The Effect of Net Interest Margin (NIM) and Operational Costs Operating Income (BOPO) on Return on Assets (RoA) at PT. Bank Rakyat Indonesia, Tbk

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ABSTRACT

Banks are known as financial institutions whose main activities are collecting funds from the public, channeling funds to the public, and performing other services in the banking sector. The purpose of this study was to determine the effect of Net Interest Margin (NIM) and Operational Income Operating Costs (BOPO) Against Return On Assets (ROA). The sample of this study is the financial statements of PT. Bank Rakyat Indonesia (Persero) Tbk. from 2008 to 2017, this research uses the Multiple Linear Regression Analysis method using an SPSS test. The results showed that Net Interest Margin has a positive effect on Return On Assets, with a \( t_{\text{count}} \) greater than \( t_{\text{table}} \) (3.021 > 2.365) and a significance level of 0.019 less than a significant level of 0.05 (0.019 < 0.05) and Operating Income Costs Operations have a negative effect on Return On Assets, with a \( t_{\text{count}} \) greater than \( t_{\text{table}} \) (-7.166 > 2.365) and a significance level of 0.000 less than a significant level of 0.05 (0.000 < 0.05). Net Interest Margin (NIM) and Operational Costs Operating Income (BOPO) has a positive effect on Return On Assets (ROA), with a \( F_{\text{count}} \) greater than \( F_{\text{table}} \) (26.298 > 4.46) and a significance level of 0.001 smaller than a significant level of 0.05 (0.001 < 0.05). The coefficient of determination that can be equal to 0.849 or 84.9% means as much as 15.1% is likely influenced by variables not examined.

Keywords: NIM, BOPO, RoA

INTRODUCTION

The role of banks in a country becomes the driving force of a country's economy (Arifin, 2009; Danupranata, 2013; Idroes, 2008). The banking sector in the financial system plays an important role as an intermediary institution. Banking mediates between people who have excess funds and people who need funds (Kasmir, 2017; Kuncoro dan Suhardjono, 2012; Saifudin, 2018). Banks are known as financial institutions whose main activities are collecting funds from the public, channeling funds to the public, and performing other services in the banking sector (Sunarsi, 2017). The function of the bank as an intermediary institution makes the bank has a very strategic position, namely as a support for the smooth running of the
payment system, implementing monetary policy, raising funds and channeling funds to the public which will increase the flow of funds for investment, working capital and consumption. Thus, a healthy, transparent and accountable bank is needed to improve the national economy (Tobing et al., 2013; Wikaningrum, 2011; Yung, 2006).

The competition in the banking industry is now increasingly sharp, especially driven by the development of increasingly selective public knowledges in choosing banks, namely banks that can provide quality financial services for their businesses and individuals. One of the pillars for the banking industry to be able to survive in a global economic order where the intensity of competition between banks is higher is that banks have good performance (Hamidu, 2013; Prasojo, 2015; Umiyati & Faly, 2019). One of the main dimensions of banking performance is financial performance. Financial performance is an important thing that must be achieved by every company, including banks because the financial performance is a reflection of the company's ability to manage and allocate its resources (Margaretha & Letty, 2017; Marzuki & Widyawati, 2013; Setyawati et al., 2017; Umiyati & Syarif, 2019).

Indicators commonly used to measure the level of profitability of a company are Return on Equity (ROE) for companies in general and Return On Assets (ROA) in the banking industry. Both can be used in measuring the magnitude of financial performance in the banking industry. But in general, ROE only measures the returns obtained from the investment of the company owner, while ROA focuses more on the company's ability to obtain earnings in the company's operations (M.Hanafi, 2014). Not a few banks whose profitability levels tend to be low, due to developmental factors, increasingly fierce competition, or even bank management factors in poor operation and poorly controlled financial management so that many banks cannot survive and develop into bigger ones. However, not a few banks are able to handle obstacles in their operational activities so that they can continue to survive and also develop into larger and competitive businesses even though they have not fully developed to the fullest. One example of banks that are still trying to develop and survive is Bank Rakyat Indonesia Tbk, located in BRI I Building, Jl. Jenderal Sudirman Kav. 44-46, Jakarta.

