

INTELLECTUAL CAPITAL EFFECT, FINANCIAL PERFORMANCE, AND FIRM VALUE: AN EMPIRICAL EVIDENCE FROM REAL ESTATE FIRM, IN INDONESIA

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ABSTRACT

This research aimed to analyze the impact of intellectual capital towards the firm's financial performance and firm's value. Intellectual capital was measured by Value Added Intellectual Capital (VAIC) which has three components, such as Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). Firm's financial performance and firm's value were measured by Return on Assets (ROA), Return on Equity (ROE), Revenue Growth (RG), and Tobin's Q ratio. There were 102 observations of Property and Real Estate company sector listed in Indonesia Stock Exchange period 2014-2016 that was analyzed using the linear regression method. The results show that VAIC has a significant impact towards financial performance and firm's value, except revenue growth, which means that the firm's ability to generate value added and also profit with total assets and equity increase if IC is managed properly. Therefore, VACA is the only component of VAIC that has a significant impact towards financial performance and firm's value, except RG which means that the capital employed is already managed properly.

Keywords: Intellectual Capital, VAIC, financial performance, firm's value

INTRODUCTION

Since 2015, property and real estate sectors in Indonesia are experiencing a slowdown. It is believed not to be a result from the inability of the public to purchase it, instead, they seek for the best property opportunities, as disclosed by the director of Indonesia Property Watch, Ali Trangganda (Prabowo, 2017). Align with Ali Trangganda, Hendro S Gondokusumo, the chairman of PT Intiland Development, has stated that the people's purchasing power is still exist, however people are more cautious in choosing the property they want to buy or invest by considering several things from the quality of the building, the design, until the features offered by the developer. Currently, Indonesia has become a modern country where the needs and lifestyle of society are growing very rapidly. It is resulting in a shift in trend over the needs of residential, office, shopping centers, as well as the facilities towards the digital innovation, the concept of eco-friendly and energy efficient, the concept of renewable energy, as well as attractive and unique designs. According to the CEO of *Properti Indonesia* magazine, Said Mustafa, the role of innovation and creativity in the property and real estate industries is crucial, especially in adapting to the digital era, so that property industry could continue to be a strategic, capital-intensive, technology-intensive, and long-term oriented investments (Ventura, 2017). The director of Research and Consultancy Savills Indonesia, Anton Sitorus, has also said a similar thing. He has said that the properties that have unique and interesting concepts followed by a clear and focused market segments are very likely to be more accepted in the modern market era and will not be vulnerable to the crisis (Rinaldi, 2017).

Property and real estate companies are currently competing and striving to innovate and harmonize market demands, technological advances, and the development of information systems with products such as the construction of office buildings, housing, apartments, shopping malls, and other public facilities that offer to the market. Businesspeople are more aware that transition to the knowledge-based business from the labor-based business is needed due to the fact that the factors of competitiveness does not lie on tangible assets anymore, but instead it depends on innovation, information system and technology, organizational management, and human resources (Sawarjuwono & Kadir in Thaib, 2013). The intense competition creates the needs for new tools that could assist the company to have a competitive advantage over its products that are available in the market. One of the tools is an intangible asset that includes significant knowledge, innovation, customer relations, research, trademarks, and copyrights right, which are currently more important resource than the tangible assets (Volkov & Garanina, 2007). Intangible assets are considered as the intellectual capital owned by the company. According to Chen et al. (in Widyaningdyah, 2013), intellectual capital is a key resource and driver for performance and value creation.

In modern economies, the intellectual capitals are considered a strategically important asset to organizational success (Khan, 2014). Intellectual capital has been widely known by many researchers as an important strategic asset in evaluating organizational performance in both developing and developed countries (Hashim, Osman, & Alhabshi, 2015). Financial performance is a depiction of the company's financial condition and also act as the indicator to show the company's performance in a certain period, which is obtained by using financial analysis tools. The view that intellectual capital affects the company's performance is based on resource-based theory (RBT) which states that companies that are capable in managing resources and knowledge well will have the competitive advantages that affect the company's performance. Then, this view is also supported by stakeholder theory that governs the relationship between the company's management and its stakeholders, the better the company's management in managing the resources, the higher the value added produced by the company, which consequently encourage the financial performance of the company (Herdyanto & Nasir, 2013).

