

The Effect of Intellectual Capital, Firm Size and Capital Structure on Firm Performance, Evidence from Property Companies in Indonesia

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Abstract

The purpose of this study is to examine the effect of Intellectual Capital (represented by Human Capital Efficiency (VAHU), Physical Capital Efficiency (VACA), Capital Structure Efficiency (SCVA)), Company Size and Capital Structure on Company Performance (measured with ROA). The research sample is property sector manufacturing companies listed on the Indonesia Stock Exchange between 2013 and 2017, with a purposive sampling method and analysis with multiple regression using SPSS version 2.0. The results of the study show that: 1) VAHU and VACA have no significant effect on Company Performance, but SCVA has, 2) Company size has no significant effect on Company Performance, but 3) Capital Structure has. All of these variables together have a significant effect on Company Performance.

Keywords: *intellectual capital; company size; capital structure; ROA*

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INTRODUCTION

Companies as the smallest unit actors in the economy have same direction relationship with the economy in the sense that if the companies have good performance, they will contribute to development so that the economy increases. In a company, the party most responsible for performance is management.

The appointment of management by shareholders with the main task is to make shareholders more prosperous from time to time, which will be seen in management performance which can be measured among others by Return on Assets (ROA). Throughout corporate operations, the achievement of ROA is dynamic, sometimes up and down from the company's predetermined plan, consequently, the decrease in ROA means a decrease in the level of welfare of shareholders, and vice versa. From the management side, the dynamics of ROA is always expected to increase from time to time because it shows their success in managing the company, where this can be done if management has information on what factors influence the dynamics. Therefore, studies related to causes that affect ROA are important to do.

Theoretically, as conveyed by Marr, Carson et al., Enhardt and Anghel in Alipour (2011), the shift in the economy based on knowledge based information, places Intellectual Capital

as an important factor in creating value in the achievement of performance. Therefore, it can be concluded that Capital Intellectual (IC) affects on performance. Meanwhile, many studies examining the effect of IC on ROA adopt the Pulic model in which the majority produced findings that IC has a significant positive effect on ROA found in studies of Alipour (2012), Nuraisyah & Arum (2015) Emadzadeh et al. (2013), Mainfard & Khavari (2015), Nassar S (2018), Baroroh (2013), Sutanto & Siswantaya (2014), and Holienka & Pilkova (2014) who added that the influence of IC on performance is assumed to differ between industry. Meanwhile, one study with different result where IC has no effect on performance is found in the study of Kuryanto & Syafruddin (2008).

Dang and Li, 2015 stated that conceptually, Firm Size (FS) affects in the same direction, the greater the size the greater the performance and vice versa, while related studies are still controversial. Studies with the results that FS has a significant positive effect found in Oyelade (2019), Luqman's Banindele, Fatai (2013) Dogan, M (2013) Yisau Abioden (2013) and Kioko (2013) studies but different result found in Niresh and Velnampy study (2014).

Meanwhile, capital structure which is a combination of Debt and Equity owned by the company (Brigham and Houston, 2013), will affect on performance as explained by the pecking order theory. On the other hand, there is still controversy regarding the results of the studies. The results which state there is a significant negative effect found in the studies of Salim and Yadav (2012), John (2013), Tedy et al. (2015) and Nassar (2016), but the opposite result found in the study of Vithesonthi and Tongurai (2015).

Based on the increasingly important role of IC in creating value to improve performance and there are still inconsistent findings related to the influence of IC on company performance as well as the existence of studies that indicate that the effect will be different in each industry, then this study was given title *The Effects of Intellectual Capital on Company Performance, a Case Study of Real Estate Companies listed on the Indonesia Stock Exchange from 2013 to 2017*.

LITERATURE REVIEW

Agency Theory

As the company owner (principal) appoints management as an agent, his main tasks are to make the company grow, the value of the company increases as seen from the development of performance / return from time to time (Brigham, Eugene F; Houston, Joel F, 2004), among others, can be measured by ROA. Principal and agent are 2 parties whose interests are contradictory, agent revenue is a cost for the principal, on the other hand management knows best information about the company that encourages management to take actions that provide benefits for management without the principal's knowledge. This agent-principal relationship conflict drives the emergence of agency theory that explains the concept of the agent-principal relationship problem and strategies to overcome it (Jensen & Mccckling, 1976), Ross, 1973). In practice, an agent is a management that has the power to make business decisions at every stage, at the planning, executing, evaluating, and controlling stages (Berk, Jonathan; DeMarzom Peter, 2011).