Table 1
NIM, BOPO and ROA Bank Rakyat Indonesia Tbk (In Percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>NIM</th>
<th>BOPO</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>12.27</td>
<td>62.83</td>
<td>3.59</td>
</tr>
<tr>
<td>2009</td>
<td>11.22</td>
<td>67.47</td>
<td>3.12</td>
</tr>
<tr>
<td>2010</td>
<td>13.32</td>
<td>62.53</td>
<td>3.69</td>
</tr>
<tr>
<td>2011</td>
<td>12.06</td>
<td>56.26</td>
<td>3.99</td>
</tr>
<tr>
<td>2012</td>
<td>10.40</td>
<td>49.45</td>
<td>4.33</td>
</tr>
<tr>
<td>2013</td>
<td>10.16</td>
<td>50.19</td>
<td>4.46</td>
</tr>
<tr>
<td>2014</td>
<td>10.39</td>
<td>53.31</td>
<td>3.85</td>
</tr>
<tr>
<td>2015</td>
<td>10.32</td>
<td>55.70</td>
<td>3.70</td>
</tr>
<tr>
<td>2016</td>
<td>10.50</td>
<td>57.58</td>
<td>3.39</td>
</tr>
<tr>
<td>2017</td>
<td>10.15</td>
<td>60.20</td>
<td>3.29</td>
</tr>
</tbody>
</table>

Source: www.ir-bri.com
Established since December 16, 1895, Bank Rakyat Indonesia Tbk is able to survive until now amid the rapid development of the times and the competition of new banks that have sprung up. However, based on table 1.1 and graph 1.1 shows that there are fluctuating changes but tend to continue to decline with NIM and BOPO that affect bank ROA.

**METHOD**

This research is a quantitative research. The analysis technique that will be used in this research is the technique of multiple linear regression analysis to obtain a comprehensive picture of the relationship between one variable with another variable. The dependent variable used is Return on Assets (ROA) and the independent variable is Net Interest Margin (NIM) and Operating Costs and Operating Income (BOPO).

\[
NIM = \frac{(Pendapatan bunga - Biaya bunga)}{Total Kredit} \times 100\%
\]

\[
BOPO = \frac{Biaya Operasional}{Pendapatan Operasional} \times 100\%
\]

\[
ROA = \frac{Laba Sebelum Pajak}{Total Aset} \times 100\%
\]
RESULT AND DISCUSSION

The financial statements used in this study are in the form of a balance sheet and income statement. From the balance sheet and income statement, the company can find out Net Interest Margin, operating costs with operating income and return on assets. To operate the variables included in this study, the authors determine Net Interest Margin and Operational Costs Operating Income as the independent variable (X) and return on assets as the dependent variable (Y).

Multiple linear regression

Multiple linear regression is a statistical method used to test the effect of two or more independent variables on a dependent variable with a scale of interval or ratio measurement in a linear equation. Based on the calculation of regression equation between NIM (X1), BOPO (X2), and ROA (Y) using SPSS 22, the following results are obtained

Table 2
Multiple Regression Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6,490</td>
<td>.637</td>
</tr>
<tr>
<td></td>
<td>BOPO (X2)</td>
<td>-.083</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>NIM (X1)</td>
<td>.183</td>
<td>.061</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA
Source: Output SPSS 22

With the regression equation as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e \]

Explanation:

\[ Y = \text{ROA} \]
\[ \alpha = \text{Constants (values of Y if X1, X2, ..., Xn = 0)} \]
β = The coefficient of the independent variable
X₁ = NIM
X₂ = BOPO
e = Error

Multiple Linear Regression Model:
\[ Y = 6.490 + 0.183 (NIM) + -0.083 (BOPO) \]

Based on these data it can be seen that the constant value (\( \alpha \)) is 6.490, this can be interpreted if the Net Interest Margin and Operational Costs Operating Income is 0, then the Return On Assets value is 6.490. The regression coefficient value of the Net Interest Margin (X₁) value is positive that is 0.183, this can be interpreted that each increase in Net Interest Margin by 1 unit, will increase Return On Assets by 0.183 units, assuming other variables are not done or equal to 0. The regression coefficient value of Operational Cost Operational Income (X₂) variable is negative that is -0.083, this can be interpreted that every increase in Operational Cost of Operating Income is 1 unit, then there is a decrease in Return On Assets by 0.083, assuming other variables are not done or equal to 0.

