# The effect of intellectual capital on financial performance of manufacturing companies listed in Indonesia Stock Exchange period 2007-2011

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#### ABSTRACT

The purpose of this study is to empirically examine the influence of intellectual capital proxied by human capital, structural capital, and physical capital which can affect the company's financial performances measured by return on equity (ROE), earning per share (EPS), and operational profit margin (OPM). The population of this research is companies listed in Indonesia Stock Exchange period 2007-2011 and meet the criteria for the samples in this study. The sample selection is using purposive sampling method and obtained 60 companies as the samples. The results are as follow: intellectual capital (VAICTM) significantly affects the financial performance of the return on equity (ROE) and operational profit margin (OPM) variables reinforced the company's modest size, while the intellectual capital (VAICTM) has no affect on earning per share (EPS).

#### 1. INTRODUCTION

Important information required by investors should be presented completely by a company. Growing company is no longer influenced by investment in physical forms, such as buildings, land, vehicles, machinery, and various forms of tangible assets owned by the company but rather than the knowledge that becomes the main key to success in the world of economy. Therefore, in creating value, the company focuses on the utilization of intangible assets, namely intellectual capital (IC) or knowledge capital (KC) which is inherent in skill, knowledge, and experience, as well as in organizational systems and procedures.

According to Hidayat (2004) in Santosa and Setiawan (2012), property owned by a state can conceptually divided into two major groups, namely tangible property and intangible property. Tangible or physical property includes cash, gold and precious metals, lands and forest, natural resources and mining, human resources, marine resources, physi-

cal infrastructure, property, and factories. While intangible or non-physical property includes ideology, constitution, culture, nationalism, work ethic, education, skill, health, competence, quality of human resources, competitiveness, discipline, productive culture, compliance with laws, methods of management, creativity, and innovation. In making decision, the investors consider not only the financial statements but also the intellectual capital (IC) of a company. Mouritsen (1998) in Purnomosidhi (2006) argues that intellectual capital is a matter of broad organizational knowledge and is unique to the company. It allows the company to continuously adapt to changing conditions.

Intellectual capital continues to grow in Indonesia as an important component in the creation of value added for the company. Value will be generated when the company is able to utilize its resources in order to create value added. Intellectual capital such as human capital, structural capital and relational capital is an important component in

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creating value added. Human capital includes abilities, skills, and knowledge. Structural capital is infrastructure owned by a company to meet market needs. Relational capital includes customer relations, customer loyalty, and customer service (Mouritsen 1998 in Purnomosidhi 2006).

The aim of this study is to examine the effect of intellectual capital proxied by human capital (VAHU), structural capital (STVA), and physical capital (VACA) on company's performance as measured by return on equity (ROE), earnings per share (EPS), and operational profit margin (OPM) with moderate variables of leverage and size.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

#### Stakeholder Theory

This research is related to the theory of interest, or it can be called stakeholder theory. This theory considers a lot the position of stakeholder that is considered to have the power (Wiradinata and Siregar 2011). These interest groups or stakeholders become the main consideration for the management to choose whether to disclose or not to disclose information presented in the financial statements.

According to Riahi-Belkaoui (2003) in Wiradinata and Siregar (2011), from the view point of stakeholder theory, the company also has stakeholders, not just shareholders, and the "stake" includes shareholders, employees, customers, suppliers, creditors, government and society. This theory shows relationship between the company's management and stakeholders. Company's management is responsible for carrying out activities that provide benefits for stakeholders and report such activities to stakeholders.

#### **Resource-Based Theory**

Resource-Based Theory (RBT) is a thought developing in the theory of strategic management and company's competitive advantage which believes that companies will achieve excellence if they have superior resources (Solikhah and Rohman 2010).

Resources-Based Theory discusses how a company can manage and utilize its resources. A company can achieve competitive advantage if the company can manage and utilize its resources well. This theory regards the company as a collection of physical assets and intangible assets as well as the company's ability to acquire, manage, and maintain its resources. In this case, if all of the company's resources such as employees (human capital), physical assets, and structural capital are managed and maximized properly, they can generate value

added for the company that finally can affect the company's financial performance.

