

**EFFECTS OF RISK BASED BANK RATING ON PROFIT GROWTH OF RURAL BANK: AN EMPIRICAL STUDY IN INDONESIA**

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**ABSTRACT**

The purpose of this study is to investigate the relationship between Risk Based Bank Rating (risk profile, capital, and earnings) and profit growth by examining the conventional Rural Banks with the top 50 highest assets in Indonesia. The secondary data are derived from 2014 to 2018 annual report on bank publications in Indonesia. The Profit Growth is treated as the dependent variable to represent the financial performance and a set of independent variables classified as Risk Based Bank Rating ratios. The result of this study shows that Non Performing Loan has a negative and significant effect on profit growth, Loan to Deposit ratio, Capital Adequacy Ratio, and Operating Expense to Operating Income Ratio has a negative but insignificant effect on profit growth, Return on Asset has a positive but insignificant effect on profit growth. Meanwhile Net Profit Margin and Net Interest Margin both have a positive and significant effect on profit growth. This study provides further empirical evidence in the field of risk management related to bank sector, especially for the improvement of financial performance and bank health.

**Keyword:** Risk Based Bank Rating, Risk Management, Bank Health, Profit Growth.

**1. INTRODUCTION**

Today, banking sectors have become the main or crucial driver of a country's economic growth. And for that reason, the business activities of the bank must be monitored by the government in order to gain profit properly and avoid bankruptcy. Monitoring can be done through Risk Based Bank Rating (RBBR). Risk Based Bank Rating is viewed as an essential instrument to evaluate performance of bank and to measures its ability to face the economic challenges. Rural bank in Indonesia is to provide the loan to local community, especially for Micro, Small, Medium Enterprises (MSME) customers, which this kind of service may not be provided or offered by any commercial bank (Kusmayadi, 2018). Rural Banks serve the need of people from the lower economic class such as fishermen, traders, farmers, small entrepreneurs, and employees. This kind of service has not been reached by commercial banks. Therefore, rural Banks are able to realize equal distribution of banking services and provide a major contribution to local communities and also the economic growth in the country.

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According to the Central Bureau of Statistics data indicated that the brokerage services provided by commercial banks and rural banks increased from 9.57 percent in 2015 to 9.82 percent in 2016.

The data on Bank Annual Report 2015 mentioned the rural banks get rapid growth with asset growth of 9.21%, credit growth of 10.44% and growth of third-party funds of 7.26%. However, rural banks are also a business with high risks. Until September 2018, there are 89 rural banks were closed. According to Deposit Agency Insurance Institution, it happened because of an error in the management of the bank instead of the competitors (Sistiyarini and Supriyono, 2017). The bankruptcy occurred because of the failure in controlling the business activities and risk management. Therefore, the rural banks need to control the asset growth, credit growth and third-party growth to anticipate the failure in the banking business. According to the regulation of Bank Indonesia, banks are required to assess the bank health level individually using risk approach (Risk-Based Bank Rating) which consists of risk profile, capital and profitability (Ruliana, Hariyadi and Winarsih, 2016). Therefore, this study will mainly investigate the relationship between Risk Based Bank Rating and profit growth by examining the Non-Performing Loan, Loan to Deposit Ratio, Capital Adequacy Ratio, Return on Asset, Operating Expense to Operating Income Ratio, Net Profit Margin, and Net Interest Margin. This study is expected to contribute to risk management of bank and provide practical benefits, especially for the improvement of financial performance and the decrease in bankruptcy.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Risk Profile and Profit Growth**

Profit growth plays an important role in order to gain trust of the stakeholder in the banks. Profit growth is known as an element of accountability to stakeholders (Rusdianto and Pratama, 2017). Good performance in profit growth is an indication of good achievement in the bank, which will increase the value of the bank. Risk Profile is a risk faced by the bank due to the failure of the debtor in fulfilling the obligations to the bank. Risk profile is a basic assessment of bank health because activities carried out by banks are very possible to the emergence of risk. Risk profile is also an assessment of the risks to activities of bank which has potential to affect the bank's financial position (Zaghdoudi, 2013). The level of bank risk can be measured by credit risk and liquidity risk. Credit risk in this study is measured by Non-Performing Loan; meanwhile liquidity risk is measured by Loan to Deposit Ratio.

