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# THE INFLUENCE OF INTELLECTUAL MODELS ON CORPORATE VALUES WITH FINANCIAL PERFORMANCE AS INTERVENING VARIABLES

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# ARTICLE INFO

# ABSTRACT

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Keywords: Intellectual Capital Financial Performance Firm Value This study attempts to analyse the influence of intellectual capital on firm value with financial performance as an intervening variable. This research was conducted on manufacturing sector companies listed on the Indonesia Stock Exchange in the period of 2016-2018. This study uses purposive sampling with a total sample of 46 companies. Analysis of the data used is path analysis. The results of this study indicate that Value Added Employed Capital (VACA) and Structural Capital Value Added (STVA) support financial performance, Value Added Human Capital (VAHU) does not support financial performance, The Value Added Capital Employed (VACA) does not affect with the value of the company, the Value Added Human Capital (VAHU) and the Structural Capital Value Added (STVA) affect the value of the company. Financial performance mediates the relationship between intellectual capital and firm value.

# **1. INTRODUCTION**

One of the ways companies in maintaining their existence in the capital market is through increased company value. The company's value is an investor's view of the company often associated with the stock price. The higher the stock price, the higher the value of the company. The increasing value of the company is an achievement of the company in order to fulfilling the interests of stakeholders.

The value of the company can be measured with Price to Book Value (PBV). PBV is the ratio of the stock price comparison to the book value. PBV are widely used to assess the company because the value of the book is a rational measure to assess the company. Based on the financial reports listed on the Indosesia Stock Exchange, it is known that several manufacturing sector companies have a PBV ratio over the last 3 years (2016-2018) which is quite high among companies in other sectors and it is accumulating from it's high stock price as well.

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Some manufacturing companies have high PBV ratios that are Unilever Indonesia (UNVR), Multi Bintang Indonesia (MLBI), and H. M Sampoerna (HMSP) indicated by the table below (<u>https://www.idx.co.id/</u>).

No	Year	Company Code	PBV Ratio	Stock Price
	2016		62.93	38,800
1	2017	UNVR	82.44	55,900
	2018	-	45.71	45,400
	2016		30.17	11,750
2	2017	MLBI	27.06	13,675
	2018	-	28.87	16,000
	2016		13.04	3,830
3	2017	HMSP	16.13	4,730
	2018	-	12.2	3,710

Summary of PBV Ratio and Stock Price

The rapid economic growth is characterized by advances in the field of information technology, intense competition, and extraordinary growth resulting in many companies changing the way its business in determining competing strategies (Kurniasari, 2015). The company realizes that tangible assets can not maximize competitive ability. The company is now beginning to pay attention to knowledge assets as one of intangible assets. The company is required to change it's business pattern from traditional based on labor based business to knowledge based business. In resource based theory, companies with the ability to use effective and efficient resources in managing intellectual capital can create value for the company (Castrena & Isynuwardhana, 2014).

One of the approach and measurement of knowledge based business is intellectual capital that has been focused attention in various fields, both management, information technology, and sociology (Petty & Guthrie, 2000). Intellectual Capital (IC) is a knowledge owned by the company in the form of skills, innovation, information systems, management of organizations and resources owned in creating corporate productivity. The appreciation of the company's share of investors is believed to be caused by corporate intellectual capital (Sunarsih and Mendra, 2012). Therefore, by increasing the IC will drive the company's market value. A company is also said to have a good value if it's financial performance is also good. Based on previous research, intellectual capital can influence the value of the company by using financial performance as a intervening variable. Financial performance is an overview of the company's financial condition. Return On Asset (ROA) is one of the ratio calculations in financial performance, where ROA reflects how the company generates income or profits from its asset utilization.

Wernerfelt (1984), resource based theory is a theory whereby companies will excel in business competition and gain good financial performance by owning, mastering, and utilizing tangible assets as well as intangible assets. The assumption of this theory is how companies get added value by managing the resources it possesses in accordance with the company's capabilities. With increased added value for the company will be positively responded by both stakeholders and investors and influence the value of the company.

### 2. LITERATURE REVIEW

In the context of intellectual capital, the creation of value is to utilize all potential assets of the company (human capital, customer capital and structural capital). Good and maximal management of all these potentials will create value added for the company to encourage the company's financial performance which is the orientation of stakeholders in the intervention of management (Ulum, 2017:37).

