The Effect of ROA, BOPO, and Interest Rate on Profit Sharing Rate of Mudharabah Deposit at BPRS in Indonesia during 2015-2019

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ABSTRACT

The purpose of this study was to determine the effect of Return On Assets, BOPO, and Interest Rates on the Mudharabah Deposit Profit Sharing Rate at BPRS in Indonesia. This research is a type of explanatory research. The object of this research is BPRS in Indonesia according to the results of the yearly financial reports for 2015-2019. The sampling technique used was simple random sampling technique, and there were 8 BPRS in Indonesia used as samples. The type of data used in this study is quantitative data. The data source in this research is secondary data source. The data collection technique is documentary from the official website of the Financial Services Authority (OJK) and the official website of each BPRS in Indonesia as a complement. The results of the study explain that ROA has no effect on the profit sharing. BOPO has a positive and significant effect on the profit sharing rate of. Interest rates have no effect on the profit sharing rate.

Keywords: Return On Asset, BOPO, Interest Rate, Profit Sharing, Mudharabah Deposits

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1. INTRODUCTION

Islamic economy is considered to have rapid growth due to the emergence of sharia financial institutions every year. The development of sharia banking is marked by many achievements to the current date, such as the institutional aspect, infrastructure, and literacy of society towards the sharia financial service; the improvement that officially started by the
enactment of Law Number 7 of 1992 on banking which has been altered to Law Number 10 of 1998.

Law Number 7 of 1992 stated that commercial banks could conduct their business based on conventional and/or Sharia principles (sharia bank). Therefore, the law allows banks to operate banking systems. The notable difference between conventional and Sharia banks lies in the service provision to fund owners; conventional banking provides the service in the form of interest, while sharia banking is profit sharing.

Based on MUI Fatwa No 1 of 2004 and No 2 of 2004, the interest practice of conventional banking is forbidden. The fatwa explains that bank interest is an additional payment on borrowing funds (al-qardh) calculated as a percentage of the loan without considering the loan utilization based on a designated period with a fixed calculation in advance and generally based on percentage. The bank interest practice that has been very common nowadays complies with the criteria of riba during the era of prophet Muhammad SAW. Therefore, the bank interest practice is categorized as one riba; therefore, is haram/forbidden in Islam for any individual or other entity such as banks, insurance, stock market, cooperative body, and other financial institution.

Due to the MUI fatwa release, people are strongly suggested to switch from conventional banks to sharia in terms of fund deposit. The switch is mainly for the profit-sharing practice applied by sharia banks that is free of riba. One of the primary factors for bank clients to deposit their funds at sharia banks is the return factor of profit-sharing; therefore, the banks must maintain their profit-sharing rate and the clients’ trust.

Sharia banks create various services and products based on sharia rules to attract client investments. Sharia banks must ensure all of their business activities comply with Islamic rules and avoid any forbidden practices; thus, the business mechanism at sharia banks must first of all initiated based on mutual agreement that binds the upcoming business activities, both depositing and disbursement of funds. One of the modes of the sharia banking system is mudharabah.

*Mudharabah* deposit is one of the funding products of sharia banking. The most significant difference that distinguishes the *mudharabah* deposit from conventional bank deposits is the profit share system applied by sharia banks despite the interest system of conventional ones. Therefore, it can be said that *mudharabah* is the clients’ investment in the sharia bank and is not recorded as the bank payable.
To invest funds at a particular bank, a client must collect information related to the bank soundness by evaluating its financial performance. Bank quality will appear synergically with the bank soundness level through the calculation of its financial ratios. The primary method in calculating the financial ratios is by analyzing the financial statement issued regularly. A financial statement is an instrument containing financial information of a related bank institution before a client decides to invest in it.

