THE INFLUENCE OF BANK CHARACTERISTICS ON FINANCIAL PERFORMANCE WITH INTELLECTUAL CAPITAL AS INTERVENING VARIABLE
(STUDY ON NATIONAL COMMERCIAL BANKS IN INDONESIA)

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ABSTRACT

This study aims to examine the effect of bank characteristics on financial performance using 7 financial proxies on bank characteristics from market concentration of third party funds (HDPK), credit market concentration (HLOA), capital adequacy (CAR), bank liquidity (LDR), bank efficiency. (BOPO), non-performing loans (NPL), leverage (LEV), and Financial Performance with the proxy of Return On Assets (ROA) as the dependent variable and Intellectual Capital as the Intervening variable. Secondary data gathering is the method used for data collecting in this study. This study focuses on Indonesian National Commercial Banks. According to the findings of this study, there is a substantial relationship between Bank Characteristics and Financial Performance, as indicated by a T-statistic of (5.360 > 1.96) and a coefficient of 0.838. With a T-statistic of (4,089 > 1.96), and a coefficient of 0.626, the influence of bank features on intellectual capital is statistically significant. In addition, the Effect of Intellectual Capital on Financial Performance is not statistically significant (0.304 1.96, coefficient = -0.058).

Keywords : Bank Characteristics; Financial Performance; Intellectual Capital

INTRODUCTION

The ups and downs of the economy at the micro level are reflected in the financial performance of companies listed on the stock exchange. According to data obtained from the IDX, there are several issuers who experienced a decrease in net profit in the 2018 period. This decline in profit occurred in companies in the banking sector. Bankis an organization which act as a financial intermediarythat brings the parties togetherwho have excess funds withpartywhichneed capital,as well asorganization which works to expedite current payment. Starting from operational bank until transfer fund public to they who need through loan, bank get credit interest as a form of income (Susanti, 2019). This income is the bank's main income, specifically bank general.This situation cause bank attempt to increase loan to debtors, to increasetheir income. However, bank managementface other problems as it gets worseeconomic conditionsIndonesia. It is estimated that the bankno longerbenefit frommarginprofitnet (Net Profit Margin/NPM) or net interest margin (Net Interest Margin/NIM) as high as before. The government

insists that droploan interest rates will have an impact on marginprofit. According to this view, banks are required todiversifyincome. This can be done more efficiently through commission-based income or by reducing the company's operating costs.

Banking industry Indonesia is one of the countries with Highest NIM in world with a value of5%. Even though the value of the idealis as big as 2.5%. Based on data from bank global, margin ratio the bank's net profit is Indonesia highest in the range of 5.6-5.8%, much more tall from country other country neighbors like Malaysia only2%,Thailand 2.5, Singapore around 1.5- 2% and the Philippines 4%. Korean below 2% and even Japanenter less than1%.

The high net profit margin of Indonesian banks indicates that Indonesian banks are inefficient. NIM distinguishes between return on investment and interest expense. Through NIM, you can calculate the difference between loan interest and savings interest. In general, looking at profits, the greater the difference between the loan interest rate and the deposit rate, the higher the bank interest rate. The size of this spread is usually ineffective and reflects the efficiency of the bank.

The high NIM status of banks in Indonesia reflects the fact that the Indonesian banking industry faces problems of high risk and productivity. Banks also need to find new sources of income in the form of fee-based revenue. Non-interest income is a form of diversification of bank income. Non-interest income is an effort to increase bank income while minimizing risk for banks. (DeYoung & Roland, 2001).

The empirical picture of interest and non-interest income in Indonesian banking shows a change in the structure of banking income. This clearly presents an interesting case for further research. Further research is needed to investigate the factors that change the income structure of Indonesian banks.

Banks are now actively looking for sources of income other than loan interest. In addition, Bank Indonesia (BI) lowered the benchmark interest rate and the Deposit Insurance Corporation (LPS) lowered the guarantee interest rate. It is almost certain that a bank's profit margin or net profit margin will decrease. (Figure 1)

Based on the data, interest-free income from banks in Indonesia has increased over the last five years. The increase in non-interest income was due to a surge in electronic banking services. The following is data on changes in interest-free bank income in Indonesia.