Company Performance

Company performance shows indicators of efficiency and effectiveness in the use of all resources in the company that can be measured both in financial and non-financial aspects (Hansen & Mowen, 2007). Viewed from the financial aspect, performance can also be seen from financial ratios, such as liquidity, profitability, solvency and other ratios, where in the most widely used studies is profitability ratio. Included in the group of profitability ratios are ROI (Return on Investment), ROE (Return on Equity) and ROA (Return on Assets). This study measures the performance of companies using ROA which is calculated from the ratio of net profit divided by total assets which indicates the efficiency level of asset empowerment to make profit (Firrre & William; Chen et al. in Alipour (2012).

Intellectual Capital (IC)

The process of globalization and advances in information technology have caused fundamental changes in the structure of organizational resources namely that organizational resources are increasingly diverse, not only tangible but also intangible and increasing intellectual capital. The new economy is based on knowledge and information that drives the role of IC increasingly inevitable (Anghel, 2008), therefore IC together with financial capital is considered as the main factor of firm profitability.

Alipour (2012) stated that the latest definition of IC is a group of knowledge assets owned and controlled by an organization that most encourages the mechanism of value creation which is the goal of the company's stakeholders. By pointing to the concept of knowledge assets, it becomes easier to explain the IC component where knowledge resources are not only intangible assets, but also the combination of these intangible assets with knowledge assets as the basis of organizational competence. According to Ordonez DE Pablos in Alipour (2012) stated that investment in IC and its efficiency cannot be reported in the company's financial statements. Therefore, the existence of other concepts that can be used to measure IC is very useful for companies and for continuous improvement in performance. Moreover, Papula and Volna (2011) explained that the core of IC is value creation through a complex combination of intangible assets, knowledge, expertise, technological processes, and experience applied in organizations to gain competitive advantage in the market. Based on skills and knowledge orientation, according to Edvinsson 1997, Sveiby 1997, Stewart 1998, Bontis 2002, Mauritsen et al. 2002 and Pablos 2003 in Holienka M & Pilkova, A (2014), IC components consist of Human Capital, Organizational Capital and Relational Capital as summarized by Papula and Volna (2011) shown in Figure 1. Expertise and knowledge oriented to employees is included in the Human Capital (HC) component, which is oriented outside employees but is still within the realm of the company included in the Organizational Capital (OC) component, while those outside of employees and company are included in the Relational Capital component.

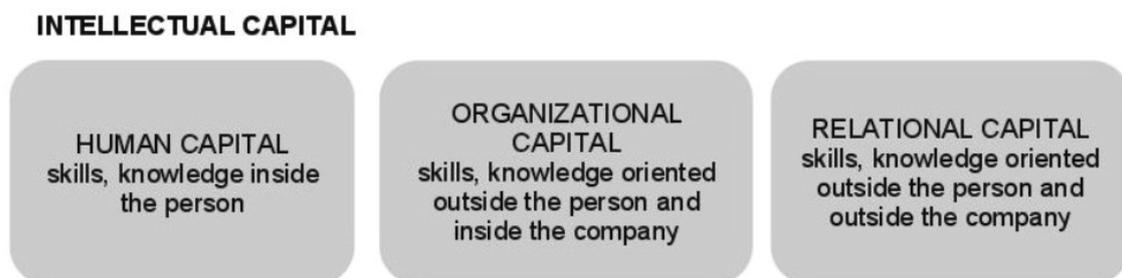


Figure 1. The components of intellectual capital

Source: Papula & Volna (2011)

Based on skills and knowledge orientation, according to Edvinsson 1997, Sveiby 1997, Stewart 1998, Bontis 2002, Mauritsen et al. 2002 and Pablos 2003 in Holienka M & Pilkova, A (2014) IC components consist of Human Capital, Organizational Capital and Relational Capital as summarized by Papula and Volna (2011) shown in Figure 2. Skills and knowledge oriented to employees are included in the Human Capital (HC) components, which oriented outside employees but still within the domain of the company are included in the Organizational Capital (OC) component, while those oriented outside employees and companies are included in the Relational Capital component. This orientation concept is able to explain clearly the components of IC. However, for reasons of operational ease, this study will use the Ante Pulic (2000) model where in this model the Value Added Intellectual Coefficient is used to measure the IC of a company which is a sum of 3 coefficients ie: Physical Capital Coefficient (VACA), The Human Capital Coefficient (VAHU) and The Structural Capital Coefficient (SCVA)