Sunarsih & Mendra (2012), intellectual capital can play an important role in increasing the value of the company and financial performance. Companies that are able to utilize their intellectual capital efficiently, the market value will increase. The company's value in this study was measured using Price to Book Value (PBV). The PBV ratio is a comparison between the stock market price and the book value per share. The stock market price used is the price based on the closing price at the end of the company's reporting year. The higher the PBV ratio shows that markets are increasingly trusting in the company's current performance and future prospects.

In the era of global competition, intellectual capital will be the main advantage of the company. Intellectual Capital (IC) is a part of the company's knowledge assets, which is one of intangible assets. Intellectual Capital is a knowledge-based corporate resource that can create added value for the company. The intellectual capacity of the company will increase investor confidence, so that it can impact the company's value increase (Nuryaman, 2015). Intellectual Capital includes all the knowledge of employees of the organization and their ability to create added value and lead to a sustained competitive advantage. Knowledge helps companies increase the sales of their products and services in conducting activities more efficiently. However, corporate myority does not understand and manage its knowledge. Intellectual Capital or intangible assets such as skills, reputations of companies and products as well as databases contribute to the success of the company (Ulum, 2017:6).

The experts of capital intellectuals divide the intellectual capital into three dimensions: (1) customer (physical) capital, (2) human capital, and (3) structural capital. Customer capital is a knowledge of organizational relationships (internal and external relationships: employees, customers, consumers, suppliers, creditors, governments and other parties) to maintain corporate sustainability (Nuryaman, 2015). Human Capital is an intangible asset owned by the company in the form of competence, capability, creativity, loyalty and innovation owned by its employees. Quality of human capital can increase if the company provides facilities such as training or learning programs. Structural Capital is capital innovation, an organizational innovation to create new products and services and capital processes, namely engineering, systems, processes, and equipment owned by the company. The intellectual capital measurements used in this study were the VAIC<sup>TM</sup> measurements of Pulic (1998). The data used in VAIC<sup>TM</sup> measurements are based on data that can be found in the audited company's financial statements and are objective and reliable.

# Value Added Intellectual Coefficient (VAIC<sup>™</sup>)

The value added intellectual coefficient (VAIC<sup>™</sup>) method was developed by Pulic in 1998, designed to provide information on the efficiency of the value creation of tangible assets and intangible assets owned by the company. This Model to create value added for the company. Value added is the most objective indicator for assessing business success and demonstrating the company's ability to value creation (Sidibya & Restuti, 2014).

The Value added is calculated as the difference between output and input. Outputs represent revenue/sales (covering all products and services sold in the market) and other revenues. Other revenues include all revenues resulting from non-operating activities such

as income from securities investments, interest income, and the profit on the sale of fixed assets (Murhadi, 2018:37). Inputs cover all the loads used in obtaining revenue except employee burden. Employee expense is not included in the IN (input) because its role in the process of creating values and intellectual potential (represented by employee load) is not counted as cost (Ulum, 2008). The VAIC<sup>TM</sup> method measures the efficiency of three types of corporate inputs namely capital employed (VACA), Human capital (VAHU), Structural Capital (STVA) (Baroroh, 2013).

Employees' expenses or employee benefits are governed by PSAK 24. Employee benefits are terms of payment of severance issued by an entity or company to a worker who is tied to the exchange of services and wages. Employee benefits apply to employers include short-term employee benefits (such as salary, bonuses, reward leave), severance, post-employment rewards (such as: Pension, Old liver support), and other long-term employee benefits (such as: long-lasting reward leave, permanent record reward).

### Value Added Capital Employed (VACA)

Capital employed is an intellectual capital component that provides real value that is knowledge of marketing channels and customer relationships. Capital employed is a good relationship that is owned by the company with its partners, both from suppliers and Customers (Subkhan & Citraningrum, 2012). The VAIC<sup>TM</sup> Model creates value added for the company. The relationship of VA and capital employed (CE), in this study is called VACA. VACA is an indicator for value added created by one unit of physical capital (customer capital). Pulic assumes that if 1 unit of the capital employed (CE) generates a return greater than the other company, it means that the company is better at utilizing CE (the available funds) (Sunarsih & Mendra, 2012).

### Value Added Human Capital (VAHU)

Human Capital is the site of very useful knowledge, skills, and competence in an organization or company (Yuskar & Novita, 2013). Human Capital describes information relating to employees and managers such as productivity, added value and experience, training and education policies (Simanungkalit, 2015). VAHU shows how much value added can be generated with the funds spent on Labor. The relationship between value-added and human capital indicates the ability of human capital to create value within the company. This ratio shows the contribution made by each of the rupiah invested in human capital (HC) to the value added of the Organization (Sidibya & Restuti, 2014).

