

THE INFLUENCE OF INTELLECTUAL CAPITAL ON THE FINANCIAL PERFORMANCE OF MANUFACTURING COMPANIES IN THE FOOD AND BEVERAGE INDUSTRY SECTOR LISTED ON THE IDX

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ABSTRACT

This study aims to determine the Influence of Intellectual Capital on Financial Performance in Manufacturing Companies in the Food and Beverage Industry Sector Listed on the IDX. The independent variables in this study are Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), Structural Capital Value Added (STVA) while the dependent variable is ROA. This study uses a quantitative method and the sampling technique used in this study is Purposive Sampling, so that a sample of 6 Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector Listed on the IDX is obtained. The analysis method uses multiple linear regression methods. The results of this study indicate that there is no influence of VACA on Financial Performance in Manufacturing Companies in the Consumer Goods Industry Sector. There is an influence of VAHU on Financial Performance in Manufacturing Companies in the Consumer Goods Industry Sector. There is no influence of STVA on Financial Performance in Manufacturing Companies in the Consumer Goods Industry Sector. There is no influence of VACA, VAHU and STVA simultaneously on the Financial Performance of Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector Listed on the IDX.

INTRODUCTION

Currently, competition between companies in Indonesia is getting tighter. This competition requires companies to make more efforts in developing their businesses. In order to develop a business, a step is needed in developing the right strategy in order to continue to exist in this tight competition and be highly competitive by improving company performance. Choosing the right strategy will provide strength for the company in developing its business. Developments in the current business world require a company to make the best contribution to advancing its company so that it does not fall easily and continues to be at the top, the company must do its best to build its company's performance. According to Sutrisno (2021) the company's financial performance is an achievement achieved by the company in a certain period that reflects the level of the company. The company must transition from a workforce-based business to a knowledge-based business in order to survive quickly. The company's financial performance can be assessed by various types of ratios, one of which is the profitability ratio. According to Herry (2018), the profitability ratio is a ratio used to measure the company's ability to generate profits from its

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normal business activities. The profitability ratio can be used as a tool to measure the level of effectiveness of management performance. Return On Assets (ROA) is one type of profitability ratio to measure financial performance which is calculated by dividing net income by total assets. The higher the Return on assets (ROA) value, the higher the profit obtained by the company. One of the factors that affects a company's financial performance is intellectual capital. Companies that only rely on the strength of natural resources and financial resources will find it difficult to win the competition. The attention that companies are currently paying to the management of their intellectual capital in recent years has generally increased significantly. This is due to the awareness of company owners that intellectual capital is a vital part for every company to continue to grow and develop and with that as a factor in the company's superiority compared to other companies. Sullivan in his statement said that intellectual capital is knowledge that can be converted into profit. Besides Sullivan, another opinion about intellectual capital was put forward by Williams, he has the opinion that intellectual capital is information and knowledge that is applied in work in order to produce or create value. There are several studies on Intellectual Capital that have been conducted previously, one of the researchers is Johan (2018) entitled "The Influence of Intellectual Capital on the Financial Performance of Banking Companies in Indonesia (Empirical Study on Banking Listed on the Indonesia Stock Exchange in 2011-2016)". This study uses VACA, VAHU, and STVA as measuring tools for Intellectual Capital. The results of the study show that intellectual capital has a positive and significant effect on the company's financial performance, namely on (Return on Assets) ROA. The next study is Astari and Darsono (2020) entitled "The Influence of Intellectual Capital on Company Performance. This study aims to examine the effect of intellectual capital on company performance. Based on the results of previous research and discussions, the conclusion of this study is that Structural Capital Employed (SCE) and Capital Employed Efficiency (CEE) have a significant positive effect on company performance. The higher the SCE and CEE, the higher the company's performance. While Human Capital Employed (HCE) has a negative effect on company performance. This shows that the higher the HCE, the lower the company's performance.