### *Non Performing Loan and Profit Growth*

Non-Performing Loan (NPL) is a financial ratio associated with credit risk which calculated based on the comparison between total of non-performing loans and total loan given to debtors. In order to keep the ratio smaller and prevent the failure of installment by clients, Bank Indonesia determines Non Performing Loan ratio should be below 5%. Non-Performing Loan is also an indicator to assess the health of bank (Hilmy, Mohd, and Fahami, 2013). The higher ratio means the bank is not distributing the loan properly. The evaluation of Health of Bank based on the NPL, which used to measure ability of banks to bear the risk of failure in credit repayment by the debtors, regulated by Indonesia Central Bank is as follows:  $NPL < 2\%$  means Very Healthy,  $2\% < NPL < 5\%$  means Healthy,  $5\% < NPL < 8\%$  means Fit,  $8\% < NPL < 12\%$  means Less

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Healthy,  $NPL > 12\%$  means Unhealthy (Ruliana, et al., 2016). Rachman, Kadarusman, Anggriono and Setiadi (2018) implied Banks with high Non Performing Loan tend to increase the cost of productive assets and have a negative effect on profit growth. Meanwhile Kusmayadi (2018) suggested that Non Performing Loan had a negative but not significant effect on profit growth. However, the finding of Paulin and Kaderi (2015) implied that Non Performing Loan had a positive and significant effect on profit growth.

#### *Loan to Deposit Ratio and Profit Growth*

Loan to Deposit Ratio (LDR) shows the ability to perform its intermediary function in channeling third party funds to credit. The measurement of Loan to Deposit Ratio is comparison between total credit and third party funds which include deposits and saving. The lower ratio will cause the bank to lose the opportunity to earn more profit and the excess of funds will increase the interest cost, then the profit will decrease. According to Central Bank of Indonesia, the best range of Loan Deposit Ratio is between 75%-110%. The evaluation of Health of Bank based on the LDR regulated by Indonesia Central Bank is as follows;  $LDR < 75\%$  means Very Healthy,  $75\% < LDR < 85\%$  means Healthy,  $85\% < LDR < 100\%$  means Healthy Enough,  $100\% < LDR < 120\%$  means Less Healthy,  $LDR > 120\%$  means Unhealthy (Ruliana, et al., 2016). Rusdianto and Pratama (2017) implied that Loan Deposit Ratio had a negative but not significant effect on profit growth. Meanwhile Kusmayadi (2018) suggested that Loan Deposit Ratio had a positive but not significant effect on profit growth. However, Kusmayadi, Badruzaman and Firmansyah (2017) revealed that Loan Deposit Ratio had an effect on profit growth. The relationship between risk profile and profit growth has been a matter of debate in recent years. Therefore, this study proposed the following hypotheses to examine the issue.

**H<sub>1</sub>: The Relationship between Risk Profile and Profit Growth of Rural Bank is significant.**

**H<sub>1a</sub>: The effect of Non Performing Loan on Profit Growth of Rural Bank is significant.**

**H<sub>1b</sub>: The effect of Loan to Deposit Ratio on Profit Growth of Rural Bank is significant.**

#### **Capital and Profit Growth**

Capital coverage is an important factor of the bank in the framework of business development and accommodating the risk of loss. Capital Adequacy Ratio (CAR) is the main indicator for bank capital. The ratio demonstrates bank's ability to maintain sufficient capital and to identify, measure, and control risks that may affect bank capital. Bank with high capital are considered safer than those in low capital (Soedarmono, Machrouh and Tarazi, 2013). Capital Adequacy Ratio is a ratio which shows how much of the total assets of the bank that contain risks from their own capital except funds from sources outside of the bank. The capital adequacy ratio is used to protect depositors and promote the stability and efficiency of financial systems. The higher Capital Adequacy Ratio mean the greater amount of own capital can be used to manage existing assets and asset turnover in order to improve bank performance, which will increase profits indirectly (Alper and Anbar, 2011). The evaluation of Health of Bank based on the CAR regulated by Indonesia Central Bank is as follows;  $CAR > 12\%$  means Very Healthy,  $9\% < CAR < 12\%$  means Healthy,  $8\% < CAR < 9\%$  means Healthy Enough,  $6\% < CAR < 8\%$  means Less

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Healthy,  $CAR < 6\%$  means Unhealthy (Ruliana, et al., 2016). Prasadha and Wahyudi (2015) found that Capital Adequacy Ratio had a positive and significant effect on profit growth. Hidayati (2015) revealed that Capital Adequacy Ratio had a negative but not significant effect on profit growth. Rusdianto and Pratama (2017) implied that Capital Adequacy Ratio influence profit growth significantly in opposite way. Based on the descriptions above, there is still a debate on the relationship between the capital factor and profit growth. Therefore, this study proposed the following hypotheses to examine the issue.