# Structural Capital Value Added (STVA)

Structural Capital is the company's ability to fulfill the company's routine process and its structure that supports employees ' efforts to produce optimum overall business performance, for example: Corporate operational system, manufacturing process, organizational culture, management philosophy and all forms of intellectual property owned by the company (Fariana, 2014). Structural Capital arises from the company's processes and values, reflecting the company's external and internal focus, as well as renewal and development of future value (Yuskar & Novita, 2013). STVA) is the ability of companies with intellectual capital derived from other than human (structural capital) that can fulfill the production process that supports employees to produce optimal performance (Sawarjuwono & Kadir, 2003). STVA which demonstrates the contribution of structural Capital (SC) in the creation of value. STVA measures the amount of structural capital required to produce 1 Rupiah of VA/Added value (Sunarsih & Mendra, 2012).

#### **Financial performance**

The success of a company can be seen from its financial performance. Performance measurements are required as information for both internal and external companies to make

decisions. Financial performance is an overview or benchmark of companies in managing resources owned by improving resource quality.

There are several ways of analyzing the financial performance, namely by liquidity ratio, profitability, asset management, debt management, and market Value (Murhadi, 2018:56). The financial performance in this study is Return On Asset (ROA). ROA is the ratio of profitability describing the fundamental performance of the company. Return On Asset (ROA) is one of the ratio calculations in financial performance, where ROA reflects how the company generates income or profits from its asset utilization. As the financial performance increases, the market will provide a positive market response, causing the company's value to rise. The higher the value of ROA, the more efficient the company in managing its assets both physical and non-physical (Putri & Purwanto, 2013).

In this research, financial performance serves as a intervening variable to determine how much financial performance is between the intellectual capital influence and the value of the company. In other words, dependent variables are not directly influenced by independent variables because of a intervening variable. Company values as dependent variables do not directly change with the presence of intellectual capital, but the influence or change of value is achieved through financial performance as a variable intervening (Yuskar & Novita, 2013).

Hadiwijaya & Rohman (2013), examines the influence of intellectual capital on the value of companies with financial performance as intervening variables. The results showed that intellectual capital has an effect on financial performance, but intellectual capital has no effect on the value of the company. This indicates that with a high VAIC<sup>™</sup> value will drive the company to improve the company's performance which is better believed to increase the value of the company.

Castrena & Isynuwardhana (2014), also researched under the title "Intellectual Capital to The Value of Companies with Financial Performance as Intervening Variables" on pharmaceutical companies on the Indonesia Stock Exchange 2010-2012. The results showed that intellectual capital affects the financial performance proxied by ROA, intellectual capital has no effect on the value of the company, so the conclusion is that intellectual capital has an indirect effect on the value of the company through ROA as an intervening variable in pharmaceutical companies listed on the Indonesia Stock Exchange for the period 2010-2012. The results of this study indicate that the better IC is managed and used properly, it is believed to increase the productivity of the company.

As for (Nuryaman, 2015) conducting research on intellectual capital relationship to the value of the company through the company's performance in manufacturing companies on the Idonesia Stock Exchange. The study used three basic measures of the company's performance, namely profitability (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). The results of the study show that intellectual capital has no influence on ROA and NPM, intellectual capital has an influence on ROE, and has an influence on the value of the company through ROE.

#### Intellectual Capital's Relationship with Financial Performance

Intellectual capital will affect financial performance. Companies that have human capital with high capability, competence, and commitment will increase the profuktifitas and efficiency of the company's activities, so this will increase the company in generating profit, Structural capital reflects the system, organizational structure, and organizational culture in meeting market demand and achieving its goals (Nuryaman, 2015). The company's ability to make a profit through the use of its total assets will increase, if the company is able to maximize the performance of its IC. The results of the analysis indicate that the more efficient and effective the company in managing intellectual capital, it will provide improvement in the company's financial performance (Septiana, 2018).

#### Intellectual Capital's Relationship with Corporate Values

Good management of the intellectual empowerment of the company will increase the value of the company. If the three components of intellectual capital can be used and managed properly, make intellectual capital as the advantage of the company (Nuryaman, 2015). Previous research has proven that intellectual capital affects the value of companies as measured by the share price. Previous research (Nuryaman, 2015; Sidibya & Restuti, 2014) which concluded intellectual capital had an influence on the value of the company. This study indicate that a company's market appreciation is based not only on the physical resources owned but also the intellectual capital that the company has, investors also focus on the intellectual resources that the company has.

