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**DOI:** 10.22219/jrak.v11i2.15116

**Citation:**

Sujati, K.A., & Januarti, I. (2021). The Effect Of Intellectual Capital Efficiency On Company's Market Value With Company's Financial Performance As Intervening Variables. *Jurnal Reviu Akuntansi Dan Keuangan*, 11(2), 332-345.

**Article Process**

**Submitted:**

January 18, 2021

**Reviewed:**

July 8, 2021

**Revised:**

August 21, 2021

**Accepted:**

August 24, 2021

**Published:**

August 31, 2021

**Office:**

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University of Muhammadiyah Malang  
GKB 2 Floor 3.  
Jalan Raya Tlogomas 246,  
Malang, East Java,  
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P-ISSN: 2615-2223

E-ISSN: 2088-0685

Article Type: Research Paper

## THE EFFECT OF INTELLECTUAL CAPITAL EFFICIENCY ON COMPANY'S MARKET VALUE WITH COMPANY'S FINANCIAL PERFORMANCE AS INTERVENING VARIABLES

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### ABSTRACT

The purpose of this study is to investigate empirically the relation between the company's intellectual capital efficiency and company's market valuation with company's financial performance as intervening variables. This study using data from the Indonesia listed service companies. The samples of this study was 109 companies. Pulic's Value Added Intellectual Coefficient (VAICTM) used as the efficiency measure of company's intellectual capital. The authors construct regression models to examine the relationship between company's intellectual capital efficiency and company's market valuation and explore the relation with company's financial performance as intervening variables. The results support the hypothesis that company's intellectual capital has an affect on company's market valuation. In addition, the authors found that company's financial performance has a role as full mediator on the relation between the company's intellectual capital efficiency and company's market valuation. This study results can be used as a reference for companies' management to improve their efficiency of the intellectual capital so the company's financial performance and value can be improved.

**KEYWORDS:** Financial Performance; Intellectual Capital; Market Value; Service Company.

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## INTRODUCTION

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The company in running its business has a goal to continue to survive in the business world. This understanding is called as going concern. The company needs to create its own value from the perspective of the customer in order to have better competitiveness than its competitors. To create this value, the company needs to maximize all of the company's assets or potential. Based on the resource-based theory, if the company's potential or resources can be utilized efficiently and effectively, the company will be able to increase its competitiveness (Rupert, 1998).

In the development of business theory, resource-based theory developed a new perspective, which is the knowledge-based view. The knowledge-based view explains that the potential possessed by a company is not only in the form of physical assets, but also knowledge, capabilities, and technology that are included in intangible assets. Rupert (1998) explains that if knowledge can be managed properly, company will obtain knowledge about how to use of other resources efficiently. This efficiency and effectiveness will later increase the company's competitiveness.

The existence and influence of intellectual capital on market value has been the research's topic by several researchers such as Roos et al. (1997). In their research, Roos et al. (1997) explained that the company has a hidden value which has a greater percentage than the company's assets in the formation of market valuation. This hidden value has become a major factor in market valuation.

Hidden values that are owned by the company can come from various components such as the ability and knowledge of employees, the company's business system and strategy, the company's manufacturing system, as well as company's relationships and customer loyalty to the company. A knowledge with potential values can be considered as intellectual capital if that knowledge could give benefits to the company (Irawan et al., 2019). Therefore, it can be concluded that hidden value and intellectual capital have a role in market valuation.

Companies are required to be able to manage their intellectual capital efficiently and effectively as a result of how intellectual capital can be a dominant factor in forming the company's market value. In accounting development, intellectual capital has become a dilemma because even though intellectual capital is a key factor in market valuation, there is still no standard on measurement and recognition as well as the concept of intellectual capital that has been mutually agreed upon. Therefore, various methods of measuring intellectual capital have emerged.

Pulic (1998) has proposed a method or model of monetary measurement of the efficiency of a company's intellectual capital. This measurement model is called the Value Added Intellectual Coefficient – VAIC™ model. The measurement model is measured based on the value added produced by the company. Value added is created by the company's physical capital and intellectual potential. The VAIC™ model seeks to measure how value added is created based on the efficiency of those two potentials.