#### **Intellectual Capital**

The definition of intellectual capital according to Stewart (1997:1) in Suhendah (2012) is a resource in a form of knowledge available to company that produces high-value assets and economic benefits in the future for the company. Intellectual capital is a knowledge supported by an information process that aims to establish relationship with outsiders of the company.

Intellectual capital can also be referred to as intellectual property, intellectual assets and knowledge assets. But there are different concepts in these terms. Intellectual capital is considered as knowledge with potential value. When it is asserted that there is possession of such knowledge, then the knowledge becomes intellectual property that has a measurable value, depending on its use. Knowledge has a certain value and specific use for a particular purpose. Thus, knowledge becomes the intellectual property for its owner. Intellectual capital shows that knowledge is transformed into valuable assets for the company, while the intellectual asset or knowledge asset is an exchange form for the knowledge transformation products.

#### **Components of Intellectual Capital**

According to Hubert Saint-Onge (Stewart 1997) in Santosa and Setiawan (2004) from *Canadian imperial bank of commerce and leifedvinsson from Skandia,* intellectual capital can be divided into three parts, they are:

#### 1. Human Capital

Human Capital is the skills and competency of employees in producing goods and services, as well as the ability to relate well with customers who are able to create wealth or benefit and the value added for the company.

#### 2. Structural Capital

Structural Capital is infrastructures owned by a company to meet the needs of the market, such as company's operational systems, manufacturing processes, organizational culture, management philosophy and all forms of intellectual property of the company

#### 3. Customer Capital

Customer capital is the organizational relationship with the people who do business with the organization. These customers will always keep doing business with the company. Customer capital appears in the form of learning process, access, and trust.

#### Value Added Intellectual Capital (VAICTM)

This mothod, developed by Pulic, provides information about value creation efficiency of company's tangible and intangible assets.

The major component of VAIC<sup>TM</sup> can be seen from the company's resources, namely human capital (VAHU – value added human capital), structural capital (STVA – structural capital value added), dan physical capital (VACA – value added capital employed).

- 1. Value Added Human Capital (VAHU) is the capital associated with the company's human resource development, such as competence, commitment and motivation.
- 2. Structural Capital Value Added (STVA) is an organization's or company's ability to meet the company's routine processes and structures that support employee efforts to produce optimum intellectual performance and overall business performance.
- 3. Value Added Capital Employed (VACA) is an indicator in VAICTM to measure the value added created by the use of physical capital. Physical capital is the capital of the company in the form of financial funds and physical assets that are used to aid the creation of value-added of the company.

#### Size

The larger the company, the higher the demand for the delivery of information compared to smaller company. By revealing a more varied range of information, the company is trying to imply that the company has been applying good corporate governance. Increased disclosure will reduce the asymmetry of information in circulation.

Purnomosidhi (2005) in Istanti (2009) stated that the size of the company is used as independent variables with the assumption that the larger companies do a lot more activities and usually have business units as well as potential long-term value creation. Large companies are more often supervised by a group of interested stakeholders on how the management manages the company's intellectual capital, such as employees, customers and workers' organizations.

#### Leverage

Leverage is a measure of the amount of assets financed with debt. The debt used to finance assets is from creditors, not from shareholders or investors. According to Jensen and Meckling (1976) in Istanti (2009) there is a potential for transferring wealth from the debtholder to shareholders and managers in companies that have a very high level of debt

dependency, giving rise to high agency costs. Companies that have high debt in their capital structure will bear greater agency costs than firms that have a smaller proportion of debt.

#### **Return on Equity (ROE)**

Return on equity (ROE) is a measure of income available to owners of the company, both common shareholders and preferred shareholders on the capital that they invested in the company. In general, the higher the rate of return on income earned the better the position of the owner of the company. The return on capital itself produces net profits for investors.