# Intellectual Capital's Relationship to Corporate Value with Financial Performance as Intervening Variables

When a company chooses knowledge-based business management, intellectual capital becomes an important capital that the company needs as a source of competitive advantage. Companies that employ competent and committed human capital employees can demonstrate their productivity. High commitment should also be supported by structural capital, as well as good relations between internal and external companies (customer capital). So the combination of the three capitals will improve good financial performance. Good financial performance certainly attracts investors to invest in such companies which will eventually increase the value of the company.

Previous research (Hadiwijaya & Rohman, 2013; Nuryaman, 2015; Sunarsih & Mendra, 2012) has also proven that financial performance as an intervening variable is able to mediate intellectual capital relationships and the value of the company. The results of the study indicate the market will provide a higher valuation to companies that have improved financial performance, increased financial performance will be positively responded by the market thus increasing the value of the company.

#### 3. METHOD

The subject of this study is manufacture company listed on the Indonesia Stock Exchange (IDX) 2016- 2018. Based on purposive sampling method, it is obtained as many as 46 samples used in this study. The research data were secondary data obtained of the manufacture company listed on the Indonesia Stock Exchange from company's annual reports accessed through the <u>www.idx.co.id</u>. Data analysis techniques employed multiple linear regression using descriptive statistics test , heteroscedasticity, multicollinearity, correlation analysis, path analysis, and determinant analysis consisting of the F test and t test.

#### **Operational Definition of Variables**

# Dependent Variable (Y)

Dependent variables are variables that are affected by other variables. The dependent variable used in this study is the company's value proxyed with price-to-book value (PBV). The PBV ratio is a comparison between the stock market price and the book value per share. The stock market price used is the price based on the closing price at the end of the company's reporting year. The higher the PBV ratio indicates that the market is increasingly confident in the company's current performance and the company's future prospects. In this study PBV formulated as follows (Sunarsih & Mendra, 2012):

PBV= Closing Share Price/Book Value per Share

# Independent Variable (X)

An independent variable is a variable that affects the state of a dependent variable. The independent variable used in this study is intellectual capital (IC) proxied with VAIC<sup>™</sup>.

Intellectual capital is calculated based on value added created by capital employed (VACA), human capital (VAHU), and structural capital (STVA). This combination of three so-called Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) developed by Pulic presents information on the value creation efficiency of tangible assets and intangible assets owned by the company. The formulations and stages of VAIC<sup>TM</sup> calculation are as follows:

# A. Calculate Value Added (VA)

Value added is calculated as the difference between output and input. Output represents revenue and covers all products and services sold in the market. Input covers all expenses (except employee expenses) used in obtaining revenue. Formula for calculating VA, that is (Ulum, 2008):

VA=OUT-IN

Description: VA = Value Added OUT = output i.e. total sales and other revenues. IN =input i.e. sales expenses and other expenses (except employee expenses).

# B. Calculating Value Added Capital Employed (VACA)

VACA is an indicator for the VA created by a single unit of capital employed (CE). Pulic assumes that if one unit of capital employed (CE) generates a larger return than another company, it means the company is better at utilizing CE (available funds) (Sunarsih & Mendra, 2012). Formula for calculating VACA (Sidibya & Restuti, 2014):

VACA= VA/CE

Description: VACA = Ratio from VA to CE VA = Value Added CE = Total equity and net income

# C. Calculating Value Added Human Capital (VAHU)

VAHU is an indicator for the VA created by a single unit of human capital (HC). This ratio shows how much value is added by the funds spent on labor expenses. The more value added generated from every rupiah issued by the company shows that the company has managed human resources to the maximum by investing capital in the labor burden. (Sidibya & Restuti, 2014). The formula for calculating VAHU is:

VAHU= VA/HC

Description: VAHU = Ratio from VA to HC VA = Value Added HC =Labor expenses (total salary, wages and employee income)

# D. Calculating Structural Capital Value Added (STVA).

STVA which shows the contribution of structural capital (SC) in value creation. STVA measures the amount of structural capital needed to generate 1 rupiah from value added (Sunarsih & Mendra, 2012). Formula for calculating STVA (Sidibya & Restuti, 2014):

STVA = SC/VA

Description: STVA = Ratio from SC to VA

SC = VA - HCVA = Value Added

# Intervening Variables (Y1)

An intervening variable is a variable that connects the influence between a dependent variable and an independent variable. In this study used as an intervening variable is the financial performance projected with Return On Asset (ROA). ROA is a profitability ratio that describes the company's fundamental performance. Return On Asset (ROA) is one of the ratio calculations in financial performance, where ROA reflects how the company generates income or profit from utilization of its assets. When financial performance improves, the market will give a positive response that causes the company's value to rise (Sunarsih & Mendra, 2012). Formula for calculating ROA (Murhadi, 2018:64):

ROA= Net Income/Total Asset

#### 4. RESULT

#### **Descriptive Statistics Test**

Descriptive statistics are used to see an overview of the data used in the form of the amount of data, the minimum value, the maximum value, the average value and the standard deviation of each variable.