According to Edvinson and Malone (in Sunarsih & Mendra, 2012), one of the advantages of intellectual capital is to act as a tool to determine corporate value. Corresponding to that statement, when the company is considered to have value, then it means that the company is valuable, which is align with the company's long term objectives to maximize the company's values. Research that utilizes intellectual capital efficiently will cause its market value to increase. This is supported by the resource-based theory which elaborated that the improvement of firm's value can be achieved through effective utilization and management of resources; hence it is capable of achieving the competitive advantage that encourages the increase in firm's value (Puspita, 2016). Stakeholder theory also explains the relationship between intellectual capital and firm's value, which is maximizing the resources owned by the company efficiently that will cause the escalation in the value of the company and at the same time generate profits for the stakeholders (Ulum, Ghozali, & Chariri, 2008 in Sudibya & Restuti, 2014).

In their research, Chen, Cheng, and Hwang (2005) have used data of Taiwan's listed companies and proves that intellectual capital has a positive correlation with market value and financial performance. The research conducted by Fajarini and Firmansyah (2012); Ulum, Ghozali, and Chariri (2008); Sunarsih and Mendra (2012); and Sudibya and Restuti (2014) have also found that intellectual capital has a positive effect on financial performance. However, different results are shown in Firer and Williams' (2003) research that using data from 75 public trading firms in South Africa. It does not find a strong relationship between intellectual capital and corporate profitability. In addition, Sunarsih and Mendra (2012) in their research have also failed to prove that intellectual capital has a positive effect on the market value of the company. The existence of these differences encourages the authors to conduct the research to test whether intellectual capital in the property and real estate sectors is a significant

element that can drive the financial performance and the value of the company or instead does not give any impact at all.

This research uses a stakeholder theory to explain the relationship between corporate management and its stakeholders, whose main objective is to assist corporate management in enhancing value creation from the activities the company undertakes in minimizing possible losses for corporate stakeholders (Ulum, Ghozali, & Chariri, 2008 in Calista, 2014). Stakeholder theory explains the entire activities of the company leads to the value creation, which is the better a company in maximizing the potential from both tangible and intangible assets, the higher the value added can be generated by the company (Herdyanto & Nasir, 2013). Value creation could also improve the company's financial performance and as the effect, it also generates profits for the shareholders, however, to be able to achieve that management need to manage all the company's resources, which includes employees (human capital), physical assets (physical capital), and structural capital (Ulum, Ghozali, & Chariri, 2008 in Sudibya & Restuti 2014).

Resource-based theory (RBT) has also elaborated how companies can manage and utilize their resources to achieve competitive advantage and to have superior sustainable performance. In other words, this theory believes that the company will achieve excellence if it has excellent resources (Solikhah and Rohman in Puspita, 2016). According to Susanto (in Calista, 2014), the combination of resource advantages owned, either tangible or intangible assets, and the ability to manage these resources effectively and efficiently creates the distinctive competencies to a company, therefore, company is able to have competitive advantage compare to its competitors. The idea of intellectual capital affects financial performance, and corporate value is consistent with the RBT theory that suggests the firms identify and manage their resources effectively (Abdullah & Sofian, 2012) to achieve competitive advantage and good financial performance that will increase firm's value (Puspita, 2016).

