

Effect of Loan To Deposit Ratio (LDR), Inflation, Intellectual Capital and Net Profit Margin (NPM) to Profitability in Conventional Banks Listed in Indonesia Stock Exchange during 2014-2018

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Abstract

This study aims to analyze the effect of Loan to Deposit Ratio, Inflation, Intellectual Capital and Net Profit Margin on profitability. This research uses this type of research with a quantitative approach by using panel data and processed using e-Views software. The sample used was 29 Conventional Banks listed on the Indonesia Stock Exchange 2014-2018. The results of this study reveal that the Loan to Deposit Ratio, Inflation and Net Profit Margin have a positive effect on profitability. Intellectual Capital does not have a positive effect on profitability.

Keywords: Loan to Deposit Ratio, Inflation, Intellectual Capital, Net Profit Margin, profitability.

INTRODUCTION

Intense competition among companies due to the free market and globalization, requires the company to change the way they do business. In order to continue to survive, companies must quickly change its strategy from a business based on manpower (labor-based business) towards a knowledge based business (business based on knowledge), so that the main characteristics of the company into a knowledge-based company. The development of the new economy driven by information and knowledge, it brings an increased attention to intellectual capital as a tool to determine the value of the company (Stewart, 1997).

According to Abidin (2000), intellectual capital is still not widely known in Indonesia. The companies in Indonesia tend to use a conventional base in the business so that the resulting product is still poor technological content, a lot of corporate activity based knowledge, expertise, and technology, for example, expenditure on information and training. Technology is still recorded as an expense rather than as an investment that will benefit the company in the future. In addition, these companies have not been paying more attention to human capital, structural capital and customer capital, which is the company's intellectual capital building elements.

Kashmir (2015) states that bank profitability is a function of internal and external factors. Internal factors are micro factors or specific factors that determine the profitability of banks. While external factors are variables that do not have a direct relationship with the bank's management, but these factors are not directly give effect to the economy and laws that will impact on the performance of financial institutions. The high rate of inflation could have an impact on the banking sector. Therefore, Bank Indonesia also needs to establish an appropriate level of interest rates as a basis or benchmark public and private banks to determine their interest rates so that they can remain liquid and profitable.

Table 1. Indonesia's inflation rate in the period 2014-2018

	Period	Inflation	
		(%)	
	2014	8,36	_
	2015	3,35	
	2016	3,02	
	2017	3,61	
	2018	3,13	_
Source: w	ww.bi.go.id	l, data proces	sed, 2020

According to research (Wibowo and Syaicu, 2013) Inflation can have a bad effect on the economy. If there is severe uncontrolled inflation (hyperinflation) then the economic situation becomes chaotic and the economy feels sluggish. This results in reduced public interest in saving, or investing and producing. Prices increase rapidly, people will be overwhelmed to bear and compensate for the skyrocketing prices of daily necessities. For companies, an inflation causes an increase in their production and operational costs so that in the end it is detrimental to the bank itself. Inflation has the potential to raise credit interest rates. The increase in loan interest will certainly hamper credit growth itself while income from the credit sector will be small. This has an impact on the profitability of the bank concerned.

Net Profit Margin to measure the bank's ability to generate net profit before tax from the point of operating income. In the face of the issue of investment, where we have to choose a company more attractive than interest. Interesting company is enjoying high profit margins and generate cash profits for their owners. By choosing a company that can facilitate high profit margins which companies will have to invest (Ferdian, 2014). This study aimed to analyze the effect of the Loan to Deposit Ratio, Inflation, Intellectual Capital and Net Profit Margin on profitability.

THEORITICAL FRAMEWORK AND HYPOTHESIS

Stakeholder Theory

Maskuroh (2014) states that the stakeholder is an individual, group of people, community or society as a whole or partially with ties and interests of the company. Stakeholder theory argued that the company is not the only entity that operates for its own account, but provides benefits to stakeholders.

Stakeholder theory bases itself on the assumption, among others:

- 1) The corporation has many constituenty relationship groups (stakeholders) that effect and are affected by its decisions.
- 2) The theory is concerned with the nature of Reviews These relationships in terms of both processes and outcomes for the firm and its stakeholders.
- 3) The interest of all (legitimate) have intristic stakeholder value, and no set of interest is assumed to dominate the others.
- 4) The theory focuses on managerial Decission making.