Several previous studies (Chen et al., 2005; Sunarsih and Mendra, 2012) show the results of research where intellectual capital affects the market value of the company. However, there is other research (Solikhah et al., 2010) which shows the results of research where there is no significant effect of intellectual capital on the company's market value. In the context of the relationship between intellectual capital and company financial performance, several studies (Bontis et al., 2000; Chen et al., 2005; Solikhah et al., 2010; Sunarsih & Yuria Mendra, 2012; Tan et al., 2007; Ulum et al., 2008) show evidence that intellectual capital

affects the company's financial performance. However, there is other research (Firer and Williams, 2003) which shows the insignificant effect of intellectual capital on company profitability.

The research model in this study refers to the resources-based theory and its development, the knowledge-based view. Resources-based theory explains that the potential or the assets of a company is not a commodity because this potential is heterogeneous. This heterogeneity creates a uniqueness in every potential or resource owned by the company so as to create different features for each company (Penrose, 1959). All these potentials, if managed efficiently and effectively by management, will create a value so as to increase the company's competitiveness.

In the context of intellectual capital, knowledge, abilities, and the like become resources with high uniqueness due to difficulties in being imitated (Fahy & Smithee, 1999). The ability and creativity possessed by humans as well as the culture and management philosophy in the corporate structure is not a commodity that can be owned by everyone. The intellectual capital with its uniqueness can become a potential resource that gives a special character to the company (Penrose, 1959). Therefore, intellectual capital has a big role when applied in resources-based theory.

From the efficient management of intellectual capital based on resources-based theory, it is expected that all components of intellectual capital can play a role in market valuation (Grant, 1996). The creation of company value will result in an increase in the competitiveness of the company which results in an increase in company's financial performance. Company's financial performance is reflected in the company's rate of return and market perceptions of the value of the company, which is reflected in the value of the company's shares (Sucipto, 2003). Large companies tend to disclose more intellectual capital than small companies (Kholmi & Wahyuni, 2020).

Service sector companies are the focus of this study because in the service sector there is a close and intense interaction between the company and the customer which causes intellectual capital as a value driver play a dominant role in the service sector (Chang & Birkett, 2004; Kianto et al., 2010). Kianto et al., (2010) describe various key characteristics in service activities, including: close interaction with customers, heterogeneity of knowledge creation and exchange, combination of various knowledge and its application, impossible to save and intangible. From these factors, it can be explained that the service industry has a great relationship with knowledge work and therefore intellectual capital has an important role as a value driver in the service industry. The manufacturing industry uses fully automated activities whereas consulting services employ human labor with direct knowledge work. Although both manufacturing and service industry require specialized knowledge and expertise, consulting services require more in-depth and evolving knowledge, as well as individual and organizational capabilities and capabilities (Kianto et al., 2010; Nijssen et al., 2006).

The problem formulation in this study is whether the efficiency of intellectual capital has a direct relationship to the market value of the company or the efficiency of intellectual capital has an indirect relationship to the market value of the company with the company's financial performance acts as a mediator. Based on these problems, the objective of this study is to examine the direct relationship between the efficiency of intellectual capital and the market value of the company and to examine the role of the company's financial performance as a mediator in the indirect effect of intellectual capital efficiency on the company's market value.

This study is expected to explain the role of intellectual capital's efficiency by using the value added generated by intellectual capital to increase company performance and create market value. This study is expected to provide benefits to stakeholders, especially investors, to understand the importance of efficient intellectual capital management in order to create a competitive advantage for the company and increase the company's market value.

### Hypotheses Development

Resource-based theory explains that if the resources owned by the company are managed efficiently, the company will be able to increase its competitiveness. Managing human resources efficiently and effectively will increase the value offered by the company because of the increase in the quality and quantity of products produced from human resources. Managing the company's structural resources efficiently and effectively can catalyze the value formation process by the company which results in the value added offered by the company.

The values generated by the company can increase the company's competitiveness which investors will respond. Investors' perceptions of the increased competitiveness become the company's market value, where this value is reflected in the value of the company's shares. The results of the study by Chen et al. (2005) proved that intellectual capital has a positive correlation with market valuation. Based on the explanation above, the following hypothesis is formulated as follows:

*H<sub>1</sub>: The efficiency of intellectual capital (IC) affects the company's market value*

The resource-based theory explains that the management of company resources, including intellectual capital, can increase the company's competitiveness. Managing the company's human resources efficiently and effectively can provide value added to the company which will increase the company's competitiveness. The management of the company's structural resources can increase the acceleration of the value formation process created by the company's human resources. Increasing the competitiveness of the company will result in an increase in the number of customers and company returns. An increase in company returns can be interpreted as an increase in the company's financial performance.