The increase in interest-free income from 2018 to 2021 is profitable as the bank drives growth through its bancassurance business, cards and transactions with optimized digital banking. A source of commission-based income (FBI) is the income that a bank earns based on the price of banking services which can only be increased in retail transactions such as e-commerce. (Figure 2)

Financial performance appraisal such as banking has a different business scope from other business scopes. Banking is an intermediary institution that connects parties who have excess funds (financial surplus) with parties who have lack of funds (financial deficit), and the bank is tasked with bridging the two (Fahmi, 2015).

Amelia and Fauziah (2017) show that the capital adequacy ratio has a negative effect, while third party funds and exchange rates have a positive effect. However, the inflation vector and the rate of profit sharing have little effect on bank sales.

Chandrasegaran (2020), a 2013-2017 survey in Sri Lanka, shows that CAR affects bank earnings. According to a survey by Saunders, Schmid & Walter (2016) in developed countries such as the UK and the European Union, the CAR variable affects bank performance, including bank income.

As Figure 1 shows, Indonesia's interest-free income is starting to grow. Therefore, in this study, we examine the factors that choose interest-free income as one of the focal points. Research on this topic is still inadequate in Indonesia itself, but research on the factors driving interest-free returns is widespread in other countries. For example, research on the factors that determine interest income and non-interest income is quite different. Hahm (2008) found that bank size, bank efficiency, and economic growth account for interest-free returns at banks in OECD countries. However, asynchronous spending is shown by Meslier, Takaneng, and Tarazi (2014), explaining that bank size and efficiency have a negative impact on non-interest income.

The evolution of changes in the structure of bank interest income and the development of non-interest income in Indonesia is certainly an interesting topic that needs further research. This study focuses on the factors that determine it. Therefore, this study conducted an empirical test of the bank's internal factors attached to bank characteristics such as capital adequacy ratios, bank liquidity, and bank efficiency. In addition, the researchers also linked factors outside the bank. Above all, national income, inflation and benchmark interest rates are tested against interest and non-

interest income of Indonesian commercial banks.Based on theory and researchempirical, The author is interested in conducting a research entitled "The Influence of Bank Characteristics on Financial Performance with Intellectual Capital as an Intervening Variable (study on national commercial banks in Indonesia)".

LITERATURE REVIEW

Bank Theory

The Law Number 10 of 1998 Concerning Amendments to Law Number 7 of 1992 Concerning Banking defines a bank as "a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and/or other forms to improve the standard of living of the people."

Conventional Bank

According to the Indonesian Banking Booklet (2016), Conventional Banks are banks whose business activities are carried out conventionally and the types consist of Conventional Commercial Banks (BUK) and Rural Banks (BPR).

Bank Characteristics

Banks are characterized by market concentration of third party funds (HDPK), credit market concentration (HLOA), capital adequacy ratio (CAR), bank liquidity (LDR), bank efficiency (BOPO), non-performing loans (NPL), leverage (LEV) and macroeconomics. , namely the Indonesian interest rate. Below is a description of each bank indicator:

1. Market Concentration of Third Party Funds (HDPK) Third party banks with high market share demonstrate a strategic advantage in offering third party funds. Adequate third party funding strengthens the bank's position as an intermediary. TPF has a market share that can be calculated using the following calculation based on Lloyd-Williamsetal (1994):

$$HDPKi.t = \frac{DPK\ Bank\ i.t}{\Sigma\ \text{DPK umum t}}$$

2. Credit Market Concentration (HLOA) is the extent to which a company dominates market share and dominates market power. Concentration is expressed as a percentage of the market share of several large companies. In this case, the focus is on the credit market:

MSi = (Si/St) x100 3

1. Capital Adequacy Ratio (CAR) is a bank's willingness to compensate for the reduction in its reserves due to bank losses from volatile assets. Calculation of capital adequacy using the parameters of the ratio of changes in capital (CAR) as follows:

$$CAR = \frac{Bank\ Capital}{Risk\ Weighted\ Assets}$$

2. Bank Liquidity (Loan to Debt Ratio/LDR) is a bank that can pay off depositors' withdrawals by channeling credit as a source of liquidity. Bank liquidity is calculated with the Loan to Debt Ratio (LDR) parameters as follows:

$$LDR = \frac{Total\ Credit}{Total\ Third\ Party\ Funds + Securities}$$

3. Bank Efficiency (BOPO) is a measure of the performance and capacity of a bank to run its operations. The effectiveness of a bank is calculated using the BOPO parameters which are formulated as follows:

$$BOPO = \frac{Operating\ costs}{Operating\ Income}$$

4. Non-Performing Loans (NPLs) are an indicator of the quality of bank asset performance. NPL evaluates asset quality as an estimate of the state of bank reserves and the suitability of credit risk management.