The International Federation of Accountants (IFAC) (in Sudibya & Restuti, 2014) defines intellectual capital as an intellectual property, intellectual asset, knowledge asset that can be interpreted as a capital, which based on knowledge owned by the company, and a knowledge resource that will be profitable for the company in the future if it is used properly. According to practitioners, the intellectual model consists of three main elements (Stewart, 1998; Sveiby, 1997; Saint-Onge, 1996; Bontis 2000; in Sudibya & Restuti, 2014), which are human capital, structural capital or organizational capital, and relational capital or customer capital. Human capital is considered as the main component of intellectual capital, which includes knowledge, skills, competencies, experience, innovations, educational level, and creativity owned by employees. Structural capital consists of the entire storage of non-human knowledge, such as databases, business processes, business strategies, corporate culture, operational procedures, corporate policies, and information technology. On the other hand, relational capital is an intellectual capital component that is based on the relationship between the company and its customers, which includes marketing channels, customer relationships, supplier relationships, consumer loyalty, government and industry networks, and intermediaries or partners (Roos et al., 2005 in Abdullah & Sofian, 2012).

Moreover, Pulic in Sudibya and Restuti (2014) has introduced Value Added Intellectual Coefficient (VAIC) as an intellectual capital measurement to assess the efficiency of value added as a result of the company's intellectual capabilities (Sudibya & Restuti, 2014). The advantage of Pulic's method is the ease of data acquisition used in research. Intellectual ability (then called VAIC) shows the efficiency of how the company utilizes all their resources, physical capital, and intellectual potential. There are three company's resources that are the main components of the VAIC, which are the physical capital (Value Added Capital Employed-VACA), human capital (Value Added Human Capital - VAHU), and Structural Capital Value Added (STVA). VACA is a ratio that shows the contribution made by each unit of the capital employed (CE) to the value-added organization. VAHU is an indicator of the value-added efficiency of human capital which indicates the ability of labor to generate value for the company from the funds spent to become the workforce (Ulum in Sudibya & Restuti, 2014).

Meanwhile, STVA shows the contribution of structural capital (SC) in value creation (Fajarini & Firmansyah, 2012).

METHODS

The population used in this research is the property and real estate companies listed on the Indonesia Stock Exchange in 2014-2016. The sampling technique used is the purposive sampling method that is a sampling method which done deliberately based on the certain criterion in accordance with data and information needed for research interest. The criteria in sample selection are companies belong to Property and Real Estate sector listed in Indonesia Stock Exchange year 2014-2016, not delisted from Indonesia Stock Exchange during the year of research, and companies which have done IPO (Initial Public Offering) before year of research and does not occur in the middle of the research period, the sample company has total positive equity and positive net profit during the year, and the sample company is engaged in pure Property and Real Estate field, which is not a company with a combination of business types outside the sector.

The type of research that will be conducted is quantitative research with secondary data obtained from the official website of Indonesia Stock Exchange (www.idx.co.id), furthermore, the data obtained in the form of annual audited financial statements. The examples are statement of profit and loss, statement of financial position, and notes to the financial statements, whose data are total assets, total liabilities, total equity, net income for the current year, income, operating expenses, the number of outstanding shares and the closing price which will be processed using the statistical calculation technique. The independent variables in this research are VACA, VAHU, STVA, and VAIC. Meanwhile, the dependent variable in this research is financial performance measured by ROA (Return on Asset), ROE (Return on Equity), RG (Revenue Growth), and the company's value as measured by using Tobin's Q. The model of data analysis used in this research is multiple linear regression model that is used to determine the relationship between variables independent with the dependent variable with the form of the regression model as follows:

$$\text{Model 1: } ROA = \alpha_0 + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$$

$$\text{Model 2: } ROE = \alpha_0 + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$$

$$\text{Model 3: } RG = \alpha_0 + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$$

$$\text{Model 4: } Q = \alpha_0 + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$$

Based on the background, identified problems, supporting theory and previous research, the research hypothesis are:

H1a : VAIC have a significant influence on ROA

H1b : VAIC have a significant influence on ROE

H1c : VAIC have a significant influence on RG

H2a : VACA, VAHU, and STVA have a significant influence on ROA

H2b : VACA, VAHU, and STVA have significant influences on ROE

H2c : VACA, VAHU, and STVA have significant influences on RG

H3 : VAIC have significant influences on Corporate Values (Tobin's Q)

H4 : VACA, VAHU, and STVA have significant influences on Corporate Value (Tobin's Q)

RESULTS AND DISCUSSIONS

The results of the descriptive analysis of this research can be seen in Table 1. Descriptive analysis is used to provide an overview of research variables. Measurements used in this research are mean, minimum value, maximum value, and standard deviation.