Schiama et al. (2008) stated that IC is an accumulation of human capital (HC), structural capital (STC), organizational capital (OC), social capital (SC) and stakeholder capital (STKC). Meanwhile, Pulic A (2000) in Matinfard and Khavari (2015) whose concept is widely used in research said that to measure IC companies are used The Value Added Intellectual Coefficient (VAIC) which is the sum of the coefficients of physical capital coefficient (VACA), the Human Capital Coefficient (VAHU) and the Structural Capital Coefficient (SCVA). The 3 components of VAIC represent the company's ability to create added value which is the difference between in and out, thus Value Added is calculated as follows:

- a. Calculating the Corporate Value added (VA) with the equation $VA = OP + EC + D + A$, where OP = operational Profit, EC = Employee Cost D = Depreciation and A = Amortization.
- b. Calculating the efficiency of capital employed (VACA) with the formula $VACA = VA / CA$, where CA is the Employed Capital equal to the Book Value of Total Assets minus Intangible Assets.
- c. Calculating the efficiency of Human Capital (VAHU) with the formula $VAHU = VA / HU$, where $VAHU$ is Value Added Human Capital, VA is Value Added, while HU is the total employed expense regarded as Human Capital / Salaries
- d. Calculating the efficiency of Structural Capital which indicates its contribution in the creation of added value with the formula $SC = VA - HC$, where SC is Structural Capital, VA is Value Added and HC is Human Capital (Total employee salary), so $SCVA = SC / VA$. Structural Capital consists of everything except human knowledge in an organization, including database, organizational structure of processes, solutions and giving value beyond physical assets to an organization.
- e. Calculating Value Added Intellectual Capital with the formula $VAIC = VACA + VAHU + SCVA$.

Company Size

Large and small size is related to the scale of company measurement where the larger the company, the greater the opportunity to generate higher profits or performance, the higher the scale of the company can be translated to the higher the performance (Dang and Li, 2015). Furthermore, it is explained that firm size (FS) in terms of accounting can be seen from the size, value of sales or the value of total assets or market capitalization.

Capital Structure

In financial science, capital structure is a combination of debt and equity in a company (Brigham and Houston, 2013), where the structure is associated with different capital costs. This difference in cost factors in theory certainly affects the achievement of corporate income loss or company performance. Related to the relationship between Capital Structure and Company Performance, the pecking order theory introduced by Mayers and Maljuf in 1984, explained that companies with high profitability less took debt as a source of financing, and vice versa. One of the methods to measure capital structure is leverage ratio, which is the total debt to total assets.

$$\text{Capital Structure} = \frac{\text{Total Debt}}{\text{Total Asset}}$$

Previous Studies

Initially, studies related to IC have not been conducted comprehensively, such as a study of CSR conducted by Dewi Anggraeni (2014), as well as studies of Good Corporate Governance among others studies conducted by Amirrudin Jalo et al. (2017) and Ari Wahyu and Rendhika (2018), where CSR and GCG are IC sub-components. However, with the increasing concept of IC, comprehensive studies have begun to emerge.

Studies with IC results affect on company performance, in the form of profitability, company value and other measures found in the studies of Alipour M (2012), Nuraisyah and Arum (2015), Emadzadeh et al. (2013), Mainfard M & Khavari A (2015), Nassar S (2018), Junaedi (2017), Baroroh N (2013) Sutanto N & Siswantaya IG (2014), Holienka M & Pilkova A (2014),

while Kuryanto B & A Syafruddin M (2008) found that IC has no effect on company performance.

Alipour's research was conducted at insurance companies in the period 2005-2007 which examined the influence of IC on company performance (ROA) through two stages. Stage 1 with PLS (Partial Least Square) to examine the effect of each IC component as measured by the coefficient of each consisting of Human Capital Efficiency (VAHU), Employed Capital Efficiency (VACA), Structural Capital Efficiency (STVA) on IC as measured by Value Added Capital Efficiency (VAIC), the result is that all of the IC components have a significant positive effect on VAIC. In the second stage, the effect of VAIC on ROA is examined by adding the control variables consisting of Leverage, Company Size and Return on Equity (ROE) and the result is that VAIC has a positive and significant effect on ROA and that leverage and company size have an inverse relationship with ROA. Meanwhile, Nuraisyah and Arum (2015) examined the effect of IC components on ROA in Commercial Banks and BPRs for the 2012-2013 period, the result was that in commercial banks all of the IC components have a significant positive effect on ROA, whereas in BPR banks only Capital Employed Efficiency influences on ROA. Moreover, Emadzadeh et al. (2013) conducted research on manufacturing companies by using a balance score card as a proxy for performance and the result is that IC has a significant positive effect on company performance. Using the Pulic A (2000) method, Matinfard M & Khavari A (2015) examined the effect of IC on performance at companies registered on Tehran Stock Exchange for the 2006-2012 period, using multiple regression analysis and correlation coefficients and the result is that there is a positive and significant relationship between IC and company performance.