The profit-share rate for clients significantly depends on the sharia bank income from the margin and profit-sharing of the bank operational result. The profitability ratio is applied to measure the bank's ability to generate profit from its asset management. The ratio used in this study is Return on Asset (ROA) and Operational Costs on Operational Revenue (BOPO)/Operational Efficiency Ratio (OER). ROA is the ratio to measure the ability of a bank to manage assets to generate net income. Some literatures explain that ROA describes more about the profitability of a bank, especially the sharia bank (Rahmawaty & Yudina, 2015). At the same time, OER is a ratio that describes operational performance efficiency in a bank (Wibisono & Wahyuni, 2017).

Interest is one of the profitability factors in a bank to attract investment from customers. High-interest rate results in less investment, and the contrary, the low-interest rate causes customers to invest more in the bank. Consequently, more customers switching to sharia banks result in the escalation of its profitability and, eventually, the profit-share rate. Thus, this study investigates the interest rate as an independent variable in determining its effect on the mudharabah profit-share rate.

A study by Nurfaizah & Parmitasari, (2015) revealed that interest is the monetary charge for the privilege of borrowing money, also known as the amount of money received for lending out the money within a time framework. Settled price is the utilization amount of the money within the mutually determined period. According to the prevailing custom, the price is in the percentage of the time unit, for example, monthly or annual basis. On the other hand, bank interest refers to the reward from a bank based on conventional principles to its customers that purchase or sell the bank products. Interest can also be defined as the rate a bank charge individual to borrow money and the bank pay rate to the holder of deposit accounts. Interest rate affects the economic activities; thus, it can eventually act the firm's profit (Nurfaizah & Parmitasari, 2015).

Nur & Nasir, (2014) found that the adjusted R2 rate for profit-share for mudharabah deposit reached 0.359, proving that it can be well-described using the independent variables, consisting of ROA, FDP, and OER, by 35.9%, while the remaining
64.1% was by other variables that the regression model could not represent. Additionally, the Return on Equity reached 0.750, indicating that the variability of dependent variables (ROA, FDR, and OER) can describe Return on Equity by 75.0%; consequently, the remaining 25% was by other variables not included in this regression model. Adjusted R2 result proved that the ROA, FDR, and OER had a more significant effect on ROE than ROMD (Nur & Nasir, 2014).

Another study conducted by Rahmawaty & Yudina, (2015) indicated that the Return on Asset (ROA) and Capital Adequacy Ratio (CAR) had a partially significant effect on the Mudharabah profit-share interest at the Islamic Commercial Bank in Indonesia; on the contrary, the Operational Costs on Operational Revenue (BOPO) / Operational Efficiency Ratio(OER) did not. Additionally, a study by Sunaryo, K. (2012) indicated that OER had a negative effect on the mudharabah profit-share rate, in contradiction with a study by Anggrainy that stated OER had a significant positive effect on mudharabah profit-share rate.

**Hypotheses Development**

During 2015-2019, BPRS in Indonesia became the object of sharia banking's work plan to improve the form of capital and business scale and its efficiency (Ichsan et al., 2021). In achieving its goals, sharia banking creates policies to promote the BPRS growth and competitiveness at the micro-market and increase the insight and preferences towards BPRS in Indonesia. Based on the policy, there has been an escalation in the financing, Third Party fund, the amount of BPRS account in Indonesia, and the profit-share rate of mudharabah deposit. The escalation in the number of bank customers affects the profitability in terms of ROA and OER, which eventually change the profit-share rate of BPRS in Indonesia. Thus, this study employs the BPRS financial statement of 2015-2019 to investigate the significant effect of ROA, OER, and interest on the profit-share rate of the mudharabah deposit (Bramandita & Harun, 2020; Syakhrun, Anwar, & Amin. 2019; Rahayu, 2015).