$$NPL = \frac{Non - Current\ Credit}{Total\ Credit}$$

5. Leverage (LEV) is a financial measure of the amount of debt provided by a company or entity. Leverage ratio can be understood as a financial indicator that calculates the company's willingness to fulfill its long-term obligations or

obligations. For long-term debt itself, it is determined debt or debt for one year or more

Debt Ratio = Total Debt / Total Assets

Financial performance

In the glossary of accounting terminology, performance (performance) is a measurement of the efficiency with which a corporation operates during a given period. The general performance of the bank is a statement of the bank's operational accomplishments. The financial performance of a bank is a statement of the bank's financial status in a certain period, in terms of both fund-raising and fund-distribution.

According to Abdullah in Ulina (2015):

"Bank's financial performance is part of the bank's overall performance which is a description of the achievements achieved by the bank in its operations, both in terms of finance, marketing, fundraising and distribution, technology and human resources".

The performance of a company can be determined by reviewing and evaluating its financial statements. According to Bank Indonesia regulation No. 6/10/PBI/2004, the ratios of Capital, Asset Quality, Management, Earnings (Profit), Liquidity, and Market Risk Sensitivity are used to determine the valuation of a bank, known as CAMELS. Where in this study the ratio used is the ratio of earnings (profitability).

Intellectual Capital

According to Ike and Gayatri (2016), there are three methods to interpret intellectual capital. First, the entirety of a company's knowledge that can create a competitive advantage; Second, intellectual stuff — knowledge, information, intellectual property, and experience — that can be employed to generate wealth; and Third, useful knowledge packages.

METHOD

The Structural Equation Model is the data analysis technique utilized to discuss the challenges in this research (SEM). Structural Equation Models (SEM) are statistical methods that permit testing a relatively complex set of interactions simultaneously (Ghozali, 2014). Using an intermediate variable, the purpose of the path diagram is to determine the effect of the independent variable on the dependent variable. Based on theory, the path diagram illustrates the explicit causal relationship between variables (Hardinis, 2019). One or more dependent variables can have complex relationships with

one or more independent variables. A variable may also serve as both a dependent and independent variable in a relationship.

The method of data collection in this study is to collect secondary data. This survey focuses on the Indonesian National Commercial Bank. Due to the small population, this study uses a saturated sample that uses all population data as the survey sample: state-owned banks, FX BUSN, non-FX BUSN, BPD, joint venture banks, foreign banks, and Islamic banks. The variables used are market concentration of third party funds (HDPK), credit market concentration (HLOA), capital adequacy (CAR), bank liquidity (LDR), bank efficiency (BOPO), non-performing loans (NPL), leverage (LEV), and Financial Performance with the proxy of Return On Assets (ROA) as the dependent variable and Intellectual Capital as the Intervening variable.

The Partial Least Squares (PLS) method is used to test the hypothesis of this study (Ghozali, 2014) PLS is a potent factor indeterminacy analysis model since it does not assume the data must be of a specific scale, the sample size is modest, and it may be used to confirm theory, among other applications (Ghozali, 2014) PLS enables researchers to determine the predictive value of latent variables. The PLS parameter estimations can be divided into three groups, including (Ghozali, 2014): a) The first category is the weight estimate used to create the latent variable score; b) The second category reflects the path estimate between the latent variable and its indicator block (loading); and c) The third category relates to the means and locations of parameters (regression constant values) for indicators and latent variables.

PLS uses a three-stage iterative procedure to generate the three estimates presented above, with each iteration producing an estimate. The first stage estimates weight, the second stage estimates the inner and outer models, and the third stage estimates means and locations (constant).

RESULTS AND DISCUSSION

Test Outer Model

The outer model with reflective indicators is evaluated using convergent validity, as demonstrated by the outer loading of every variable indicator. If the outer loading value is more than 0.70, the indicator is deemed to be reliable. The figure below represents the first step of the PLS Algorithm applied to the study concept and its corresponding indicators.

Based on Figure 3, the output results indicate that convergent validity with loading factor for fundamental factor constructs, dividend policy, and company value has been met by all indicators because all loading factors are more than 0.70.

