

Influence of Intellectual Capital and Corporate Social Responsibility on Company Financial Performance

(Case Study on Indonesian Conventional Banking Listed in Indonesian Stock Exchange (IDX) on Period 2016-2020)

Rafif Ridanus Pratama

Faculty of Economic and Business, Accounting Student
Telkom University
Bandung, Indonesia
raffridanus@student.telkomuniversity.ac.id

Dewa Putra Krishna Mahardika

Faculty of Economic and Business, Accounting Lecturer
Telkom University
Bandung, Indonesia
dewamahardika@telkomuniversity.ac.id

Abstract

Financial performance is an important indicator for holders and stakeholders to assess and make decisions for a company, one of which can be seen from the level of Return On Assets (ROA). The higher the ROA of a company, the better the company's performance in generating profits from its assets. The ROA condition of Indonesian Banking since 2016-2019 has increased which then fell in 2020.

This study aims to determine how the influence of Intellectual Capital and Corporate Social Responsibility (CSR) on conventional banking ROA either partially or simultaneously. The population of this study is the conventional banking companies listed on the Indonesia Stock Exchange for the 2016-2020 period as many as 41 companies. The number of samples taken was 25 conventional banks which were selected through purposive sampling method. The research method used is panel data regression analysis.

The results showed that Intellectual Capital and Corporate Social Responsibility simultaneously had a positive effect on conventional banking ROA. Partially VAHU and VACA have a significant effect on ROA, while STVA and CSR have no significant effect on ROA in conventional banking.

Keywords: VAHU, STVA, VACA, CSR, Financial Performance, and ROA

1. Background

In 2020, the increasingly extreme conditions of the COVID-19 pandemic caused Indonesia's economic conditions to weaken, so that many people and business actors were unable to pay their debts. To overcome this problem, banks need to spend funds to carry out debt restructuring programs. This causes a decrease in profits that affect financial performance, one of which is Return On Assets (ROA). Banking financial performance is a key indicator for policy and decision makers because it is the foundation for the stability and functioning of

the financial and banking systems. Poor performance will have a direct impact on a region's financial and economic system (Shawtari, 2018).

Intellectual Capital is one of the resources to overcome economic problems. A company must continuously invest in knowledge updating and development of its employees (Tarigan et al., 2019), therefore intellectual capital is very important to overcome these problems. There have been many changes in the business model from a labor-based business to a knowledge-based business, thus encouraging business people to create ways to manage knowledge to improve company performance (Pratiwi, 2017). Various researchers believe that knowledge is a factor or resource that has unlimited capacity, meaning that knowledge will never run out and continue to grow (Mavridis, 2004).

In addition to intellectual capital, participation in national development can also be carried out through CSR programs through social responsibility in the environment around the company's operations. According to Matuszak et al. (2019) in de Oliveira et al. (2021) argues that banking indirectly interacts with the environment of lending and investment policies. According Julialevi & Ramadhanti (2021), CSR is a form of corporate responsibility to stakeholders and shareholders by trying to reduce the negative impact of the company's activities itself so that it can provide benefits in the future. This raises demands for achieving a level of social and environmental awareness so that it becomes pressure for companies to communicate information about these activities to shareholders and stakeholders (de Oliveira et al., 2021). This is in accordance with agency theory, which is a concept of a contractual relationship between members of an organization or company.

Research result of Pratiwi (2017) shows the results of the influence of Intellectual Capital on the financial performance of banks in Indonesia. Value Added Capital Employed (VACA) and Value Added Human Capital (VAHU) affect the financial performance of banks in Indonesia, value added which has a positive effect on ROA is generated from capital employed and human capital. This means that banks in Indonesia take advantage of the costs incurred for employees, such as training, compensation, and others. Meanwhile, Structural Capital Value Added (STVA) has no significant effect on ROA. Research result of Julialevi & Ramadhanti (2021) shows the influence of CSR on the financial performance of state-owned and private banks as proxied by ROA. This is shown by the increasing number of programs carried out related to social responsibility, it will improve the financial performance of banking companies. This success is inseparable from the banking operational environment as an external factor. The environment becomes a real impact on the company's operational strategy, the company cannot ignore the environment as an external factor that can affect the company's financial performance. From the phenomena and results of previous studies, the authors are interested in examining the influence of Intellectual Capital and Corporate Social Responsibility on the financial performance of conventional banks as proxied by ROA.