Several studies have proven that intellectual capital has a significant role in improving the company's financial performance. Chen et al. (2005) and Ulum et al. (2008) research provide results where VAIC<sup>TM</sup> as a proxy for measuring the efficiency of intellectual capital has a positive correlation with the company's financial performance. Based on the explanation above, the hypothesis can be formulated as follows:

*H<sub>2</sub>: The efficiency of intellectual capital (IC) affects the company's financial performance*

Resources-based theory explains that managing the company's potential efficiently and effectively will be able to create a company's competitive advantage and increase the company's competitiveness. Increasing the company's competitiveness can attract more customers so that it has an impact on increasing the company's rate of return. The increased rate of return is a reflection of the company's financial performance.

Stakeholder theory explains that management is required to direct the company with the interest of meeting the welfare of all stakeholders. The increase in company's financial performance is in line with the increase in the welfare of stakeholders, including investors. Increasing the welfare of investors will result in an increase in investor perceptions of the

company. This increase in perception is reflected in the value of the company's shares where this value can be measured by various market value ratios.

Study conducted by Sunarsih and Mendra (2012) has proven that financial performance has a positive correlation with the company's market value. This study seeks to prove the effect of financial performance variables on company market value. Based on several theoretical studies along with some of the results of previous research, the following hypothesis is formulated:

*H<sub>3</sub>: The company's financial performance has an effect on the company's market value*

## METHOD

This study was conducted on the service companies listed in the Indonesia Stock Exchange in the period year 2016-2019. The population in this study were all service sector companies listed on the Indonesia Stock Exchange with a total of 379 companies. The purposive sampling method was used as the sampling method in this study by considering companies listed on the Indonesia Stock Exchange during the period 2016-2019 and did not experience losses during that period. Based on the sample calculation results, the number of samples in this study are 109 companies. Observations on the sample of companies were carried out for four periods so the total observations in this study were 436 companies.

### Variables Operational Definition

The efficiency of intellectual capital is measured using monetary measurement using the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) method proposed by Pulic (1998). VAIC<sup>TM</sup> uses value added as the basis for its formulation. VAIC<sup>TM</sup> is divided into three components, namely Value Added Human Capital (VAHU) which calculates the efficiency level of value added creation based on the company's human resources, Value Added Capital Employeed (VACA) which calculates the efficiency level of value added creation based on the capital employed by the company, and Structural Capital Value Added (STVA) which calculates the efficiency level of value added creation based on the company's structural capital.

The second variable is the market value of the company where the variable is defined as the selling price of the company on the stock market. The market value of a company can be measured using the market value ratio. The market value ratio is the ratio that connects a company's stock price to its earnings, cash flow, and book value per share (Brigham and Houston, 2014). The market value ratio used in this study is Market-to-Book Value (MtBV). The MtBV ratio is calculated by comparing the market value to the company's book value. The difference between the market value or stock market price and the company's book value shows that the hidden value recognized by the market but not recorded in the company's books historically.

The third variable is the company's financial performance where the variable is defined as a reflection of the company's activities to achieve its goals. The objective in question can be described in terms of the rate of return or profit (Brigham and Houston, 2014).

Profitability is the key to describing the company's financial performance in explaining the company's financial performance variables. Profitability can be reflected by various indicators in the form of ratios, for example, the Return on Equity (ROE) and Return on Assets (ROA) (Dendawijaya, 2003).

ROE describes how the company's capabilities in creating returns for investors. ROE can become an indicator that can describe the level of company profitability from a market perspective. ROA describes how companies can utilize their company assets to improve company's financial performance. In the research model that ROA can become an indicator that can describe the level of company profitability based on the assets it owns.