The influence of IC on the performance of 27 real estate companies in Turkey before and after the crisis in the period 2004-2015 was carried out by Nassar (2018) with the results showing that Structural Capital Efficiency (SCE) plays a key role in creating value in the real estate companies. In detail, it is explained that Structural Capital Efficiency (SEC) has a significant positive effect on the Market Book (MB), ROE, and EPS before the crisis and on ROA and ROE after the crisis. Human Capital Efficiency (HCE) shows significant positive relations before the crisis and significant negative effect on MB and Asset Turnover (ATO) after the crisis, while Capital Employed Efficiency (CEE) shows a significant negative effect on ATO after the crisis. The final result shows that VAIC has a significant positive effect on ROA, ROE and Earning Per Share (EPS) before the crisis and the same effect as ROE after the crisis. Meanwhile, Junaedi's study (2017) of 2 groups of high tech and low tech manufacturing companies that registered on the Indonesia Stock Exchange in the period of 2011-2015 using PLS showed that IC has a significant positive effect on performance in both high and low tech manufacturing companies. Whereas Holienka M & Pilkova A (2014) conducted research on small and medium companies in Slovakia before (2008) and after (2011) crisis. The results obtained that there is a consistent pattern found in almost all industries studied shows the role of IC performance in predicting the company's financial performance increases after the crisis period compared to before the crisis and the role of IC components is not the same between industries. Furthermore, Baroroh's research (2013) on 57 manufacturing companies listed on the Indonesia Stock Exchange in the period 2005-2008 showed that IC has a significant positive effect on current and future performance. Sutanto N and Siswantaya IG (2014) examined 27 banks listed on the Indonesia Stock Exchange in the period 2007-2012. The results show that IC has a significant positive effect on the company performance currently and in the future measured by ROA, ATO, ROE and MB, but different result was found in the study of Kuryanto B & Syafruddin M (2008) who examined 73 companies outside financial institutions listed on the IDX for the period of 2003-2008, by using the Pulic model it was found that IC and growth rates have nothing to do with performance, IC is not related to future financial performance.

Studies related to the influence of FS on ROA with the result that FS affects on the performance (ROA) found in Oyelade (2019) studies on property companies from 2004 to 2017, Luqman's Banindele, Fatai (2013) in non-financial firms in Nigeria for the period 2005 to 2013; Dogan, M (2013) in companies active on the Istanbul Stock Exchange (ISE) for the period

2008 to 2011; Yisau Abioden (2013) in manufacturing companies listed on the Nigeria Stock Exchange between 2000 and 2009, while Kioko (2013) examined 43 commercial banks in Kenya between 1998 and 2012, but different results were found. Niresh and Velnampy research (2014), on manufacturing companies listed on the Colombo Stock Exchange (CSE) for the period 2008 to 2012.

The research related to the effect of Capital Structure on FP with the result that there is significant negative effects found among others in the studies of Salim and Yadav (2012), John (2013), Tedy et al. (2015) and Nassar (2016), and Structure Capital effect on FP (with the Firm Value indicator) was found in the Utami Wiwik study (2015), but different result was found in the study of Vithesonthi and Tongurai (2015).

Theoretical Framework

Theoretically, IC together with financial capital are key factors in increasing company profitability. On the other hand, the literature study classifies IC in several components, but the classification that is easily calculated objectively is the classification of Pulin A (2000) which groups into 3 coefficients components namely: physical capital coefficient, (VACA), human capital coefficient (VAHU) and structural capital coefficient (SCVA). From previous studies, the majority of IC components affect on IC and IC influences on performance, the majority of which is measured by ROA, as Alipour's (2012) study. Nuraisyah and Arum (2015), Emadzadeh et al. (2013) by using a balance score card, Matinfard M & Khavari A (2015). Nassar (2018), Junaedi (2017), Holienka M & Pilkova A (2014), Baroroh (2013) and Sutanto N and Siswantaya IG (2014). By adopting the Pulic A (2000) model, the study of the influence of IC on performance consists of 3 stages so that the relationship is seen in the figure:

1. Measuring IC with Value Added Intellectual Coefficient (VAIC)
2. Calculating the company's profitability, ROA
3. Examining the relationship between VAIC and ROA

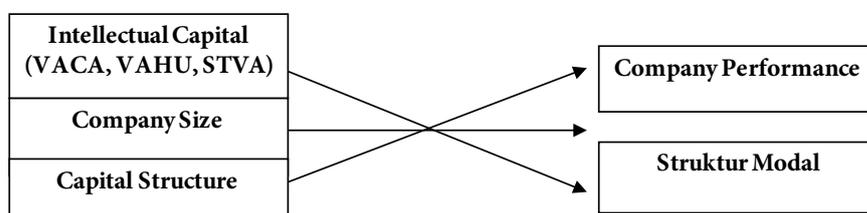


Figure 2. Theoretical Framework

Hypothesis

Based on the theoretical framework previously stated, a research hypothesis can be arranged as follows:

- H.1.1: Physical Capital (VACA) affects on ROA
- H.1.2 : Human Capital (VAHU) influences on ROA
- H.1.3: Structural Capital (SCVA) influences on ROA
- H2: Firm Size affects on ROA
- H3: Leverage has a negative effect on ROA

METHODS

Research Design

The design used in this study was causal research that aims to test hypotheses concerning the effect of one or several variables (independent variables) on other variables (dependent variable). The independent variables used were Physical Capital, Human Capital, Structural Capital, Firm Size, and Leverage while the dependent variable was performance / ROA.

Research Subjects, Populations and Samples, Analysis Methods

Research subjects / population in this study were property companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2017. For sampling, this study used purposive sampling method, with the following criteria: 1) Property Companies listed on the Indonesian Stock Exchange in a row for the period of 2015-2017, 2) Property companies whose financial statements used the unit of rupiah in the 2015-2017 period.

The type of data used was secondary data in the form of data on property companies listed on the Indonesia Stock Exchange in the 2015-2017 period, which was accessed through the site www.idx.co.id or www.sahamok.com. Data collection techniques in this study were carried out through Library Research, by collecting data from various sources (Textbooks, Journals, previous research which are relevant to be studied, analyzed and concluded. Data analysis used SPSS version 2 with stages: Descriptive Statistical Analysis, The classical assumption test will include tests of: Normality, Multicollinearity, Heteroscedasticity and Autocorrelation, Determination Coefficient Analysis (R^2), Hypothesis testing will include: Statistical F Test, t-Statistics Test and Multiple Linear Regression Analysis with the formula: $Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + e$, where: Y = Return on assets, X_1 = Human Capital, X_2 = Physical Capital, X_3 = Structural Capital, X_4 = Size, X_5 = DER, α = constant and $\alpha_1, \alpha_2, \alpha_3$ = regression coefficient, e = error estimate.

Operational Definition of Variables

The basis for calculating the Pulic A model (2012) is the concept of value added must be known first, where this concept explains that from a financial standpoint, the added value of IC appears on profit based on cash plus labor costs, thus Corporate Value added = VA = OP + EC + D + A, where OP = operational Profit, EC = Employee Cost, D = Depreciation and A = Amortization. Physical capital is the physical capital that the company uses in operations, operationally the indicator is the efficiency of Capital employed (VACA) calculated using the formula $VACA = VA / CA$, where CA is Capital Employed which is equal to the Book Value of Total Assets minus Intangible Assets. Human Capital is human capital which operationally its indicators is the efficiency of Human Capital (VAHU) calculated by the formula $VAHU = VA / HU$, where VAHU is Value Added Human Capital, while HU is the total employed cost regarded as Human Capital / Wages. Structural Capital is the company's capital structure, operationally the indicator is Structural Capital efficiency calculated by the formula $SC = VA - HC$, where SC is Structural Capital and HC is Human Capital, so $SCVA = SC / VA$. Intellectual Capital is total intellectual capital which is the sum of all components which indicator is Value Added Intellectual Capital (VAIC) with the formula $VAIC = VACA + VAHU + SCVA$.

