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The Influence of Value Added Intellectual Capital to Financial Performance with Ownership Structure as Moderating Variable

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Abstract

The purpose of this research is to determine the influence of value added intellectual capital on financial performance with ownership structure as moderating variable. Return On Assets used as a proxy for financial performance. Data for this research were obtained from secondary data by purposive sampling method. There are 65 manufacturing companies listed in IDX on 2013-2017 that used as sample. This research uses Moderated Regression Analysis (MRA) as method of analysis. This research results show that the value added intellectual capital has a positive influence to financial performance. The results on moderating variable show that the ownership structure use proxy is managerial ownership did mediation relation negative between the intellectual capital with financial performance, and institutional ownership did not mediate relation between the intellectual capital with financial performance.

Key words Financial performance, value added intellectual capital, Return On Assets, managerial ownership, and institutional ownership

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1. Introduction

Technological developments in the economic field in the current era of globalization have triggered companies to implement management pattern change strategies from labor-based businesses to knowledge-based business. This change in business strategy is needed so that the company can maintain going concern. One form that can be applied to the measurement and assessment of business knowledge-oriented companies is to manage the company's intellectual capital. Components of intellectual capital in the company include knowledge resources of employees, customer commitment, innovation processes, and information systems used by companies aimed at contributing to financial performance and maintaining company reputation (Triastuty and Riduwan, 2017).

The company's efforts to create intellectual capital that is of good quality in order to produce good quality financial performance can be improved by the existence of a company ownership structure. This is consistent with the theory of corporate governance that the ownership structure includes the commitment of shareholders to have a strong influence on the actions taken by top management to develop strategies to improve the management of intellectual capital, resulting in a positive signal for the company to improve performance finance (Ismiyanti and Rebbica, 2017).

Based on the description of the importance of intellectual capital there is the potential to improve financial performance, the company ownership structure is needed as a function of the responsibility of managing the company's intellectual capital, so that research problems can be formulated: 1) whether

intellectual capital has a positive effect on financial performance, and 2) whether the influence of intellectual capital on financial performance can be strengthened by the ownership structure of the company proxied by managerial ownership and institutional ownership.

2. Theoretical Framework and Hypothesis Development

2.1. Resource-Based Theory

Resource-based theory is one of the main theories that can be used to understand the influence of intellectual capital on financial performance. This theory focuses on ideas that develop in strategic management concepts that have the potential that companies gain excellence if the company has superior resources (Barney *et al.*, 2012). The company's capability in managing good quality resources and utilizing the use of tangible assets and intangible assets that are strategic in nature, can potentially provide added value as a competitive advantage for companies to improve financial performance.

2.2. Agency Theory

Agency theory discusses the relationship between principals and agents (Jensen and Meckling, 1976). Differences in interests between principals and agents can trigger a conflict called the agency conflict. The relationship of the agency theory concept with company performance is that there are potential agents to cover company information for their personal interests called the asymmetric information, so that can influence investment decision (Istrate, 2018). Therefore, a company ownership structure is needed to improve the supervision of intellectual capital management by selecting agents categorized as being able to carry out good quality company performance.

2.3. Value Added Intellectual Capital (VAIC™)

Value Added Intellectual Capital (VAIC™) is a method used to measure intellectual capital by assessing the efficiency of value added as a result of the company's intellectual capability (Pulic, 1998). An important component in measuring intellectual capital using the (VAIC™) method according to Ulum (2017:119) consists of: (1) Employed capital is an indicator of value added formed on physical capital and financially managed companies efficiently. (2) Human capital is the ability and characteristics of employees including knowledge, expertise, behavior, experience, and emotional possessions of employees that can be contributed to generate added value for the company. (3) Structural capital is the ability and knowledge possessed by the company including information systems, procedures, and databases to meet the operational needs of the company and as a supporter of human capital in order to create added value for the company.

2.4. Corporate Governance

The Indonesian Institute for Corporate Governance (2011) defines corporate governance as a set of structures, regulations, and processes used by company administrators as an effort to provide company added value on an ongoing basis in the long term, while taking into account the interests of shareholders and stakeholders, based on provisions standards, law regulations, and applicable norms. In this study the focus is on the structure of corporate ownership which is a corporate governance mechanism to minimize information asymmetry between agents and principals, in order to present reliable financial performance reports (Setyono and Hatane, 2017).

