

Intellectual Capital And Financial Performance: The Case Of Plantation Companies In Indonesia

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Abstract: Intellectual Capital in Indonesia began to develop from the emergence of PSAK No. 19 (revised 2000) regarding intangible assets. This indirectly supports the company to disclose information about IC in detail by itself will create company value. IC can support competitiveness in the market so that an entity's financial performance can be even better. Researchers take the object of research into plantation companies, it is assumed that plantation companies need large resources in managing natural resources so they must be serious in handling them.

1. Introduction

Afifulsyah and Suci (2020) explain that in realizing an increase in the quality of human resources, employee development programs are needed such as training programs, recruitment, monitoring and others. Based on this, the researchers suspect that the higher the adequacy of funds owned by the company, the support it will be to manage existing resources, one of which is IC which cannot stand alone without adequate funds or finances.

Rahmah and Teuku (2019) explain in their research that IC is generally identified as the difference between the market value of a business and the book value of the company's assets or its financial capital. Actually the measurement of IC according to Kuspinta and Achmad (2018) is difficult to identify directly but can be indirectly by using the measurement of added value efficiency created by the results of the company's intellectual ability in the form of Value Added Intellectual Capital (VAIC). This IC research is in the form of human capital and technology capital whether it can affect the company's financial performance.

2. Methodology

This type of research is quantitative with a descriptive approach, to test whether IC has an effect on financial performance. The sample is the population of plantation companies listed from 2017-2019 on the Indonesia Stock Exchange, where there are 17 companies and the total population is 51 companies. The dependent variable in this study is Return on Assets (ROA) and Return on Equity (ROE) as indicators of company profitability. The greater the ROA reflects the company's performance in using its assets, both physical and non-physical (IC). The ROA

$$ROA = \frac{\text{Laba bersih setelah pajak}}{\text{Total Aset}}$$

$$ROE = \frac{\text{Laba bersih setelah pajak}}{\text{Total Modal}}$$

and ROE formulations (Brigham and Houston, 2006) are:

IC is often seen as a form of "uncalculated capital" in traditional accounting systems (Abeysekera and Guthrie, 2005; Alfraih, 2017) but three elements emerge, namely human capital, structural capital and customer (relational) (Wang Chang, 2005; Alfraih, 2017). Based on that, the authors are interested in writing about IC, IC is the dependent variable symbolized by VAIC using three ways, namely Value Added Capital Efficient (VACA), The Human Capital Coefficient (VAHU), and Structural Capital Coefficient (STVA). VACA according to Afifulsyah and Suci (2020) is a comparison between Value Added (VA) and working physical capital (CA). VA is the difference between output and input. Output (total sales and other income) minus input (expenses and costs other than employee expenses). While CA is employee capital (available funds such as equity and net funds).

$$VACA = VA/CA$$

VAHU are expenses incurred by employees which are stated in rupiah and expenses incurred by employees.

$$VAHU = VA/HC$$

then, STVA shows the contribution of structural capital in value formation.

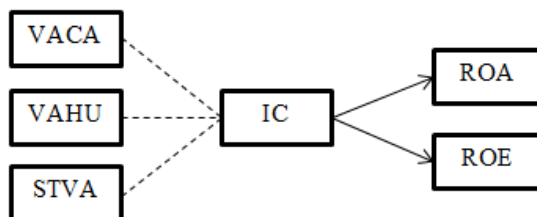
$$STVA = SC/VA$$

These ratios are calculations that make up the IC which forms the following formulations:

$$VAIC = VACA+VAHU+STVA$$

Table 1 Company Samples

NO	KODE	NAMA EMITEN
1	AALI	Astra Agro Lestari Tbk
2	ANDI	Andira Agro Tbk
3	ANJT	Austindo Nusantara Jaya Tbk
4	BWPT	Eagle High Plantations Tbk
5	DSNG	Dharma Satva Nusantara Tbk
6	GZCO	Gozco Plantations Tbk
7	JAWA	Jaya Agra Wattie Tbk
8	LSIP	PP London Sumatra Indonesia Tbk
9	MAGP	Multi Agro Gemilang Plantation Tbk
10	MGRO	Mahkota Group Tbk
11	PALM	Provident Agro Tbk
12	SGRO	Sampoerna Agro Tbk
13	SIMP	Salim Ivomas Pratama Tbk
14	SMAR	Smart Tbk
15	SSMS	Sawit Sumbermas Sarana Tbk
16	TBLA	Tunas Baru Lampung Tbk
17	UNSP	Bakrie Sumatera Plantations Tbk



Picture 1 Framework

3. Research Results and Discussion

This study was analyzed using descriptive statistical analysis and panel data regression analysis. Descriptive statistical analysis is used to analyze the research variables consisting of the mean, standard deviation, maximum, and minimum. Meanwhile, panel data regression analysis is used to determine the effect of the independent variable on the dependent variable.

This research technique uses panel data regression analysis using EViews 9 software. In this panel data analysis technique, there are methods that can be used, namely the common effect model, the fixed effect model and the random effect model. Model 1 passes the Chow Test, Hausman Test, and the Lagrange Multiplier Test. Based on

the results of the Chow test and the Hausman test, it is stated that the Random effect method is a suitable model for the regression model, so it can be concluded that this research model uses a random effect approach. Model 2 went through the same test stage but had different results. Based on the results of the Chow test and the Hausman test, it is stated that the Random effect method is a suitable model for the regression model, so it can be concluded that this research model uses a random effect approach.