Table 1 Descriptive Analysis

	N	Minimum	Maximum	Mean	Median	Std. Deviation
ROA	102	0,00	0,20	0,0586	0,047689	0,03848
ROE	102	0,00	0,32	0,1181	0,107262	0,07032
RG	102	-0,65	1,16	0,0768	0,052278	0,26517
Q	102	0,32	2,57	1,1751	1,116881	0,45782
VACA	102	0,01	0,64	0,1683	1,518727	0,09340
VAHU	102	1,35	27,97	5,8505	4,782911	4,59451
STVA	102	0,26	0,96	0,7292	0,780744	0,16093
VAIC	102	1,66	29,21	6,7480	5,723928	4,70730
Valid N (listwise)	102					

Sources: Data Processed (2018)

Assumption test is intended to see whether the linear regression model used for hypothesis testing has fulfilled BLUE (Best Linear Unbiased Estimator) assumption in making interval estimation and regression parameter test. This test is done by conducting Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test against 102 research observations with financial performance proxies with return on assets, return on equity and revenue growth, as well as firm's value projected by Tobin's Q as the dependent variable. Followed by, the VAIC and its three components are VACA, VAHU, and STVA as independent variables.

The result of Kolmogorov-Smirnov (K-S) test for the four regression models in Table 2 shows that the data is normally distributed because the value of significance is more than $\alpha = 0,05$; hence it can be concluded that the data is normally distributed.

Table 2 Summary of Normality Test Result (Kolmogorov-Smirnov Test)

No	Regression Model	Kolmogorov-Smirnov Z	Significance Value K-S	Data Distribution
1	$ROA = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,803	0,540	Normal
2	$ROE = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,823	0,508	Normal
3	$RG = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	1,134	0,153	Normal
4	$Q = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,727	0,667	Normal

Sources: Data Processed (2018)

Based on Table 3 the result of multicollinearity test shows that a tolerance value greater than 0,1 and a VIF (Variance Inflation Factor) value of less than 10, thus indicating that there is no multicollinearity among independent variables, i.e. VACA, VAHU, and STVA in a multiple linear regression model.

Table 3 Summary of Multicollinearities Test Result on Model Regression Multiple Linier

Model	Collinearity Statistics		
		Tolerance	VIF
1	(Constant)		
	VACA1	0,839	1,193
	VAHU1	0,220	4,553
	STVA1	0,231	4,321

Source: Data Processed (2018)

Table 4 Summary of Heteroskedasticities (Glesjer Test) Result

Regression Model	Dependent Variable	Independent Variable	Significance Value	Variance
1	ROA	VACA	0,272	Homogeneous
		VAHU	0,657	Homogeneous
		STVA	0,488	Homogeneous
2	ROE	VACA	0,692	Homogeneous
		VAHU	0,888	Homogeneous
		STVA	0,710	Homogeneous
3	RG	VACA	0,954	Homogeneous
		VAHU	0,805	Homogeneous
		STVA	0,859	Homogeneous
4	Q	VACA	0,262	Homogeneous
		VAHU	0,853	Homogeneous
		STVA	0,986	Homogeneous

Sources: Data processed (2018)

From all results of heteroskedasticity test which have been done, authors can conclude that there is no uniformity of variance in the regression model from one observation's residual to other observation, in the other word the variance is homogeneous.