**Data Analysis Method**

This study uses linear regression analysis to test the hypothesis. Model 1 describes the direct relationship between Market-to-Book Value (MtBV) and the three VAIC<sup>TM</sup> components, namely VAHU, VACA, and STVA. Model 2 and model 3 explain how Return on Assets (ROA) and Return on Equity (ROE) are influenced by the three components of VAIC<sup>TM</sup>, namely VAHU, VACA, and STVA. In model 4, it is explained how the Market-to-Book Value (MtBV) is influenced by Return on Equity (ROE) and Return on Assets (ROA).

$$MtBV = \alpha + \beta_1 VAHU + \beta_2 VACA + \beta_3 STVA + e \tag{1}$$

$$ROA = \alpha + \beta_1 VAHU + \beta_2 VACA + \beta_3 STVA + e \tag{2}$$

$$ROE = \alpha + \beta_1 VAHU + \beta_2 VACA + \beta_3 STVA + e \tag{3}$$

$$MtBV = \alpha + \beta_1 ROA + \beta_2 ROE + e \tag{4}$$

Two methods of analysis are used in testing the mediation model or indirect relationship, namely the sobel test and the Variance Accounted For (VAF). The sobel test is conducted to determine how significant the company's financial performance variable is in mediating the relationship between intellectual capital efficiency and the company's market value.

**RESULTS AND DISCUSSION**

**Research Sample Description**

The sample of this study is 109 service companies listed on the Indonesia Stock Exchange in 2016-2019. Because the observations were made for four years, the total observations were 436 sample observations. By eliminating 49 outlier data, the total number of observations in this study was 387 observations.

Variable	N	Minimum	Maximum	Mean	Std. Deviation
VAHU	387	1.2800	11.0400	3.1474	1.8269
VACA	387	0.0100	0.9800	0.2893	0.1695
STVA	387	1.1000	4.5500	1.8584	0.6797
ROA	387	0.0002	0.1700	0.0416	0.0358
ROE	387	0.0012	0.3400	0.1082	0.0663
MtBV	387	0.1000	8.8500	1.6967	1.3979

**Table 1.**  
Descriptive  
Statistics

Based on descriptive statistics table 1, the VAHU produces a mean value of 3.15 with a standard deviation value of 1.83. The lowest VAHU value is 1.28 and the highest is 11.04. The VACA indicator produces a mean value of 0.29 with a standard deviation value of 0.17. The lowest VACA value is 0.01 and the highest is 0.98. The STVA indicator produces a mean value of 1.86 with a standard deviation value of 0.68. The lowest STVA value is 1.10 and the highest is 4.55. Based on the description of the VAIC<sup>TM</sup> component data in descriptive statistics table 1, it can be concluded that VAHU has a largest portion in value added creation from intellectual capital efficiency.

The company's financial performance variable is described by two indicators, namely ROA and ROE. The ROA indicator produces a mean value of 0.0416 with a standard deviation value of 0.0358. This value shows that the average service company in Indonesia has an ROA value that is slightly smaller than the standard ROA value, namely 0.0598 (Lukviarman, 2006). The lowest ROA value is 0.0002 and the highest is 0.17. The ROE indicator produces a mean value of 0.1082 with a standard deviation value of 0.0663. This value indicates that the average service company in Indonesia has a greater ROE value than the standard ROE value, namely 0.0832 (Lukviarman, 2006). The lowest ROE value is 0.0012 and the highest is 0.34.

The dependent variable of the company's market value is defined by one indicator, namely MtBV. The MtBV indicator produces a mean value of 1.6967 with a standard deviation value of 1.3979. The lowest MtBV value is 0.10 and the highest is 8.85.

### Hypothesis Test

#### Direct Effect Test

The direct effect test aims to determine the direct effect of intellectual capital efficiency on market valuation. In addition, the direct effect test is also used to determine the effect of intellectual capital efficiency on the company's financial performance and the company's financial performance on the company's market value.