#### Earning Per Share (EPS)

Earning per share of a company is the amount of net income that is ready to be distributed to all shareholders of the company. The amount of company's EPS can be known through the company's financial statement information. The comparison between the amount of earnings (net income distributed to shareholders) and the number of shares of the company is acquired components of Earnings Per Share (EPS). Although some companies do not include the amount of concerned company's EPS in the financial statements, the amount of a company's EPS can be calculated based on information in the balance sheet and the income statement of the company.

#### Operational Profit Margin (OPM)

The resulting figures show how much percentage of revenue generated from each sale. The bigger the profit margin generated, the better the outcome achived. It shows that the ability of a company to make profit is quite high. Large profit margin also shows a high company's performance. Related to intellectual capital, it shows how much the ability and the knowledge of employees in delivering innovation to the company in order to achieve the desired profit.

#### Hypothesis

If human capital can be developed, such as holding employee training, the resulting performance is also getting better. This relates to the company's ability to generate profits. High profits can attract investors to invest in the shares of the company.

A company that has a clear structural capital will always grow and thrive. This intellectual capital component adds value to the company because the factors owned can support the employees' efforts to increase the corporate profits.

Research Framework

Intelectual Capital
1. Human Capital
(VAHU)
2. Structural Capital
(STVA)
3. Physical Capital
(VACA)

Operational Profit Margin
(OPM)

Leverage

If the physical capital owned by the company can be managed optimally by intellectual capital, the value added for the company will grow, In this way, the company's ability to restore shareholders' investments is also getting better.

H1: Human Capital, Structural Capital, and Physical Capital affect *Return On Equity*.

Human capital of a company will increase along with the creative innovations produced. The greater the human capital of the company, the more varied products generated. This leads to high sales which in turn can attract potential investors to invest in the company.

Structural capital (STVA) can be a positive effect on earnings per share of a company, because by the presence of structural capital, the company can support employee's efforts in optimizing overall business performance, for example in the process of manufacturing company's operational systems.

Physical capital in the intellectual capital can be positive influence on earnings per share of the company. If the company is able to maximize the physical assets owned, the profits of the company will also increase, which is accompanied by efforts of pressing the corporate spending. It is favored by investors, because they believe that the company which has high profit will be able to share the net profits to all shareholders.

H<sub>2</sub>: Human Capital, Structural Capital, and Physical Capital affect *Earning Per Share*.

Human capital can be a positive effect on profit margins, because new innovations owned by human capital of the company can increase sales. High sales will generate higher profits as well. If the profit shown is high, its performance is also high. It can be seen from the company's profit margin.

Structural capital (STVA) is the entire knowledge of the company in addition to knowledge of the organization, such as the company's corporate

strategy and routines. Companies that have a mature strategy in achieving the company's goal are those that can increase sales profits. This can be seen on large profit margins in the company's financial statements. The existence of structural capital has a positive effect on the company's profit margin.

Physical capital (VACA) is the capital of the company in the form of physical assets and corporate finance funds. Physical capital has a positive influence on the profit margin generated by the company. If the physical asset is utilized optimally, it will have an effect on the profit generated. The higher the sales achieved, the greater the profit gained. Profits from these sales may reflect the company's ability to achieve the maximum profit shown on the company's profit margin.

H<sub>3</sub>: Human Capital, Structural Capital, and Physical Capital afffect *Operational Profit Margin*.

The research framework is shown in Figure 1.

### 3. RESEARCH METHOD

#### Reseach Design

This research is quantitative research. This research design used secondary data by utilizing financial statement data objects. The financial statements used are financial statements of companies listed in Indonesia Stock Exchange period 2007-2011 which publish annual reports in a row.

Testing data is done using SPSS to perform descriptive test, classical assumptions, and hypothesis testing of multiple linear regressions.

#### Variable Identification

Variables in this research are:

1. Independent Variable

Independent variable is the intellectual capital which is proxied with human capital, structural capital, and physical capital.

#### 2. Dependent Variable

Dependent variable is the financial performance which is measured using return on equity (ROE), earning per share (EPS), and operational profit margin (OPM).