	N	Minimum	Maximum	Mean	Std. Deviation
VACA	138	.00	.40	.1983	.09968
VAHU	138	1.02	7.32	2.643 6	1.43392
STVA	138	.02	.89	.5233	.20896
ROA	138	.03	12.84	4.602 0	3.04945
PBV	138	.07	3.37	1.206 7	.81532
Valid N (listwise)	138				

#### **Results of Descriptive Statistic Analysis**

#### **Classic Assumption Test**

A classic assumption test was conducted to determine the feasibility of using the model in the study. This test is also to ensure in the analyst model there is no multicoinearity, heteroskedastisity, and autocorelation and to ensure that the resulting data is distributed normally.

#### Path Analysis

Path analysis is an extension of multiple linear regression analysis, or path analysis is the use of regression analysis to estimate causality relationships between previously defined variables based on theory. This model is for knowing the direct or indirect influence of free variables. To test the effect of intervening variables used path analysis methods. The regression equation can be formulated as follows (Ghozali, 2018: 245):

$$ROA = \alpha + \rho 1 VACA + \rho 2 VAHU + \rho 3 STVA + e1$$
(1)  
PBV =  $\alpha + \rho 4 VACA + \rho 5 VAHU + \rho 6 STVA + \rho 7 ROA + e2$ (2)

### **Coefficients**<sup>a</sup>

		Unstanda Coefficier		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-1.243	0.203		-6.118	0,000
	VACA	3.8	0.303	0.619	12.553	0,000
	VAHU	0.123	0.183	0.063	0.673	0.502
	STVA	2.025	0.437	0.434	4.635	0,000
a. Dep	endent Variab	el: ROA				

The output result of the first regression model in table 4.8 shows an unstandardized value in equation 1 which is VACA of 0.619 and significance at 0.000; STVA of 0.434 and significance at 0.000 which means VACA and STVA affect ROA as financial performance; while VAHU is 0.063 and the significance at 0.502 means VAHU does not affect ROA as financial performance. The residual value of financial performance is  $e_1 = \sqrt{(1 - 0,669)} = 0,575325$ . Based on the description, the formula of the regression equation is as follows:

		Unstandardized Coefficients		Standardized Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
2	(Constant)	0.342	0.143		2.394	0.018	
	VACA	0.419	0.277	0.143	1.51	0.133	
	VAHU	0.279	0.114	0.3	2.458	0.015	
	STVA	-0.67	0.292	-0.301	-2.292	0.024	
	ROA	0.272	0.054	0.57	5.076	0,000	

ROA = -1.243 + 0.619 VACA+ 0.063VAHU + 0.434 STVA+ 0.575e1

The output result of the second regression model in table 4.9 shows the unstandardized beta value in equation 2 which is VACA of 0.143 and significance at 0.133 > 0.05 which means VACA has no effect on the company's value. While the unstandardized beta value of VAHU is 0.3 and the significance at 0.000; STVA of -0.301 and significance at 0.000; ROA of 0.57 and significance at 0.000 < 0.05 which means that VAHU, STVA, and ROA affect the value of the company. The residual value of the company value  $e_2 =$ 

 $\sqrt{(1-0.442)} = 0.74699$ . Based on the description, the formula of the regression equation is as follows:

#### PBV = 0.342 + 0.143 VACA + 0.3 VAHU+ -0.301 STVA + 0.57 ROA + 0.746e2

It is known that the effect of the exerted by VACA on ROA amounted to 0.619. The amount of VAHU's influence on ROA is 0.063. The amount of STVA's influence on ROA is 0.434. The amount of VACA's influence on the company's value is 0.143. The amount of VAHU's influence on the company's value is 0.3. The amount of STVA's influence on the value of the company is -3010, and the amount of roa influence on the value of the company is 0.57. It is also known that the amount of intellectual influence of capital on the value of the company through financial performance as an intervening variable must be calculated by multipliing its indirect coefficient:

- 1. VACA, its indirect coefficient  $(0.619 \times 0.57) = 0.35283$  so that the total influence becomes  $(0.143 + (0.619 \times 0.57)) = 0.49583$ . VACA's indirect effect on financial performance of 0.35283 greater than the 0.143 direct relationship coefficient means it can be concluded that VACA affects the value of the company indirectly through the mediation variable roa (financial performance).
- 2. VAHU indirect coefficient  $(0.0630 \times 0.57) = 0.03591$  so that the total influence becomes  $(0.3 + (0.0630 \times 0.57)) = 0.33591$ . VAHU's indirect effect on financial performance of 0.03591 is smaller than the 0.3 direct relationship coefficient means it can be concluded that VAHU affects the value of the company directly through the mediation variable roa (financial performance).
- 3. STVA indirect coefficient (0.434 x 0.57) = 0.24738 so that the total influence becomes (-0.301+ (0.434 x 0.57)) = -0.05362. STVA's indirect effect on financial performance of 0.35283 is smaller than the -0.301 direct relationship coefficient meaning it can be concluded that VACA directly affects the value of the company.

# Hypothesis Test Determination Coefficient Test (R<sup>2</sup>)

This test measures how far the model is able to explain variations in dependent variables. This value indicates that the influence of independent variables in explaining dependent variables on the first regression model was 66.9% while 33.1% was influenced by other factors not studied.

#### F Test

The F test is conducted with the aim of testing whether the influence of all variables is independent of a single dependent variable as formulated in a model. The testing criteria show the magnitude of the F value and the significance of p at the alpha level of 5%.. If the analysis results show a value of  $p \le 0.05$  then the independent variables together (simultaneously) affect dependent variables. Known that F value of 93,345 with a significance of 0.000 which is smaller than 0.05. It is concluded that the Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA) variables stimultanly affect Return On Assets (ROA).

### t Test

The t test is a test of significance to determine the influence of each independent variable on dependent variables formulated in a regression equation model. Based on the

test results of the first T model, the regression coefficient for VACA variables has a significant effect on Return On Assets (ROA). The regression coefficient for the VAHU variable has a significant effect on Return On Assets (ROA). The regression coefficient for STVA variables has a significant effect on Return On Assets (ROA).

Based on the test results of the second T model, the regression coefficient for VACA variables has no significant effect on firm value (PBV). The regression coefficient for the VAHU variable has a significant effect on firm value (PBV). The regression coefficient for STVA variables has a significant effect on firm value (PBV). The regression coefficient for ROA variables has a significant effect on firm value (PBV).

#### DISCUSSION

### Relationship of Value Added Capital Employed (VACA) with Financial Performance

Based on the results of the H1 hypothesis test received, VACA has a significant effect on financial performance. This is in accordance with research conducted by (Subkhan & Citraningrum, 2012) and (Simanungkalit, 2015). This research indicates that the company has made the most of the thinking or knowledge of its employees in improving financial performance. The Company has been able to increase sales, for example through changes in sales strategies, propergging, and efficient use of capital and assets.

# Relationship of Value Added Human Capital (VAHU) with Financial Performance

Based on the results of the h2 hypothesis test rejected, meaning VAHU has no significant impact on financial performance. This is incompatible with research conducted by (Subkhan & Citraningrum, 2012) which stated VAHU affects financial performance. But this research is in line with research conducted by (Simanungkalit, 2015). This indicates that the company has not utilized the knowledge and expertise of its employees in improving the financial performance of the capital that has been issued by the company. As well as human capital is an element that cannot stand alone and depends on other elements such as structural capital, meaning employees with high intellectuality cannot make an optimal contribution if not supported by structural facilities such as facilities and infrastructure of the company (Fariana, 2014).

#### Relationship of Structural Capital Value Added (STVA) with Financial Performance

Based on the results of the h3 hypothesis test received, it means stva has a significant influence on financial performance. This is in accordance with research conducted by (Subkhan & Citraningrum, 2012) and (Simanungkalit, 2015). This research indicates that companies that have good systems, procedures, and technology will drive the achievement of optimal performance and be able to produce high profitability. Structural capital becomes a means and infrastructure to support employees. Structural capital management such as systems, procedures, technology, will increase employee productivity in improving financial performance.

# Relationship of Value Added Capital Employed (VACA) with Company Value

Based on the results of the h4 hypothesis test rejected means VACA does not have a significant influence on the value of the company. This is in line with research conducted by (Castrena & Isynuwardhana, 2014) but not in line with the research (Simanungkalit, 2015). This indicates that partners from companies such as customers and suppliers do not appreciate good relationships as well as the capabilities or intellectuals of both marketing channels and customer relationships through the addition of investment to the company. This is supported by research (Hadiwijaya & Rohman, 2013) that the company has spent a lot of capital to finance its intellectual resources so that the condition makes investors judge as something that can reduce the company's capital.