Regression model 1 (table 2) in this study has passed from the classical assumption test. The adjusted R<sup>2</sup> value shows a value of 0.061. That value indicates that the MtBV can be explained by VAHU, VACA, and STVA as much as 0.061, while the rest is explained by other factors outside the research model.

$$\text{MtBV} = \alpha + \beta_1 \text{VAHU} + \beta_2 \text{VACA} + \beta_3 \text{STVA} + e$$

Independent Variable	Coefficient	t-statistic	sig
(Constant)		3.815	.000
VAHU	.051	.752	.453
VACA	.216	4.362	.000
STVA	-.127	-1.874	.062

Table 2.  
Test Result of  
Regression 1

The results of the t-statistic test were used to determine the effect of each independent variable (VAHU, VACA, and STVA) on the dependent variable (MtBV). In the test result of regression 1 (table 2) the VAHU has no significant effect on MtBV. The VACA indicator has a significant effect on MtBV at the 0.01 significance level. Meanwhile, STVA actually has a negative effect on MtBV with a significance level of 0.10.

$$ROA = \alpha + \beta_1 VAHU + \beta_2 VACA + \beta_3 STVA + e$$

Independent Variable	Coefficient	t-statistic	sig
(Constant)		2.011	.045
VAHU	.304	5.089	.000
VACA	.323	7.346	.000
STVA	-.157	-2.618	.009

**Table 3.**  
The Test Result of Regression 2

The regression model 2 (table 3) in this study has passed the classical assumption test. The adjusted R<sup>2</sup> value shows a value of 0.261. This value indicates that the ROA can be explained by VAHU, VACA, and STVA as much as 0.261, while the rest is explained by other factors outside the model.

The results of the t-statistic test were used to determine the effect of each independent variable (VAHU, VACA, and STVA) on the dependent variable (ROA). In the test result of regression 2 (table 3) we can conclude VAHU and VACA have a significant effect on ROA at the 0.01 significance level, while STVA has a significant negative effect at the 0.01 significance level.

The regression model 3 (table 4) in this study has passed the classical assumption test. The adjusted R<sup>2</sup> value shows a value of 0.423. This value indicates that ROE can be explained by VAHU, VACA, and STVA as much as 0.423, while the rest is explained by other factors outside the model.

$$ROE = \alpha + \beta_1 VAHU + \beta_2 VACA + \beta_3 STVA + e$$

Independent Variable	Coefficient	t-statistic	sig
(Constant)		6.508	.000
VAHU	.063	1.202	.230
VACA	.564	14.535	.000
STVA	-.336	-6.340	.000

**Table 4.**  
The Test Result of Regression 3



The results of the t-statistic test were used to determine the effect of each independent variable (VAHU, VACA, and STVA) on the dependent variable (ROE). In the test result of regression 3 (table 4) it can be seen that VAHU has no significant effect on MtBV. The VACA indicator has a significant effect on MtBV at the 0.01 significance level. Meanwhile, STVA actually has a negative effect on MtBV with a significance level of 0.01.

$$\text{MtBV} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{ROE} + e$$

**Table 5.**  
The Test  
Result of  
Regression 4

Independent Variable	Coefficient	t-statistic	sig
(Constant)		7.431	.000
ROA	.304	4.794	.000
ROE	.118	1.869	.062

The regression model 4 (table 5) in this study has passed the classical assumption test. The adjusted R<sup>2</sup> value shows a value of 0.150. This value shows that MtBV can be explained by ROA and ROE as much as 0.150, while the rest is explained by other factors outside the model.

The results of the t-statistic test were used to determine the effect of each independent variable (ROA and ROE) on the dependent variable (MtBV). In the test result of regression 4 (table 5), it can be seen that ROA and ROE have a significant effect on MtBV. ROA has a significant effect with a significance level of 0.01, while ROE has a significant effect with a significance level of 0.10.

### The Effect of Intellectual Capital Efficiency on Company's Market Value

The effect of the efficiency of intellectual capital on the market valuation is described in the test result of regression 1 (table 2). The results of the regression analysis show that human capital does not have a significant effect on the market value of the company. These results are supported by the results of research by Firer and Williams (2003) where in this study human capital does not have a significant effect while capital employess has a significant effect on market valuation. The similarity of environmental characteristics of research objects can be an influence on the results of research where the object of research is carried out in developing countries.

Firer and Williams (2003) explain that the business environment in developing countries still relies on capital employess for increasing company value. Even so, human capital still has the largest portion in the formation of value added. This can be caused by the large number of human resources owned by companies in Indonesia.