Meanwhile Firm size is the size of the company, which shows the scale of the company in operating as measured by Ln Total Assets,

While Leverage / Debt to Equity Ratio (DER) is the portion of a company's financial funding sources with indicator of total liability / total assets

Table 1. Operational of Variable

Variables		Indicators	Scale
Intellectual Capital	Finance	Physical Capital Coefficient	Ratio
	Finance	Human Capital Coefficient	Ratio
	Finance	Structural Capital Coefficient	Ratio
Firm Size	Finance	Ln Total Asset	Ratio
Leverage	Finance	Total Liability/Total Asset	Ratio

Source: The Processed Data

RESULTS AND DISCUSSIONS

Descriptive Statistics

Tabel 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAHU	80	2.5457	79.8877	13.362055	15.0389666
VACA	80	.0266	.3966	.131880	.0620883
SCVA	80	.6072	.9875	.860149	.0846913
SIZE	80	15.5477	31.4586	26.214119	4.2096981
DER	80	1.0000	183.000	70.009000	43.3047733
ROA	80	.5000	25.4100	7.343625	4.9030239
Valid N (listwise)	80				

Source: Output SPSS

Based on the calculations in table 2, it can be known that:

- The number of samples (N) is 80 companies listed on the Indonesian Stock Exchange for 5 consecutive years consisting of VAHU, VACA, SCVA, SIZE, DER & ROA.
- The minimum value of VAHU amounting to 2.5457 is owned by PT. Lippo Karawaci (Tbk) in 2017, while the maximum value of 79.8877 is owned by PT Roda Vivatek (Tbk) in 2015, with a mean of 13.362055 and a standard deviation of 15.0389666.
- The minimum value of VACA of 0.0269 is owned by PT Duta Anggada Realty Tbk in 2017, while the maximum value of 0.3966 is owned by PT Roda Vivatek in 2013, with a mean of 0.131880 and a standard deviation of 0.0620883.
- The minimum value of SCVA of 0.6072 is owned by PT. Lippo Karawaci (Tbk) in 2017, while the maximum value of 0.9875 is owned by PT Roda Vivatek in 2013, with a mean of 0.860149 and a standard deviation of 0.0846913.
- The minimum value of SIZE of 15.5477 is owned by PT. Lippo Karawaci (Tbk) in 2016, while the highest value of 31.4585 is owned by PT Bumi Serpong Damai in 2017, with a mean of 26.214119 and standard deviation variation of 4.2096981.
- The minimum value of DER of 1.000 is owned by PT. Jaya Real Property (Tbk) in 2016 & 2017, while the highest value of 183.0000 owned by PT Alam Sutera Realty Tbk in 2015, with a mean of 70.009000 and a standard deviation of 43.3047733.
- The minimum value of ROA of 0.50000 is owned by PT. Duta Anggada Realty (Tbk) in 2017, while the highest value of 25.4100 is owned by PT Modernland Realty Tbk in 2013, with a mean of 7.343625 and a standard deviation of 4.9030239.

Classical Assumption Test

Normality Test

Table 3. Result of Normality Test One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		80
Normal Parameters ^{a,b}	Mean	0e-7
	Std. Deviation	3.51872594
Most Extreme Differences	Absolute	.136
	Positive	.136
Kolmogorov-Smirnov Z	Negative	-.078
	Asymp. Sig. (2-tailed)	1.219
		.102

a. Test distribution is Normal

b. Calculated from data

From table 3, it can be seen that the significance of the Unstandardized Residual is $0.102 > 0.05$ so it can be concluded that the data in this study are normally distributed.

Multicollinearity Test

Table 4. Result of Multicollinearity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	-15.121	5.714				-2.646
VAHU	.033	.047	.102	.714	.478	.340	2.939
VACA	16.932	10.257	.214	1.651	.103	.413	2.424
SCVA	25.563	7.120	.442	3.590	.001	.460	2.173
SIZE	-.021	.101	-.018	-.210	.834	.929	1.077
DER	-.024	.010	-.208	-2.338	.022	.882	1.134

a. Dependent Variable: ROA

From table 4, it can be seen that all independent variables used produce variance inflation factor (VIF) of less than 10 and tolerance value of more than 0.1. Then, it can be concluded that there are no symptoms of multicollinearity among the independent variables used in the regression model.

Autocorrelation Test

Table 5. Result of Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.485	.450	3.6356868	2.155

a. Predictors: (Constant), DER, VAHU, SIZE, SCVA, VACA

b. Dependent Variable: ROA

From table 5, it can be seen that the Durbin Watson (DW) value of 2.155 is greater than the upper limit (du) of 1.772 and less than $4 - 1.772$, it can be concluded that we cannot reject H_0 which states that there is no positive or negative autocorrelation or it can be concluded that there is no autocorrelation.