**H<sub>2</sub>: The effect of Capital Adequacy Ratio on Profit Growth of Rural Bank is significant.**

### **Profitability and Profit Growth**

The profitability or earning proxy used to measure the ability of a bank to obtain profit is Return on Asset, Operating Expense to Operating Income, Net Profit Margin and Net Interest Margin.

#### *Return on Asset and Profit Growth*

Return on Assets (ROA) is financial ratios that can be used and measured bank's ability to achieve income by utilizing all assets within bank. This ratio is useful to evaluate how well the bank has used its funds. The greater of this ratio indicates the level of profitability of the bank is getting better and healthier (Buchory, 2014). The higher of return on asset describes the effectiveness and excellent ability of banks in term of assets management to increase revenue and reduce costs. The evaluation of Health of Bank based on the ROA regulated by Indonesia Central Bank is as follows;  $ROA > 1.5\%$  means Very Healthy,  $1.25\% < ROA < 1.5\%$  means Healthy,  $0.5\% < ROA < 1.25\%$  means Healthy Enough,  $0\% < ROA < 0.5\%$  means Less Healthy,  $ROA < 0\%$  means Unhealthy (Ruliana, et al., 2016). Rusdianto and Pratama (2017) revealed that Return on Asset influence profit growth significantly in the positive way. Rahmaniah and Wibowo (2015) found that Return on Asset had a positive but not significant effect on profit growth. Sistiyanini and Supriyono (2017) revealed that Return on Assets has no significant effect on profit growth.

#### *Operating Expense to Operating Income and Profit Growth*

Operating Expense to Operating Income ratio is a comparison between operational costs and operating income. The ratio indicates the existence of operational risk borne by bank. The bank will be suppressing the cost as low as possible in order to generate higher profits. The high Operating Expense and Operating Income ratio mean the less efficiency in running its business and an impact on the decrease in profit growth (Firmansyah, 2018). There are several studies which have shown that Operating Expense to Operating Income had a significant effect on profit growth such as the researches of Rusdianto and Pratama (2017), Kusmayadi, et al. (2017) as well as Paulin and Kaderi (2015). Kusmayadi (2018) implied that Operating Expenses and Operating Income ratio had a negative and significant effect on profit growth.

#### *Net Profit Margin and Profit Growth*

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Net Profit Margin (NPM) shows how far the ability of bank in generating net profit at a certain level of sales or revenue. This ratio can be interpreted as an ability of bank to reduce the cost in a certain period (Kusuma, 2012). Net Profit Margin shows the proportion remaining after sales deduct all related costs. According to Bank Indonesia regulation, Net Profit Margin assesses with rank as follows;  $NPM \geq 5\%$  means Good,  $3\% < NPM < 5\%$  means Enough,  $NPM \leq 3\%$  means Bad (Ruliana, et al., 2016). There are several studies which have shown that Net Profit Margin ratio had a significant effect on profit growth such as the researches of Kusmayadi, et al. (2017), Paulin and Kaderi (2015), and Hilmy, et al. (2013). However, Alper and Anbar (2011) discovered that Net Profit Margin had no significant effect on profit growth.

### *Net Interest Margin and Profit Growth*

Net interest margin (NIM) is defined as the difference between interest expenses and interest income per unit of total bank assets. The ratio is used to determine the ability of productive assets to generate profit. Net Interest Margin is an assessment of the earning factor to determine whether the bank has a good ability in the management of assets (Sistiyarini and Supriyono, 2017). High net interest margin resulted by portion of net interest income generated is greater than productive assets which are expected to increase the profit. Net interest margin is one of the most important indicators for determining bank profitability (Nijhawan and Taylor, 2005). When net interest margin ratio is high, the level of bank health is high also. Previous studies such as Kusmayadi, et al. (2017) as well as Paulin and Kaderi (2015) found that Net Interest Margin had a significant effect on profit growth. However, Sistiyarini and Supriyono (2017) as well as Prasadha and Wahyudi (2015) both revealed that Net Interest Margin had no significant effect on profit growth. Based on the literature review, there is still a debate on the relationship between the earning factor and profit growth. Therefore, this study proposed the following hypotheses to examine the issue.

