DIJEFA: Dinasti International Journal of Economics, Finance & Accounting
E-ISSN: 2721-303X
P-ISSN: 2721-3021
https://dinastipub.org/DIJEFA dinasti.info@gmail.com +62 811 7404 455
DOI: https://doi.org/10.38035/dijefa.v6i2

The Influence of Intellectual Capital on Financial Performance

Amin Wijoyo[1], Steven Imanuel[2], Bryan Goodwin[3].
[1]Universitas Tarumanagara, Indonesia, aminw@fe.untar.ac.id.
[2]Universitas Tarumanagara, Indonesia, stevenether2@gmail.com
[3]Universitas Tarumanagara, Indonesia, bryangoodwins4@gmail.com

Corresponding Author: aminw@fe.untar.ac.id[1]

Abstract: This research aims to obtain observational evidence of the efficiency of capital used, efficiency of human resources, and efficiency of structural capital on financial performance. The independent variables of this research are efficiency of capital used, efficiency of human resources, and efficiency of structural capital, while the independent variable is financial performance. Fabricating companies recorded on the Indonesia Stock Excxhange from 2021-2023 are the populace used in this research. There were 29 tests that met the criteria using the purposive testing method. The model used in this investigate is Microsoft Excel program, and is then handled using the E-views 10 program. The findings from this research are that capital used, human resource efficiency, and structural capital efficiency simultaneously have a significant effect on financial performance. To a large extent, financial performance is significantly influenced by human resource efficiency and structural capital efficiency factors. However, financial performance is not significantly influenced by capital efficiency.

Keyword: Capital Employed, Financial Performance, Human Capital, Structural Capital.

INTRODUCTION

Era on unlimited free trade has increased mobility that was originally limited to capital and goods, extending to labor and science. These changes also changed the way companies do business, from a labor-based commerce to knowledge-based trade , with the most characteristics of science (Sawarjuwono & Kadir, 2003). Agreeing to Mursida & Soetedjo, (2014), in arrange for a company to rapidly survive, changing the framework from a trade based on physical assets (labor-based commerce) to a knowledge-based trade (knowledge-based trade) is required. Together with financial changes that's identic to a science-based economy with the application of information administration, a company's well-being will depend on their creation, change and capitalization of information itself. For companies in this modern era, intellectuals are intangible capital that is very important for their assets (Clarke et al., 2011).

Science itself is one of the a few components of intangible resources said within the Explanation of Monetary Bookkeeping Guidelines (PSAK) 19. PSAK characterizes intangible resources as recognized non-monetary resources without physical shape. The physical number of these intangible resources have not been recorded however, and is uncovered in conventional

money related articulations. The limitations of money related detailing in conventional bookkeeping in clarifying the esteem of a company appear that economic resources are not within the frame of physical resources. Instep, it's within the creation of mental capital (Suhendah, 2012).

Intellectual capital is an intangible resource which capacity is to contribute value to companies and society. This incorporates licenses, intellectual property rights, copyrights, and establishments (Artinah, 2011). Pulić, (1998) created an circuitous estimation apparatus for intangible resources within the frame of intellectual capital utilizing the *Value Added Intellectual Capital* (VAIC)™ strategy. This strategy is planned to deliver data on the productivity of substantial and intangible asssets' esteem creation had by the company. The effective utilization of unmistakable and intangible resources combined is anticipated to make strides the company's monetary execution. The reason of this ponder is to get observational prove on the impact of capital utilized, human capital, and auxiliary capital on budgetary execution. The issue formulation contains article questions that's explained within the talk and replied within the conclusion.

METHOD

Population and Sample Selection Techniques

This study uses manufacturing type companies with a period of 2021-2023 using purposive sampling and data in the form of secondary data from financial reports on the Indonesia Stock Exchange. The criteria applied in sample selection are generating net profits during the research period, being listed consecutively on the BEI during the research period, and presenting complete data for use in research. With these criteria, it is hoped that we can get an idea from the samples obtained regarding the financial condition of manufacturing companies listed on the Indonesian Stock Exchange.