2.5. Ownership Structure

The ownership structure of the company is a separation between the owner of the company and the manager of the company. Separation of ownership focuses on shareholders as the owner of the company can oversee the performance of the manager as a company manager who is authorized and responsible for managing company resources comprehensively (Sudana, 2015). The ownership structure illustrates the shareholders' distribution which is proxied in the form of a percentage to create harmony between the owners and controllers of the company in implementing intellectual capital management, thereby increasing financial performance (Puji and Juliarto, 2017).

2.6. Financial Performance

The purpose of financial statements is to provide information about the results of financial position, performance, and conditions of changes in the company's financial position that are beneficial to users in making economic and business decisions. Users can find out the condition of the company by assessing financial performance based on an analysis of financial ratios. Subramanyam (2014) suggests that ratio analysis indicates a relationship that is significant among the posts in financial transactions, so that it becomes the basis of comparison in obtaining information on company conditions. Regarding this, it is interpreted that the process of measuring financial performance is directed at maintaining the going concern concept by managing intellectual capital.

Based on the literature review, then formulated the conceptual framework of this studies that shown in Figure 1.

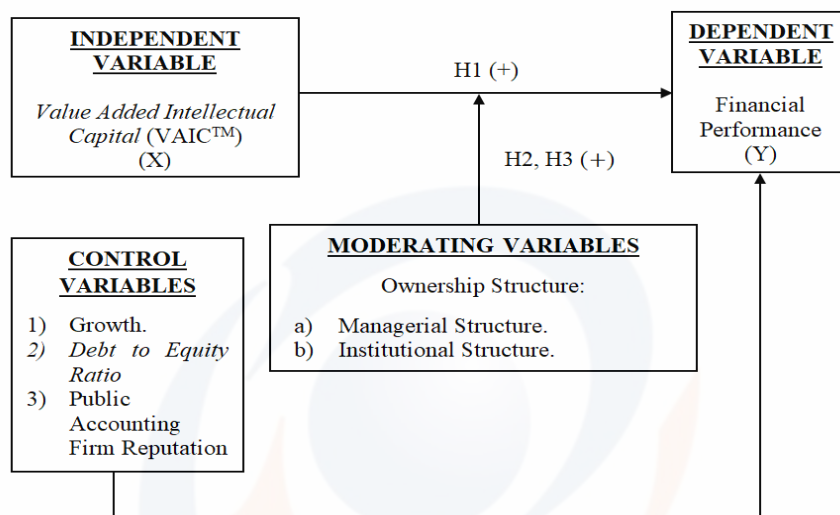


Figure 1. Conceptual Framework Scheme

2.7. Hypothesis

2.7.1. Influence Value Added Intellectual Capital (VAICTM) to Financial Performance

Companies that manage intellectual capital well can create added value in gaining competitive advantage, so that intellectual capital influences the increase in profits. Research conducted by Kurfi *et al.* (2017); Triastuty and Riduwan (2017); Pratama (2016) find empirical evidence that intellectual capital has a positive influence on financial performance (Return On Assets), because intellectual capital is one type of intangible asset that is valued as a source of valuable, unique, rare, difficult to substitute, and difficult to imitate by competitors, so that this becomes a strong corporate resource to improve financial performance. The research conducted by Nur and Budi (2016); Iranmahd *et al.* (2014) also found empirical evidence that Value Added Intellectual Capital (VAICTM) had a positive effect on the achievement of corporate profits and corporate performance. Based on these explanations, the research hypothesis that can be developed is:
Ha1 : Value Added Intellectual Capital (VAICTM) positive influence to financial performance.

2.7.2. Ownership Structure as Moderating Relationship Between Value Added Intellectual Capital (VAICTM) to Financial Performance

In order to improve the development of intellectual capital to obtain a sustainable competitive advantage, it can be followed up through supervision techniques from the investors that are formed by the existence of a shareholding structure. Companies that have a ownership structure including managerial ownership and institutional ownership can increase efficiency and effectiveness in controlling the management of intellectual capital, thereby helping companies management to produce improved financial performance.