**H<sub>3</sub>: The Relationship between Earning Factor and Profit Growth of Rural Bank is significant.**

**H<sub>3a</sub>: The effect of Return On Asset on Profit Growth of Rural Bank is significant.**

**H<sub>3b</sub>: The effect of Operating Expense to Operating Income Ratio on Profit Growth of Rural Bank is significant.**

**H<sub>3c</sub>: The effect of Net Profit Margin on Profit Growth of Rural Bank is significant.**

**H<sub>3d</sub>: The effect of Net Interest Margin on Profit Growth of Rural Bank is significant.**

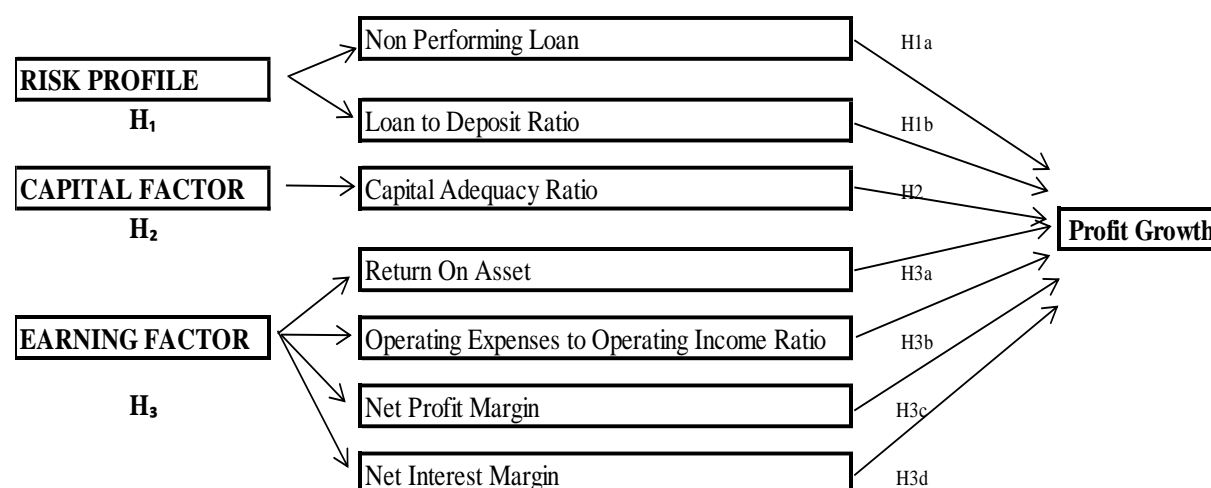
## **2. METHODOLOGY**

### **Research design**

Bank activities take a significant part in the social and economic development. Many previous studies have shown that Risk Based Bank Rating (RBBR) is the most widely used to assess the bank health. However, over the years, there have been different views on the causal relationship between RBBR ratios and financial performance. This study aimed to investigate the effect of Risk Based Bank Rating (RBBR) on Profit Growth of conventional Rural Banks in Indonesia. Independent variables used in this research were Non Performing Loan, Loan to Deposit Ratio, Capital Adequacy Ratio, and Return on Asset, Operating Expense to Operating

Income Ratio, Net Profit Margin, and Net Interest Margin. The dependent variable was Profit Growth. Risk Based Bank Rating is a method to assess the bank health and consists of three indicators such as Risk Profile, Capital, and Earning. The ratios of Risk Based Bank Rating and Profit Growth were collected from the documents, including information of profit and loss report, balance sheet report, outstanding loan report, and other supporting report. The conventional Rural Banks, which amounts to top 50 highest assets companies in Indonesia and registered with the Financial Services Authority Institution, are the purposive samples for this research. The data is secondary data derived from Indonesian Financial Services Authority for a five year period from 2014 to 2018.

The conceptual framework is proposed as the followings



**Figure 1-** Research Conceptual Framework

**Data analysis**

To test hypotheses, multiple-regression was used to analyze the dependent variable (Profit Growth) based on a set of independent variables classified as three elements; risk profile, capital, and earning. Risk profile was measured by Non-Performing Loan (NPL) and Loan to Deposit Ratio (LDR). Capital factor was evaluated by Capital Adequacy Ratio (CAR). The earning factors consisted of Return on Asset (ROA), Operating Expense to Operating Income (OpExOpIn) Ratio, Net Profit Margin (NPM), and Net Interest Margin (NIM). In this research, Profit Growth represented the percentage change of increase in net profit generated by rural banks.



