

The Effect of Profitability, Leverage and Company Size on Intellectual Capital Disclosure (2019-2021 Non-Cyclical Company Sector)

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Abstract

This study aims to determine the effect of profitability, leverage and firm size on intellectual capital disclosure in the non-cyclical sector of the company in 3 years of observation (2019-2021). The population used in this study were 111 companies and the return of the sample was purposive sampling technique and produced 44 samples of companies. Based on the results of multiple linear regression analysis (t- test), it can be concluded that profitability has no effect on intellectual capital disclosure, leverage has no effect on intellectual capital disclosure and firm size has no effect on intellectual capital disclosure.

Keywords: Profitability, Leverage, Firm Size and Disclosure of Intellectual Capital.

INTRODUCTION

Disclosure of financial reports helps ensure that the capital market operates effectively and serves as a tool to ensure public accountability. As a method of accountability, especially to owners of capital, every public business entity is expected to provide annual financial reports that are audited by an independent public

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accounting firm. The annual report functions both as a management accountability tool for the resources entrusted to it and as a source of information for investors as one of the fundamental factors in making investment decisions in the capital market. The basic purpose of reporting is to offer the information needed for interested parties to make decisions (Ardi, 2007). Because it contains intangible assets that are used to evaluate the value of the company, Intellectual capital has become a hot topic in the last ten years. To meet the needs of information users and reduce information asymmetry between the two, company management also believes that disclosure of intellectual property capital is necessary (Nugroho, 2012). Widjanarko (2006) claims that there are three main components that make up intellectual capital; (1) Human Capital, (2) Structural Capital or Organizational Capital, (3) Relational Capital or Customer Capital. Widjanarko (2006) claims that there are three main components that make up intellectual capital; (1) Human Capital, (2) Structural Capital or Organizational Capital, (3) Relational Capital or Customer Capital. Widjanarko (2006) claims that there are three main components that make up intellectual capital; (1) Human Capital, (2) Structural Capital or Organizational Capital, (3) Relational Capital or Customer Capital.

Table 1. Intellectual Capital Value Added Data
Non-Cyclical Company Sector Period 2019-2021 (in percent)

Year Period	VAIC (%)
2019	178%
	264%
	675%
2020	313%
	346%
	844%
2021	524%
	466%
	137%

Source: BI Published Financial Report (processed)

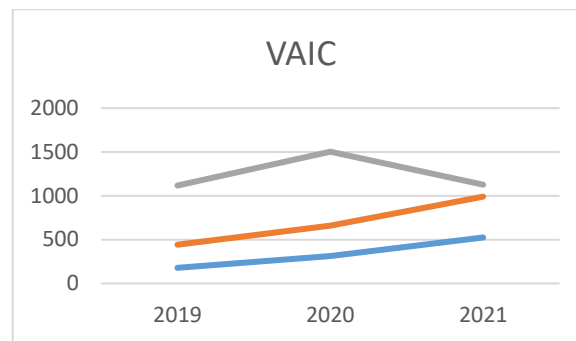


Figure 1. Graph of Value Added Intellectual Capital Development

From the non-cyclical company sector 2019-2021 period (in percent)

The figure above explains that VAIC (Value Added Intellectual Capital) has fluctuated. In 2021 VAIC will decrease. The decrease in VAIC (Value Added Intellectual Capital) shows a value of 137%. Whereas in 2020, VAIC (Value Added Intellectual Capital) experienced a significant increase, showing a value of 844%.

The relationship between profitability and disclosure of intellectual capital has been studied by several researchers, including Nurul Nisah Nurdin, et al (2019) with the title "The Effect of Company Size, Profitability, Leverage on Disclosure of Intellectual Capital". This shows how profitability has a positive effect on intellectual capital disclosure. Putu Mentari, et al (2016) with the title "The Influence of Company Age, Company Size, Profitability, Leverage and Independent Commissioners on Disclosure of Intellectual Capital" this shows how profitability has a negative effect on intellectual capital disclosure. Rima Aprisa (2014) with the title "The Influence of Company Size, Profitability, Auditor Type, and Industry Type on Disclosure of Intellectual Capital".