2.7.2.1. *Managerial Ownership Moderating Influence Value Added Intellectual Capital (VAICTM) to Financial Performance*

Managerial ownership is share ownership as measured by the percentage of shares held by management (Sudana, 2015). The existence of managerial share ownership as an instrument to create harmony between the interests of shareholders and managers. The research conducted by Hatane *et al.* (2017) found empirical evidence that managerial ownership has a positive effect on intellectual capital, meaning that if the percentage of managerial ownership is high, then the utilization of company assets can be managed effectively and efficiently. Research conducted by Puji and Juliarto (2017) found empirical evidence that financial performance is influenced by managerial share ownership, meaning that the higher share ownership by managerial parties, it can improve financial performance. This shows the support and involvement of management in the management of intellectual capital that is carried out effectively and efficiently, so it can improve financial performance. On the basis of these descriptions, the research hypothesis that can be developed is:

Ha2 : Managerial ownership strengthen the influence of Value Added Intellectual Capital (VAICTM) to financial performance.

2.7.2.2. *Institutional Ownership Moderating Influence Value Added Intellectual Capital (VAICTM) to Financial Performance*

Institutional ownership is share ownership as measured by the percentage of shares held by parties formed by institutions such as insurance companies, banks, investment companies, and other institutions (Sudana, 2015). The existence of institutional share ownership as an instrument to reduce manager's opportunistic behavior, so managers' act based on the needs of shareholders. Research conducted by Jamei (2017); Trisna *et al.* (2016) found empirical evidence that institutional ownership has a positive effect on intellectual capital, meaning that if the percentage of institutional ownership is high, then the management of intellectual capital can be managed effectively and efficiently. Research conducted by Puji and Juliarto (2017); Candradewi and Bagus (2016) found empirical evidence that financial performance is influenced by institutional share ownership, meaning that the higher share ownership by institutional investors, institutional investors apply long-term policies to improve financial performance. This shows that there are institutional investors with optimal supervision, so the effectiveness and efficiency of managing intellectual capital is higher, so that it can improve financial performance. Based on these explanations, the research hypothesis that can be developed is:

Ha3 : Institutional ownership strengthen the influence of Value Added Intellectual Capital (VAICTM) to financial performance.

3. Methodology of research

3.1. Data Collection Methods

The population used in this study is manufacturing sector companies listed on the Indonesia Stock Exchange. The selection of research samples was carried out by purposive sampling method with the following criteria: 1) Companies included in the category of manufacturing industries that have been listed on the Indonesia Stock Exchange from 2013 to 2017) Manufacturing sector companies listed on the Indonesia Stock Exchange that publish annual audited reports and financial reports as of December 31 during the observation period from 2013 to 2017) Companies that provide data on value added intellectual capital, managerial ownership and institutional ownership. This research uses secondary data namely audit financial reports and annual audit reports obtained from the Indonesian Capital Market Directory.

3.2. Operational Definition and Variable Measurement

3.2.1. Dependent Variable

The dependent variable used in this study is financial performance as measured by the proxy Return on Assets (ROA). Subramanyam (2014) suggests that Return on Assets (ROA) is a measurement tool to assess a company's ability to generate net income based on a certain level of assets. The higher the company's Return on Assets (ROA), the more efficient the use of company assets, so the higher the level of

profit achieved by the company. Subramanyam (2014) suggests that Return on Assets are calculated by the following equation:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}} \quad (1)$$

3.2.2. Independent Variable

The independent variable used in this study is intellectual capital. The company's intellectual capital is measured by the Value Added Intellectual Capital (VAICTM) method developed by Pulic (1998) which is measured by the value added created by the three components, namely Value Added of Capital Employed (VACA), Value Added of Human Capital (VAHU), and Structural Capital Value Added (STVA). Ulum (2017:119) suggests that the (VAICTM) method is calculated in the following stages:

i. Calculate Value Added (VA)

$$VA = \text{OUTPUT} - \text{INPUT} \quad (2)$$

Explanation:

VA = Value Added.