Another test is the composite reliability of the construct's evaluative indications. Composite reliability and Cronbach alpha, with a minimum value of 0.70, can be used to evaluate the reliability of each construct employed in this study. (Table 2)

Inner Model Test

The results of testing the inner model will reveal the relationship between constructs. The estimation findings for each 5 percent significance construct (T-Statistic > 1.96) are detailed in Table 2 below, which is the outcome of bootstrapping. The findings of the path coefficients in table 2 are as follows:

T-statistic of (5,360 > 1,96) and coefficient value of 0.838 in Table 2 indicate that the effect of Bank Characteristics on Financial Performance is statistically significant. With a T-statistic of (4,089 > 1,96) and a coefficient value of 0.626, the effect of Bank Characteristics on Intellectual Capital is substantial. In addition, the Effect of Intellectual Capital on Financial Performance is not statistically significant (0.304 1.96, coefficient = -0.058).

The influence of Fundamental Factors on Firm Value is significantly moderated by Dividend Policy, as indicated by a T-statistic of (2.128 > 1.96) and a coefficient of 0.416, as shown in Table 3.

Figure 4 demonstrates the whole bootstrapping result describing the relationship between the construct and T-statistic value based on SmartPLS 3.0 output.

Characteristics of Banks on Financial Performance

The T-statistic of (5,360 > 1,96) and coefficient value of 0.838 in Table 2 indicate that the impact of Bank Characteristics on Financial Performance is statistically significant. This study's findings confirm prior research conducted by Mahardian (2018) indicating that the characteristics of banks with proxies CAR, BOPO, NPL, NIM, and LDR influence ROA. Contrary to the findings of prior research by Sasmitasari (2015), the CAR, BOPO, NPF, and inflation variables have no significant effect on ROA when taken collectively.

The results of statistical tests demonstrate that the ability of bank management in managing non-performing loans, in controlling operational costs on operating income,

and in providing funds for business development and accommodating the risk of losses and those caused by bank operations all impact the financial performance of banks.

Bank Characteristics Against Intellectual Capital

Based on Table 2 shows thatBank characteristics on Intellectual Capital have a significant effect with a T-statistic of (4,089 > 1.96) and a coefficient value of 0.626. The results show that intellectual capital has a significant effect on the Loan to Deposit Ratio (LDR), this indicates that any changes in intellectual capital will cause changes to the Loan to Deposit Ratio (LDR). Intellectual capital is part of knowledge that can be useful for banking companies, namely being able to provide added value. This added value provides a competitive advantage for banking companies so that it differs from one company to another.

This study's findings are consistent with those of Mawardi et al. (2017), who found that there is a simultaneous influence between intellectual capital, which includes Value Added Capital Employed, Value Added Human Capital, and Structural Capital Value Added, and the health of banks listed on the IDX, which in this study is represented by nonperforming loans (NPL).

Intellectual Capital on Financial Performance

According to Table 2, the influence of Intellectual Capital on Financial Performance is not statistically significant (0.304 1.96), and the coefficient value is -0.058. This study's findings contradict Soetedjo and Mursida's (2014) research on the impact of intellectual capital on financial success. This study reveals that intellectual capital has a substantial positive effect on financial performance.

However, this research is consistent with findings by Ciptaningsih (2013) and Haryanto & Henny (2013) that intellectual capital has no substantial effect on performance. It can be said that financial performance is not influenced by intellectual capital but may be influenced by other variables. Ciptaningsih (2013) states that other variables such as leverage have a more negative impact on performance. This is because in carrying out its operations to meet the needs of bank customers, they use debt or other funds such as third party funds to run their operations rather than using intellectual capital.

CONCLUSION

The purpose of this study is to determine the relationship between bank features and financial performance, with Intellectual Capital serving as a moderating variable. With a T-statistic of (4,089 > 1,96) and a coefficient value of 0.626, the effect of Bank Characteristics on Intellectual Capital is substantial. In addition, the Effect of Intellectual Capital on Financial Performance is not statistically significant (0.304 1.96, coefficient = -0.058).

Future study must include other elements affecting financial performance. This analysis can include additional variables, such as ownership structure, investment decisions, and others. Increasing the quantity of samples across a longer observation period with the hopes that the results acquired would be more generalizable in the future.

REFERENCES

Abdullah, M. F. (2015). *Fundamentals of Financial Management.* Malang: University of Muhammadiyah.