Loan to Deposit Ratio (LDR) and Profitability

According to Bank Indonesia Regulation No. 15/15 / PBI / 2013, the understanding Financing to Deposit Ratio (FDR) is a ratio to measure the composition of total loans compared to the amount of public funds and equity used. Loan to Deposit Ratio (LDR) is a ratio that measures a bank's ability to meet the financial obligations that must be met. This ratio is a ratio used to determine the level of bank liquidity and also a measuring instrument to the banking intermediation function. Loan to Deposit Ratio (LDR) on the comparison provided by the bank with third party funds that have been successfully mobilized by the bank. This ratio is used to measure the extent to which loan funds are sourced from third party funds. Pane (2018) said that low liquidity causes the company to lose the opportunity to achieve greater profits. In this case, the higher the LDR ratio, the greater the profitability of a bank, on the contrary, the lower the LDR indicates the bank's lack of effectiveness in channeling credit so that the bank's opportunity to earn greater profits is lost.

H1: LDR has a positive effect on profitability.

Inflation and Profitability

Inflation decreases the value or purchasing power of a particular currency and as an increase in inflation, the purchasing power of your money on the wane. Economists measure inflation increase or decrease over time. This measurement is known as the rate of inflation. Inflation have a negative effect on the economy. If there is severe uncontrolled inflation (hyperinflation) then the economic situation becomes chaotic and the economy feels sluggish. For companies, an inflation causes an increase in their production and operational costs so that in the end it is detrimental to the bank itself. Inflation has the potential to raise credit interest rates. The increase in loan interest will certainly hamper credit growth itself while income from the credit sector will be small. This has an impact on the profitability of the bank concerned. **H2**: Inflation has a positive effect on profitability.

Intellectual Capital and Profitability

Intellectual capital (intellectual capital) is an intangible asset in the form of information resources and knowledge that serves to enhance the ability to compete and to improve the company's performance. According to the International Federation of Accountan (IFAC), there are several terms that are almost similar to the intellectual capital, including intellectual property, intellectual assets, all of which are intended kowledge assets as shares or capital that is based on knowledge of the company.

A company's performance is defined by profitability, an expression of the ability of capital investment to obtain a certain level of profit. Many authors strongly believe that the IC can have a positive effect on the company's financial performance (Belkaoui and Riahi, 2013; Tan et.al, 2012). This assumption is also owned by Tan et al (2012) which states that the intensive IC companies are more competitive than other companies and therefore, more successful. However, in order to establish a sustainable competitive advantage and therefore the determining financial performance, Belkaoui and Riahi (2013) assumes that the IC, as well as physical and financial capital of the company, are used in a way that is effective and efficient. **H3**: Intellectual Capital has a positive effect on Profitability

Net Profit Margin and Profitability

Net Profit Margin is a profitability ratio that is used to measure the percentage of net income of a company against its net sales. Net profit margin shows the proportion of sales remaining after deducting all related expenses. Net Profit Margin is often called a Profit Margin Ratio (Ratio Profit Margin). NPM (Net Profit Margin) measures the bank's ability to generate net profit before tax from the point of operating income. The greater the ratio of NPM shows that the larger the bank's ability to generate net income before taxes. This shows that the bank's performance also increased. NPM is used as a proxy of the management aspects of the reason that all the activities will affect the bank's management and led to the bank's profit **H4**: NPM positive effect on profitability



Figure 1. Reseach Model

RESEARCH METHOD

Research Type

This research uses this research with a quantitative approach. A quantitative approach is defined as a method of research that is based on the philosophy of positivism, is used to examine the population or a particular sample, data collection using research instruments, quantitative data analysis / statistics with the aim of testing the hypotheses that have been established (Sugiyono, 2015). This research approach is data Conventional Bank annual financial statements listed in the Indonesia Stock Exchange with the measurement data using a scale / numeric. The results of the analysis are presented in the form of a number / numeric then further explained and interpreted in the description of annotations.

Population and Sample

Sampling was done by purposive sampling method. This method is used because of limited access to the data so that not all data can be accessed bank. This technique is used to obtain samples in accordance with the objectives of the research by selecting a sample based on certain criteria. The criteria used in selecting the samples is as follows:

Table 2.	Population	and Sample
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No	Keterangan	Jumlah
1	Population	92
2	Finance company that is not conventional banks listed on the	(50)
	Stock Exchange in 2014-2018	
3	Conventional Bank does not publish financial statements for	(3)
	the period 2014-2018	
4	Conventional Bank suffered losses during the period 2014-	(10)
	2018	
	Total Sampel	29

Source: processed data, 2020

The data used in this study is panel data. The method in this research is descriptive analysis of the statistics used to analyze the data by describing or menggambarkn data has been collected (Widarjono, 2013). The data is then processed (with eviews) and made the determination of panel data regression estimation models.