Output = Total sales and other income.

Input = Total expenses, except salaries and employee expenses.

ii. Calculate Value Added of Capital Employed (VACE)

$$VACE = \frac{VA}{CE} \quad (3)$$

Explanation:

VACE = Value Added of Capital Employed.

VA = Value Added.

CE = Capital Employed or available funds from the amount of equity and net income.

iii. Calculate Value Added of Human Capital (VAHC)

$$VAHC = \frac{VA}{HC} \quad (4)$$

Explanation:

VAHC = Value Added of Human Capital.

VA = Value Added.

HC = Human Capital or total salary and employee expenses.

iv. Calculate Structural Capital Value Added (SCVA)

$$SCVA = \frac{SC}{VA} \quad (5)$$

Explanation:

SCVA = Structural Capital Value Added.

SC = Structural Capital or Value Added reduced Human Capital.

VA = Value Added.

v. Calculate Value Added Intellectual Capital (VAICTM)

$$VAIC^{TM} = VACE + VAHC + SCVA \quad (6)$$

Explanation:

VAICTM = Value Added Intellectual Capital.

VACE = Value Added of Capital Employed.

VAHC = Value Added of Human Capital.

SCVA = Structural Capital Value Added.

3.2.3. Moderating Variables

The moderating variable used in this study is the corporate ownership structure which is proxied by managerial ownership and institutional ownership. The ownership structure indicators used in this study are:

3.2.3.1. Managerial Ownership

Managerial ownership is share ownership as measured by the percentage of shares held by management (Sudana, 2015). In this study, managerial ownership (MOWN) uses a ratio scale, and is measured using (Puji and Juliarto, 2017):

$$MOWN = \frac{\text{Amount Share Ownership of Board of Directors or Executive}}{\text{The Amount All Share Ownership of that Outstanding in the Public}} \times 100\%$$

3.2.3.2. Institutional Ownership

Institutional ownership is share ownership as measured by the percentage of shares held by parties formed institutions such as insurance companies, banks, investment companies, and other institutions (Sudana, 2015). In this study, institutional ownership (IOWN) uses a ratio scale, and is measured using (Ismiyanti and Rebbica, 2017):

$$IOWN = \frac{\text{Amount Share Ownership of Domestic Institutional}}{\text{The Amount All Share Ownership of that Outstanding in the Public}} \times 100\%$$

3.2.4. Control Variables

3.2.4.1. Growth

Sales growth is used as a control variable because the sample companies in this study have varied sales growth that can increase company profits, so as to increase Return on Assets (ROA). Growth uses formulas (Dewa, 2015):

$$GROWTH = \frac{\text{Net Sales Periode } t - \text{Net Sales Periode } t - 1}{\text{Net Sales Periode } t - 1} \times 100\%$$

3.2.4.2. Debt to Equity Ratio

Debt to Equity Ratio is used as a control variable to measure the ability of company to pay off its debt by using the company's capital owned. The low use of Debt to Equity Ratio tends to produce a high Return On Assets because the owner's capital can cover the amount of debt to external parties, so the company's profits increase, so that the value of Return On Assets becomes high (Gunde *et al.*, 2017). Debt to Equity Ratio (DER) uses formulas (Subramanyam, 2014):

$$DER = \frac{\text{Amount All Liability}}{\text{Amount All Equity}} \times 100\%$$

3.2.4.3. Public Accounting Firm Reputation

The reputation of a public accounting firm is used as a control variable to determine the quality of the annual audit report in order to improve financial performance. The reputation of the Public Accounting Firm (RKAP) is measured using a dummy variable score of 0-1. Score 1 is used to represent the company's financial statements audited by the big four KAP and a score of 0 is used to represent the financial statements audited by non-big four KAP (Mulyadi, 2017).

