Journal of Economic and Business Analysis (JEBA)

Type of the Paper (Article)

The Effect of BOPO and NOM on ROE in PT. BSM

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Abstract: This research aims to test the variables that affect profitability in PT. Sharia Bank is independent. Site of PT. Bank Mandiri Shariah is a secondary source of data for this investigation. Eviews 10 is used as an estimate tool in quantitative analysis that uses double regression analysis for data time series. Return on Equity (ROE) serves as a data study. Net Operating Margin and Operating Costs for Operating Revenue (BOPO). Use double linear regression for data analysis. T test and hypothesis test. Determination coefficient with test F. Based on the partial test findings (test t), Operational Costs versus Operational Income (BOPO) PT. Sharia Bank has no influence on return on equity (ROE). In the PT. Bank Mandiri Syariah, Net Operating Margin (NOM) Significantly and Affecting Return on Equity (ROE). In addition, the results of simultaneous testing (Test F) showed that BOPO and Net Operating Margin (NOM) influenced Return on Equity (ROE) in PT. Sharia Bank is independent.

Keywords: Profitabilitas**;** Return on Equity; BOPO**;** Net Operating Margin

Citation: Daulay, M Apis & Musthofa M Wakhid. (2023). The Effect of BOPO and NOM on ROE in PT. BSM. *Journal Economic and and Business Analysis*, *1*(1), 32–49.

Academic Editor: Firstname Lastname

Received: date
Revised: date
Accepted: date
Published: date

1. Introduction

According to the Law No. 10 of 1998 dated November 10, 1998 on banking, a bank is an enterprise that collects funds from the community in the form of deposits and sends them to the society in form of credit and or other forms in order to improve the standard of life of many people. (Kasmir, 2014). Sharia banking is defined as a system of banking activities consistent with the principles of Sharia and its application to economic implementation. A sharia bank can be referred to as a financial intermediary in the form of results according to the principles of the sharia. (Isman & Suwandi Putra Suaib, 2022). A bank must work hard to maintain public trust as it is a financial institution that deals with financial transaction services. Hurrying can happen when public confidence is lost. Periodic financial reporting to the company's stakeholders by management is one of the strategies to maintain the confidence of the general public and shareholders. Assessment of management performance by stakeholders is one of the objectives of financial reporting. Performance in work is a measure of success. In Indonesia, both conventional and sharia banks are growing rapidly in response to the expansion of commercial activities that require the existence of banks to support them and the increasing public demand for banking goods and services. Banks may see this as a commercial potential that needs to be considered to improve customer service while at the same time gaining an advantage over competing banks in the market. (Rahayu, 2020).

The size of a country's progress can be seen from the development of one of its banks. The greater the role of banks in regulating a country, the more advanced the country is. This indicates that the government and society are increasingly dependent on the banking industry. (Kasmir, 2014). Therefore, both the conventional banking system and the sharia system in each country should be kept as stable as possible. In addition, the previous global financial crisis led to a series of failures in most conventional banks.

(Yetty et al., 2021). The establishment of sharia banking financial institutions in Indonesia, later known as the Sharia Bank, began in 1991 by the Indonesian Parliament. (MUI). Sharia banks run their business independently of flowers. Sharia bank operations and offerings, commonly referred to as interest-free banks, are based on the teachings of the Qur'an and Hadith. In other words, a sharia bank is a financial institution that primarily deals with financing and other services related to payment processing and money circulation, and its business practices follow the principles of Islamic sharia. (Muhamad, 2014).

The benefits of better bank management can increase profitability. Profitability is one of the metrics used to assess the performance of a bank. The good financial performance of banks can be demonstrated by the bank's ability to increase profitability. On the contrary, if the profitability of the bank is poor, its performance in generating profits is below the standard. The return on equity ratio is used to assess the ability of banks in managing capital (capital) to generate net profit as a measure of profitability in the banking industry (Net Income).Daulay, 2016 Owners, managers, and other interested parties are intended to obtain financial information from the company through financial statements. Welcome to 2018. According to Samsul 2006 and Nurfadilah 2011, ROE indicates that shareholders will benefit from this profit. Due to the potential to increase the company's profits, the presence of ROE growth indicates that the business is improving in increasing investor confidence and making it easier for the management of the company to raise money in the form of stocks. (Sasongko, 2006).