# Relationship of Value Added Human Capital (VAHU) with Company Value

Based on the results of the h5 hypothesis test received, it means VAHU has a significant influence on the value of the company. This is incompatible with research conducted by (Castrena & Isynuwardhana, 2014) and (Simanungkalit, 2015). The results of this study prove that human capital can increase the value of the company. This applies to manufacturing companies because companies need creative ideas and innovations of their employees to create a product for sale. Due to high employee innovation, investors reward the company by investing in the company or investing in the company resulting in a rise in the value of the company.

#### Relationship of Structural Capital Value Added (STVA) with Company Value

Based on the results of the h6 hypothesis test received, it means that STVA has a significant influence on the value of the company. This is incompatible with research conducted by (Castrena & Isynuwardhana, 2014) and (Simanungkalit, 2015). The results of this study indicate that the company is able to meet structural facilities to support employees to produce optimal performance in implementing creative ideas. Good operational systems and working procedures support the company to increase the value of its company.

### Relationship of Return On Assets (ROA) with Company Value

Based on the results of the regression analysis can be concluded that H7 is accepted, which means that financial performance has a significant effect on the value of the company. Return On Assets (ROA) is one of the indicators that improves the company's financial performance. This hypothesis test is in accordance with research conducted by (Hadiwijaya & Rohman, 2013) and (Castrena & Isynuwardhana, 2014). This indicates that the higher the financial performance, the higher the value of the company, meaning that when the financial performance increases, the market will give a positive market response that causes the company's value to rise. This is supported by research (Simanungkalit, 2015) and (Septiana, 2018) which states that financial performance has a significant impact on the value of the company. ROA is one of the profitability ratios that measures the effectiveness of the company to profit from the utilization of assets owned by the company. The higher the ROA value, the more efficient the company is in managing its assets well.

# Intellectual Capital's Relationship to The Company's Value with Financial Performance as Intervening Variables

Based on the results of the regression analysis shows H8 is accepted, which means intellectual capital affects the value of companies with financial performance as intervening variables. Or it can be said that intellectual capital has an indirect effect on the value of companies with financial performance as intermediary variables. This research is in accordance with research conducted by (Hadiwijaya & Rohman, 2013) and (Castrena & Isynuwardhana, 2014) which states that the company that manages its intellectual capital effectively, will make the financial performance increase so that the market will give a positive response that makes the value of the company increase. The results of this study are supported by research (Sunarsih & Mendra, 2012), (Simanungkalit, 2015), and (Septiana, 2018) which proves that financial performance is able to mediate the relationship between intellectual capital to the value of the company. The amount of indirect influence of intellectual capital on the value of the company is 0.634. The value is greater than the direct relationship coefficient of 0.142 which means financial performance is a variable that mediates intellectual capital relationships and value. This indicates IC as one way to develop a competitive advantage, it is very important bgi companies to properly utilize employees as competitive weapons. As explained in the stakeholder theory that good management of IC will create value added or added value for the company to drive the company's financial performance so as to increase the value of the company.

# **5. CONCLUSION**

From the results of the data analysis and discussion that has been done, the following conclusions are obtained:

- a. Value Added Capital Employed (VACA) has an influence on financial performance projected by Return On Assets (ROA) on manufacturing companies listed on the Indonesia Stock Exchange.
- b. Value Added Human Capital (VAHU) has no effect on financial performance projected by Return On Assets (ROA) on manufacturing companies listed on the Indonesia Stock Exchange.
- c. Structural Capital Value Added (STVA) has an influence on financial performance proxied by Return On Assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange.
- d. Value Added Capital Employed (VACA) has no influence on the value of the company projected with Price to Book Value (PBV) on manufacturing companies listed on the Indonesia Stock Exchange.
- e. Value Added Human Capital (VAHU) has an influence on the value of the company proxies with Price to Book Value (PBV) on manufacturing companies listed on the Indonesia Stock Exchange.
- f. Structural Capital Value Added (STVA) has an influence on the value of the company proxies with Price to Book Value (PBV) on manufacturing companies listed on the Indonesia Stock Exchange.
- g. Return On Assets (ROA) has an influence on the value of the company projected with Price to Book Value (PBV) on manufacturing companies listed on the Indonesia Stock Exchange.
- h. Intellectual capital has an influence on the value of companies with financial performance as intervening variables in manufacturing companies listed on the Indonesia Stock Exchange. This indicates that high intellectual capital drives the value of Return On Assets (ROA) which is believed to increase the value of the company.