 $Y_{it} = \alpha + \beta_1 \text{LDR}it + \beta_2 \text{IFL}it + \beta_3 \text{IC}it + \beta_4 \text{NPM}it \ \varepsilon_{it}$

Dimana :

Y it	= Dependent Variable
α	= Constant
$eta_{ extsf{1,2,3}}$	= Koefisien regresi masing-masing varibel independen
X _{1,2,3}	= Independent Variable
Eİt	= error / residual
i	= Company
t	= Time

Once it is done equality test the model using Lagrange Multiplier Test. After testing the model similarity, then do the classic assumption test and hypothesis testing.

	Table 3. Descriptive Statistic					
	Ν	LDR	Inflasi	IC	NPM	Profitabilitas
Mean	145	87.31409	4.294000	2.180609	0.1464	1.210304
Median	145	88.68000	3.350000	1.760000	2.650000	1.140000
Maximum	145	144.8500	8.360000	71.81000	0.50	2.935000
Minimum	145	50.76000	3.020000	-41.91000	-0.25	0.085000
Std. eviation	145	13.85445	2.051945	8.375167	0.9432	0.673939

RESULT AND DISCUSSION

Source : Processed Data, 2021

LDR value of banking companies listed on the Stock Exchange from 2014-2018 year has fluctuated from year to year with the lowest value of 50.76 by the Bank Capital Indonesia Tbk (READ) in 2014, this was due to the bank in a liquid state with excess capacity funds ready for loan. Inflation from 2014-2018 year has fluctuated from year to year with the lowest score of 3.02 in 2016 and this is because the supply of commodities remains adequate despite the increase in consumer demand enough to contain inflation.

IC value of banking companies listed on the Stock Exchange from 2014-2018 year has fluctuated from year to year with the lowest value of -41.91 Bank OCBC NISP Tbk (NISP) in 2018, this was due to lack of attention to the human resources in the company . NPM value of banking companies listed on the Stock Exchange from 2014-2018 year has fluctuated from year to year with the lowest value of 0.25 by the Bank Capital Indonesia Tbk (READ) in 2016 and this is because at least the profit generated by the bank. While the value of the profitability of banking

companies listed on the Stock Exchange 2014-2018 period fluctuated from year to year with the lowest value of 0,085 by Bank Artha Graha Internasional Tbk (INPC) in 2015, this was due to net income of only \$ 71.294 million thus making INPC profitability lowest value compared to other banking companies.

Panel Data Regression Estimation Model

Based on the test results chow and Haussman, found that the best model used in this research using random effects models.

The results and discussion are made of their own subtitles. Where this section is the main part of the article. The results can be presented with tables or graphs, to clarify the results verbally. Meanwhile, the discussion is the most important part of the entire content of scientific articles. The objectives of the discussion are: Answering research problems, interpreting findings, integrating findings from research into existing knowledge sets and developing new theories or modifying existing theories.

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Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e
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Table 4. Results of Panel Data Regression Models Random Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-1.282025	0.492287	-2.604225	0.0105
LDR	0.012741	0.005224	2.438974	0.0163
INFLASI	0.037430	0.010224	3.660836	0.0004
IC	0.000172	0.002861	0.060111	0.9522
NPM	0.023495	0.004589	2.569320	0.0049

Source : Processed Data, 2021

From the table above regression equation as follows:

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P<sub>T</sub> = -1.282025 + 0.012741 LDR + 0.037430 INF + 0.000172 IC + 0.023495 NPM
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Clasical Assumption Test

Source : Processed Data, 2021

Based on the picture above, the data processing is done it can be seen that the residual normal distribution of data. From the table above it can be seen that the value of statistical

probability test for residual Jarque- Berra is 0.056334 so that H0 is not rejected. In the image histogram can be seen that the pattern resembles a bell-shaped histogram that indicates that the normal distribution of data. So based on the normality test results, it can be concluded that data are normally distributed.

Table 6. Heteroskedasticity

Heteroskedasticity Test: Glejser

F-statistic	0.998785	Prob. <u>F(</u> 3,111)	0.3963
Obs*R-squared	3.022735	Prob. Chi- <u>Square(</u> 3)	0.3891
Scaled explained SS	3.222384	Prob. Chi-Square(3)	0.3586

Source : Processed Data, 2021

According to the table above on the test Glejser, the probability value of Chi Squares from Obs*R-Square is greater an α = 5%, which is 0.3891. Thus the assumption of nonheteroscedasticity of the regression model is fulfilled.