Variable Operationalization

Dependent variables refer to variables that can be influenced by other variables and those used in this study are financial performance as measured by:

$$\text{ROA} = \frac{Net\ Income}{Total\ Asset}$$

The *Capital Employed* variable appears the commitment produced for each capital contributed within the company. Value Added Capital Employed (VACA) can be measured by:

$$\text{VACA} = \frac{\text{Valued Added (VA)}}{\text{Capital Employed (CE)}}$$

CE = Available funds (equity and net income)

Human capital reflects the combined capacity to deliver the finest arrangements based on the information had by the individuals within the company in arrange to include the company's value (Suhendah, 2012). According to Artinah, (2011), Value Added Human Capital (VAHC) is a commitment in the form of every rupiah that can be contributed to the human capital (HC) contained in the organization so that VAHC can be calculated with the following equation:

$$\text{VAHU} = \frac{\text{Valued Added (VA)}}{\text{Human Capital (HC)}}$$

HC = Employee Payroll Expense

Structural capital could be a implies and foundation that bolsters workers to reach ideal execution, counting the organization's capacity to reach the showcase, equipment, program, databases, organizational structures, licenses, trademarks, and all organizational capabilities to back representative efficiency (Bontis, 2000, in Suhendah, 2012). The equation for calculating STVA can be seen below:

$$\text{STVA} = \frac{\text{Structural Capital (SC)}}{\text{Value Added (VA)}}$$

SC = Difference between *value added* and *human capital* (employee salary burden)

Linear regression used in this study is as follow:

ROA = a + b1CEE + b2HCE + b3SCE + e

Information:

ROA = Financial Performance
a = constant
CEE = VACA (*Capital Employed Efficiency*)
HCE = VAHU (*Human Capital Efficiency*)
SCE = STVA (*Structural Capital Efficiency*)

RESULTS AND DISCUSSION

This research uses auxiliary data from the results of conclusions on the financial reports of fabrication companies on the BEI via IDX website in 2021 to 2023, where the test results add up to 29 companies that are included in the criteria. Descriptive tests were carried out to decide the maximum, mean, standard deviation and minimum values of the independent variables. The graphic test comes about are displayed within the following table:

Table 1. Descriptive Statistics

Date: 12/17/24
Time: 13:19
Sample: 2021 2023

	ROA	VACA	VAHU	STVA
Mean	0.035404	1.943029	26.93414	-32.86183
Median	0.024548	0.984270	19.27601	0.948122
Maximum	0.363620	111.7659	104.2836	0.990411
Minimum	-0.191148	-59.98738	0.000340	-2934.913
Std. Dev.	0.084184	13.89045	26.45478	314.7505
Observations	87	87	87	87

Processed Data, Eviews

Based on the descriptive test results in the table above, it can be seen that the financial performance variable proxied by ROA has an average value (mean) of 0.035404 so that it can be said that each average manufacturing company can generate Rp 0.035404 profit from Rp 1 asset used. Apart from that, the financial performance variable also has a maximum value and a minimum value where the maximum value is 363620 and minimum value is -0.191148.

Standard deviation value of financial performance variable is 0.084184, which exceeds mean value. Therefore, the conclusion that can be drawn is that financial performance has a high data spread and quite large gaps. The capital employed variable proxied by VACA has an average value (mean) of 1.943029 where this can be used as a reference for the capital employed variable selected as a sample. The capital variable also has a maximum value and a minimum value. Maximum value is 111.4659 and minimum value is -59.98738. Apart from that, standard deviation value is 13.89045, which exceeds the mean value. Therefore, the conclusion that can be drawn is that the capital variable used has a high data distribution and a fairly large gap. VAHU, which is proxied by the human capital variable, has an average (mean) value of 26.93414, meaning that every Rp. 1 of capital that the company has can produce added value of Rp. 26.93414. The maximum value of the human capital variable is 104.2836 and the maximum value is 0.000340 where the standard deviation value is 26.45478, which is less than the average value (mean). Therefore, the conclusion that can be drawn is that the human capital variable has a small data distribution and there is no large enough gap. The average (mean) value of the structural capital variable which is proxied by STVA is -32.86183, meaning that for every IDR 1 in company profits it can produce a profit of -32.86183 after deducting salary costs. The maximum value of the structural capital variable is 0.990411 and the minimum value is -2934.913, as well as the standard deviation with a value of 314.7505, which exceeds the mean value, so it can be concluded that the data is highly distributed and there is a fairly large gap in the structural capital variable.