3. Moderate Variable

Moderate variable is company size and leverage.

## Operational Definition and Measurement of Variable

The variable used in this study is intellectual capital proxied by physical capital value added (VACA), value added human capital (VAHU), and value-added structural capital (STVA). The proxy is using the calculation developed by Pulic (1998; 1999; 2000) in Ulum, Ghozali, and Chariri (2008).

The calculation formula of VAIC<sup>TM</sup> consists of several stages, such as:

a. Value added (VA), it is the different between output and input.

$$VA = OUT - IN.$$
 (1)

**Explanation:** 

Output (OUT): Total revenue and other income Input (IN): burden and expensesbeban (other than employee costs)

b. Value added human capital (VAHU) is the capital associated with the use of human resources within the company. This variable can be calculated using value added divided by (/) human capital. The measurement scale used is the ratio with the formula:

$$VAHU = \frac{VA}{HC} \,. \tag{2}$$

**Explanation:** 

Value Added (VA): difference between *output* and *input* 

Human Capital (HC): employee costs.

c. Value added structural capital (STVA) measures number of SC required to produce 1 rupiah from VA and an indication of the success of SC in creating valu. The measurement scale used is the ratio with the formula:

$$STVA = \frac{SC}{VA}. (3)$$

Explanation:

Structural Capital (SC): The difference between value added (VA) and human capital (HC)

Value Added (VA): The difference between output dan input

d. Value added capital employed (VACA) – Ratio from VA to CE. This ratio shows contribution made by every unit of CE on value added of organization. The measurement skale used is ratio with the for-

mula:

$$VACA = \frac{VA}{CE} \,. \tag{4}$$

**Explanation:** 

Value Added (VA): The difference between output and input

Capital Employed (CE) : Avalaible Fund (equity) e. Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) indicates intellectual ability of organization VAIC<sup>TM</sup> which is calculated using the following formula.

VAIC=VAHU+STVA+VACA (5)

f. Company's Financial Performance is dependent variable which can be measured with return on equity, earning per share and profit margin. The variable can be calculated using the following formula.

Return on equity (ROE) is used to measure company's ability in generating profit based on certain share capital. The measurement scale can be calculated with the ratio:

$$ROE = \frac{\text{NetProfit}}{\text{CapitalBase}}$$
 (6)

Earning per share (EPS) is used to determine the profit to be distributed to the shareholders. This variable can be calculated using measurement scale with the ratio:

$$ROE = \frac{\text{NetProfit}}{\text{NumberofShareOutstanding}}$$
 (7)

Operasional profit margin (OPM) of revenue generated from each sale. The profit margin can be calculated as follows operational profit divided by (/) the sale. Scale measurements of this variable can be calculated with the ratio:

$$OPM = \frac{\text{OperationalProfit}}{\text{Sale}} \tag{8}$$

g. Size is used to measure the effect of the size of wealth creation through economic scale, monopoly, and bargaining power.

h. Leverage indicates the proportion of the use of debt to finance the company's investment. The higher the leverage rate, the higher the dependence of the company to debt, and the risk faced is getting greater. In this case, the investor will ask the higher level of benefits. In this study, the equation used to calculate the leverage is as follows:

$$Levit = \frac{\text{Company'sTotalDebt}}{\text{TotalAssets}}$$
 (9)

## Population, Sample, and Sampling Technique

The population of this study is companies registered in Indonesia Stock Exchange (BEI) in 2007-2011. The samples used are manufacturing compa-

	Model		Beta		Sig.
VAICTM				593	.044
Leverage				-0,006	.924
Size				.870	.003
	Model		F		Sig.
Regression				9.04	.000
	R		R Square		Adjusted R Square
		.315	_	.099	.088

Table 1
Result of Multiple Linear Regression Analysis (First Hypothesis)

- a. Predictors:(Constant), size, leverage, VAIC (VAHU, STVA, VACA)
- b. DEPENDENT variable: ROE

nies that publish annual reports from 2007 to 2011. This research sampling technique is to use the method of purposive judgment sampling, the sampling technique that uses specific considerations and limitations, so that the samples chosen are relevant to the research objectives. Criteria for the study samples taken are as follows:

- 1. The companies analyzed are only manufacturing sector companies listed in Indonesia Stock Exchange from 2007 to 2011.
- 2. The companies established as the sample of this study are companies which are still listing during the sudy period.
- 3. The companies studied do not experience losses and thier balance sheets do not show negative wealth.
  4. The companies studied are manufacturing companies that have annual reports ended on December 31, and using rupiah as currency report.