Table 5 Summary of Autocorrelation (Durbin-Watson Test) Result

No	Regression Model	Durbin Watson	Autocorrelation
1	$ROA = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \epsilon$	1,97	no correlation
2	$ROE = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \epsilon$	2,04	no correlation
3	$RG = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \epsilon$	2,00	no correlation
4	$Q = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \epsilon$	1,93	no correlation

Sources: Data processed (2018)

From all results of heteroskedasticity test, it can be concluded that in the linear regression model, there is no correlation between errors in t period with disturbance error in period t-1 or previous period.

According to Ghozali (2013), the statistical t-test basically shows the extent of the influence of one independent variable individually in explaining the dependent variable. The testing is conducting by using a significant level of 0,05 ($\alpha = 5\%$).

Table 6 Summary of the t-statistical Test Result

Regression Model	Dependent Variable	Independent Variable	Significance Value	Impact
1	ROA	VAIC	0,000	Significant
2	ROE	VAIC	0,000	Significant
3	RG	VAIC	0,134	Insignificant
4	Q	VAIC	0,000	Significant
5	ROA	VACA	0,000	Significant
		VAHU	0,680	Insignificant
		STVA	0,121	Insignificant
6	ROE	VACA	0,000	Significant
		VAHU	0,421	Insignificant
		STVA	0,099	Insignificant
7	RG	VACA	0,064	Insignificant
		VAHU	0,323	Insignificant
		STVA	0,623	Insignificant
8	Q	VACA	0,000	Significant
		VAHU	0,488	Insignificant
		STVA	0,554	Insignificant

Sources: Data processed (2018)

According to Ghozali (2013), F statistical test basically shows whether all independent variable that included in the model has a joint effect on the dependent variable.

Table 7 Summary of F Statistic Test Result

Regression Model	Significance Value	Impact
$ROA = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,00	Significant
$ROE = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,00	Significant
$RG = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,99	Insignificant
$Q = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	0,00	Significant

Sources: Data processed (2018)

The determinant coefficient test (Adjusted R²) is used to measure the extent of the capability of the model in explaining the variation of bound variables (Ghozali, 2013). The small adjusted value of R² indicates that the capability of independent variables is limited in explaining the variation of independent variables. A value close to one means the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Table 8 Summary of Coefficients Determination Test Result

No	Regression Model	Adj. R ²
1	$ROA = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	74,6%
2	$ROE = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	73,9%
3	$RG = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	5,3%
4	$Q = \alpha + \beta_1 VACA + \beta_2 VAHU + \beta_3 STVA + \varepsilon$	33,1%

Sources: data processed (2018)

Table 8 shows a summary of the coefficient determination test result that measures the extent of the capability of the linear regression model in describing the variation of the dependent variable. It shows that regression model 1 has an adjusted value of R² of 74,6%, which indicates that 74,6% of the value of ROA can be explained by independent variables in the regression model. Furthermore, the regression model 2-4 has an adjusted R² of 73,9%, 5,3%, and 33,1%, respectively, indicating that 73,9% of the ROE value, 5,3% of RG, and 33,1% of Tobin's Q values are capable to be explained by independent variables, which are VACA, VAHU, STVA.

H1a is when the VAIC has a significant effect on ROA. Based on the results of F test in Table 7, it can be concluded that the VAIC as a whole, which are VACA, VAHU, and STVA simultaneously have a significant effect on ROA. It is indicated through the significance value of 0,00 smaller or less than $\alpha = 0,05$ that is 0,00; therefore, H₀ is rejected and H1a accepted. The result of this hypothesis testing is in accordance with research conducted by Chen, Cheng, and Hwang (2005); Ulum, Ghozali, and Chariri (2008); and Fajarini and Firmansyah (2012), which indicates that intellectual capital has a positive effect on the profitability of companies proxied by ROA. So it can be concluded that this research is also aligned with the stakeholder theory which explains that the better management in managing the resources within the company, the more effective and efficient IC utilization are able to drive the performance of the company (Herdyanto & Nasir, 2013). In addition, the result also aligns with the resource-based theory, which explains that the good IC management as a company resource will create added value that affects the financial performance, in this case, the return on assets of the company.