3.3. Data Analysis Method

The data analysis method used is the classic assumption test and hypothesis testing with using statistic tool is SPSS 23. In this study, the classic assumption test used is the normality test, multicollinearity

test, autocorrelation test, and heteroscedasticity test. Testing the hypothesis in this study uses the Moderated Regression Analysis multiple linear regression analysis with the following equation:

$$ROA = \alpha_0 + \beta_1.VAIC + \beta_2.MOWN + \beta_3.IOWN + \beta_4.VAIC \times MOWN + \beta_5.VAIC \times IOWN + \beta_6.GROWTH + \beta_7.DER + \beta_8.RKAP + \epsilon$$

Explanation:

ROA = Return On Assets.

VAIC = Value Added Intellectual Capital.

MOWN = Managerial Ownership.

IOWN = Institutional Ownership.

GROWTH = Growth.

DER = Debt to Equity Ratio.

RKAP = Public Accounting Firm Reputation.

E = Error Coefficient.

4. Empirical Results

4.1. Research Sample Description

Table 1. Sample Selection Results

Criteria	Amount
Manufacture company listed in Indonesia Stock Exchange during the period 2013-2017.	765
(-) Manufacture company that do not publish audited financial statements for the period 2013-2017.	(230)
(-) Manufacture company that use currencies other than IDR during the period 2013-2017.	(40)
(-) Manufacture company that does not have complete data for the research variables in the financial statements the period 2013-2017.	(375)
(-) Manufacture company that has negative earnings (net loss) for the period 2013-2017.	(55)
The amount of manufacture company that categorized sampled during 5 years for the period 2013-2017.	65

Source: Data that have been processed

Based on table 1, it is known that after the data collection process was carried out, 65 sample companies were obtained in accordance with the criteria of the purposive sampling method.

4.1.1. Descriptive Statistics Variables

Table 2. Descriptive Statistics Variables Results

Variables	All Sample			Standard Deviation
	Min	Max	Mean	
Financial Performance (ROA)	0,0008	0,2615	0,0662	0,0638
Intellectual Capital (VAIC TM)	0,4268	4,8695	2,1664	1,0373
Managerial Ownership (MOWN)	0,0004	0,3451	0,0688	0,0788
Institutional Ownership (IOWN)	0,1294	0,9800	0,5151	0,2241
Growth	-0,6923	0,4283	0,0814	0,1426
Debt to Equity Ratio	0,1248	2,2245	0,7382	0,5160

Source: Data that have been processed

Table 3. Frequency Statistics Reputation Public Accounting Firm

Public Accounting Firm	Frequency	Percent
Big Four	20	30,8
Non-Big Four	45	69,2
Amount	65	100

Source: Data that have been processed

Based on the results of descriptive statistics shown in table 2 that the average financial performance (ROA) is 0,0662 and the standard deviation of 0,0638 represents the distribution of data on the value of financial performance (ROA) that occurs homogeneously. The value of intellectual capital (VAICTM) averages of 2,1664 and the standard deviation of 1,0373 shows that the manufacturing sector companies in the research sample have competent intellectual capital resources.

Managerial ownership an average of 0,0688 and a standard deviation of 0,0788 representing share ownership held by management can improve the performance of intellectual capital management. The average institutional ownership is 0,5151 and the standard deviation of 0,2241 shows that the ownership of shares owned by the institution can improve supervision of management performance. The average growth value is 0,0814 and the standard deviation is 0,1426. The average value of the debt to equity ratio is 0,7382 and the standard deviation is 0,5160.

Based on the results of frequency statistics reputation public accounting firm that are shown on table 3 that 20 observations or 30,8% include manufacture company category are audited by the public accounting firm big four, and there are 45 observations or 69,2% include category manufacture company are audited by public accounting firm non-big four. The results of this description illustrates that the average of manufacture company who use the services of the public accounting firm big four than public accounting firm non-big four.

4.2. Classic Assumption Test Results

4.2.1. Normality Test Results

Data normality was tested using one sample Kolmogorov-Smirnov with a significant level of 0,05.

Table 4. Normality Test Results

Regression Model	Asymp. Sig. (2-tailed)
Moderation Residual Regression	0,056

Source: Data that have been processed

Based on the results of the normality test shown in table 4 shows that the moderation residual regression model has an asymp value. sig. > $\alpha = 0,05$. Thus, it is interpreted that the residual values in moderation regression models are stated to be normally distributed.