The relationship between Leverage and intellectual capital disclosure has been studied by several researchers, including Mariantin Robertine (2017) with the title "The Influence of Company Age, Leverage, and Profitability on Disclosure of Intellectual Capital", this shows how Leverage has a positive effect on intellectual capital disclosure. Vega Anismadiyah (2018) with the title "The influence of independent commissioners, leverage, and company age on intellectual capital disclosure and its impact on automotive company performance", this shows how leverage has a negative effect on intellectual capital disclosure. Putu Mentari, et al (2016) with the title "The Influence of Company Age, Company Size, Profitability, Leverage and Independent Commissioners on Disclosure of Intellectual Capital".

The relationship between company size and intellectual capital has been studied by several researchers, including Rifky Sulviar (2019) with the title "The effect

of independent commissioners, leverage, and company age on disclosure of intellectual capital and its impact on the performance of automotive companies", this shows how company size has a positive effect on disclosure of intellectual capital. Rima Aprisa (2014) with the title "The Influence of Company Size, Profitability, Auditor Type, and Industry Type on Disclosure of Intellectual Capital", this shows how company size has a negative effect on intellectual capital disclosure. Putu Mentari, et al (2016) with the title "The Influence of Company Age, Company Size, Profitability, Leverage and Independent Commissioners on Disclosure of Intellectual Capital".

LITERATURE REVIEW

Agency Theory

The interaction between owners of capital (principals), such as investors and managers, is explained by the notion of agency (agents). Managers are given authority by investors to run their business. The agency hypothesis is based on the principal-agent contractual relationship, which is challenging to establish because of competing interests. One important aspect of agency theory according to Govindarajan (2008) is that principals and agents have different preferences and goals. According to the agency principle, everyone acts in their own best interest. Agents are considered satisfied with the terms of the agency relationship, such as the right amount of free time, desirable working conditions, and flexible working hours, in addition to the monetary remuneration they receive. Principal; believed to be exclusively concerned with the financial returns generated from their investment in the company. Disclosure of intellectual capital plays an important role and can be used as additional company information that agents report to principals. Because it includes information about non-financial factors such as human capital, structural capital and relational capital, all of which are components of intellectual capital disclosure.

Disclosure of Intellectual Capital (Intellectual Capital)

The level of disclosure of intellectual capital in the annual report is determined using the index, Guthrie and Petty (2004), which is a widely used indicator. Rahim and other scholars also use this paradigm (2011). When the relevant item is disclosed by the company in its annual report, a score of 1 is given. A score of 0 is given if the company does not disclose the items mentioned in the annual report. Comparing the amount of intellectual capital disclosure that must be made by companies with the amount of intellectual capital disclosures that have been made by companies is one of the methods used to evaluate ICD.



Profitability

According to Kasmir (2016), the profitability ratio is a metric used to evaluate a company's capacity to seek profit. The utilization of the ratio is the key point. It shows organizational effectiveness. The technique for calculating profitability used in this study is Return On Assets (ROA), which shows the ability of a business to generate money from the assets it has used.

Leverage

The ratio used to measure how much of a company's assets are financed by debt is called the solvency ratio, also known as the Leverage ratio. According to Kasmir (2016), emphasized that the solvency ratio can be used to measure a company's ability to fulfill all obligations, both immediate and long term. Debt to equity ratio is used to calculate leverage in this study (DER).

Company Size

The number that represents the size of the company is called "company size". Large companies often have various business divisions or operations (Purnomosidhi, 2012). All assets owned by the company are converted into the natural logarithm form to determine the size of the company.

Research Hypothesis

The Effect of Profitability on Disclosure of Intellectual Capital

One of the metrics to evaluate a company's performance is profitability. A company's ability to generate profits over a certain period of time at a certain level of income, assets and share capital is indicated by its profitability. Haniffa and Cooke (2005) show that the more profitable a business is, the more voluntary information will be released to the public. Because the more information, including disclosure of intellectual capital, is disclosed the more financially supported the company. Profitability has a positive effect on company disclosure, according to research by Ullmann (1985), Shingvi and Desai (1997), which shows that the more profitable a company is, the more intellectual capital is disclosed. Thus, the research hypothesis is as follows:

H1: Profitability has a positive effect on Intellectual Capital Disclosure

The Effect of Leverage on Disclosure of Intellectual Capital

According to White's research from 2007, there is a sizeable relationship between leverage and voluntary disclosure of intellectual property. Similar findings were made in research (White, 2007) regarding the existence of a strong relationship



between firm leverage and voluntary disclosure. However, Chow and Wongboren's (1987) research reveals that there is no relationship between corporate leverage and disclosure of New Zealand corporate intellectual property capital. Thus, the research hypothesis is as follows:

H2: Leverage has no effect on Intellectual Capital Disclosure

Effect of Company Size on Disclosure of Intellectual Capital

Due to pressure from shareholders and investment analysts to disclose more information, stricter regulatory oversight, the complexity of corporate structures, and the need to provide information to various user groups, company size is also a significant factor in explaining variations in information disclosure (Haniffa and Cooke, 2002). Demediuk (2002) provides an explanation why big business compared to small business, big business discloses more information. First, because they are assumed to have provided this information for internal use, large companies can disclose comprehensive information at relatively lower costs. Second, because annual reports are the primary source of information for competitors, small businesses are hesitant to disclose their activities in greater detail for fear that it may put them at a competitive disadvantage. Third, big business is more aware of political costs (political costs) and will leak more information to avoid public reaction or government intervention. Thus, the research hypothesis is as follows:

H3: Company size has no effect on Intellectual Capital Disclosure

RESEARCH METHODS

The method used this research is a descriptive statistical analysis, according to Sugiyono (2017: 35), is a study of the existence of independent variables based only on one or more variables (stand-alone variables or independent variables), without comparing variables or looking for correlations with other factors. And sampling in this study using purposive sampling method, where the sampling technique is with certain considerations (Sugiyono, 2015). The population used in this study used 111 non-cyclical companies and produced a sample of 44 companies with the following sample selection criteria:

1. Non-cyclical companies listed on the Indonesia Stock Exchange from 2019 to 2021 consecutively.
2. Non-cyclical companies that consistently publish financial reports and annual reports for the 2019-2021 period (Financial Reports as of December 31, are financial reports that have been audited)
3. Non-cyclical companies whose annual reports can be accessed and downloaded by researchers.



The dependent variable used in this study is the Intellectual Capital Disclosure variable. The value added efficiency of intellectual capital capability, also known as the Value Added of Intellectual Coefficient (VAIC), is a method used to measure Intellectual Capital (IC) performance variables. This is based on the relationship between the three constituent components, namely physical capital (VACA), human capital (VAHU), and structural capital (STVA) (Ulum, 2009). And the independent variables used in this study include profitability, leverage, and company size. The formula for calculating the dependent and independent variables in this study is as follows:

Table 2. Definition and Measurement of Variables

No.	Variable	Operational Definition	Measurement	Scale
1	Profitability	Metrics used to evaluate a company's capacity to seek profits.	$ROA = \frac{Laba Bersih}{Total Asset}$	Ratio
2	Leverage	The metric used to assess how much a company's assets are supported by debt.	$DER = \frac{Total Utang (Debt)}{Ekuitas (Equity)}$	Ratio
3	Company Size	Metrics often used to describe the extent of disclosures made in annual reports.	Company Size = $\ln.Total Asset$	Ratio



	Intellectual Capital Disclosure	Metrics that provide a clearer picture to the business and its affiliates.	$VAIC = VACA + VAHU + STVA$ Information : $VACA = \frac{VA}{CE}, VAHU = \frac{VA}{HC}, STVA = \frac{SC}{VA}$ $VA = OUT - IN$ $SC = VA - HC$ $OUT = Output = \frac{\text{Total Sales}}{\text{Total Sales}}$ $IN = Input = \frac{\text{Operating Expenses (other than employee expenses)}}{\text{Operating Expenses (other than employee expenses)}}$ $CE = \frac{\text{Capital Employed}}{\text{Capital Employed}} = \frac{\text{Funds available (Net Profit)}}{\text{Funds available (Net Profit)}}$ $HC = \frac{\text{Human Capital}}{\text{Human Capital}} = \frac{\text{Employee Expenses}}{\text{Employee Expenses}}$	Ratio
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RESULT

Descriptive Statistical Analysis

Table 3. Descriptive Statistics Results

	VAIC	ROA	DER	SIZE
Mean	2.988380	0.091864	1.038636	18.98403
Median	2.631000	0.066400	0.766100	17.31310
Maximum	8.496600	0.607200	4.227900	28.99690
Minimum	1.166200	0.000500	0.092400	13.62000
Std. Dev.	1.499494	0.095528	0.897760	4.377526
Skewness	1.693100	3.009862	1.500986	0.882337
Kurtosis	5.810373	14.92807	5.140112	2.823907