Heteroscedasticity Test

Table 6. Result of Heteroscedasticity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	-4.721	3.557		
VAHU	-.004	.029	-.026	-.138	.891
VACA	8.318	6.385	.222	1.303	.197
SCVA	1.872	4.432	.068	.422	.674
SIZE	.092	.063	.166	1.460	.149
DER	.007	.006	.128	1.100	.275

a. Dependent Variable: LNU2i_RES1

To detect the presence or absence of heteroscedasticity in this study the Park test method is used. This can be seen if the probability value > 0.05 indicates there is no heteroscedasticity. If the value of probability having the significance > 0.05 , then it does not contain heteroscedasticity, whereas if the value of probability having the significance < 0.05 , then it contains heteroscedasticity. Based on Table 6, it is obtained information that there are no statistically significant independent variables that affect the dependent variable of LNU2i value. This can be seen from the significant profitability of all the independent variables used which have values above the significant level of 0.05 or 5%. So that this regression model does not contain heteroscedasticity.

Hypothesis Testing

Coefficient of Determination (Adjusted R²)

Table 7. Results of Coefficient of Determination Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.485	.450	3.6356868	2.155

a. Predictors: (Constant), DER, VAHU, SIZE, SCVA, VACA

b. Dependent Variable: ROA

From table 7, it can be seen that the adjusted R² value of 0.450 means that the variability of the dependent variable that can be explained by the independent variable is 46%. This means that 45% of the diversity of ROA is determined by VAHU, VACA, SCVA, SIZE & DER while 55% is determined by other factors not examined in this study.

Simultaneous Significance Test (F Test)

Table 8. Simultaneous Significance Test

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	920.984	5	184.197	13.935	.000 ^b	
Residual	978.148	74	13.218			
Total	1899.132	79				

a. Dependent Variable: ROA

b. Predictors: (Constant), DER, VAHU, SIZE, SCVA, VACA

Based on the ANOVA test in the table above, the F count value of 13.935 with a probability of 0.000 is obtained. Because the probability is smaller than 0.05, the regression model can be used to predict ROA or it can be said that VAHU, VACA, SCVA, SIZE & DER together influence ROA, so the regression model is 'fit'.

Significance Test of Individual Parameters (Statistical Test t)

Table 9. Results of t Statistical Test

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-15.121	5.714		-2.646	.010
VAHU	.033	.047	.102	.714	.478
VACA	16.932	10.257	.214	1.651	.103
SCVA	25.563	7.120	.442	3.590	.001
SIZE	-.021	.101	-.018	-.210	.834
DER	-.024	.010	-.208	-2.338	.022

a. Dependent Variable: ROA

T test aims to determine the absence or presence of an influence between each independent variable individually to the dependent variable. If the probability or significance $\alpha > 0.05$ then the independent variable individually does not affect the dependent variable, if $\alpha < 0.05$ then the independent variables individually affect the dependent variable.

a. The Effect of VAHU on ROA

Based on the results of the table above, the significance value of t is 0.478 which is > 0.05 . Thus, the hypothesis is rejected because VAHU has no effect on ROA. In the property companies, the efficiency of human capital which is proxied by the total cost of employees does not increase ROA, this is likely due to most employees not directly related to efforts to increase profits such as increased sales.

b. The Effect of VACA on ROA

Based on the results of the table above, the significance value of t is 0.103 which is less than 0.05. Thus, the hypothesis is rejected because VACA has no effect on ROA. From the sample data, the VACA proxy is the total assets-intangible assets that appear to be relatively similar data in 5 years of observation, there is no variation so the results are not enough to affect ROA.

c. The Effect of SCVA on ROA

Based on the results of the table above, the significance value of t is 0.001 so $0.001 < 0.05$. Thus, the hypothesis is accepted because SCVA affects on ROA. Thus, Structural Capital consists of all matters other than human knowledge in an organization, including data base, organizational structure of processes, solutions that can produce value that exceeds the value of the physical assets of an organization can function optimally so that it can affect the ROA. These results are in line with studies by Alipour M (2012), Nuraisyah and Arum (2015) Emadzadeh et al. (2013), Mainfard M & Khavari A(2015), Nassar S(2018), Junaedi (2017), Baroroh N (2013), Sutanto N & Siswantaya IG (2014), Holienka M & Pilkova A(2014).

d. The Effect Size on ROA

Based on the results of the table above, the significance value of t is 0.834 so $0.834 > 0.05$. Thus, the hypothesis is rejected because Size does not affect ROA as Niresh and Velnampy (2014) study. From the sample data, it seems that the data is relatively not varied, it is likely that the property companies do not have sufficient asset reserves for future business sustainability, the company only has the number of assets in accordance with the projects undertaken, so that the total assets do not sufficiently affect ROA.