4.2.2. Multicollinearity Test Results

Multicollinearity test is done to know there is a direct relationship (correlation) significant between each independent variable (Ghozali, 2016). One test that can be used to detect the presence of multicollinearity can be seen from the Variance Inflation Factor (VIF).

Table 5. Multicollinearity Test Results

Variables	VIF
Intellectual Capital (VAIC TM)	1,378
Managerial Ownership (MOWN)	1,522
Institutional Ownership (IOWN)	1,027
VAIC TM xMOWN	1,374
VAIC TM xIOWN	1,088
Growth	1,097
Debt to Equity Ratio	1,196
Public Accounting Firm Reputation	1,481

Source: Data that have been processed

In table 5 illustrates the results of multicollinearity test for the moderation regression model that there are not variables that have a VIF value of more than 10. Thus, it is interpreted that the moderation regression model can be used because there is not happen multicollinearity.

4.2.3. Autocorrelation Test Results

One test to detect autocorrelation by measuring the level of correlation on the regression equation error can be seen from the Durbin-Watson.

Table 6. Autocorrelation Test Results ($\alpha=5\%$)

Model	K	n	d_L	d_U	$4-d_U$	$4-d_L$	DW
Moderation Regression	8	65	1,336	1,882	2,664	2,118	2,112

Source: Data that have been processed

Table 6 shows the results of the autocorrelation test for moderation regression model have a Durbin-Watson value is 2,112. It shows the value Durbin-Watson qualifies is DW exist on $d_U < DW < 4-d_U$. Thus, it is interpreted that the moderation regression model can be used because there is not happen autocorrelation.

4.2.4. Heteroskedasticity Test Results

Heteroscedasticity test performed using Rank Spearman Test by correlating the absolute value of residuals to the independent variables.

Table 7. Heteroskedasticity Test Results

Variables	Sig.
Intellectual Capital (VAIC TM)	0,556
Managerial Ownership (MOWN)	0,640
Institutional Ownership (IOWN)	0,716
VAIC TM xMOWN	0,906
VAIC TM xIOWN	0,980
Growth	0,974
Debt to Equity Ratio	0,733
Public Accounting Firm Reputation	0,052

Source: Data that have been processed

Table 7 gives the results of the correlation of the absolute residual value to the independent variable. The significance value of all independent variables shows a value greater than the alpha significance value ($\alpha = 0,05$), so that the interpreted model of this study does not occur heteroscedasticity.

4.3. Research Explanation Results

Table 8. Moderation Regression Test Results

Moderation Regression Test Results:			
ROA = 0,023 + 0,036 (VAIC TM) + 0,140 (MOWN) - 0,042 (IOWN) - 0,026 (VAIC TM xMOWN) - 0,004 (VAIC TM xIOWN) + 0,022 (GROWTH) - 0,020 (DER) + 0,054 (RKAP)			
Dependent Variable: Financial Performance (ROA)			
Variables	Hypothesis	Regression Coefficients	Sig. One-Tailed
VAIC TM	Ha1 = +	0,036	***0,000
Moderating Variables:			
MOWN		0,140	**0,0425
IOWN		-0,042	**0,037
VAIC TM xMOWN	Ha2 = +	-0,026	**0,0015
VAIC TM xIOWN	Ha3 = +	-0,004	0,2805
Control Variables:			
GROWTH		0,022	0,2765
DER		-0,020	**0,036
RKAP		0,054	***0,000
Constant		0,023	0,272

<i>R-Squared</i>		0,642
<i>Adj R-Squared</i>		0,590
<i>F-statistic</i>		12,530
Prob. (F-statistic)		**0,000
N (sample)		65
***Level of Significance 1%; ** Level of Significance 5%; * Level of Significance 10%		
Explanation:		
<p>ROA = financial performance is measured by <i>Return On Assets</i>; VAIC™ = intellectual capital is measured by the Value Added Intellectual Capital (VAIC™) method developed by Pulic (1998) which is measured by the value added created by the three components, namely Value Added of Capital Employed (VACA), Value Added of Human Capital (VAHU), and Structural Capital Value Added (STVA); MOWN = ratio the amount share ownership of board of directors or executive to amount all-share ownership of that outstanding in the public; IOWN = ratio the amount share ownership of domestic institutional to amount all share ownership of that outstanding in the public; GROWTH = sales growth; DER = <i>debt to equity ratio</i>; RKAP = score 1 if company that audited by public accounting firm big four, score 0 if company that audited by public accounting firm non-big four.</p>		