This study uses secondary data sources consisting of company's financial data derived from the annual financial statements of the manufacturing company period 2007-2011 were downloaded from the website of Indonesia Stock Exchange (http://www.jsx.co.id)

#### 4. DATA ANALYSIS AND DISCUSSION Classic Assumption Test Data Normality Test

From normality test results above it can be seen that the normal graph plots show near-normal pattern in which the plot spreads above and below the line and close to the diagonal line. Kolmogorov-Smirnov test values also indicate significance above 0:05 or 5% in the amount of 0.294 or 29.4%, so it can be concluded that the data observed are distributed normally, and therefore, regression models can be used in this study.

#### Hypothesis Testing Result Multiple Linear Regression Analysis of Dependent Variable: *Return On Equity* (ROE)

In the first hypothesis, it is predicted that intellec-

tual capital proxied by human capital (VAHU), structural capital (STVA), and physical capital (VACA) affect financial performance, i.e. return on equity (ROE). The prediction in this hypothesis is accepted if the coefficient  $\alpha$  has a value of less than 0.05 or 5%. As seen in the table, coefficient with the value less than  $\alpha = 0.05$  or 5% i.e. variable of VAICTM and moderate 2 or size, while for moderate 1 or leverage demonstrates the value of  $\alpha$  is more than 0.05 or more than 5% i.e. 0.924 or 92, 4%. It can be concluded that VAICTM has effect on financial performance, i.e. return on equity strengthened by the existance of moderate variable, i.e. size. Table 1 shows that F value significance level VAICTM 0,000 less than 0,05, so that it can be concluded that research model fits the data

From the test result (Table 1), the amount of Adjusted R Square is 0.088 or 8.8 percent. This shows that the 8.8% of ROE variable can be explained by independent variable, i.e. VAICTM. This is the sum of human capital, structural capital, and physical capital. The rest 91.2% is explained by other factors outside the model.

The first hypothesis testing in this study is to test whether human capital, structural capital, and physical capital affect Return on Equity. The result shows that t = -2.020 with a significance level of 0.044 which is less than  $\alpha = 0.05$ , so the first hypothesis does not reject Ha1. It can be concluded that human capital, structural capital, and physical capital added to VAIC<sup>TM</sup> affect ROE (*return on equity*).

## Multiple Linear Regression Analysis of Dependent Variable: Earning Per Share (EPS)

Equation result in Table 2 shows that intellectual capital represented by VAIC<sup>TM</sup> has negative coeficient velue of -0.444, while moderate variable measured using *leverage* also has negative value of -0.13 and the company size has positive coefficient value of .614. It indicates that the value of intellectual capital is weakened by the existence of moder-

	Result of Waltiple Linear Regression Milarysis (Second Try pointesis)					
	Model		Beta		Sig.	
VAICTM				444	.144	
Leverage				013	.838	
Size				.614	.044	
	Model		F		Sig.	
Regression				3.49	.016	
<u> </u>	R		R Square		Adjusted R Square	
		.202	-	.041	.029	

Table 2
Result of Multiple Linear Regression Analysis (Second Hypothesis)

- a. Predictors:(Constant), size, leverage, VAIC(VAHU, STVA, VACA)
- b. Dependent Variable: ROE

Table 3
Result of Multiple Linear Regression Analysis (Third Hypothesis)

	Model		Beta		Sig.
VAICTM				913	.002
Leverage				002	.980
Size				1.07	.000
	Model		F		Sig.
Regression				6.16	.000
<u> </u>	R		R Square		Adjusted R Square
		.264	-	.070	.059

- a. Predictors:(Constant), size, leverage, VAIC(VAHUSTVAVACA)
- b. Dependent Variable: OPM

ate variable, i.e. leverage and in contrast, the size succeeds to strengthen independent variable of  $VAIC^{TM}$ .