2. Theory

2.1 Agency Theory

Based on the research background, it is said that the company's financial performance is one of the company's outputs that is accountable to shareholders, which is supported by the company's activities and management programs in running its business. This is related to agency theory, which is a concept of contractual relationships between members of an organization or company. According Jensen and Meckling (1976) in Ghozali (2020:86) This theory focuses a lot on the two individuals between superiors (principals) and subordinates (agents). Principals and agents are assumed to be rational economic people who are motivated only by self-interest influenced by beliefs, preferences, and information.

Differences in goals and principles will cause agency problems. This problem can take the form of Moral Hazard or Adverse Selection. Moral Hazard is a situation where the company management (agent) is not trying hard enough in terms of work, this is considered as opportunistic behavior (Ghozali, 2020:87). Whereas according Eisenhardt (1989) in Ghozali (2020:87), Adverse Selection is a situation where the company's management (agent) does not have the ability and skills that are competent in terms of work.

2.2 Bank

According Kasmir (2017:24), a bank is a business entity that is engaged in finance, meaning that all business activities are related to finance. From these two understandings, the authors conclude that a bank is a business entity in the financial sector that stores and distributes public funds in the form of loans and or other forms with the aim of improving people's welfare. In addition to saving and distributing funds to the public, banks also provide payment services such as telephone, electricity, water, and others.

2.3 Return On Asset

ROA or Return On Assets is an indicator that reflects the company's profitability (Yulandari et al., 2019). According Faisal *et al.* (2018) ROA is a ratio to measure the company's ability to generate profits by utilizing its assets. A high Return On Assets ratio describes the company's efficiency in asset management, meaning that the lower the ROA, the less efficient the company is in utilizing assets. ROA can be calculated using the following formula:

$$\text{Return On Asset} = \frac{\text{Net Profit}}{\text{Total asset}} \quad (1)$$

2.4 Intellectual Capital

Bontis (2000) in Pratiwi (2017) argues that Intellectual Capital is the knowledge of individuals and organizations as a resource for the company's survival in a competitive environment. Whereas according Devi et al. (2017) argues that Intellectual Capital is defined as an intangible asset that provides value to society and the company including patents, intellectual property rights, copyrights, and franchises. According Stewart (2012) in Simamora & Sembiring (2018) disclosing intellectual capital can be seen as ownership rights, information, knowledge, and experience used to acquire wealth.

In the measurement, Pulic (1998) in Pratiwi (2017) proposes Value Added Intellectual Capital (VAIC) to create information on the utilization of tangible and intangible assets from its resource efficiency process. VAIC is considered a suitable indicator to measure empirical IC. VAIC is an analytical procedure that allows management, stakeholders, and shareholders to assess and evaluate the utilization of Value Added (VA) with total resources and each of its components. Value Added (VA) is the difference between total revenue (OUT) and total cost (IN) (Mavridis, 2004). In addition, there are also three components, namely Value Added Human Capital, Structural Capital Value Added, and Value Added Capital Employed. These components can be calculated using the following formula:

a. *Value Added (VA)*

$$VA = OP + EC + D + A \quad (2)$$

b. *Value Added Human Capital (VAHU)*

$$VAHU = \frac{\text{Value Added}}{\text{Human Capital}} \quad (3)$$

c. *Structural Capital Value Added (STVA)*

$$STVA = \frac{\text{Structural Capital}}{\text{Value Added}} \quad (4)$$

d. *Value Added Capital Employed (VACA)*

$$VACA = \frac{\text{Value Added}}{\text{Capital Employed}} \quad (5)$$

2.5 Corporate Social Responsibility

In 2001, the European Commission stated that Corporate Social Responsibility (CSR) is a concept whereby companies undertake social and environmental responsibility activities in their business operations on a voluntary basis (Ho et al., 2019). The CSR calculations are as follows:

$$CSRDI_j = \frac{\sum X_{ij}}{N_j} \quad (6)$$

2.6 Frame of Mind

2.6.1 Influence of Intellectual Capital on Company Financial Performance

Research result Pratiwi (2017) shows that simultaneously Value Added Capital Employee, Value Added Human Capital, Structural Capital Value Added jointly have a significant effect on Return On Assets. Partially STVA does not have a significant effect on ROA while VAHU and VACA have a significant relationship with ROA of banking in Indonesia. This shows that good management of physical assets and human resources will generate value for the company which will improve company performance. Companies that are able to manage both components of Intellectual Capital, namely VAHU and VACA will improve company performance.

2.6.2 Influence of Corporate Social Responsibility on Company Financial Performance

Research result of Julialevi and Ramadhanti (2021), Corporate Social Responsibility has a positive effect on the financial performance of state-owned and private banks as proxied by ROA. This shows that the more CSR disclosure a company has, the better its financial performance will be. The success of a company will not be separated from external factors, namely the environment. The environment has a lot of real impact on operational strategies, so the company cannot be separated from the environment as an external factor for the company in running its business.

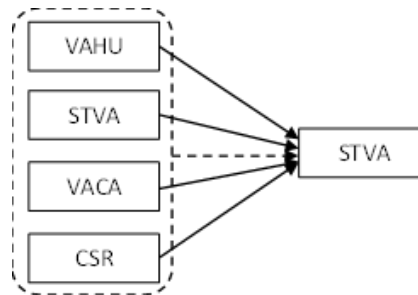


Figure 1: Frame of Mind

Description:

Simultaneous: ----->

Partial: ----->

2.7 Research Hypothesis

The proposed hypothesis is a brief statement concluded from the literature review and is a provisional opinion of the problems that need to be resubmitted, the hypotheses of this research include:

H1 : Value Added Human Capital, Structural Capital Value Added, Value Added Capital Employed, and Corporate Social Responsibility have a significant effect simultaneously on Return On Assets

H2 : Value Added Human Capital partially significant effect on financial performance Return On Assets.

H3 : Structural Capital Value Added has no partial significant effect on Return On Assets.

H4 : Value Added Capital Employed has no partial significant effect on Return On Assets.

H5 : Corporate Social Responsibility has no partial significant effect on Return On Assets.

3. Research Method

The population used in this study is conventional banking listed on the Indonesia Stock Exchange for the 2016-2020 period. Selection of research object using purposive sampling method. As for the considerations in sampling:

- Companies in the banking sub-sector that are consistently listed on the Indonesia Stock Exchange in 2016-2020

- b. Companies that do not consistently present CSR reports for 2016-2020
- c. Companies that do not consistently present financial statements for 2016-2020

Based on the election results, 25 conventional banks were determined with a total of 125 samples. The analysis technique used in this research is panel data regression which is processed using E-Eviews 10 software.

4. Results

4.1 Descriptive Statistical Analysis

According Sugiyono (2018:226) descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected to draw general conclusions or generalizations.

Table 1. Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
VAHU	125	-13,85768	4,060996	1,592441	1,829156
STVA	125	-3,723776	9,945731	0,644337	1,136703
VACA	125	-0,426424	0,507058	0,154813	0,142548
CSRDI	125	0,010989	0,494505	0,199736	0,141989
ROA	125	-0,225039	0,031343	0,004025	0,028611
Valid N (list-wise)	125				

Based on the results of descriptive statistical analysis, it shows that VAHU, STVA, and ROA have a lower mean than the standard deviation, so it can be interpreted that the data varies. Meanwhile, VACA and CSR have a mean value that is greater than the standard deviation, meaning that the data does not vary or tends to be homogeneous. This shows that the conventional banking sampled in the study has a fairly high visibility.