Intellectual Capital

Intellectual Capital is a variety of knowledge resources, experience, and expertise related to employee expertise, good relationships with customers, and the company's information technology capacity that significantly contribute to the value creation process so that it can provide a competitive advantage for the company (Priatna & Limakrisna, 2021).

Intellectual Capital Components

Measurement of the efficiency of tangible assets and intangible assets owned by the company using the VAIC method, which consists of three components: Value added Capital employed (VACA), Value added Human capital (VAHU), and Structural capital Value added (STVA). This study uses the Value added Intellectual Coefficient VAIC™ Model developed by Pulic. According to Ulum (2020:120) this method is designed to present information about the creation of efficient value from tangible assets and intangible assets owned by the company. VAIC™ is an instrument to measure the performance of a

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company's intellectual capital in evaluating the efficiency of added value (VA). Value Added is the most objective indicator for assessing business success and shows the company's ability to create value (Value Creation). VA is influenced by the efficiency of Human Capital (HC) and Structural Capital (SC). VA is calculated as follows:

$$VA = \text{Output} - \text{Input}$$

Output is total sales and other income. While Input is sales expenses and other expenses other than employee expenses. VA can also be generated or calculated from the sum of OP (operating profit), EC (employee expenses), D (depreciation), and A (amortization). Based on what has been conveyed above, the components of Intellectual Capital can be calculated as follows:

1. Value added Capital employed (VACA)
VACA is an indicator for VA created by one unit of human capital. This relationship is formulated as $VACA = VA/CE$, where VACA is the ratio of VA to CE, and Capital Employment is the available funds (equity, net profit).
2. Value added Human capital (VAHU)
VAHU shows how much VA can be generated with funds spent on labor. This relationship is formulated as $VAHU = VA/HC$, where VAHU is the ratio of VA to HC, and Human capital is employee expenses.
3. Structural capital Value added (STVA)
This ratio measures the amount of SC ($SC = VA - HC$) needed to generate one rupiah of VA and as an indication of how successful SC is in creating value. This relationship is formulated as $STVA = SC/VA$, where STVA is the ratio of SC to VA, and $SC = VA - HC$. The final ratio in assessing a company's intellectual capital is the sum of the three components above, and can be formulated as follows: $VAIC^{\text{TM}} = VACA + VAHU + STVA$.

Definition of Financial Performance

Financial performance is a form of assessment based on the principle of benefits and efficiency in the use of the financial budget. Through financial performance, companies can evaluate the efficiency and effectiveness of company activities over a certain period of time. Financial performance is also useful as one of the considerations for investors or external parties in investing their capital in the company. According to Kurniasari (2014), financial performance is the work achievement in the financial sector that has been achieved by the company and is stated in the company's financial statements. A company's financial performance can be assessed using analysis tools. Meanwhile, according to IAI (2015), financial performance is the company's ability to manage and control its resources.

Financial Performance Indicators

Susilowati and Turyanto (2011), the company's financial performance as measured by ROA causes appreciation and depreciation of stock prices and has an impact on the company's shareholders [19]. Increasing ROA indicates that the company's performance is getting better and shareholders will benefit from the dividends received also increasing. So that increasing ROA will be an attraction for investors and/or potential investors to invest their funds in the company. If the demand for bank shares increases, the price of the bank's

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shares in the capital market tends to increase. According to Dendawijaya (2015) ROA is used to measure the ability of bank management to obtain overall profits [20]. The greater the ROA of a bank, the greater the profit achieved by the bank and the better the position of the bank in terms of asset use. The ROA formula is as follows:

$$\text{Return on Asset} = \frac{\text{Net Income}}{\text{Total Aset}} \times 100\%$$

METHODS

The type of research conducted is quantitative research, namely the annual financial report of the Food and Beverage Consumer Goods Industry Sector Manufacturing Companies Registered on the IDX which reported their finances for 2018-2022. According to Saryono (2018) Quantitative analysis is an analysis used for data in the form of numbers that can be measured or calculated. Based on its type, this study uses a quantitative method approach where the data is in the form of numbers. The purpose of this study is to determine how the independent variable (independent) influences the Intellectual Capital component on the dependent variable (dependent) namely Financial Performance. The population used in this study were manufacturing companies in the food and beverage sub-sector officially registered on the Indonesia Stock Exchange, totaling 43 companies. Based on the specified criteria, the sample used in this study was 6 companies, because some companies have complete financial reports. The research period was conducted from 2018-2022, so the data obtained was 30 observation data. This study uses panel data as an analysis tool.