Selection of Estimation Models

Chow or Likehood ratio test

With a significance of 0.05, the chow test was conducted to see the best between the common model and the fixed model. The model is selected based on its probability value. The fixed effect model will be chosen if the probability value is more than 0.05. Meanwhile, the common effect model can be used if the probability value exceeds 0.05. The following table shows the results of the chow test.

Table 2. Chow/*Likehood* Test Results

	Statistics	D.F.	Prob.
	12.137312	(28,55)	**0.0000**
CS Chi-square	171.490872	28	0.0000

Processed Data, Eviews

The probability of 0.00000 is obtained from the results of the chow test so that the fixed model is chosen. This is because the probability value shown is less than 0.05. After the chow test is carried out, it is continued with the *husman*.

Hausman Test

A significance level of 0.05 is used for the Hausman test to compare the fixed model and the random model. The random model will be selected if the probability is more than 0.05 and the fixed model will be selected if the probability is less than 0.05. The following table shows the results of the Hausman test.

Table 3. Hausman Test

	Statistics	D.F.	**Probs.**
Cross random	3.410463	3	**0.3326**

Processed Data, Eviews

Based on the above results, the probability value is 0.3326 so that the selected model is the random effect.

Regression Test Results

The best model based on the results of the Chow and Hausman tests is the random effect model. The following are the results of the regression test in this study.

Table 4. Regression Test Analysis

	Coefficient	Std. Error	t-Statistic	Prob.
VACA	**0.000069085**	0.000297	0.232881	0.8164
VAHU	**0.000898**	0.000345	2.606880	0.0108
STVA	**-0.000118**	1.49E-05	-7.925076	0.0000
C	**0.007204**	0.016538	0.435585	0.6643

Processed Data, Eviews

The following is the regression equation from the results above:

ROA = 0.007204 + 0.000069085 (VACA) + 0.000898 (VAHU) - 0.000118 (STVA) + e

Based on the regression equation model above, it is known that if the variables employed capital as first variabel (VACA) , human capital as second variabel (VAHU) , and structural capital as third variabel (STVA) are constant, the value of variable financial performance (ROA) is 0.00724. The capital variable used increases by one unit because the coefficient value for capital used is 0.000069085 and the value of the financial performance variable will increase by 0.000069085 if other variables are assumed to be constant. Conversely, if the variable employed capital decreases by one unit and other variables are assumed constant, the value of the financial variable will decrease by 0.000069085. The coefficient value in human capital is 0.000898 so that it can be said that if the human capital variable increases by one unit and other variables are assumed to be constant, the value of the financial performance variable will increase by 0.000898. Conversely, if the human capital variable decreases by one unit and other variables are assumed constant, the value of the financial variable will decrease by 0.000898. The structural capital variable is said to increase by one unit because it has a coefficient value of -0.000118. while the financial performance variable will decrease by 0.000118 when other variables are considered constant. Conversely, if the structural capital variable decreases by one unit and other variables are assumed constant, the value of the financial variable will increase by 0.000118.

Hypothesis Test Results

Test F

To find out whether the dependent variable, namely financial performance, is influenced simultaneously by the independent variables, namely aged capital, human capital and structural capital, an F test is carried out with a significance of 0.05. When the probability value shown

is no more than 0.05, it can be stated that the dependent variable is influenced by the independent variable simultaneously. the F test results are as follows.