4.2 Panel Data Regression Analysis

Based on the results of model testing that have been carried out (Chow Test, Hausman Test, and Lagrange Multiplier), the model that is suitable for use in this study is the common effect model. The following is a table presentation of the results of the common effects model:

Table 2. Common Effect Model

Dependent Variable: Y
Method: Panel Least Squares
Date: 04/27/22 Time: 13:10
Sample: 2016 2020
Periods included: 5
Cross-sections included: 25
Total panel (balanced) observations: 125

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.015435	0.003391	-4.551155	0.0000
X1	0.005838	0.001453	4.016685	0.0001
X2	-0.002874	0.001584	-1.814795	0.0721
X3	0.078761	0.021070	3.738021	0.0003
X4	-0.000889	0.014089	-0.063117	0.9498
R-squared	0.569447	Mean dependent var		0.004025
Adjusted R-squared	0.555096	S.D. dependent var		0.028611
S.E. of regression	0.019084	Akaike info criterion		-5.040783
Sum squared resid	0.043703	Schwarz criterion		-4.927651
Log likelihood	320.0490	Hannan-Quinn criter.		-4.994824
F-statistic	39.67791	Durbin-Watson stat		1.975730
Prob(F-statistic)	0.000000			

Based on table 2, the equations of the results of the regression analysis obtained are as follows:

$$Y = -0,015435 + 0,005838X1 - 0,002874X2 + 0,078761X3 - 0,000889X4$$

From the results of the VAHU, STVA, VACA, and CSRDI equations, it can be concluded as follows:

- The constant of 0.0064 states that if the VAHU, STVA, VACA, and CSRDI equations are zero in the sense that the value is fixed, then the financial performance proxied by ROA will decrease by -0.015435.
- The VAHU value has a regression coefficient of 0.005838, meaning that if the VAHU value increases by 1 unit, then ROA or Y will increase by 0.005838.
- The STVA value has a regression coefficient of -0.002874, meaning that if the STVA value increases by 1 unit, then ROA or Y will decrease by -0.002874.
- The VACA value has a regression coefficient of 0.078761 meaning that if the VACA value increases by 1 unit, then ROA or Y will increase by 0.078761.
- The CSR value has a regression coefficient of -0.000889, meaning that if the CSR value increases by 1 unit, then ROA or Y will decrease by -0.000889.

4.3 Coefficient Determination Test

The coefficient of determination test (R2) is a measurement of how far a model is able to explain the variation of the dependent variable (Ghozali, 2018:97). The value of the coefficient of determination is between zero and one. The small value of R2 explains that the ability of the independent variables in explaining the dependent variable is very limited. While the value of R2 which is close to one explains that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Table 3. Coefficient Determination Test

R-squared	0.569447	Mean dependent var	0.004025
Adjusted R-squared	0.555096	S.D. dependent var	0.028611
S.E. of regression	0.019084	Akaike info criterion	-5.040783
Sum squared resid	0.043703	Schwarz criterion	-4.927651
Log likelihood	320.0490	Hannan-Quinn criter.	-4.994824
F-statistic	39.67791	Durbin-Watson stat	1.975730
Prob(F-statistic)	0.000000		

Based on table 3, we can be seen that the Adjusted R-Square value in this research model is 0.555096. So it can be concluded that the information on the independent variables Value Added Human Capital, Structural Capital Value Added, Value Added Capital Employed, and Corporate Social Responsibility is able to explain the dependent variable, namely Return On Assets in conventional banking companies of 0.555096 or 55.5%, while the remaining 44.5% is explained by other variables outside of this study.

4.4 Hypothesis Testing

4.4.1 Simultaneous Hypothesis Testing (F Test)

According Ghozali (2018:98) f statistical test is a test to show whether all independent variables together have a significant effect on the dependent variable. The significance rate used is = 0.05.