Source: Data that have been processed

4.3.1. Determination Coefficient Test Results

Based on table 8 indicated the value adjusted R Square that the moderation regression model is 0,590 which interprets that 59,0% of the dependent variable financial performance as measured by return on assets is influenced by variations in independent variables and moderating variables namely value added intellectual capital, managerial ownership, institutional ownership, growth, debt to equity ratio, and reputation of public accounting firms.

4.3.2. F Statistic Test Results

Based on the ANOVA test or F test shown in table 8 that the moderation regression model generate F value is 12,530 with a probability F value is 0,000 exist below the 5% significance level interpreted variables of value added intellectual capital, managerial ownership, institutional ownership, growth, debt to equity ratio, and the reputation of public accounting firms of jointly have an influence significant on financial performance.

4.3.3. Individual Statistic Test Results (t-test)

4.3.3.1. Hypothesis 1: Value Added Intellectual Capital (VAIC™) Positive Influence to Financial Performance

Based on the regression testing results shown in table 8, it is found that the Value Added Intellectual Capital variable has a regression coefficient of 0,036 and produces one-tailed significance value of 0,000 below the significance level $\alpha = 1\%$, meaning Value Added Intellectual Capital (VAIC™) has a significant positive effect on performance finance with a 99% confidence level. These results interpret Value Added Intellectual Capital (VAIC™) to have a positive effect on financial performance, so this study concluded that Ha1 was accepted.

The results of this study are in accordance with resource-based theory that companies gain competitive advantage when companies have superior resources (Barney *et al.*, 2012). The company's capability in managing good quality resources and utilizing the use of intangible assets that are strategic in nature, can potentially create added value in the long term as a competitive advantage for companies to improve financial performance.

The results of this study are consistent with previous studies conducted by Kurfi *et al.*, (2017); Triastuty and Riduwan (2017); Pratama (2016) find empirical evidence that intellectual capital has a positive influence on financial performance (Return On Assets), because intellectual capital is one type of intangible asset that is valued as a source of valuable, unique, rare, difficult to substitute assets, and difficult to imitate by competitors, so that this becomes a strong corporate resource to improve financial performance. The results of this study are also consistent with previous research conducted by Nur and Budi (2016); Iranmahd *et al.* (2014) also found empirical evidence that Value Added Intellectual Capital (VAIC™) has a positive effect on the achievement of corporate profits.

4.3.3.2. *Hypothesis 2: Managerial Ownership Moderating Influence Value Added Intellectual Capital (VAICTM) to Financial Performance*

Based on the results of the moderation regression test shown in table 8, this variable has a regression coefficient of -0,026 and gives a significant result with one-tailed value of 0,0015 above the significance level $\alpha = 5\%$. These results interpret that managerial ownership variables do not strengthen the effect of Value Added Intellectual Capital (VAICTM) on financial performance, so this study concludes rejecting Ha2.

The results of this study are consistent with research conducted by Khafid and Alifia (2018); Bohdanowicz (2014) who found empirical evidence that managerial ownership has a negative effect on intellectual capital that can reduce financial performance. The results of this study can be caused that managers do not have experience, insight and understanding of intellectual capital management activities. This indicates that there is not support and involvement of the management in carrying out the supervisory role and controlling the management of intellectual capital, so that the impact reduces financial performance.

4.3.3.3. *Hypothesis 3: Institutional Ownership Moderating Influence Value Added Intellectual Capital (VAICTM) to Financial Performance.*

Based on the results of the moderation regression test shown in table 8, this variable has a regression coefficient of -0,004 and gives a not significant result with a one-tailed value of 0,2805 above the significance level $\alpha = 5\%$. These results interpret that institutional ownership variables do not strengthen the effect of Value Added Intellectual Capital (VAICTM) on financial performance, so this study concludes rejecting Ha3.