Ardiansyah, R., & Mawardi, W. (2017). Analysis of the Effect of Capital Adequacy Ratio, Loan to Deposit Ratio, BOPO, and Net Interest Margin on Bank Financial Performance. (Study on Conventional Commercial Banks Listed on the Indonesia Stock Exchange 2010-2014), 6(4), 1-12

Ciptaningsih, T. (2013). Testing the Effect of Intellectual Capital on the Financial Performance of Go Public BUMNs in Indonesia. *Journal of Technology Management, 12*(3).

De Young, R., & Roland, K. P. (2001). Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Total Leverage Model." *Journal of Financial Intermediation, 10,* 54-84.

Ghozali, I. (2014). *Structural Equation Modeling, Alternative Method with Partial Least Square (PLS).* Semarang: Diponegoro University Publishing Agency.

Hardinis. (2019). Capital Structure and Firm Size on Firm Value Moderated by Profitability. *International Journal of Economics and Business Administration, 7*(1).

Haryanto, M., & Henny. (2013). Analysis of the Influence of Intellectual Capital on Financial Performance and Company Market Value". *Journal of Management, 12*(2), pp.133-146.

Ike, F., & Gayatri. (2016). The Influence of Intellectual Capital and Intellectual Capital Disclosure on Corporate Financial Performance. *E-Journal of Accounting, Udayana University, 15*(2): 1623-1653.

Kusumastuti, L. P. (2014). *Grounding Transparency and Accountability of Public Sector Performance: Challenges of Future Democracy*. Gramedia Widiasarana Indonesia. Jakarta.

Mahardian, P. (2018). Analysis of the Effect of CAR, BOPO, NPL, NIM and LDR Ratios on Banking Financial Performance, S-2 Thesis, Master of Management Study Program, Dipononegoro University: Semarang.

Sasmitasari. (2015). Analysis of the Effect of CAR, BOPO, NPF and Inflation on Profitability of Islamic Banks. Thesis. IAIN Purwokerto

Susanti, N., Affandi, A., & Herwany. (2019). Implications of ownership structure on firm value with financial decision as intervening variable (state-owned enterprise sector of Indonesia stock exchange). *International Journal of Innovation, Creativity and Change, 2019, 9*(12), pp. 347–363

Susanti, G. (2019). Company value: Impact of capital structure, company growth and liquidity. *International Journal of Innovation, Creativity and Change, 2019, 6*(5), pp. 73–84

Susanti, G., Hertina D., & Hidayat. (2017). The effect of institutional ownership, leverage and transaction volume of corporate values in cement industry listed in Indonesia stock exchange (IDX) 2011-2015. *International Journal of Economic Research, 2017, 14*(17), pp. 99–106.

FIGURE AND TABLE

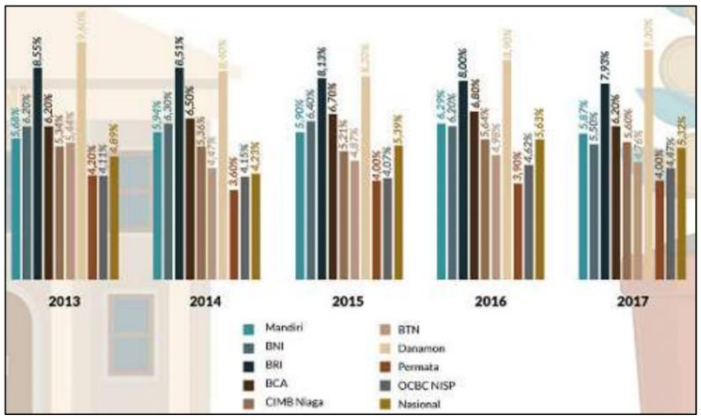
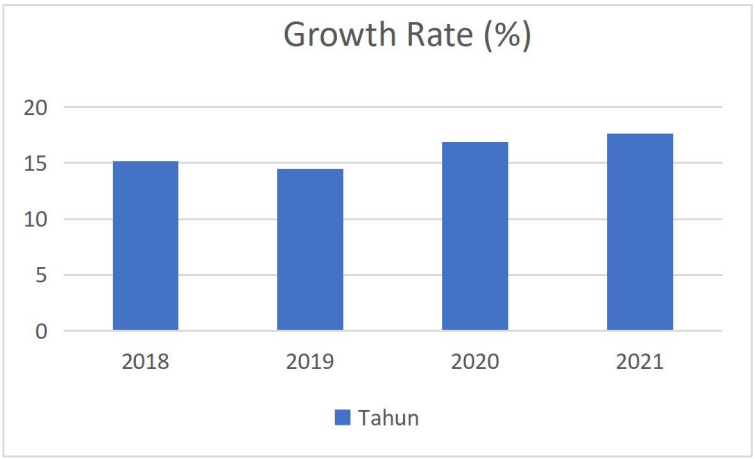