$$ProfitGrowth_{i,t} = \alpha_0 + \beta_1 NPL_{i,t} + \beta_2 LDR_{i,t} + \beta_3 CAR_{i,t} + \beta_4 ROA_{i,t} + \beta_5 OpExOpIn_{i,t} + \beta_6 NPM_{i,t} + \beta_7 NIM_{i,t} + \varepsilon_{i,t}$$

Where

$\alpha_0$	is a constant
i	is the company
t	is the year
Profit Growth	is Profit growth
NPL	is Non Performing Loan
LDR	is Loan to Deposit Ratio
CAR	is Capital Adequacy Ratio
ROA	is Return On Asset
OpExOpIn	is Operational Expenses to Operational Income Ratio
NPM	is Net Profit Margin
NIM	is Net Interest Margin
$\varepsilon$	is error

### 3. RESULT AND DISCUSSION

#### Descriptive statistics

The final of total samples consists of fifty rural banks in Indonesia with top highest asset. The research period was from 2014 to 2018. Therefore, total 250 samples were collected and analyzed from financial report which had been published on the official website (Indonesia Financial Service Authority). Table 1 revealed the means of all related variables in this study. Non-Performing Loan is useful for assessing the current and future effects of profit. If the bad loan increase along with the rise of channeling loans, the ratio of Non-Performing Loan might be remains unchanged. However, if the bad loan is increasing rapidly, it might be affected to profit due to the non-operational expenses as uncollectible account. As shown on the table 1, the result revealed that Non Performing Loan decreased from 2.14% to 1.80%, which means the companies have a success in control of Non Performing Loan and the ratio was much better than the criteria (below 5%) of Bank Indonesia. Capital Adequacy Ratio tends to rises as profit increase, because the profit is also a part of company's capital. Bank might fail to cover all risks of its obligations due to the lower ratio. According to regulation of Central Bank, the minimum Capital Adequacy Ratio is 8%. As shown on the table 1, Capital Adequacy ratios were in the range (22.65 %- 24.90%). The finding implied that those banks should be able to fulfill their obligations.

Interest Income in bank industry has become an important element to generate the profit. Interests can be Loan Interest, Deposit Interest and Saving interest. According to the data in

Table 1, Net Interest Margin ranges from 74.96% to 84.24%, which implied most of the revenue from interest income. Net Profit Margin tends to increase as operational income rises. Most of the operational income comes from interest income. The higher ratio means the companies have success to get back the funds and interest which have been distributed. According to Bank Indonesia regulation, Net Profit Margin which exceeds 5% is categorized as well. As shown on the Table 1, Net Profit Margin had risen steadily from 2014 (28.86%) to 2018 (29.57%). The rising trend implied those banks have been achieved the goals by suppressing the expense. Table 1 indicated profit growth was fluctuating during the research period. The trend of profit growth exhibited that profit growth from 2014 to 2016 had increasingly risen and suddenly plunge in 2018. The finding revealed that profit growth was unstable in the period (2014-2018). Probably, the result incurred because of the falling down ratio which was related to income such as Net Interest Margin.

**Table 1: Means of risk based bank rating ratios and profit growth during the period (2014-2018)**

YEAR	NPL	CAR	LDR	ROA	OpExOpIn	NIM	NPM	Profit Growth
2014	2.14	22.65	84.86	5.22	74.48	84.24	28.86	10.18
2015	2.00	24.90	83.74	5.24	75.36	80.60	28.92	17.48
2016	1.96	24.46	83.70	5.28	74.32	81.44	29.02	33.10
2017	1.90	23.08	82.37	5.39	73.20	74.96	29.43	26.27
2018	1.80	22.65	82.90	5.51	72.90	75.49	29.57	18.39