# REFERENCES

- Baroroh, N. (2013). Analisis pengaruh modal intelektual terhadap kinerja keuangan perusahaan manufaktur di indonesia. *Jurnal Dinamika Akuntansi*, *5*(2), 172–182.
- Castrena, N. A. D., & Isynuwardhana, D. (2014). Intellectual Capital Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening. *Jurnal Keuangan Dan Perbankan*, *18*(2), 233–248.
- Fariana, R. (2014). Pengaruh Value Added Capital Employed (Vaca), Value Added Human Capital (Vahu) Dan Structural Capital Value Added (Stva) Terhadap Kinerja Keuangan Perusahaan Jasa Keuangan Yang Go Public Di Indonesia. *Majalah Ekonomi*, 18(2), 79–108.
- Ghozali, H. I. (2018). *Aplikasi Analisis Multivariate dengan Program SPSS 25 Edisi 9*. Badan Penerbit Universitas Diponegoro.
- Hadiwijaya, R. C., & Rohman, A. (2013). Pengaruh Intellectual Capital Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening. *Diponegoro Journal Of Accounting*, *2*, 1–7.
- Kurniasari, I. (2015). Pengaruh Intellectual Capital Dan Profitabilitas Terhadap Nilai Perusahaan Pada Perusahaan Lq45 Yang Terdaftar Di Bursa Efek Indonesia Periode 2011-2013. Jurnal Audit Dan Akuntansi Fakultas Ekonomi Universitas Tanjungpura, 4(1), 23–40.
- Murhadi, W. R. (2018). Analisis Laporan Keuagan, Proyeksi dan Valuasi Saham. Jakarta: Salemba Empat.
- Nuryaman. (2015). The Influence of Intellectual Capital on The Firm 's Value with The Financial Performance as Intervening Variable. *ScienceDirect*, *211*(September), 292–298. https://doi.org/10.1016/j.sbspro.2015.11.037

- Petty, R., & Guthrie, J. (2000). Intellectual capital literature review Measurement, reporting and management. *Journal of Intellectual Capital*, 1(2), 155–176. https://doi.org/https://doi.org/10.1108/14691930010348731
- Putri, A. A., & Purwanto, A. (2013). Pengaruh Intellectual Capital Terhadap Kinerja Perusahaan Perbankan yang terdaftar di Bursa Efek Indonesia Tahun 2009-2011. *Diponegoro Journal Of Accounting*, 2(3).

Sawarjuwono, T., & Kadir, A. P. (2003). Intellectual Capital: Perlakuan, Pengukuran Dan Pelaporan. *Jurnal Akuntansi & Investasi*, *5*(1), 35–57.

Septiana, G. (2018). Analisis Pengaruh Intellectual Capital Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening Pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia Periode 2010-2015. *Jurnal Pundi*, *02*(03), 227–240.

Sidibya, D. C. N. A., & Restuti, M. M. D. (2014). Pengaruh Modal Intelektual Terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening. *Benefit Jurnal Manajemen Dan Bisnis*, *18*(1).

Simanungkalit, P. (2015). Pengaruh Intellectual Capital Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bei Periode 2009-2013). *Diponegoro Journal Of Accounting*, *4*, 1–13.

Subkhan, & Citraningrum, D. P. (2012). Pengaruh Ic Terhadap Kinerja Keuangan Perusahaan Perbankan Periode 2005-2007. *Jurnal Dinamika Akuntansi*, *2*(1), 30–36. https://doi.org/10.15294/jda.v2i1.1925

Sunarsih, N. M., & Mendra, N. P. Y. (2012). Pengaruh Modal Intelektual Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. *Simposium Nasional Akuntansi XV Banjarmasin*.

Ulum, I. (2008). Intellectual Capital Performance Sektor Perbankan di Indonesia. Jurnal Akuntansi Dan Keuangan, 10(2), 77–84.

Ulum, I. (2017). Intellectual Capital: Model Pengukuran, Framework Pengungkapan & *Kinerja*. UMMPress.

Wernerfelt, B. (1984). Harmonised implementation of Application-Specific Messages (ASMs). *Strategic Management Journal*, *CINCO*(2), 1–12. https://doi.org/10.1002/smj.4250050207

Yuskar, & Novita, D. (2013). Analisis Pengaruh Intellectual Capital Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening Pada Perusahaan Perbankan Di Indonesia. *Jurnal Manajemen Dan Bisnis Sriwijaya*, 12.

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