Source: data processed using Eviews 12 software

Based on table 2.1, the minimum VAIC value is 1.1662%, which means that it is the lowest in non-cyclical companies of 1.1662 of the total *physical capital* (VACA), human capital (VAHU), and structural capital (STVA). The maximum value is 8.4966%, which means the highest cost is 8.4966 of the total physical capital (VACA), human capital (VAHU), and structural capital (STVA). The average VAIC variable is 2.9883%,

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which means the average cost is 2.988 of total physical capital (VACA), human capital (VAHU), and structural capital (STVA). The standard deviation for VAIC is 1.4994%, which means that the deviation of the VAIC value from the average is 1.4994.

The minimum value of ROA is 0.0005, which means the lowest is in non-cyclical sector companies of 0.0005% of total physical capital (VACA), human capital (VAHU), and structural capital (STVA). The maximum value of 0.6072 means that the highest income is 0.6072% of the total assets it owns. The average ROA variable is 0.0918 which means that the average company experiences a profit of 0.0918%. The standard deviation for ROA is 0.0955, which means that there is a deviation from the ROA value to the average of 0.0955%.

The minimum DER value is 0.0924 which means the lowest debt value to non-cyclical company capital is 0.0924%. The maximum value is 4.2279 which means that the value of the company's debt to capital is 4.2279% of the company's capital. The average DER variable is 1.0386 which means that the value of the company's debt to capital is 1.0386%. The standard deviation for DER is 0.8977, which means that there is a deviation in the DER value from the average value of 0.8977%.

The minimum value of company size is 13.6200 which means the lowest value is in a non-cyclical company of 13.6200%. The maximum value is 28.9969 which means the highest value is 28.9969%. The average variable size of the company (size) is 18.9840 which means the average size of the company (size) is 18.9840%. The standard deviation for company size is 4.3775, which means that there is a deviation in the value of company size to the average of 4.377%.

Panel Data Regression Estimation

a. Common Effect Model (CEM)

Table 4 Common Effect Model (CEM) Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.669383	0.391214	6.823338	0.0000
ROA	12.12003	0.840285	14.42372	0.0000
DER	0.031913	0.088714	0.359723	0.7196
SIZE	-0.043592	0.018364	-2.373762	0.0191

Source: data processed using Eviews 12 software

b. Random Effect Model (REM)**Table 4. Results of Random Effect Model (REM)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.659662	0.597227	4.453352	0.0000
ROA	12.13368	0.686628	17.67141	0.0000
DER	-0.040875	0.120586	-0.338968	0.7352
SIZE	-0.039164	0.029409	-1.331697	0.1853

Source: data processed using Eviews 12 software

c. Fixed Effects Model (FEM)**Table 5. Fixed Effect Model (FEM) Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.19529	6.097455	-1.836059	0.0698
ROA	12.08847	0.758487	15.93762	0.0000
DER	-0.308746	0.214678	-1.438180	0.1541
SIZE	0.705532	0.323302	2.182272	0.0318

Source: data processed using Eviews 12 software

Selection of Panel Data Regression Model Techniques**a. Chow test****Table 6. Chow Test Results**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.947319	(43,85)	0.0000
Cross-section Chi-square	237.218164	43	0.0000

Source: data processed using Eviews 12 software

Based on the above calculation results of the Probability of Cross-section F and Cross-section chi-square $< \alpha$ (0.05), it can be concluded that the Fixed Effect Model (FEM) is more appropriate to use than the Common Effect Model (CEM).

b. Hausman test**Table 7. Hausman Test Results**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.369968	3	0.0949

Source: data processed using Eviews 12 software

Based on the calculation results above the Probability (Prob.) Cross-Section random $> \alpha$ (0.05), it can be concluded that the Random Effect Model (REM) is more appropriate to use than the Fixed Effect Model (FEM).

c. Lagrange Multiplier Test**Table 8. Lagrange Multiplier Test Results**

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	70.64455 (0.0000)	0.006599 (0.9353)	70.65115 (0.0000)

Source: data processed using Eviews 12 software

Based on the calculation results above, the Breusch-pagan Cross-section Probability value $< \alpha$ (0.05), it can be concluded that the Random Effect Model (REM) is more appropriate to use than the Common Effect Model (CEM).

