation of 0.500. The independent variable of company size has an average of 8.14 and a standard deviation of 1.591. The independent variable VAIC has an average of -3004.57 and a standard deviation of 5509,940. CSR independent variables have an average of 4.34 and a standard deviation of 14.576.

### 4.1 Kolmogorov-Smirnov normality test

Based on the interpretation of the results of the normality test using the Kolmogorov- Smirnov Tests of Normality (Table 2) for Price to Book Value (PBV) dependent variables, it was shown that the significance value of the data was 0.00. The significance level of the test set is 0.05. Thus, based on the results of normality testing with the Kolmogorov-Smirnov Tests of Normality, it is evident that the dependent variable Price to Book Value (PBV) data is not normally distributed because  $0.00 < 0.05$ . However, because the data is in the form of panel data, normal distributed data requirements are not required.

**Table 2.** Kolmogorov-Smirnov Normality Test

ROE	Kolmogorov-Smirnov		
	Statistic	df	Sig.
	.361	1963	.000

### 4.2 Multicollinearity test

Multicollinearity test is done by calculating the value of the variance inflation factor (VIF) of each independent variable. Based on Table 3, VIF values less than 10 indicate that, correlations between independent variables can still be tolerated (Gujarati, 1995). Based on the analysis, there are no independent variables in this study that have a value of variance inflation factor (VIF) of more than ten. Thus, the results of the analysis show the absence of multicollinear problems. The ROA variable has a VIF value of 1,013. The DER variable has a VIF value of 1.003. The JI variable has a VIF value

of 1.049. The company size variable has a VIF value of 1.685. The VAIC variable has a VIF value of 1,660. The CSR variable has a VIF value of 1.292.

**Table 3.** Multicollinearity Test

Variabel	VIF
ROA	1,013
DER	1,003
JI	1,049
Size	1,685
VAIC	1,660
CSR	1,292

#### 4.3 Autocorrelation Test

Autocorrelation test is done by calculating the Durbin-Watson d statistic. As seen in Table 4, serial correlation in residuals does not occur if the d value is between the dU and 4-dU boundary values. With 7 variables and a sample of 1960, a dL value of 1.919 and a dU value of 1.932. Thus, in this study, the value of d must be between 1,932 and 2,068 so as not to experience auto correlation problems. The analysis showed a d value of 1.474 for the regression model with PBV dependent variable. The value of d is  $1.474 < dL$ . Thus, for the regression model with PBV as the dependent variable experiencing positive autocorrelation. However, researchers still continue the next analysis, namely testing hypotheses.

**Table 4.** Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.560	.313	.311	8,0258	1.637

#### 4.4 Heteroscedasticity test

Heteroscedasticity test was performed using the Glejser test. Using the Glejser test, the absolute value of residuals is regressed on each independent variable. Heteroscedasticity problems occur if there are statistically significant variables. The independent variables ROA, DER, VAIC, and CSR experience heteroscedasticity problems because of the results of sig.  $< 0.05$ . Heteroscedasticity test results of the regression model using PBV dependent variables are presented in Table 5.

**Table 5.** Heteroscedasticity Test

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,862	1,140		2,511	,012
	ROA	,019	,005	,070	3,721	,000
	DER	,006	,000	,532	28,339	,000
	JI	-,039	,371	-,002	-,105	,917
	Size	-,101	,148	-,017	-,680	,496
	VAIC	,000	,000	,116	4,798	,000
	CSR	,105	,014	,159	7,460	,000

a . Dependent Variable: PBV

#### 4.5 Anova test

Anova test or F Test for PBV models produces a calculated F value of 0.643 with a significance level of 0,000 (Table 6). Because the probability of significance of the model is less than 0.05, the PBV regression model can be used to predict performance. In other words, the variables ROA, DER, JI, Size, VAIC, and CSR affect the PBV.

**Table 6.** ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57398,505	6	9566,418	148,516	,000 <sup>b</sup>
	Residual	125799,329	1953	64,413		
	Total	183197,834	1959			

a . Dependent Variable: PBV

b . Predictors: (Constant), CSR, DER, ROA, JI, VAIC, Size

Based on the results of calculations with SPSS, the regression results with the PBV model show the size of adjusted R Square of 0.311, this means that 31.1% of PBV variation is explained by variations in independent variables such as CSR, DER, ROA, JI, VAIC, Size. While the remaining 68.9% is explained by other causes outside the model (Table 7).

**Table 7.** Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,560 <sup>a</sup>	,313	,311	8,026

a. Predictors: (Constant), CSR, DER, ROA, JI, VAIC, Size

b. Dependent Variable: PBV

From the T test it can be seen, the significance level of ROA, DER, JI, Size, VAIC, and CSR on the dependent variable PBV all under the significant level of 0.05. This means that these variables are significant and affect PBV (Table 8).

**Table 8.** One-Sample Test

Test Value = 1						
95% Confidence Interval of the Difference						
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
PBV	7,838	1962	,000	1,709	1,28	2,14
ROA	2,144	1975	,032	1,742	,15	3,33
DER	6,806	1975	,000	135,886	96,73	175,04
JI	-44,858	1978	,000	-,504	-,53	-,48
Size	199,440	1975	,000	7,138	7,07	7,21
VAIC	-24,229	1972	,000	-3005,573	-3248,85	-2762,30
CSR	10,182	1978	,000	3,336	2,69	3,98

## 5. Conclusions

This study aims to determine the effect of company characteristics, intellectual capital, and CSR on firm value in companies listed on the Indonesia Stock Exchange period 2014-2017. Finally it is conclude that 1) PBV as the dependent variable experiences positive autocorrelation 2) ROA, DER, JI, Size, VAIC, and CSR variables influence PBV and 3) ROA, DER, JI, Size, VAIC, and CSR to significantly influence PBV.

Based on the conclusions and limitations, it is expected that further research pays attention to these three recommendations: 1) The company's data is further expanded, from data of 5 (five) to 10 (ten) years registered on the Indonesia Stock Exchange (IDX), 2) Extend the research year to obtain more varied and accurate results and 3) Future studies are expected to use other independent variables.

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