The test result shows that the significance value of F test is 0.016 which is smaller than 0.05. It can be concluded that the research model fits the data. The test result in Table 2 shows that the amount of Adjusted R Square is 0.029 or 2.9 percent. This indicates that 2.9% EPS variables can not be explained by the independent variable of intellectual capital and moderate 1 variable i.e. leverage. The rest 97.1% is explained by other factors outside the model.

The second hypothesis testing in this study is to test whether human capital, structural capital, and physical capital affect earnings per share. The result shows that the t value is -1.467 with the significance level of 0.144 which is greater than  $\alpha$  = 0.05, thus the first hypothesis Ha2 does not succeed to reject Ha2. It can be concluded that the intellectual capital such as human capital, structural capital, and physical capital can not affect the financial performance which is calculated by earnings per share.

## Multiple Linear Regression Analysis of Dependent Variable: Operational Profit Margin (OPM)

From the result above, it can be seen that the intellectual capital represented by VAICTM has nega-

tive coefficient value of -0913, while moderate variable, which is measured with leverage, has negative coefficient value of -0002 and the company size has positive coefficient value of 1.07. This indicates that the value of intellectual capital is weakened by the presence of moderate1 variable ie leverage and strengthened by company size that has a positive coefficient.

Table 3 shows that F value has a significance of 0.000 which is smaller than 0.05, so it can be concluded that the research model fits the data. From the test result above, the amount of Adjusted R Square is 0.059 or 5.9%. This indicates that 5.9% of OPM variable can be explained by intellectual capital variable which is obtained from human capital, structural capital, and physical capital, in which of the third are represented by VAICTM calculations and moderate variable ie leverage and firm size. The rest of 94.1% is explained by other factors outside the model.

The third hypothesis testing in this study is to test whether human capital, structural capital, and physical capital affect the operational profit margin. The result shows that t value is -3.060 with a significance level of 0.002 which is smaller than  $\alpha$  = 0.05 level, thus the third hypothesis does not succeed to reject Ha1. It can be concluded that human capital, structural capital, and physical capital affect the operational profit margin.

#### Discussion

The result of multiple regression analysis reveals that the intellectual capital generated by VAICTM can affect financial performance as measured by return on equity jointly and significantly. And it is strengthened by the presence of moderate variable and size. Thi result also supports the previous research conducted Wiradinata and Siregar (2011) which states that intellectual capital has positive influence on the financial performance as measured using return on equity (ROE).

This result indicates that the value added of intellectual capital can affect the existence of a return on equity in the company. Companies, that have good intellectual capital, will be able to generate good profits based on certain equity for stakeholders. This proof successfully supports stakeholder theory, which states that all stakeholders in the company are trying to maximize their welfare by playing their role as a control over the management of the company's resources.

The existence of company size is also influential, because if the size of the company is assessed throuh the assets owned, then the company gets good value from the local community and society at large, including inevstor.

The second hypothesis testing result shows that the acquisition of the independent variables VAICTM generated by human capital, structural capital, and physical capital on t value does not show significance, therefore it can be concluded that VAICTM does not affect financial performance ie earnings per share (EPS). The existence of moderate variable ie leverage can not strengthen the independent variable. In contrast, the moderat2 variable ie size can significantly strengthen VAICTM. The result of this study also support previous research by Wiradinata and Siregar (2011) that intellectual capital with VAICTM calculation can not affect the company's financial performance as measured by earnings per share (EPS).

It implies that intellectual capital can not be used to measure the condition and the growth of the company associated with the rate of return on capital for each one sheet of share, so that the tangible and intangible assets owned by companies such as intellectual capital does not function effectively and efficiently.