Furthermore, in order to assess the efficiency and operational capacity of the bank, the Operational Cost to Operational Income (BOPO) ratio is used to compare operational costs with operational income. The BOPO ratio is used to assess the capacity and level of operational efficiency of banks. Since collecting and distributing public funds is the main function of the bank as an intermediary, then the cost of interest and income is a large part of the operating costs and income of the institution. Any increase in operating costs will result in a decrease in profit before taxes, which will ultimately reduce the profit or profitability of the bank concerned. (Succiah, 2017). The smaller the BOPO ratio, the more effective the operating costs issued by the bank concerned are managed. Bank efficiency decreases as the BOPO ratio increases. Increased costs make banks less efficient, thus resulting in lower operating profit changes (Rafelia, 2013).

The ability of the management of the bank in managing its productive assets to accumulate net interest is measured using net interest margin (NIM) / net operating marge (NOM). (net profit sharing). The NIM/NOM ratio shows the ability of a productive asset to generate net interest income. (net profit sharing). The management's ability to manage its productive assets to generate net interest income is measured by NIM/NOM. (bagi hasil bersih). Sharia banks are constantly looking for a high net operating margin (NOM). As a result, the sharia bank will strive to a higher net operating margin (NOM) because the higher the value of the NOM, then the bank's profit will be higher. This shows that the sharia bank can manage its modes effectively when carrying out its operational tasks.

Based on financial records. The ratio of Operating Burden to Operating Income (BOPO), Net Operating Margin (NOM), and Return on Equity (ROE) varies. However, assuming the company can control the operating burden of its operating income, Return on Equity (ROE) will theoretically increase if the Operating Cost to Operating Income (BOPO) is low and the Net Operating Margin (NOM) is high. Once the financial statements are checked, a problem arises: the theoretical deviation that affirms the relationship between operating cost and operating income (BOPO), net operating margin (NOM), and return on equity. (ROE). The deviation of the two variables indicates that the greater the Operating Cost vs. Operating Income (BOPO), the lower the Return on Equity (ROE), and vice versa. Although Return On Equity (ROE) increased in December 2018 by 0.18% from 5.53% to 5.71%, contrary to the theory that Operating Costs vs. Operational Income (BOPO) had a negative impact on Return on Equity, Operational Costs Vs.

Operating Revenue (BopO) rose by 0.22% from 94.22% to 94.44% in December 2017. Similarly, Net Operating Margin (NOM) fell 0.02% from 0.63% to 0.61% in December 2017, while Return on Equity (ROE) rose 0.18% from 5.53% to 5.71%. The same event occurred in 2018 in the third quarter of December 2018, when Return on Equity (ROE) grew by 0.23% from 7.98% to 8.21% while Net Operating Margin (NOM) fell by 0.09% from 1.05% to 0.96%. Theoretically, banks should make more money if their net operating margin (NOM) ratio is higher. This shows that the sharia bank is competent in managing its funds in carrying out its operations. This contradicts the assumption that Net Operating Margin (NOM) affects Return on Equity in a profitable way. (ROE).

Research by (Ramadhani, 2018) stated that the BOPO variable has no effect on ROA in PT. Sharia Bank is independent. While the results described by (Diah Nurdiwaty & Retno Ayu Muninggar, 2019) say that BOPO variables have an impact on ROA in PT. Sharia Bank is independent. And research by (Setiyawan, 2017) stated that BOPO variables have a negative impact on ROE in PT. Bank of Shariah. The same results are described by (Lestari, 2021) and (N. Let's, 2021) that the BOPO variable has an impact on ROE. Until there is inconsistency in this statement, further research needs to be done to analyze the two variables because there is no study that examines the impact of BOPO on ROE in PT. Sharia Bank is independent. Subsequent research by (Iggeenurzanah, 2020) stated that NOM variables have an impact on ROE in PT. Sharia Bank is independent. And research (Almi, 2020) stated that the NOM variable has a positive impact on ROE in PT. Bank of Shariah. Based on the statements above, it can be said that there has been inconsistency in the results of the research so that further investigation is needed.