In contrast to VAHU and VACA, STVA gives a negative value in the regression test. This may occur because the VAIC<sup>TM</sup> formula calculates the structural capital from the difference between value added and human capital so that STVA has an inverse result compared to VAHU. In general, the first hypothesis (H<sub>1</sub>) is accepted, but only the capital employer component has a significant positive effect on the company's market value.

Based on the test results, it shows that most of the market or investor appreciates VACA or capital employed over the other two components. This may happen because the market or investors are more able to estimate something that has a form such as VACA which is

calculated through capital employed, while VAHU and STVA are difficult to estimate because they are based on elements that the value are difficult to estimate.

A negative STVA result in table 2 indicates that the companies still relies more in human capital. The VAIC<sup>TM</sup> formula show that STVA complement VAHU. The low value of STVA show that human capital is more used than structural capital. This result show that service industry in Indonesia relies on human capital more than structural capital as the value driver.

### **The Effect of Intellectual Capital Efficiency on Company's Financial Performance**

The effect of intellectual capital efficiency on the company's financial performance is described in tables 3 and 4. From the two models, it can be seen that VAHU, VACA, and STVA can explain ROE better than ROA. VAHU, VACA, and STVA have a significant effect on ROA. STVA again gets negative results as a result of the STVA calculation formula. From the results of the t-statistic test, it can be seen that human capital and capital employess have a significant effect on ROA. These results are supported by the results of research conducted by Chen et al. (2005) where the efficiency of intellectual capital affects the company's financial performance.

The results of the analysis from regression model 2 (table 3) are supported by resources-based theory where efficient resource management can create value which will increase the company's competitiveness. Increasing company competitiveness will result in increased company's financial performance. ROA reflects the return on assets owned by the company so that ROA is considered appropriate to measure the financial performance of the efficient use of intellectual capital.

The results of the analysis from regression model 2 (table 3) show that human capital and capital employed have more significant effect on financial performance than structural capital. The service industry use human capital and capital employed as the value driver to improve the financial performance.

The results of the analysis of regression model 3 (table 4) show similar results to the results of the analysis of regression model 1 (table 2) where VAHU shows an insignificant effect and STVA has a negative effect. In the analysis of the regression model 3 (table 4) VACA shows the results of a very large effect with a coefficient of 0.564. These results are supported by research by Firer and Williams (2003) where only VACA has a significant positive effect on company profitability. In general, the second hypothesis (H<sub>2</sub>) is accepted where all VAIC<sup>TM</sup> components have a significant effect on ROA and only VACA has a significant positive effect on ROE.

The test result show that VACA has the most significant effect on the profitability. Even on the service company, the capital employed has a role as the main value driver than the other two elements, human capital and structural capital. This shows that the greater the capital invested in the company, the financial performance will increase, regardless of the capital allocation.

### **The Effect of Company's Financial Performance on The Company's Market Value**

The effect of financial performance on the company's market value is described in the test result of regression 4 (table 5). The results of the analysis show that the company's financial performance has a significant effect on the company's market value. These results are supported by the results of research by Sunarsih and Mendra (2012) where the research

shows that in the intellectual capital research model, financial performance has a significant effect on the company's market value.

The results of the analysis from regression model 4 (table 5) are supported by stakeholder theory, in which explains that the company does not aim for its own interests. Companies are required to operate for the benefit of all stakeholders, including investors (Ghozali & Chariri, 2007). Therefore, if the company's financial performance increases, the market's perception of the company will also increase.

The results of the analysis in table 5 show that all financial performance indicators, namely ROA and ROE, have a significant positive effect on the company's market value. In the regression model, ROA has a greater effect than ROE with a higher level of confidence. Overall, the third hypothesis ( $H_3$ ) is accepted where the company's financial performance has a significant positive effect on the company's market value.

The test result from table 5 shows that the market or the investor estimate the value of company based on the financial performance of the company. The market will appreciate the company more if the company have a good financial performance, which has been shown in the test result.

#### Indirect Effect Test

The indirect effect test is conducted to examine the effect of the company's financial performance variables as a mediator between the efficiency of intellectual capital on the company's market value. The indirect effect test is carried out by using two testing methods, namely the sobel test to determine the significance level of the company's financial performance as an intervening variable and Variance Accounted For (VAF) to determine how much the company's financial performance variables can mediate the relationship between intellectual capital efficiency and the company's market value. Tests were carried out using WarpPLS 6.0 software and the sobel test calculator. The results of the sobel test and VAF test can be seen in sobel test result table and VAF test result table.