Figure 1. The Development of Banking NIM in Indonesia



Source: Financial Services Authority, 2021

Figure 2. Development of Non Interest Income Banking in Indonesia

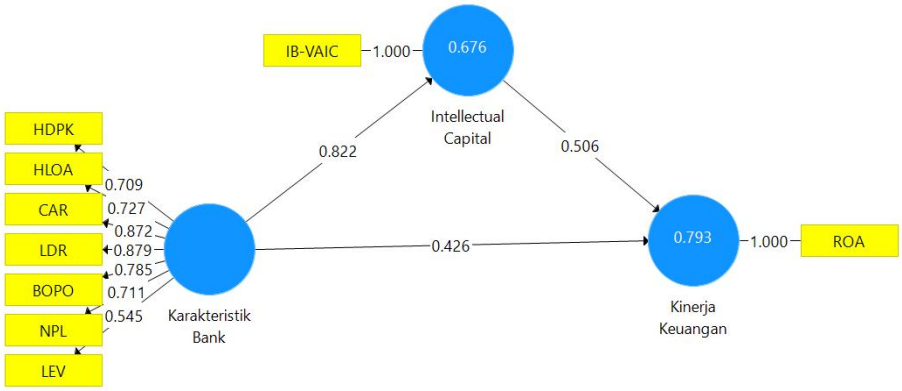


Figure 3. First Phase PLS Output on Research Constructs and Its Indicators

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
INTELLECTUAL CAPITAL	1.000	1.000	1.000	1.000
KARAKTERISTIK BANK	0.884	0.908	0.913	0.607
KINERJA KEUANGAN	1.000	1.000	1.000	1.000

Source: SmartPLS 3.0

Table 2. Path Coefficients

	Original ...	Sample ...	Standard ...	T Statistic...	P Values
INTELLECTUAL CAPITAL -> KINERJA KEUANGAN	-0.058	-0.101	0.189	0.304	0.761
KARAKTERISTIK BANK -> INTELLECTUAL CAPITAL	0.626	0.621	0.153	4.089	0.000
KARAKTERISTIK BANK -> KINERJA KEUANGAN	0.838	0.853	0.156	5.360	0.000

Source: SmartPLS 3.0

Table 3. Indirect Effect

	Original ...	Sample ...	Standard ...	T Statistic...	P Values
Karakteristik Bank -> Intellectual Capital -> Kinerja Keuangan	0.416	0.374	0.195	2.128	0.034

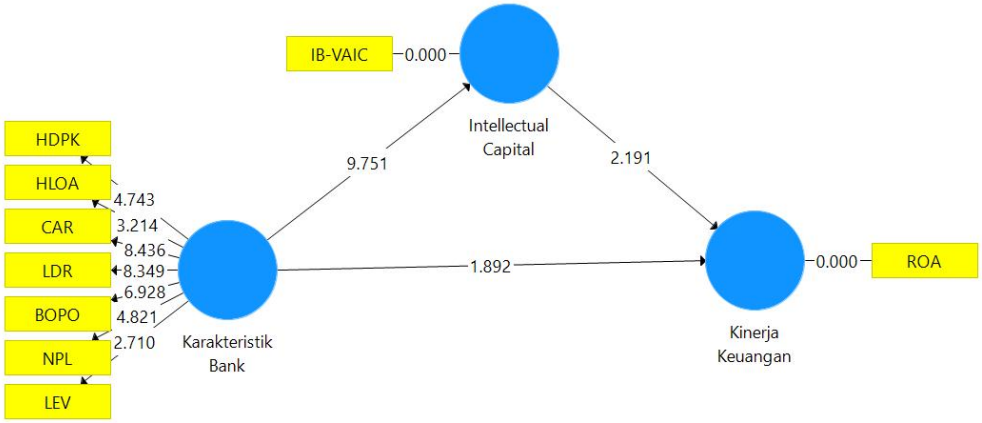


Figure 4. Bootstrapping Results