No.	Method	Testing	Results
1	Chow test	CEMs vs FEMs	FEM
2	Hausman test	REM vs FEM	REM
3	Lagranger Multiple Test	CEM vs REM	REM

Based on the results of the three tests that have been carried out, it can be concluded that the panel data regression model that will be used in hypothesis testing and panel data regression analysis is the Random Effect Model (REM) model.

Hypothesis Testing**1. F Test****Table 9. F test results**

Weighted Statistics			
R-squared	0.707921	Mean dependent var	0.921235
Adjusted R-squared	0.701075	S.D. dependent var	0.842665
S.E. of regression	0.460719	Sum squared resid	27.16955
F-statistic	103.4123	Durbin-Watson stat	1.342488
Prob(F-statistic)	0.000000		

The output above shows that the F-statistic value is 103.4123, while the F table with a level of $\alpha = 0.005$, $df_1 (k-1) = 3$ and $df_2 (nk) = 128$, the F table value is 2.29. thus F-statistic (103.4123) > F-table (2.29) and Prob value (F-statistic) 0.00000 < 0.05, it can be concluded that H_a is accepted, so it can be concluded that the independent variables in this study consist of ROA, DER and SIZE have influence on VAIC.

2. Coefficient of Determination (R²)**Table 10. Determination Coefficient Test Results (R²)**

Weighted Statistics			
R-squared	0.707921	Mean dependent var	0.921235
Adjusted R-squared	0.701075	S.D. dependent var	0.842665
S.E. of regression	0.460719	Sum squared resid	27.16955
F-statistic	103.4123	Durbin-Watson stat	1.342488
Prob(F-statistic)	0.000000		

Source: data processed using Eviews 12 software

The table above shows that the Adjusted R-squared value is 0.707921, which means that the variation in changes in the ups and downs of VAIC can be explained by ROA, DER and SIZE of 70.7%, while the remaining 29.3% is explained by variables not examined. in research.

3. T Test

T-test is used to test the effect of each independent variable (Profitability, Leverage, Firm Size) on the dependent variable (Intellectual Capital Disclosure). The results of the T test for each independent variable on the dependent variable can be explained as follows:

Table 11. T test results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.659662	0.597227	4.453352	0.0000
ROA	12.13368	0.686628	17.67141	0.0000
DER	-0.040875	0.120586	-0.338968	0.7352
SIZE	-0.039164	0.029409	-1.331697	0.1853

Source: data processed using Eviews 12 software

DISCUSSION

Effect of ROA on Intellectual Capital Disclosure

The results of the table above show that the return on assets t-statistic value is 17.67141, while the t table with a level of $\alpha = 0.05$, $df(nk) = 128$ obtains a value of 1.65685. Thus t-statistic ROA (17.67141) > t table 1.65685 with a Prob value of 0.0000 < 0.05, it can be concluded that the variable Return On Assets (ROA) has an influence on disclosure of intellectual capital.

The effect of DER on Intellectual Capital Disclosure

The results of the table above show that the value of the t-statistic DebtTo Equity is 0.338968, while t table with level $\alpha = 0.05$, $df(nk) = 128$ gets a value of 1.65685. Thus the t-statistic DER (-0.338968) > t table 1.65685 with a Prob value of 0.7352 > 0.05, it can be concluded that the Debt To Equity (DER) variable has no effect on intellectual capital disclosure.

The effect of SIZE on Intellectual Capital Disclosure

The results of the table above show that the t-statistic value of firm size (SIZE) is -1.331697, while the t table with a level of $\alpha = 0.05$, $df(nk) = 128$ obtains a value of 1.65685. Thus the t-statistic SIZE (-1.331697) > t Table 1.65685 with the Prob value. 0.1853 < 0.05, it can be concluded that the firm size variable (SIZE) has no effect on intellectual capital disclosure.

CONCLUSION

Based on the test results above, it can be concluded that:

1. The profitability variable is concluded to have an effect on intellectual capital disclosure.
2. The leverage variable is concluded to have no effect on intellectual capital disclosure.
3. It is concluded that the firm size variable has no effect on intellectual capital disclosure.



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