DISCUSSION AND RESULTS

Model Estimation Test

Before conducting panel data estimation, it is necessary to select the best model that will be used to estimate the panel data. The selection of the model is through several tests. The test in question is the Chow test which is used to select Pooled Least Square or Fixed Effect. The Hausman test is used to select Fixed Effect or Random Effect while the LM Test is used to select between Pooled Least Square or Random Effect. The following are the results of the estimator selection that has been carried out:

Chow Test

To find out which model is better in panel data testing, it can be done by adding dummy variables so that it can be seen that the intercepts are different and can be tested with the Chow Test. This test is used to find out whether panel data regression with the fixed effect method is better than panel data model regression without dummy variables (common effect). The calculation results of the Chow Test are presented in the following table:

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.625216	(5,21)	0.6823

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Cross-section Chi-square 4.163131 5 0.5262

Source: Eviews 13 Processing Results

From the results of the Chow test, the probability cross section value $F > 0.05$ (0.6823 > 0.05), so the selected model is the common effect model.

Partial Test (t-Test)

The t-test is used to test the effect of the independent variable partially on the dependent variable. This test is done by looking at the probability value with the following criteria:

- If the probability value < 0.05 then it is stated as significant
- If the probability value > 0.05 then it is stated as not significant

Table 1. Partial Test Results (t-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.30492	6.659787	2.448265	0.0157
VACA?	-47.58932	3.562076	-0.165444	0.8699
VAHU?	5.913432	2.181578	3.120358	0.2728
STVA?	-1.901824	1.620076	-0.673934	0.5063

Source: Eviews 13 Processing Results

The results of the interpretation of the t-test on the t-count of VACA (Value Added Capital Employed) were -0.165444, while VAHU (Value Added Human Capital) was 3.120358, and STVA (Structural Capital Value Added) was -0.673934. The t-distribution table is searched with degrees of freedom (df) $n-k-1$ or $30-3-1 = 26$ (n is the number of samples and k is the number of independent variables) with a significant value of 0.05 so that the t-table value is obtained = 2.056, by comparing t-count with t-table it can be obtained:

- The VACA (Value Added Capital Employed) variable on ROA (Return On Asset) obtained a significance value of $t\text{-count} < t\text{-table} = (-0.165444 < 2.056)$ so that H_{01} is accepted and H_{a1} is rejected, then it is concluded that there is no effect of VACA (Value Added Capital Employed) on Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX.
- The VAHU (Value Added Human Capital) variable on ROA (Return On Asset) obtained a significance value of $t\text{-count} > t\text{-table} = (3.120358 > 2.056)$ so that H_{02} is rejected and H_{a2} is accepted, then it is concluded that there is an influence of VAHU (Value Added Human Capital) on Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX.
- The STVA (Structural Capital Value Added) variable on ROA (Return On Asset) obtained a significance value of $t\text{-count} < t\text{-table} = (-0.673934 < 2.056)$ so that H_{03} is accepted and H_{a3} is rejected, then it is concluded that there is no influence of STVA (Structural Capital Value Added) on Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX.