Table. 7 Autocorrelation

Sumber: data diolah, 2020

Kriteria Pengujiannya sebagai berikut:

D-W	dL	dU	4 - dU		Hasil
1,745	1,650	1,740	2,57	Tidak	ada autokorelasi
Sumbe	er: data dio	olah, 2020			
Sourc	e : Proc	essed Dat	a, 2021		NPM
1.00	0000	-0.042717	0.0)56426	0,020128
-0.04	2717	1.000000	0.0	020128	1.000000
0.05	6426	0.020128	1.(000000	0.056426

S Source : Processed Data, 2021

Based on the table above shows that the correlation between the independent variables above all independent variables are below the rate of 0.8. So it can be said to be free from multicollinearity regression model. Thus the assumption of non multicollinearity in regression models have been fulfilled.

Γ

R-squared	0.056977	Mean dependent var	-0.004108
Adjusted R-squared	0.030463	S.D. dependent var	0.548056
S.E. of regression	0.539644	Sum squared resid	32.32491
F-statistic	2.193964	Durbin-Watson stat	1.735964
Prob(F-statistic)	0.092762		

Table 9. Co	efficient of	Determination
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Source : Processed Data, 2021

The coefficient of determination or Adjusted R Square is 0.056977. This shows that the percentage contribution of the influence of the independent variable on the dependent variable was 5.60% or it can be interpreted that the independent variables used in the model is able to explain 5.60% against the dependent variable. The remaining 94.4% is influenced by factors outside the regression model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LDR INFLASI IC NPM	-1.282025 0.012741 0.037430 0.000172 0.023495	0.492287 0.005224 0.010224 0.002861 0.004589	-2.604225 2.438974 3.660836 0.060111 2.569320	0.0105 0.0163 0.0004 0.9522 0.0049

Table 10. Hypothesis Testing

Source : Processed Data, 2021

Based on the hypothesis testing results showed that the LDR has a positive effect on profitability. This is evidenced by the significant value of 0.0163 less than 0.005 (0.0163 <0.05) H0 is rejected. These results are consistent with results of previous studies found that LDR has a positive effect on profitability, which means increasing the value of LDR will affect the profitability of the banks so that investors can make a decision to invest or not, the higher level of long-term loans of a bank, the higher the level of profitability of bank because if a bank loan the higher the interest earned is also getting bigger bank, this research was supported by (Octaviani and Andriyani, 2018) and (Agustiningrum, 2012). This study is not in line with (Wahyuningsih and Gunawan, 2017) which prove that the LDR is not able to give effect to profitability.

Inflation has a positive effect on profitability. This is evidenced by the significant value of 0.0004 less than 0.005 (0.0004 <0.05) H0 is rejected. This means that inflation has a positive effect on profitability. The results are consistent with the stakeholder theory states that the company must provide benefits to stakeholders. Given that inflation may affect the profitability of banks, the internal party can determine some internal policy to maintain bank liquidity levels to remain stable in spite of the effects of inflation.

Intellectual Capital has no effect on Profitability. The results of this study are not in accordance with the stakeholder theory states that the company must provide benefits to stakeholders. In this case the IC does not provide benefits for internal and external parties because of the high and low IC does not affect the profitability of banks.

NPM has a positive effect on profitability. The results are consistent with the stakeholder theory states that the company must provide benefits to stakeholders. By seeing that the NPM may affect the profitability of banks, the internal party can carry out several policies to continue

to maintain the continuity of the company. These results are consistent with results of previous studies found that the NPM has a positive effect on profitability, which means increasing the value of NPM will increase the profitability of banks. The higher the value of NPM mean profitability increases so demand by investors to invest. This research was supported by Ferdian, 2014) and (Adyani and Sampurno, 2011).

CONCLUSIONS

Based on analysis of the influence of the Loan to Deposit Ratio (LDR), Inflation, Intellectual Capital (IC) and Net Profit Margin (NPM) on banking companies listed in Indonesia Stock Exchange 2014-2018 period, it can be concluded that the variable Loan to Deposit Ratio (LDR), Inflation and the Net Profit Margin (NPM) partially have an influence on the profitability of conventional banks. While variable Intellectual Capital (IC) partially has no effect on the profitability of conventional banks listed on the Indonesia Stock Exchange 2014-2018 period.

Based on the research results and conclusions that have been described, the advice given to the next researcher is to add another variable and the other measurement indicators that might better generalize this study. Another suggestion to investors that before making the decision to invest in a company, investors should consider various factors. Investors should not only consider the company's net profit, but also look at other factors such as the Loan to Deposit Ratio and Intellectual Capital.

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