The results of this study are consistent with research conducted by Khafid and Alifia (2018); Puniayasa and Triaryati (2016); Ratnasari *et al.* (2016) who found empirical evidence that institutional ownership does not affect intellectual capital which can reduce financial performance. The results of this study can be caused that institutional owners can sell their shares to the market if institutional owners experience no satisfaction with managerial performance. Managers carry out careful management of corporate intellectual capital when institutional ownership undergoes changes in behavior from passive to active which can increase managerial accountability. This indicates that institutional ownership cannot create an effort to improve company performance. The existence of information asymmetry between managers and shareholders causes managers as managers of companies to control the company because managers have more information about the management of corporate intellectual capital than shareholders. Therefore, the existence of institutional ownership cannot guarantee the supervision opportunistic behavior of managers in the management of the company's intellectual capital, thereby reducing financial performance.

4.3.4. *Control Variables Test Results*

4.3.4.1. *Growth*

Based on the results of regression testing shown in table 8, it is found that for the growth as a control variable generate not significance value one-tailed is 0,2765 above the significance level $\alpha = 5\%$ with a regression coefficient is 0,022. It can be concluded that the results of the regression model test indicate that the growth variable as a control variable does not affect return on assets.

The results of this study support previous research conducted by Wartiningtyas and Musdholifah (2016) found empirical evidence that growth does not affect return on assets. The results of this study can be caused by an increase in sales accompanied by a greater increase in costs so that the expected profit is not achieved. In the absence of a significant influence between growth and the company's financial performance, investors cannot receive signals given by the company through the amount of sales growth in the company. Therefore, the higher or lower the number of sales growth cannot give a signal effect to investors to carry out investments in the company.

4.3.4.2. Debt to Equity Ratio

Based on the results of regression testing shown in table 8, it is found that for the debt to equity ratio as a control variable generate significance value one-tailed is 0,036 below the significance level $\alpha = 5\%$ with a regression coefficient of -0,020. It can be concluded that the results of the regression model test show that the variable debt to equity ratio as a control variable has a significant negative effect to the return on assets.

The results of this study support previous research conducted by Sultan (2018); Dahiyat (2016) found empirical evidence that the debt to equity ratio has a negative significant effect on return on assets. The results of this study indicate that debt has a negative impact on company performance, because the higher level of debt or debt to equity ratio shows that it can reduce company profits. The company is obliged to carry out the fulfillment of its obligations so as to reduce the company's profits, and its impact results in a decrease in financial performance (return on assets).

4.3.4.3. Public Accounting Firm Reputation

Based on the results of regression testing shown in table 8, it is found that variable of public accounting firm reputation as a control variable generate significant value one-tailed is 0,000 below the significance level $\alpha = 1\%$ with a regression coefficient of 0,054. It can be concluded that the results of the regression model test show that the public accounting firm reputation as control variables has a negative significant influence to the return on assets.

The results of this study support previous research carried out by Mulyadi (2017) found empirical evidence that the reputation of public accounting firms has a significant positive effect on return on assets. The results of this study interpret that with good audit quality from external auditors, so external auditors can minimize the occurrence of fraud or opportunistic behavior of managers. If opportunistic behavior can be followed up, so it can affect enhancement the return on assets.

5. Conclusions and Suggestions

5.1. Conclusions

Based on test results with regression models were found: 1) Value Added Intellectual Capital (VAIC™) has a positive effect on financial performance; 2) managerial ownership do not strengthen the effect of Value Added Intellectual Capital (VAIC™) on financial performance; and 3) institutional ownership do not strengthen the effect of Value Added Intellectual Capital (VAIC™) on financial performance.

5.2. Suggestions

Here are some suggestions that can be used for further research: 1) In future research to determine measurement of companies performance can use other proxies such as Return On Equity, Tobin's Q, and Return On Investment; 2) Can add other moderating variables such as ownership structures using government ownership and foreign ownership; and 3) Can add research samples to companies in various countries besides companies in Indonesia, so that the results of research tests can be generalized and more representative.

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