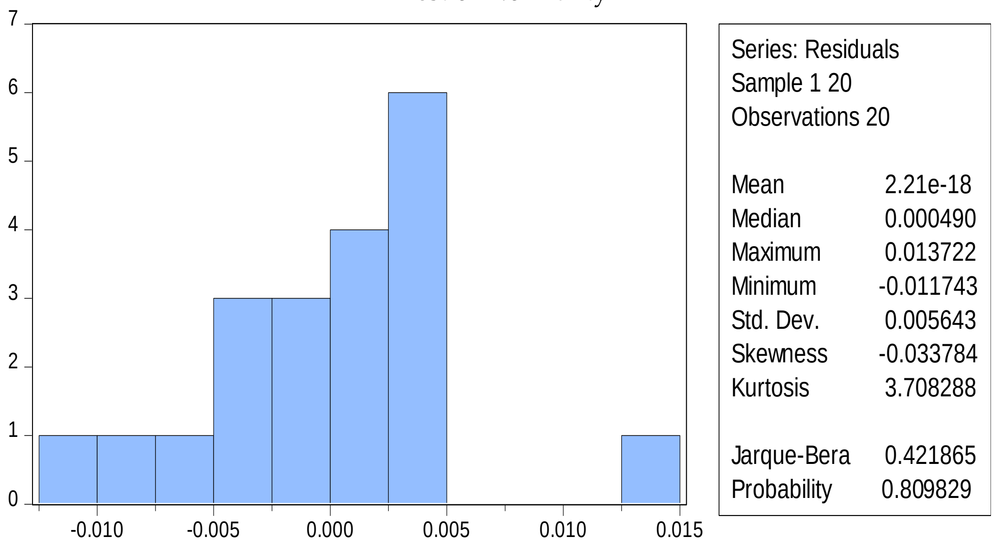
This research aims to look at the influence of BOPO and NOM variables on ROE on Bank Syariah Mandiri in Indonesia.

2. Results

2.1 Test of Normality

The normality test uses the t test, which is valid only if the residual is distributed normally, to determine the significance of the influence of the independent variable on the dependent variable. (Widarjono, 2018).

Picture of 1.
Test of Normality



Source: Data processed using Eviews

The above results used the Jarque-Bera test where the determination of the data is said to be normal when the probability value of Jarque - Berra > α then the residues are distributed normally, and from the above test results it is seen that the probability value of jarque - berra > a is 0,809829 > 0,05, which means the residue is distributed normal.

2.2 Test of Multikolinieritas

The multicolinearity test aims to determine whether there is a correlation (significance) between independent variables. If the association is strong enough (significant), it indicates that independent variables measure the same characteristics. Therefore, using it to calculate the contribution of an independent variable to a dependent variable is not practical. If the tolerance value is greater than 10% and the variance-inflated factor value is less than 10% (VIF 10), there is no correlation between independent variables.(Rahmani and Ahmadi, 2016)

Table of 1.

Test of Multikolinieritas

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	406.6763	146374.7	NA
X1	0.046011	146374.7	1.000000
X2	6.502816	542.1134	1.000000

Source: Data Results Eviews

From the table above you can find the VIF value of the variables (X1) and (X2) of each variable, which is 1,000000 smaller than 10. Therefore, it can be concluded that there is no multicolinearity between independent variables.

2.3 Test of Autokorelasi

The autocorrelation test is to find out if in a linear regression model there is a correlation between interference errors in the t-1 period (previous). (Santoso, 2012).

Table of 2.