H1b is when the VAIC has a significant effect on ROE. Based on the results of F test in Table 7, it can be concluded that the VAIC as a whole, which are VACA, VAHU, STVA have a significant effect on ROE which is indicated through significance value of 0,00 smaller or less than $\alpha = 0,05$, therefore, that H₀ is rejected and H1b accepted. The result of this research aligns with the research conducted by Chen, Cheng, and Hwang (2005); and Thaib (2007), which show the use of intellectual capital has an effect on the increase of ROE of the company. This result is also aligned with the research conducted by Sunarsih and Mendra (2012); and Sudibya and Restuti (2014) that show IC has a positive effect on financial performance.

H1c is when the VAIC has a significant effect on RG. Based on the results of F test in table 7, it can be concluded that the VAIC as a whole, which are VACA, VAHU, and STVA have a significant effect on RG that is shown by significance value of 0,99 is bigger or less than $\alpha = 0,05$; therefore, H₀ accepted. It indicates that collectively in forming VAIC, VACA, VAHU, and STVA do not have influence significantly to RG as a dependent variable in the sample of Property and Real Estate company. This research is not in line with the results of the research conducted by Chen, Cheng, and Hwang (2005) that proves the intellectual capital (VAIC) affects the growth of corporate earnings, which indicates that the management of intellectual capital is able to boost the level of sales, which eventually will increase revenue growth.

H2a is where the VACA, VAHU, and STVA have a significant effect on ROA. Based on Table 6, the result of statistical test t on the regression model shows that VACA individually has a significant effect to ROA which is indicated through VACA significance value of 0,00 that is less than $\alpha = 0,05$; therefore, H0 is rejected. It is indicated that VACA as an independent variable individually has a significant influence on ROA as a dependent variable. Then, the VAHU and STVA individually do not significantly affect the ROA that is shown through the value of VAHU and STVA significance greater than $\alpha = 0,05$ that is respectively 0,680 and 0,121; therefore, H0 is accepted. This is indicated that VAHU and STVA individually do not affect the significant effect on ROA.

H2b is when the VACA, VAHU, and STVA have a significant effect on ROE. Based on Table 6, the result of statistical test t on the regression model shows that VACA individually has significance to ROE that is shown through VACA significance value of 0,00 is less than $\alpha = 0,05$; therefore, H0 is rejected. This is indicated that VACA individually has significant influence against ROE. Furthermore, VAHU and STVA individually do not significantly affect the ROE that is shown through the VAHU and STVA significance values greater than $\alpha = 0,05$ that are 0,421 and 0,099 respectively, therefore, H0 is accepted. This is indicated that the independent variables individually do not affect the significant influence on the dependent variable on the sample company Property and Real Estate.

H2c is when the VACA, VAHU, and STVA have a significant effect on RG. Based on Table 6, the t-test results show that VACA, VAHU, and STVA individually have no significant effect on RG, which is shown through significance value of VACA, VAHU, and STVA of 0,064; 0,323; and 0,623 are greater than $\alpha = 0,05$; therefore H0 is accepted and H2c is rejected. It is indicated that the independent variable individually does not have a significant influence on the dependent variable. This research is in line with the results of Putri and Purwanto's (2013) research that shows the VACA, VAHU, and STVA individually do not affect the RG in the sample of the Property and Real Estate companies.