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Test of Determination Coefficient (R Square)

Table 2. Results of Test of Determination Coefficient

R-squared	0.236632
Adjusted R-squared	0.201464

Source: Eviews 13 Processing Results

From the output results above, it shows that the determination coefficient is 0.201464 or equal to 20.14% taken from Adjusted R-Squared. This means that the variables VACA (Value Added Capital Employed), VAHU (Value Added Human Capital) and STVA (Structural Capital Value Added) are able to explain the ROA (Return On Asset) variable by 20.14% while the remaining 79.85% is explained by other variables not included in this model. This means that there are still other variables that affect Financial Performance (ROA).

RESULTS

VACA has no significant effect on ROA

VACA is an indicator that shows the management of capital in a company, if capital is managed well, the company's financial performance will increase, and vice versa if VACA (Value Added Capital Employed) decreases, the company's financial performance will also decrease. However, the results of the partial test (t) show that VACA does not have a significant effect on financial performance (ROA). This happens because the capital invested by the company does not only come from its own capital, but also from loans. (Pulic, 2018). The instability of the contribution of intellectual capital to company performance can also be caused by market dynamics and rapid changes in the business environment (Chen et al., 2017). This study is in line with previous research conducted by Senjaya et al. (2021), which also found that VACA had no significant effect on financial performance (ROA). One of the main causes of this insignificance is the possibility that the companies analyzed come from various industries with very different characteristics.

VAHU has a significant effect on ROA

VAHU shows the impact of capital allocation on employee training and incentives. Employee quality plays an important role in determining the innovation and services provided by the company. If VAHU is high, it means that the company has succeeded in managing and utilizing human capital well, so that the company's financial performance, measured by Return on Assets (ROA), will increase. Conversely, if VAHU is low, the company's financial performance tends to decline (Shiu, 2017). Based on the results of the partial test (t), VAHU is proven to have a significant effect on financial performance (ROA). This study is in line with previous research conducted by Senjaya et al. (2021), which also found that VAHU has a positive effect on financial performance (ROA). One of the main reasons why VAHU is significant to ROA is because the companies analyzed tend to employ employees with high qualifications and relevant experience. High-quality employees are able to make significant contributions to the company's operational efficiency and innovation, which in turn improves financial performance (ROA).

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STVA has no significant effect on ROA

STVA is an indicator that shows the efficiency of a company's structure, including operational systems, organizational strategies, and employee relations. An increase in STVA reflects that the company has successfully managed and optimized its internal structure, which should have a positive impact on the company's financial performance, including increased profits. Conversely, a decrease in STVA indicates inefficiency in the company's structure that can lead to a decline in financial performance. However, based on the results of the partial test (t), it was found that STVA had no significant effect on financial performance (ROA). This is due to the company's inability to maximize the use of systems, procedures, and organizational structures properly (Lev and Radhakrishnan, 2017). This study is in line with previous findings by Saraswati et al. (2018), which also showed that STVA had no significant effect on company performance. The main cause of this result is that the systems and procedures in the company have not been optimized or are not effective enough to support increased performance. If the company's capital structure is not directed properly to support efficient operations and innovation, then the effect of STVA on financial performance (ROA) becomes insignificant.

CONCLUSION

Based on the results of data analysis and discussion regarding the influence of Intellectual Capital on Financial Performance. The following conclusions can be drawn: VACA (Value Added Capital Employed) does not affect Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX. VAHU (Value Added Human Capital) affects Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX. STVA (Structural Capital Value Added) does not affect Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX. VACA (Value Added Capital Employed), VAHU (Value Added Human Capital) and STVA (Structural Capital Value Added) do not affect Financial Performance in Manufacturing Companies in the Food and Beverage Consumer Goods Industry Sector listed on the IDX.

SUGGESTIONS

The suggestions that researchers can convey based on the research results and conclusions above: For companies, it is expected to be more careful in managing the company's Intellectual Capital in order to increase the company's profitability. For Further Researchers, it is expected to increase the number of independent variables and research samples so that the results obtained are more optimal and accurate. Then pay attention to the problem phenomena that occur in the financial statements of the companies being studied. For Readers, it is expected to provide criticism and suggestions through social media or websites for the good and perfection of this thesis and can be a reference for further research.

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