Auto-corelation method by Bruesch-Godfrey (LM)

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.282814	Prob. F(2,15)	0.3060
Obs*R-squared	2.921192	Prob. Chi-Square(2)	0.2321

Source: Data Results Eviews

The conclusion of this LM method is by looking at the Obs*R-Squared value if the value ϱ > α then does not contain an autocorrelation of the result above the value of ϱ> α is 0.2321 > 0,05, which means does not have an auto-correlation.

2.4 Test of Heteroskedastisitas

Heteroskedasty test is the test of the occurrence of the residual variance of one observation period of another observational period. (Sujarweni & Wiratna, 2016).

Table of 3.

Test of Heteroskedastisitas Method White

Test: White

F-statistic	2.328584	Prob. F(5,14)	0.0976
Obs*R-squared	9.080807	Prob. Chi-Square(5)	0.1059
Scaled explained SS	8.884381	Prob. Chi-Square(5)	0.1138

Source: Data Results Eviews

The decision of this white method by looking at the ϱ value on the Obs*R-Squarred where if the value $\varrho > \alpha$ then does not contain the element of heteroskedness, from the test result above the value of $\varrho > \alpha$ is 0,1059 > 0,05 then in this study does not include the element heteroskedness.

Table of 4.

Test of Model Regresi Berganda

Variable	Coefficient
C	-0.318153
X1	0.316780
X2	11.76086

Source: Data Results Eviews

From the table above, the following regression equation is obtained:

$$\mathbf{Y = -0,318153 + 0,316780X1 + 11,76086X2 + e}$$

Where Y = Return on Equity (ROE)

A = constant

X1 = Operating Costs versus Operating Revenue (BOPO)

X2 = Net Operating Margin (NOM)

From the equation can be concluded that:

a. The constant number -0.318153 states that the Return On Equity (ROE) value is -0,318.153 if the Operating Cost on Operating Income (BOPO) (X1) and the Net Operating Margin (NOM) (x2) are constant, lost, or both.

b. The ROE would increase by 0.316780 if the BOPO increased by 1 unit, in line with the variable regression coefficient of 0.316,780. Because the BOPO coefficient is positive, BOPOs and ROE have a positive relationship where BOPOS increase will result in an increase in ROE.

c. Since the regression coefficient of the variable NOM is positive and NOM relates positively to ROE, then when the NOM increases then the ROE will also increase, the regression coefficent of NOM of 11.476086 stated that if the NOME increases by 1 unit then NOM will increase by 11,476086.

Test of Hipotesis

Test of t

The t test is basically showing how far the influence of an independent variable individually in describing the variation of the dependent variable is. (Ghazali, 2016).

Table of 5.

See also Particular (Uji t)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.318153	0.398624	-0.798128	0.4358
X1	0.316780	0.396095	0.799758	0.4349
X2	11.76086	4.076673	2.884917	0.0103

Source: Data Results Eviews

The t-test on double regression of the variable value X1 value $\varrho > \alpha$ is 0.4349 > 0.05 so that X1 does not have a significant effect on the dependent variable or Y, and the value of variable X2 $\varrho < \alpha$ is 0.0103 < 0.05, so X2 has a significant impact on the depending variable.

Test of F

The purpose of the F test is to find out if there is a significant relationship between a free and a bound variable. (Sugiyono, 2018).

Table of 6.

Simultaneous testing (Uji F)

R-squared	0.983491	Mean dependent var	0.097965
Adjusted R-squared	0.981549	S.D. dependent var	0.043921
S.E. of regression	0.005966	Akaike info criterion	-7.267984
Sum squared resid	0.000605	Schwarz criterion	-7.118624
Log likelihood	75.67984	Hannan-Quinn criter.	-7.238827
F-statistic	506.3731	Durbin-Watson stat	1.234414
Prob(F-statistic)	0.000000		

Source: Data Results Eviews

In this study, the number of variables in the regression model that includes the free and bound variables (k) is 3, and the degree of freedom (df1) = k - 1 = 2 and (df2) = n - k = 20 - 3 = 17, resulting in a Ftable value of 3,59 at alpha 0,05. Based on the results of the F test obtained Fcalculus = 506,3731 and Fcalculous > Ftable = 506.3731 > 3,59, with a probability of 0,000000 0,05. So H0 is contested, but H1 is approved. Therefore, it can be concluded that both BOPO and NOM factors have a significant impact on ROE. The F test on the double regression value $\varrho F < \alpha$ is 0.000000 < 0.05, meaning that all independent variables together/simultaneously influence the dependent variable.