The classic assumption test in this study model 1 and model 2, has data that is not normally distributed. Because the data is panel data, data normality is assumed to have been fulfilled because the panel data has more than 30 observation members, this is in accordance with the central limit theorem which states that if there are n more than 30 then it is stated that the data has a tendency to distribute normal (Mclave, 2015). Based on this, further testing can be carried out. This research is not autocorrelation and homoscedastic and there is no heteroscedasticity problem.

Table 2 Regression Results Model 1

Sample: 2017 2019
 Periods included: 3
 Cross-sections included: 17
 Total panel (balanced) observations: 51
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.024611	0.022770	-1.080849	0.2851
VAIC_X	2.87E-05	3.86E-05	0.742630	0.4613
Effects Specification				
			S.D.	Rho
Cross-section random			0.075382	0.4729
Idiosyncratic random			0.079592	0.5271
Weighted Statistics				
R-squared	0.011343	Mean dependent var	-0.009816	
Adjusted R-squared	-0.008834	S.D. dependent var	0.078486	
S.E. of regression	0.078832	Sum squared resid	0.304512	
F-statistic	0.562177	Durbin-Watson stat	1.497202	
Prob(F-statistic)	0.456969			
Unweighted Statistics				
R-squared	0.023904	Mean dependent var	-0.018859	
Sum squared resid	0.560256	Durbin-Watson stat	0.813764	

Sumber: Hasil output Eviews 9, 2021

Thus, a simple linear regression equation is obtained as follows:

$$Y_1 = -0.024611 + 2.87E-05X$$

$a = -0.024611$: meaning that if VAIC is zero (0), then ROA will be worth -0.024611 units.

$\beta_1 = 2.87E-05$: this means that if the VAIC increases by one unit, then the ROA will increase by 2.87E-05 units.

Table 3 Regression Results Model 2

Dependent Variable: ROE_Y2
 Method: Panel EGLS (Cross-section random effects)
 Date: 03/06/21 Time: 14:07
 Sample: 2017 2019
 Periods included: 3
 Cross-sections included: 17
 Total panel (balanced) observations: 51
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.049890	0.056788	-0.894289	0.3765
VAIC_X	5.01E-05	9.43E-05	0.531811	0.5973

Effects Specification		S.D.	Rho
Cross-section random		0.193476	0.5702
Idiosyncratic random		0.167960	0.4298

Weighted Statistics			
R-squared	0.005857	Mean dependent var	-0.017851
Adjusted R-squared	-0.014432	S.D. dependent var	0.165066
S.E. of regression	0.166253	Sum squared resid	1.354367
F-statistic	0.288661	Durbin-Watson stat	1.536932
Prob(F-statistic)	0.593512		

Unweighted Statistics			
R-squared	0.011862	Mean dependent var	-0.039840
Sum squared resid	3.038895	Durbin-Watson stat	0.684976

Sumber: Hasil output Eviews 9, 2021

Thus, a simple linear regression equation is obtained as follows:

$$Y_2 = -0.049890 + 5.01E-05X$$

$a = -0.049890$: this means that if the VAIC is zero (0), then the ROE will be -0.049890 units.

$\beta_1 = -5.01E-05$: this means that if the VAIC increases by one unit, then the ROE will decrease by 5.01E-05 units.

Table 4 Results of the Coefficient of Determination Model 1

Model	R Square	Adjusted R Square	S.E. of regression
ROA	0.011343	-0.008834	0.078832

From the analysis in Table 4, it can be seen that VAIC has an influence on ROA of 0.011343 or 1.13%. ROA has an effect but not significant and the rest is influenced by other variables not examined in this study (Hussain et al., 2019).

Table 5 Results of the Coefficient of Determination Model 2

Model	R Square	Adjusted R Square	S.E. of regression
ROE	0.005857	-0.014432	0.166253

From the analysis in Table 5, it can be seen that VAIC has an influence on ROE of 0.005857 or 0.59%. ROE has an effect but not significant and the rest is influenced by other variables not examined in this study.

4. Conclusion

The conclusion of this study is IC has an effect on ROA and ROE but not significant. This research can be used as a reference for the next writer and developed again. This is in line with research conducted by Arifulsyah and Suci (2020) who examined with the same sample, namely plantations, Rahmah and Teuku (2019) who researched in the banking sector that IC was influenced by ROA of 93.5%. Cahyani, Tara and Jelita (2015) also have similar results. Hamdan (2017) explains the results of his research on IC between two countries, namely the Kingdom of Saudi Arabia and the Kingdom of Bahrain for the 2014-2016 period in general, the results show that the traditional accounting-based measure of ROA can capture the relationship between intellectual capital and performance. Torre, Aurelio and Gennaro (2020) also have positive results regarding Relational Capital, Human Capital and Organizational Capital affecting the Company's Regional Health performance and, consequently, how the latter can positively affect Employee Satisfaction. Slightly different from the results of research by Harahap and Nurjannah (2020) which partially affect ROA, only Value Added Human capital, Value Added Capital employed.

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