H3 is when VAIC has a significant effect on Corporate Value (Tobin's Q). Based on the results of F test in table 7, it can be concluded that the VAIC as a whole, which are VACA, VAHU, STVA simultaneous have significant effect on Tobin's Q which is shown through the value of significance of 0,00 smaller or less than $\alpha = 0,05$, therefore H0 is rejected and H3 is accepted. It is indicated that VACA, VAHU, and STVA together in forming VAIC have a significant influence on the value of the company as a dependent variable on the sample of Property and Real Estate companies. The results of this research is in line with the results of research conducted by Chen, Cheng, and Hwang (2005) and Sudibya and Restuti (2014), that shows VAIC has significant influence to company value, however, it is inconsistent with the result of research conducted by Sunarsih and Mendra (2012). The results of this research are supported by Edvinsson and Malone's (1997) opinion that has stated companies that are capable in utilizing their intellectual capital efficiently, will increase their market; hence it can be concluded that the sample of Property and Real Estate companies have been utilizing the IC efficiently.

H4 is when the VACA, VAHU, and STVA have a significant effect on Corporate Value (Tobin's Q). Based on Table 6, the t-test results indicate that VACA individually has significant influences on Tobin's Q, which is indicated through the value of VACA significance of 0,00 is less than $\alpha = 0,05$; therefore, H0 is rejected. It is indicated that the independent variable individually has a significant influence on the dependent variable. Then, VAHU and STVA individually have no significant effect on Tobin's Q, which is indicated through the VAHU and STVA significance value of 0,488 and 0,554 greater than $\alpha = 0,05$, therefore, H0 is accepted. It is indicated that the independent variable individually does not significantly affect the dependent variable on the sample of Property and Real Estate companies.

CONCLUSIONS

Based on the hypothesis test result, intellectual capital measured by VAIC has a significant influence on financial performance, especially to ROA and ROE, whereas VAIC does not have a significant effect on RG in the property and real estate sector. This is indicated that the company's ability to generate profits with total assets and total equity owned by the company will increase if the company can manage and utilize IC resources well. However, RG is not affected by the efficiency of good corporate IC management. The results of the hypothesis test of the three VAIC components measured by VACA, VAHU, and STVA shows that only VACA has significant effects on the financial performance of ROA and ROE. This indicates that the sample of the property and real estate sector companies has utilized the available funds (capital employed) that they have properly, hence it is able to improve the financial performance of ROA and ROE. The three VAIC components have no significant effect on the RG so it can be concluded that the management of the three components of intellectual capital does not affect the growth of income of the sample property and real estate companies. Furthermore, the test results indicate that the VAIC significantly influence the value of the company (Tobin's Q), so it can be concluded that the management and utilization of intellectual capital is better than the higher the value added created by the company to encourage the increase of corporate value in the sample of property and real estate companies. However, the test results that conducted to all three VAIC components show that only VACA has a significant effect on the firm's value, while VAHU and STVA have no significant effect on the firm's value.

Returning to the purpose of this research to identify whether ICs in the property and real estate sectors are an important part that drives the company's financial performance and value, it can be concluded that the property and real estate sectors are experiencing a slowdown over the course of the research period. It is occurred due to the firms prioritize the management and efficiency of available capital (capital-employed) funds rather than efficiency in the utilization of human capital and structural capital. However, it cannot be said that the company does not perform any management for human resources and structural capital, because when it is viewed as a whole, VAIC can affect the financial performance and value of the company. Moreover, good management of human resources and structural capital should be improved so that it does not emphasize the efficiency of available funds (capital employed). Along with good human resource management, employee's skills, competencies, creativity, and innovation can contribute to value creation which supported by good structural capital management of information systems, procedures, management strategies, and organizational culture that can support employee efforts to execute optimal performance, which eventually provide added value to the company.

According to the results of this research, there are some suggestions to improve future research, which are: the research should use the solid and non-solid enterprise classification of intellectual capital (IC). Therefore the future research could identify and compare whether intellectual capital is useful and affect the financial performance and firm's value in solid and non-solid IC company. Furthermore, the suggestion for the management of the property and real estate companies is to utilize the intellectual capital they owned as a whole and try to manage the efficiency of the three components of the intellectual capital. This is intended so that in the tight competition in the property and real estate sector, which have weakened before, companies can create added value so that it can compete in their business activities that can boost the improvement in financial performance and corporate value which is the main goal of each company.

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