Table 4. F Test

R-squared	0.569447	Mean dependent var	0.004025
Adjusted R-squared	0.555096	S.D. dependent var	0.028611
S.E. of regression	0.019084	Akaike info criterion	-5.040783
Sum squared resid	0.043703	Schwarz criterion	-4.927651
Log likelihood	320.0490	Hannan-Quinn criter.	-4.994824
F-statistic	39.67791	Durbin-Watson stat	1.975730
Prob(F-statistic)	0.000000		

Table 4 shows that the probability value (F-statistics) is $0.000000 < 0.05$, then H_a is accepted, meaning that Intellectual Capital and Corporate Social Responsibility simultaneously have a significant effect on Return On Assets.

4.4.2 Partial Hypothesis Testing (T Test)

In this study, the independent variables used include Value Added Human Capital, Structural Capital Value Added, Value Added Capital Employed, and Corporate Social Responsibility, while the dependent variable used is Return On Assets. The significance rate used is $= 0.05$.

Table 5. T Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.015435	0.003391	-4.551155	0.0000
X1	0.005838	0.001453	4.016685	0.0001
X2	-0.002874	0.001584	-1.814795	0.0721
X3	0.078761	0.021070	3.738021	0.0003
X4	-0.000889	0.014089	-0.063117	0.9498

Based on table 5 it can be explained that:

- The VAHU probability value is $0.0001 \leq 0.05$, then H_{a1} is accepted, meaning that Value Added Human Capital has a partial significant effect on the financial performance of conventional banks listed on the Indonesia Stock Exchange for the 2016-2020 period.
- STVA probability value of $0.0721 > 0.05$ then H_{02} is accepted, meaning that the Structural Capital Value Added does not have a significant partial effect on the financial performance of conventional banks listed on the Indonesia Stock Exchange for the 2016-2020 period.
- The VACA probability value is $0.0003 \leq 0.05$, then H_{a3} is accepted, meaning that Value Added Capital Employed has a significant partial effect on the financial performance of conventional banks listed on the Indonesia Stock Exchange for the 2016-2020 period.
- The probability value of CSRDI is $0.9498 > 0.05$, then H_{04} is accepted, meaning that Corporate Social Responsibility does not have a partial significant effect on the financial performance of conventional banks listed on the Indonesia Stock Exchange for the 2016-2020 period.

5. Conclusion

Based on the results of the study, simultaneously VAHU, STVA, VACA, and CSR together have a significant effect on financial performance as proxied by ROA. Partially VAHU and VACA have a significant effect on the company's ROA. VAHU is a measure in assessing the contribution of the workforce in the form of knowledge, skills, innovation, and creative ideas. To support this capability, companies need to spend funds to create added value. The more company spends on employee funds, the more value of the benefits obtained by the company will increase the asset turnover value of the company's income. So the company's employees are able to carry out their work well. Then, VACA is a measure of the value added of tangible assets, which is one of the company's resources that has a linear relationship with the probability of the company. The greater capital issued by banks to increase their equity, it will improve the company's financial performance. while STVA and CSR have no significant effect on the company's ROA. VAHU, STVA, VACA, and CSR have 55.5% ability in explaining ROA.

The suggestion for companies is that this research is expected to be a reference for companies to pay more attention to the funds spent on structural capital so that they are efficient because they do not have an influence on the company's financial performance. Then the company also needs to streamline Corporate Social Responsibility activities because more companies are able to disclose CSR activities will not affect financial performance. Investors are expected to pay attention to aspects of the company's Intellectual Capital, especially human capital and Corporate Social Responsibility to make investment decisions. For academics, it is hoped

that it can be a reference for research on Intellectual Capital and Corporate Social Responsibility on financial performance. Meanwhile, for further researchers, the authors suggest that future researchers do not conduct research on Intellectual Capital and Corporate Social Responsibility together because the objects used are limited due to not all conventional banking companies disclosing CSR in annual reports.