As shown on the Table 2, the average amount of Operating Income, Operating expenses, Net Profit and Net Interest during the research period (2014-2018) from fifty rural banks in Indonesia with top greatest asset and the amount counted in thousand Indonesian rupiah. According to the data in Table 2, Operating Income, Operating expenses, Net Profit and Net Interest have above 10% increase in average from 2014 to 2018. This condition indicated those bank have a good performance in order to carry out the operational activities within those years. In 2014, the average operating income is IDR 25.375.236, and increase by 13.52% in 2015, 18.70% in 2016, 11.83% in 2017 and 16.29 % in 2018 with total average operating income is IDR 44.467.329. Meanwhile, the average operating expenses is also increase from 2014 until 2018. In 2014 the average of operating expenses is IDR 15.126.267, and increase by 14.76 % in 2015, 15.67% in 2016, 12.86% in 2017 and 16.06% in 2018 with total average operating expenses is IDR 26.301.767. Net Profit is also increase year by year from 2014-2018. In 2014, the average of net profit is 7.997.461 and increase by 11.56% in 2015, 18.71% in 2016, 10.26% in 2017, and 17.44% in 2018 with total average is IDR 13.715.277. In other hand, Net Interest which is mainly income in bank is also rising from 2014 to 2018. In 2014 the average of net interest is IDR 23.634.863 and increase every year by 13.64% in 2015, 17.94% in 2016, 11.43% in 2017, and 17.20% in 2018 with the average of net interest is IDR 41.368.288. Overall, the data revealed Operating Income, Net Profit and Net Interest is keep rising within the five years. And also, the trend of operating expenses is increasing. However, the bank still gain profit in average, which means that the financial performance of those banks in the past few years was good.



**Table 2: Average of Operating Income, Operating Expenses, Net Profit and Net Interest Margin during the period (2014-2018)**

<b>YEAR</b>	<b>OPERATING INCOME</b>	<b>OPERATING EXPENSE</b>	<b>NET PROFIT</b>	<b>NET INTEREST</b>
2014	25,375,236	15,126,267	7,997,461	23,634,863
Increase/(decrease )	13.52%	14.76%	11.56%	13.64%
2015	28,805,305	17,359,222	8,922,263	26,857,807
Increase/(decrease )	18.70%	15.67%	18.71%	17.94%
2016	34,192,980	20,078,944	10,591,897	31,675,760
Increase/(decrease )	11.83%	12.86%	10.26%	11.43%
2017	38,236,950	22,661,252	11,678,159	35,296,806
Increase/(decrease )	16.29%	16.06%	17.44%	17.20%
2018	44,467,329	26,301,767	13,715,277	41,368,288

**Hypotheses Testing**

Table 3 demonstrated the correlation coefficient among risk based bank rating ratios and growth profit. Non Performing Loan, Loan to Deposit Ratio and Operating Expense to Operating Income have negative effects on profit growth. Meanwhile, Capital Adequacy Ratio, Return on Asset, Net Interest Margin and Net Profit Margin has positive effects on profit growth. The p-value of Non Performing Loan, Return On Asset, Operating Expense to Operating Income and Net Profit Margin are 0.000 (p-value < 0.01), which implied Non Performing Loan, Return on Asset, Operating Expense to Operating Income and Net Profit Margin has significant effect on Profit Growth.

Multiple linear regression analysis is to obtain a comprehensive picture of the relationship among variables. Based on the results shown on Table 4, the multiple regression equations can be demonstrated as the following:

$$Profit\ Growth_i = 60.526 - 4.393NPL_i - 0.803LDR_i - 0.481CAR_i + 6.072ROA_i - 0.434OpExOpIn_i + 1.198NPM_i + 0.332NIM_i + \epsilon_i$$

**Table 3: Pearson correlation coefficient between Risk Based Bank Rating ratios and Profit Growth**

**Correlations**

	<b>CAR</b>	<b>LDR</b>	<b>ROA</b>	<b>OPEXOP IN</b>	<b>NIM</b>	<b>NPM</b>	<b>PROGR O</b>
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<b>NPL</b>	-0.089(0.326)	-0.028(0.755)	-0.148(0.101)	0.235(0.009)**	0.008(0.927)	-0.388(0.000)**	-0.405(0.000)**
<b>CAR</b>		0.105(0.245)	0.083(0.360)	-0.332(0.000)**	0.110(0.225)	0.127(0.161)	0.008(0.933)
<b>LDR</b>			-0.345(0.000)**	0.130(0.152)	0.598(0.000)**	0.078(0.389)	-0.063(0.488)
<b>ROA</b>				-0.627(0.000)**	-0.127(0.162)	0.469(0.000)**	0.396(0.000)**
<b>OPEXOPIN</b>					0.291(0.001)**	-0.688(0.000)**	-0.337(0.000)**
<b>NIM</b>						-0.253(0.005)**	0.052(0.571)
<b>NPM</b>							0.403(0.000)**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 4: Results of Multiple Regression Analysis**