Table 5. Test Result F

Adjusted R-squared	0.429036
Prob(F-statistic)	**0.000000**

Processed Data, Eviews

Based on table 5, the probability value is 0.00000 where this value is smaller than 0.05 so that this study has met the goodness of fit and the dependent variable can simultaneously influence the independent variable.

Test t

Table 6. Test T

	Coef	Error Std	t-Stats	Probs.
VACA	6.91E-05	0.000297	0.232881	**0.8164**
VAHU	0.000898	0.000345	2.606880	**0.0108**
STVA	-0.000118	1.49E-05	-7.925076	**0.0000**
C	0.007204	0.016538	0.435585	0.6643

Processed Data, Eviews

T Test Result:

1. The capital employed efficiency variable has an insignificant effect on financial performance because it has a probability value of 0.8164 (greater than 0.05) so that Ha1 is rejected.
2. Financial performance is significantly effect by the human capital efficiency variable because it shows a probability value of 0.0108 (less than 0.05). Therefore, Ha2 is accepted.
3. Financial performance is significantly effect by variations in structural capital efficiency because it shows a probability value of 0000 (smaller than 0.05). Therefore, Ha3 is accepted.

Determination Test (R *Square*)

Based on the table above, there is an adjusted R square value of 0.429036, which means that there is 42.90 percent of the proportion that can be explained by the independent variable on the dependent variable, while the rest is outside the variables in this study.

DISCUSSION

Capital Employed Efficiency on Financial Performance

The result of t test is financial performance is not significantly influenced by model efficiency because the probability value is 0.8164 so the first hypothesis (Ha1) in this study is rejected. The results of this test are not in line with the research of Andriana, (2014); Lamusu & Sumiati, (2019); Suhendah, (2012), where their research concluded that financial performance is not significantly influenced by Capital Employed Efficiency. The company must be able to maintain good relations with external parties because maintaining good

relations can improve the company's assessment and make good relations with external parties. Capital employed efficiency which functions in measuring how effective and efficient the capital owned by the company in generating revenue is not always a factor in influencing financial performance, although the increase in capital can reflect that the company has performed well in managing financial resources but there are many other factors such as cost management, marketing strategy and product differentiation that can affect the market. The market can have a significant impact on financial performance so that large capital may not necessarily provide high financial performance because there is no good market strategy.

Human Capital Efficiency on Financial Performance

The result of t test financial performance is significantly influenced by Human Capital Efficiency because it shows a probability value of 0.0108 so the second hypothesis (Ha2) in this research is accepted. The results of this test are in agreement with the research of Fathi et al., (2013); Kurniawati et al., (2020); Salim & Karyawati, (2013); Zuliyati & Ngurah, (2011), which state that human capital efficiency has an impact on financial performance. The company will be able to move forward the financial performance of the industry in the event that the company is able to apply and utilize the information had by its workers appropriately so that it can make human capital efficiency effective. Companies that can manage human resources optimally can encourage innovation and strategic developments in product manufacturing so that they can maximize profits and reduce costs in the company so that companies that succeed in maximizing the potential of human capital are more competitive in generating financial benefits.

Structural Capital Efficiency on Financial Performance

The result of t test is financial performance is negatively influenced by structural capital efficiency which shows a probability value of 0.0000 so that the third hypothesis (Ha3) in this study is rejected. These results are in accordance with inquire about conducted by Lamusu & Sumiati, (2019); Setiawan & Prawira, (2018); Suhendah, (2012); Zuliyati & Ngurah, (2011) which found that Structural Capital Efficiency encompasses a critical impact on money related execution. Companies that have great frameworks and offices will back their workers in expanding efficiency so that financial performance will be optimized. Companies that focus on structural efficiency by cutting excessive costs can reduce flexibility and productivity, which hinders market growth.