References

- de Oliveira, K. V., Lustosa, P. R. B., Freire, F. de S., & de Carvalho, F. A. (2021). Antecedents of CSR disclosure in an emerging economy: evidence from the banking industry. *Journal of Accounting in Emerging Economies*, 2007. <https://doi.org/10.1108/JAEE-10-2020-0257>
- Devi, B. E., Khairunnisa, & Budiono, E. (2017). The Influence of Intellectual Capital On The Company Financial Performance (Case Study on Company of Electronic, Automotive and Components Listed in Indonesian Stock Exchange (IDX) on Period 2011-2015). *Jurnal Akuntansi*, 3(2), 15–26.
- Faisal, A., Samben, R., & Pattisahusiwa, S. (2018). Analisis kinerja keuangan. *Kinerja*, 14(1), 6. <https://doi.org/10.29264/jkin.v14i1.2444>
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2020). *25 Grand Theory* (1st ed.). Yoga Pratama.
- Ho, A. Y.-F., Liang, H.-Y., & Tumurbaatar, T. (2019). *The Impact of Corporate Social Responsibility on Financial Performance: Evidence from Commercial Banks in Mongolia*. 7, 109–153. <https://doi.org/10.1108/s2514-465020190000007006>
- Julialevi, K. O., & Ramadhanti, W. (2021). Pengaruh Pengungkapan Corporate Social Responsibility Terhadap Kinerja Keuangan Perbankan Indonesia (Studi Komparatif Perbankan BUMN dan Swasta). *Jurnal Pendidikan Dan Teknologi Indonesia*, 1(2), 91–95. <https://doi.org/10.52436/1.jpti.19>
- Kasmir. (2017). *Bank dan Lembaga Keuangan Lainnya* (2014th ed.). Rajawali Pers.
- Mavridis, D. G. (2004). The intellectual capital performance of the Japanese banking sector. *Journal of Intellectual Capital*, 5(1), 92–115. <https://doi.org/10.1108/14691930410512941>
- Pratiwi, T. R. (2017). Pengaruh Intellectual Capital dan Corporate Governance Terhadap Kinerja Keuangan Perbankan di Indonesia. *Jurnal Akuntansi Dan Keuangan*, 8(1). <https://doi.org/10.36448/jak.v8i1.827>
- Shawtari, F. A. M. (2018). Ownership type, bank models, and bank performance: the case of the Yemeni banking sector. *International Journal of Productivity and Performance Management*, 67(8), 1271–1289. <https://doi.org/10.1108/IJPPM-01-2018-0029>
- Simamora, S. R. R. A., & Sembiring, E. R. (2018). Pengaruh Intellectual Capital Dan Good Corporate Governance Terhadap Kinerja Keuangan Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2015. *Jurnal Reviu Akuntansi Dan Keuangan*, 4(1), 111–136.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif*. Alfabeta.
- Tarigan, J., Listijabudhi, S., Hatane, S. E., & Widjaja, D. C. (2019). *The Impacts of Intellectual Capital on Financial Performance : An Evidence from Indonesian Manufacturing Industry*. 5(1), 65–76.
- Yulandari, L. F., Gunawan, H., Studi, P., Manajerial, A., Batam, P. N., & Centre, B. (2019). *Pengaruh Intellectual Terhadap Nilai Pasar dan Kinerja Keuangan Perusahaan Yang Terdaftar Di Bursa Efek*. 3(1), 36–50.

Biographies

Rafif Ridanus Pratama is a student at Telkom University – Faculty of Economic and Business. He is currently taking Bachelor of Accounting. He has competency certificate of Qualified Risk Management Officer. He had an internship experience at Pertamina MOR 3 (an Indonesian state-owned oil and gas company) and was a lecturer assistant. Besides studying, he has talent in music and has won several awards.

Dewa Putra Krishna Mahardika is a lecturer at Telkom University – Faculty of Economic and Business. He obtained his Bachelor Degree of Economic in Trisakti University and completed his Master of Science in University of Indonesia. He specializes in the area of Financial Intermedation, Financial Derivatives, and

Financial Reporting. He has professional certified in Financial Accounting and Financial Risk Manager. He has been in the academy for more than 8 years and produced some study research. Furthermore, he actively writes articles in digital and print news.