The test result of the third hypothesis shows that VAIC $^{\text{TM}}$  indicates significant t value, so it can be concluded that intellectual capital which is measured using human capital, structural capital , and physical capital generated by VAIC $^{\text{TM}}$  can affect the company's financial performance which is

measured using the operational profit margin (OPM). As for the moderate variable ie leverage can not strengthen the independent variable, while the company size can strengthen and affect operational profit margin (OPM) with significance level which is less than  $\alpha$  = 0.05. Intellectual capital can affect the company's financial performance through operational profit margin (OPM), since if the intellectual capital can give good contribution, the three components of intellectual capital can maximize profits from each sale so as to be able to maximize the net income of the company as well. The higher the value of the intellectual capital of the company, the better the company's financial performance achieved.

Size is a variation that is always explained in the financial statements of the company, in its balance sheet. The size of the company can be judged from the total assets owned. Companies that have a large total asset and included in a large companies will reveal a lot of information compared to companies that have a bit of total assets. When linked, the result of this research shows that size has significant level that is smaller than  $\alpha$  = 0.05. So the size of the company can affect company's financial performance as measured by operational profit margin (OPM). It can be concluded that the large size of the company can increase sale of its production and, in turn, will increase revenue for the company's operations so as to increase the assets of the company.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the test result and discussion as presented previously, the researcher concludes that:

First, the study variables such as human capital, structural capital, and physical capital generated into VAICTM at the time of the F test is carried out, it can be concluded that independent variable of VAICTM simultaneously and significantly affects return on equity (ROE) and operational profit margin (OPM), while for the independent variable of VAICTM does not significantly affects dependent variable ie earnings per share (EPS).

Second, the test on the coefficient of determination VAICTM is able to explain the model well when tested with return on equity (ROE) and operational profit margin (OPM), whereas for testing VAICTM to earnings per share (EPS), result is not able to explain the model.

Third, based on the t test, the research variable of intellectual capital resulted from VAIC<sup>TM</sup> has different result, where the sum of human capital,

structural capital, and physical capital simultaneously and significantly affect the return on equity (ROE) with moderate variable of size that strengthen and leverage that weaken. This resultss indicates that the presence of intellectual capital such as human capital, structural capital, and physical capital can be a positive influence on company's financial performance. And with the size also helps predict the company's intellectual capital.

Fourth, testing VAICTM to earnings per share (EPS) indicates that intellectual capital does not affect positively and significantly. This means that the intellectual capital does not have good effect on the financial performance as measured by earnings per share (EPS), ie the profit generated by company and will be distributed to shareholders. The moderate variable of leverage does not affect significantly, and therefore can not strengthen the independent variable of VAICTM to earnings per share (EPS).

Fifth, the result showed in the statistics output reveals that in the t test of VAIC<sup>TM</sup> to operational profit margin affects simultaneously and significantly. Moderat1 variable of leverage does not affect significantly, influence but the company size significantly affect financial performance as measured by operational profit margin (OPM).

Sixth, the result of calculation of multiple linear regression analysis, the testing of VAICTM to return on equity (ROE), earnings per share (EPS), and operational profit margin (OPM) does not simultaneously show positive effect. But only the dependent variable of ROE and OPM that may be affected by the independent variable of VAICTM and able to demonstrate a significance level of 0.000. Moreover VAICTM can not affect other financial performance of EPS because the significance level is greater than  $\alpha = 0.05$ .

For the future research, it is advised to add more because the current study is limited to only 3 dependent variables: return on equity (ROE), earnings per share (EPS), and operational profit margin (OPM)

The implication of the result of this research is important in the business world. By using knowledge-based resources, the company can figure out how to use and manage resources efficiently and economically as a major factor in maintaining sustainable competitive advantage.

This study still has some limitations in both the sampling and the methodology used. The limitations include 1) the limited number of population because many companies in the manufacturing sector are not fixed or listing on the Indonesia Stock Exchange, 2) the calculation of the value added is less clear, so there should be separation between other expenses to calculate inputs in the value added by calculating the employee expenses.

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