T-Test

T-test aims to test the effect of partially between independent variables on the dependent variable by assuming other variables are constant. The proof is that if you see the value of t count is greater than t table (t count > t table) and the probability value of sig is less than 0.05 (sig < 0.05), it means that there is a significant influence of the independent variable on the dependent variable.

Table 3
T-Test Result

<table>
<thead>
<tr>
<th>Coefficients¹</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6.490</td>
<td>.637</td>
<td>10.195</td>
</tr>
<tr>
<td></td>
<td>BOPO (X₂)</td>
<td>-0.083</td>
<td>.012</td>
<td>-1.113</td>
</tr>
<tr>
<td></td>
<td>NIM (X₁)</td>
<td>.183</td>
<td>.061</td>
<td>.469</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA

Source: Output SPSS versi 22

\[ T \text{table} = \left( \frac{\alpha}{2} : n-k-1 \right) \]

\[ = \left( 0.05/2 : 10-2-1 \right) \]

\[ = \left( 0.025 : 7 \right) \]

\[ = 2.36462 \]
Based on the test results, it is known that the sig value for the effect of X1 on Y is 0.019 <0.05 and T_{count} value of 3.021 > T_{table} 2.365 so that it can be concluded that H1 is accepted, which means there is a significant influence between Net Interest Margin on Return on Assets. The sig value for the effect of X2 on Y is 0.000 <0.05 while the known T_{count} is -7.166 > T_{table} 2.365 so that it can be concluded that H2 is received, which means that there is a significant influence between Operational Cost of Operating Income and Return on Assets.

F-Test

The F-test is used to determine the extent to which the independent variables are simultaneously used to explain the dependent variable. The proof is done by comparing the probability value of sig smaller 0.05 (sig <0.05) and F_{table} with the value of F_{count}. If F_{count} is greater than F_{table}, then the decision rejects the null hypothesis (Ho) and accepts an alternative hypothesis (Ha). Meaning statistically, the data used proves that the independent variable (X) influences the value of the dependent variable (Y).

Table 4
F-Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1,480</td>
<td>2</td>
<td>740</td>
<td>26.2</td>
<td>.001b</td>
</tr>
<tr>
<td>Residual</td>
<td>0.197</td>
<td>7</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.677</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA
b. Predictors: (Constant), NIM (X1), BOPO (X2)

Source: Output SPSS versi 22

Based on the above output it is known that the sig value for the effect of X1 and X2 simultaneously on Y is 0.001 <0.05 and F_{count} 26.298 > F_{table} 4.46 so it can be concluded that H3 is accepted which means there is a significant influence between Net Interest Margin (NIM) and Operating Costs Operating Income (BOPO) simultaneously against Return On Assets (ROA).

CONCLUSION

The results showed that the Net Interest Margin (NIM) partially had a positive effect on Return on Assets (ROA) at PT Bank Rakyat Indonesia Tbk in the period 2008-2017.
Operational Costs Operating Income (BOPO) partially has a negative effect on Return On Assets (ROA) at PT Bank Rakyat Indonesia Tbk in the period 2008-2017. Whereas the variable Net Interest Margin (NIM) and Operational Cost of Operating Income (BOPO) simultaneously (positively) have a positive effect on Return on Assets (ROA) at PT Bank Rakyat Indonesia Tbk in the period 2008-2017. This can be seen from the calculated $F_{\text{count}}$ than $F_{\text{table}}$ (26.298 > 4.46) with a significant level of 0.000 smaller than the significant level of 0.05 (0.001 <0.05), so it can be concluded that H3 is accepted. Based on the coefficient of determination (KD), contributes greatly to the influence of Net Interest Margin (NIM) and Operational Cost of Operating Income (BOPO) on Return On Assets (ROA), namely Adjusted R Square = 0.849 or 84.9% meaning 15.1% which is influenced by variables not examined.

REFERENCES