R-squared	0.535		
F-statistic	F-Ratio	8.291	
	Prob. (F)	0.000	** (Significant)
Constant	Coefficient (Beta)	60.526	
	Sig (p)	0.466	Insignificant
Non Performing Loan	Coefficient (Beta)	-4.393	
	Sig (p)	0.001	** (Significant)
Loan Deposit Ratio	Coefficient (Beta)	-0.803	
	Sig (p)	0.122	Insignificant
Capital Adequacy Ratio	Coefficient (Beta)	-0.481	
	Sig (p)	0.222	Insignificant
Return On Asset	Coefficient (Beta)	6.072	
	Sig (p)	0.190	Insignificant
Operating Expense to Operating Income	Coefficient (Beta)	-0.434	
	Sig (p)	0.518	Insignificant
Net Profit Margin	Coefficient (Beta)	1.198	
	Sig (p)	0.037	* (Significant)
Net Interest Margin	Coefficient (Beta)	0.332	
	Sig (p)	0.014	* (Significant)

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\* mean significant at the 0.05 level

\*\* mean significant at the 0.01 level

### **Test for hypothesis 1**

#### *The effect of Non-Performing Loan on Profit Growth of Rural Bank*

Credit settlement requires fees such as credit collection fees and other costs, which will destroy the profit growth. According to the results shown on table 4, the P-value of Non Performing Loan is  $0.001 < 0.05$  and the regression coefficient is  $-4.393$ . Therefore, the hypothesis  $H_{1a}$ : The effect of Non-Performing Loan on Profit Growth of Rural Bank is significant was accepted. The result implied the increase of Non-Performing Loan or bad loan will incur a bad impact on profit growth. The finding revealed Non Performing Loan has a significant and negative effect on Profit Growth of Rural Bank in Indonesia and also the finding supported the previous study such as Rusdianto and Pratama (2017); Prasadha and Wahyudi (2015).

#### *The effect of Loan to Deposit Ratio on Profit Growth of Rural Bank*

When the third party fund has exceeded and the bank is not able to distribute the credit, the bank has to pay interest fee to clients. The increasing interest fee will hinder the profit growth. According to the results shown on Table 4, the P-value of Loan to Deposit Ratio is  $0.122 > 0.05$  and the regression coefficient is  $-0.803$ . Therefore, the hypothesis  $H_{1b}$ : The effect of Loan to Deposit Ratio on Profit Growth of Rural Bank is significant was rejected. The result implied Loan to Deposit Ratio has a negative but not significant effect on profit growth. The increase of Loan to Deposit Ratio will result in a bad impact on profit growth. This study had similar results with other researches such as Rusdianto and Pratama (2017); Kusmayadi (2018), which revealed that there is no significant relationship between Loan to Deposit Ratio and Profit Growth.

### **Test for hypothesis 2**

#### *The effect of Capital Adequacy Ratio on Profit Growth of Rural Bank*

Capital Adequacy Ratio is an indicator to measure the capital of bank to support the asset which contains the risk such as loans. If the loan has a lot of bad loans, to maintain the capital, the bank needs to transfer its profit to capital. The increasing ratio will hinder the profit growth. According to the results shown on Table 4, the P-value of Loan to Deposit Ratio is  $0.222 > 0.05$  and the regression coefficient is  $-0.481$ . Therefore, the hypothesis  $H_2$ : the effect of Capital Adequacy Ratio on Profit Growth of Rural Bank is significant was rejected. The result implied Capital Adequacy Ratio has a negative but not significant effect on profit growth. The increase of Capital Adequacy Ratio will result in a bad impact on profit growth. This study had similar results with other researches such as Hidayati (2015), which revealed that there is no significant relationship between Capital Adequacy Ratio and Profit Growth.

### **Test for hypothesis 3**

#### *The effect of Return on Asset on Profit Growth of Rural Bank*

Return on Asset represented the effectiveness and excellent ability of banks in term of assets management to increase revenue and reduce costs. Due to optimum in asset's utilization, the increase of the return on assets reflects the ability of company to obtain an optimal return is

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getting better. The higher ROA of bank, the greater profit growth of bank is. According to the results shown on Table 4, the P-value of Return on Asset is  $0.190 > 0.05$  and the regression coefficient is 6.072. Therefore, the hypothesis H<sub>3a</sub>: the effect of Return on Asset on Profit Growth of Rural Bank is significant was rejected. The result implied Return on Asset has a positive but not significant effect on profit growth. The increase of Return on Asset will result in a good impact on profit growth. This study had similar results with other researches such as Sistiyanini and Supriyono (2017), which revealed that there is no significant relationship between Return on Asset and Profit Growth.