Test of Determination

The determination test is used to measure how much a dependent variable variable can be accounted for by an independent variable. The determination coefficient test can also be used to assess the quality of our regression lines. (Agus Widarjono, 2017).

Table of 7.

Determination of(R Squared)

R-squared	0.983491
Adjusted R-squared	0.981549

Source: Data Results Eviews

Based on table 7 above, it is known that the R-Squared value is 0.983491. It showed that the impact of BOPO (X1) and NOM (X2) variables on ROE (Y) was 98.34% while the remaining 1.66% was influenced by other variables not included in this study.

Based on the findings of the analysis above, a discussion will be conducted that offers some specific information about the research findings and how each variable affects the other variables. The dependent variables in this study are ROE, while the independent variables are BOPO (X1) and NOM (X2) (Y). Through the results of Eviews 10, the hypothesis between independent factors and dependent variables was tested. Each hypothesis will be discussed as follows:

Effects of BOPO on ROE

From the result of the double linear regression test processed using Eviews 10 obtained a variable regression coefficient BOPO of 0.316. Because the BOPO coefficient is positive then BOPOs have a positive relationship with Return on Equity (ROE), when BOPOS rise then ROE also rises. Thus, if BOPO increases by 1%, profitability (ROE) will increase by 0.316.

The impact of operating costs on operating revenue (BOPO) on profitability (ROE) was obtained with values > 0,4349 and 0,05 based on the findings of the partial t test. According to the accepted theory, if H0 is not proven. H0 is approved and H1 is rejected as 0.4349 > 0.05. Therefore, BOPO does not affect ROE.

According to research conducted by, there is no impact of BOPO development on ROE. (Monica, 2019).

Effect of NOM on ROE

It can be seen from the results of the double linear regression test processed using Eviews 10 obtained a variable regression coefficient NOM of 11.76. That is, because the NOM coefficient is positive, then NOM has a positive relationship with Return On Equity (ROE), so when NOM increases, ROE will also increase. If NOM increases by 1%, then profitability (ROE) will increase by 11.76.

The net operating margin (NOM) impact on profitability (ROE) yielded values of 0,0103 and 0,05 based on the findings of the partial t test. According to the accepted theory, if H0 is not proven. Considering 0.0103 0.05 then H1 is accepted and H0 is rejected. Therefore, ROE is influenced by NOM.

These findings are consistent with previous research. (Yulianti, 2018). This confirms that Return on Equity (ROE) is positively influenced by the Net Operating Margin (NOM). (ROE).

Effect of BOPO and NOM on Return on Equity (ROE) simultaneously

Simultaneous testing (F) showed that BOPO and Net Operating Margin (NOM) influenced Return on Equity (ROE) in PT. Individual Sharia Bank with Fcalung (506,3731) > Ftable (3,59) and value (F) is (0,000000), according to research findings from a double linear regression test processed using Eviews 10. (0,05). The determination coefficient of R Square or 98.34% is 0.983491.

3. Conclusions

The study concluded that partially BOPO is not influential and significant to Return On Equity (ROE) because collecting and distributing public funds is the main function of the bank as an intermediary, the burden of interest and income represents the majority of the institution's operating costs and revenue, or BOPOs. Any increase in operating costs will result in a decrease in profit before taxes, which will ultimately reduce the profit or profitability of the bank concerned. Sharia Bank is independent. PT. The profit of the Sharia Mandiri Bank exceeded the investment expenditure thanks to NOM which partially had a positive and quite large impact on Return on Equity (ROE). In the PT. Bank Mandiri Syariah, BOPO and Net Operating Margin (NOM) both have a considerable influence on Return on Equity (ROE).

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