Based on the results of sobel test in table 6, it can be seen that the research model obtained a z-value of 5,222. This result is greater than the t-table value of 2.3360 at 387 degrees of freedom and at significance level of 0.01. This value indicates that the financial performance variable is able to significantly mediate the relationship between intellectual capital efficiency and the company's market value.

	Path	Coefficient	SE	z-value	t-table
Table 6. Sobel Test Result	IC Efficiency → Financial Performance	0.630	0.041	5.222	2.3360
	Financial Performance → Market Value	0.422	0.076		

	Path	Coefficient	VAF	Classification
Table 7. VAF Test Result	IC Efficiency → Financial Performance	0.630	91.09%	Full Mediation
	Financial Performance → Market Value	0.422		
	IC Efficiency → Market Value	0.024		

Based on the results of the VAF test result in table 7, it can be seen that the company's financial performance has a VAF value of 91.09%. This value indicates that the company's financial performance variable is able to absorb the effect of intellectual capital efficiency on the company's market value by 91.09%. Based on the classification of Hair et al., (2013), the company's financial performance variable is included in the full mediation group because its VAF value is greater than 80%.

### **Mediation by the Company's Financial Performance in the Effect of Intellectual Capital Efficiency on The Company's Market Value**

Based on the indirect effect test, it can be seen that the company's financial performance is significantly capable of being a mediator in the model of the relationship between intellectual capital efficiency and the company's market value. The company's financial performance is able to fully mediate the relationship. This shows that market value of the company is indirectly influenced by the efficiency of intellectual capital through the company's financial performance as the intermediary. These results are supported by the results of previous regression tests where the effect of intellectual capital efficiency on the company's market value is not as big and as significant as the effect of intellectual capital efficiency on the company's financial performance and the effect of the company's financial performance on the company's market value.

Resources-based theory explains how company's financial performance can be a mediator between the efficiency of intellectual capital and the company's market value. In resources-based theory, if company's resource, including intellectual capital, can be managed efficiently, then the value added can be created. Managing human capital efficiently and effectively through training, allowances and bonuses as well as managing structural capital efficiently and effectively through the creation of a company business system, management philosophy, and corporate culture can create and significantly increase value added for the company. The value added will increase the company's competitiveness which will increase the company's rate of return. The rate of return is a reflection of the company's financial performance. The market and investors will appreciate the increased competitiveness and rate of return of the company. Investors' perceptions of the company will be reflected in the company's market value.

The results of this study are supported by the results of research by Sunarsih and Mendra (2012) where the results of this study indicate that financial performance can act as an intervening variable in the research model that relates the efficiency of intellectual capital to the company's market value. Investors give good assessment for the increase of company's financial performance, while the company's financial performance improve as the result of efficient management of intellectual capital.

### **CONCLUSION**

Based on the results of the tests and analyzes that have been carried out, the conclusions are obtained as follows: 1) the efficiency of intellectual capital with the VACA component affects the market value of the company; 2) all components of intellectual capital efficiency affect the company's financial performance; 3) all components of the company's financial performance affect the company's market value; 4) the company's financial performance variable is able to significantly mediate the relationship between intellectual capital efficiency and the company's market value with the full mediation classification. This research provides results that can be used as a reference for companies' management to be

able to continue to improve the efficiency of the intellectual capital of the company so that the company's business can be going concern in the business world.

This study has several limitations. These limitations can be described as follows: 1) Indonesia is a developing country where physical capital has a greater appreciation in society than intangible assets or intellectual capital so that intellectual capital is assumed to have not reached its optimal impact; 2) lack of standardization of intellectual capital measurement or factors that affect intellectual capital measurement in financial statements in Indonesia.

In this study there are some shortcomings. Therefore, this study need for development and improvement that need to be carried out for subsequent studies, namely: 1) adding research samples from other countries other than Indonesia so that study results in Indonesia can be compared and to find out the impact of intellectual capital on the company's market value and financial performance comprehensively; 2) adding other indicators such as earnings per share and annual stock return as indicators of company's market value variables and financial performance.

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