e. The Effect of DER on ROA

Based on the results of the table above, it is obtained a significance value of t amounting to 0.022 so $0.022 < 0.05$. Thus, the hypothesis is accepted because DER influences on ROA, according to studies of Salim and Yadav (2012), John (2013), Tedy et al. (2015) and Nassar (2016), and Wiwik Utami (2015). In financial science, capital structure is a combination of debt and equity (DER) in a company (Brigham and Houston, 2013), where each component of the model has different costs. This difference in cost factors in theory certainly affects the achievement of corporate income loss or company performance.

Multiple Regression Analysis

To test the presence or the absence of the influence of Intellectual Capital, Firm Size and Capital Structure on ROA is used multiple linear regression. Here is a multiple linear regression table:

Table 10. Results of Multiple Linear Regression Analysis
Coefficients^a

Model	Unstandardized Coefficients	
	B	Std. Error
1 (Constant)	-15.121	5.714
VAHU	.033	.047
VACA	16.932	10.257
SCVA	25.563	7.120
SIZE	-.021	.101
DER	-.024	.010

a. Dependent Variable: ROA

Multiple linear regression test is to find a description of the effect between two or more variables X as independent variables and Y as a dependent variable. In this study, multiple linear regression analysis is performed to determine the regression coefficient or the influence of the dependent variable, namely ROA (Y), while the independent variables are VAHU (X1), VACA (X2), SCVA (X3), SIZE (X4), DER (X5) with multiple linear regression models as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Becoming:

$$\text{ROA (Y)} = -15.121 + 0.033 (\text{VAHU}) + 16.932 (\text{VACA}) + 25.563 (\text{SCVA}) - 0.021 (\text{SIZE}) - 0.024 (\text{DER}) + e$$

It can be concluded that the equation of multiple linear regression is as follows:

- Constant a = has a value of -15.121 which means that if VAHU, VACA, STVA, SIZE & DER have a value of 0, then ROA has a value of -15.121.
- The regression coefficient of the VAHU variable (X₁) of 0.033 means that if VAHU has increased 1%, then the value of ROA (Y) will increase by 0.033, assuming other independent variables are constant. Positive coefficient means a positive relationship exists between HCE With ROA, the higher the HCE, the higher the value of ROA.
- The regression coefficient of the VACA variable (X₂) amounting to 16.932 means that if other independent variables have a fixed value and VACA has increased by 1%, then the value of ROA (Y) will increase by 16.932. Positive coefficient means that there is a positive relationship between VACA and ROA, the more VACA increases, the more the value of ROA increases.
- The regression coefficient of the SCVA variable (X₃) of 25.563 means that if other independent variables have a fixed value and the SCE has increased 1%, the ROA (Y) value will increase by 25.563. Positive coefficient means that there is a positive relationship between SCVA and ROA, the more the STVA increases, the more the ROA value increases.
- The regression coefficient of the SIZE variable (X₄) is -0.021 meaning that if other independent variables have a fixed value and SIZE has increased 1%, then the value of ROA (Y) will decrease by 0.021. Negative coefficient means that there is a negative relationship between SIZE and ROA, the higher the SIZE, the lower the ROA value.
- The regression coefficient of the DER variable (X₅) is -0.024 meaning that if other independent variables have a fixed value and the DER has increased 1%, the ROA (Y) value will decrease by 0.024. Negative coefficient means that there is a negative relationship between DER and ROA, the higher the DER, the lower the ROA value.

CONCLUSIONS

Research on the influence of Intellectual Capital on performance in property companies listed on the Indonesia Stock Exchange in 20113 to 2017 obtained the following conclusions:

- a. Human Capital has no effect on company performance
- b. Physical Capital has no effect on company performance
- c. Structural Capital has effects on company performance.
- d. Firm size has no effect on company performance
- e. Capital structure has effects on company performance

Nevertheless, all of these variables together affect the company's performance, therefore it is suggested to company management if they want to improve performance, it is necessary to consider the variables of Intellectual Capital (Human Capital, Physical Capital, Structural Capital), Firm Size and Capital Structure.

Considering that Human Capital, Physical Capital, and Firm Size have no effect on the performance of companies in property companies for the period of 2013 to 2017, then it is recommended to other researchers to re-examine the same industry with a longer time to obtain a clear description of the direction of the influence of these variables on the performance of property companies.

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