*The effect of Operating Expense to Operating Income Ratio on Profit Growth of Rural Bank*

Operating Expense to Operating Income ratio is known as an efficiency ratio used to measure capability of bank in controlling operational costs. If the company could suppress the costs, it will contribute to an increase in the revenue and profit growth. Operating Expense to Operating Income Ratio will decrease due to the cost reduction, which reflected a greater level of profit growth. According to the results shown on Table 4, the P-value of Operating Expense to Operating Income ratio is  $0.518 > 0.05$  and the regression coefficient is -0.434. Therefore, the hypothesis H<sub>3b</sub>: the effect of Operating Expense to Operating Income ratio on Profit Growth of Rural Bank is significant was rejected. The result implied Operating Expense to Operating Income ratio has a negative but not significant effect on profit growth. The increase of Operating Expense to Operating Income ratio will result in a bad impact on profit growth. This study had similar results with other researches such as Firmansyah (2018), which revealed that there is no significant relationship between Operating Expense to Operating Income ratio and Profit Growth.

*The effect of Net Profit Margin on Profit Growth of Rural Bank*

In order to maximize profit and minimize cost, each company is trying to optimize business activities and make it as efficient as possible. Net Profit Margin describes the level of profit generated by bank, compared to operational income from its operational activities. Due to optimum in operational activities, the increase of the Net Profit Margin reflects the ability of company to obtain an optimal return is getting better. The higher Net Profit Margin of bank, the greater profit growth of bank is. According to the results shown on Table 4, the P-value of Net Profit Margin is  $0.037 < 0.05$  and the regression coefficient is 1.198. Therefore, the hypothesis H<sub>3c</sub>: the effect of Net Profit Margin on Profit Growth of Rural Bank is significant was accepted. The result implied Net Profit Margin has a significantly positive effect on profit growth. The increase of Net Profit Margin will result in a good impact on profit growth. This study had similar results with other researches such as Kusmayadi, et al. (2017), which revealed that a significant relationship existed between Net Profit Margin and Profit Growth.

*The effect of Net Interest Margin on Profit Growth of Rural Bank*

Net Interest Margin ratio is used to determine the ability of productive assets in generating profit. The major business of bank is channeling the funds or credit in order to gain profit from interest income. Profit tends to increase as interest income rises. The increase of the Net Interest Margin reflects the ability of company to obtain an optimal return is getting better. The higher Net Interest Margin of bank, the greater profit growth of bank is. According to the results shown on

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Table 4, the P-value of Net Interest Margin is  $0.014 < 0.05$  and the regression coefficient is 0.332. Therefore, the hypothesis  $H_{3d}$ : the effect of Net Interest Margin on Profit Growth of Rural Bank is significant was accepted. The result implied Net Interest Margin significantly positive affects profit growth. The increase of Net Interest Margin will result in a good impact on profit growth. This study had similar results with other researches such as Paulin and Kaderi (2015), which revealed that a significant relationship existed between Net Interest Margin and Profit Growth.

#### 4. CONCLUSION AND SUGGESTIONS

Risk management plays an important role for the economic development, especially in banking industry. To assess the health of bank, this study expanded the existing researches by examining the relationship between RBBR (Risk Based Bank Rating) ratios and profit growth of conventional Rural Bank in Indonesia. This study provided empirical findings as followings.

Non Performing Loan, as one of risk profile, has a negative and significant effect on profit growth. The NPL ratio reflects the condition of problematic loans experienced by rural banks. The result supports the finding of Rusdianto and Pratama (2017), which investigating the commercial bank in Indonesia. The findings implied that risk profile negatively influences profit growth of bank. The higher the risk profile, the worse the profit growth is. Meanwhile Net Profit Margin and Net Interest Margin, as the earning factors of RBBR in this study, both presented a positive and significant effect on profit growth. The findings revealed that profitability positively influences profit growth of bank. The higher the earnings ratio, the greater the profit growth is. However, this study didn't find a significant relationship between Capital Adequacy Ratio, as the capital factor of RBBR, and profit growth. The finding is similar with the research of Kusmayadi (2018), which also implied CAR does not significantly affect the profit growth of rural bank. This research, therefore, not only contributes to the debate on the relationship between RBBR (Risk Based Bank Rating) ratios and profit growth but also provide further empirical evidence in the field of risk management related to banking sector.

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