CONCLUSION

The aim of this research is to prove whether company performance is influenced by the capital used, human capital and structural capital. The sample used in this research is a sample of industrial companies listed on the IDX for the 2021-2023 period. The independent variables of this research consist of capital used, human capital and structural capital. Simultaneous test results show that the dependent variable is influenced by the independent variables simultaneously. Based on partial test results, financial performance is positively influenced by the human capital variable. This is different from the variables of capital used and structural capital which do not significantly influence financial performance. the result of the determination test is, the independent variable can be explained by the dependent variable by 42.9% where the adjusted R square value is 0.429036 while 57.10% is explained by other variable.

REFERENSI

Andriana, D. (2014). The Influence of Intellectual Capital on the Company’s Financial Performance. *Journal of Accounting and Finance Research*, *2*(1), 251–260.

Artinah, B. (2011). The Influence of Intellectual Capital on Profitability (Empirical Study on

Banking Companies). *Journal of Science – Social Sciences "Socioscientia," 3*(1).
Cabrita, M. D. R., & Bontis, N. (2008). Intellectual Capital and Business Performance in the Portuguese Banking Industry. *International Journal of Technology Management*, *43*(1–3), 212–237. https://doi.org/10.1504/IJTM.2008.019416
Clarke, C., Milne, R., & Bull, R. (2011). Interviewing Suspects of Crime: The Impact of PEACE Training, Supervision and the Presence of a Legal Advisor. *Journal of Investigative Psychology and Offender Profiling*, *8*(2), 149–162. https://doi.org/10.1002/jip.144
Fathi, S., Farahmand, S., & Khorasani, M. (2013). Impact of Intellectual Capital on Financial Performance. *International Journal of Academic Research in Economics and Management Sciences*, *2*(1), 6–17.
Kurniawati, H., Rasyid, R., & Setiawan, F. A. (2020). The Influence of Intellectual Capital and Company Size on the Company's Financial Performance. *Journal of Muara Economics and Business*, *4*(1), 64–76.
Lamusu, F. N., & Sumiati. (2019). The Influence of Intellectual Capital on Financial Performance (Study on Property and Real Estate Sub-Sector Companies on the Indonesia Stock Exchange for the 2013-2017 Period). *FEB Scientific Journal*, *7*(2).
Mursida, S., & Soetedjo, S. (2014). *Pengaruh Intellectual Capital terhadap KinerjaKeuangan pada Perusahaan Perbankan*. Universitas Mataram.
Pulić, A. (1998). Measuring the Performance of Intellectual Potential in Knowledge Economy. *World Congress on the Management of Intellectual Capital*.
Rudianto. (2013). *Management accounting: information for strategic decision-making*. Erlangga.
Salim, S. M., & Karyawati, G. (2013). The Effect of Intellectual Capital on Financial Performance. *Journal of Business and Entrepreneurship*, *1*.
Sawarjuwono, T., & Kadir, A. P. (2003). Intellectual Capital: Perlakuan, Pengukuran Dan Pelaporan (Sebuah Library Research). *Jurnal Akuntansi Dan Keuangan*, *5*(1), 35–57. https://doi.org/10.9744/jak.5.1.pp. 35-57
Setiawan, R., & Prawira, B. Y. (2018). Intellectual Capital and the Performance of Manufacturing Companies in Indonesia. *JMM UNRAM - MASTER OF MANAGEMENT JOURNAL*, *7*(3), 13–28. https://doi.org/10.29303/jmm.v7i3.312
Suhendah, R. (2012). The Influence of Intellectual Capital on Profitability, Productivity, and Market Valuation in Companies Going Public in Indonesia in 2005 – 2007. *Journal and Proceedings of SNA – National Symposium on Accounting*, *15*.
Wijayani, D. R. (2017). The influence of intellectual capital on the financial performance of public companies in Indonesia. *Airlangga Journal of Accounting and Business Research*, *2*(1), 97–116.
Zuliyati, & Ngurah, A. (2011). Intellectual Capital And Company Financial Performance. *Dinamika Finance and Banking*, *3*(2).