According to collected data, ROA, OER, and interest had different effect tendencies on the profit-share rate of the mudharabah deposit of BPRS in Indonesia. In 2015-2017, the ROA escalation was followed by the downturn in the mudharabah profit-share interest; nevertheless, during 2018-2019, an increase in ROA was followed by an increase in the profit-share rate mudharabah deposit (Bramandita & Harun, 2020; Syakhrun, Anwar, & Amin. 2019; Rahayu, 2015). Different effect results also occurred to OER and interest, marking the gap between the collected data and the previous studies. (Devi, 2021; Rahmawaty & Yudina, 2016).
Due to the gap, this study is to follow up the previous studies on the difference of variable and research object usage.

According to the proposed conceptual work, the hypotheses of the study are as follow:

H1: ROA has positive effect on the profit-sharing rate of mudharabah deposit

H2: BOP has positive effect on the profit-sharing rate of mudharabah deposit

H3: Interest rate has positive effect the profit-sharing rate of mudharabah deposit

2. RESEARCH METHOD

This study is quantitative research to address the hypotheses on the effect of Return on Asset, Operating Expense on Operating Revenue, and interest on the profit-sharing rate of mudharabah deposit of Indonesian BPRS during the period 2015-2019. The population of the study is the Islamic BPR (BPRS) in Indonesia during 2015-2019. The sampling technique applied in the study is simple random sampling, a technique where every item in the population has an even chance and likelihood of being selected. The number of samples of this study is eight BPRS throughout Indonesia.

The secondary data employed in this study were from indirect sources, namely through other people, documents, websites, and other similar media. The source of secondary data of this study is in the form of time series data and cross-sectional by using ratio scale. The documents mentioned are the documentation of the annual financial report every December during 2015-2019 in Islamic BPR in Indonesia by accessing the Indonesian Financial Services Authority (OJK) website. The data type applied in this study is quantitative, in the form of...
financial reports from Islamic BPRS in Indonesia from 2015 to 2019, including the Return on Asset (ROA), Operational Costs on Operational Revenue (BOPO) / Operational Efficiency Ratio (OER), interest, and profit-sharing rate of *mudharabah* deposit. The data collection technique applied in this study was documentary by downloading data on financial reports from the Indonesian Financial Services Authority (OJK) website and the official websites of Islamic BPR in Indonesia as complementary data. The data analysis technique was by multiple linear regression analysis with the help of Software Statistical Package for Social Sciences (SPSS) 24.0. This study applied the Classical Assumption and Hypothesis tests. The classical assumption test was to detect the normality, multicollinearity, autocorrelation, and heteroscedasticity, while the hypothesis test in this study applied the Statistical test in the form of T-test, F-test, and Adjusted R Square tests. ROA is the percentage of net income produced by total assets during a period by comparing net income to the average total assets. BOPO/ OER is the percentage ratio of operational cost and operational revenue. Interest is the percentage ratio of *Mudharabah* deposit investment. Profit-sharing rate is the percentage ratio of total profit distributed based on the average daily balance in a year using a ratio scale.

3. RESULTS AND ANALYSIS

Normality Test

Normality test investigates the distribution of independent and dependent variables in the regression model; the model is considered good upon normal/ nearly normal on its data distribution. Normality can be detected by observing the histogram graph of its residue (Watung & Ilat 2016,). The following is the result of normality test by using spss:
The figure indicates the data are fairly distributed near the diagonal line, proving that the study's data collection complies with the normality test.

**Heteroscedasticity Test**

It tests whether the variance of the errors from a regression is dependent on the values of the independent variables. Heteroscedasticity can be detected by using scatterplot graph. If the dots are spread above and below zero on the Y axis and there is no clear pattern, it can be said that the data is not heteroscedastic. (Watung & Ilat 2016). The following is the result of heteroscedasticity test by using spss:

The figure indicates the absence of data clear pattern as the dots extend above and below zero of the Y-axis. It can be stated that heteroscedasticity does not occur in the regression model of this study data. It can be stated that heteroscedasticity does not occur in the regression model of this study data.
Multicollinearity Test

The multicollinearity test investigates the correlation between the independent variables in the regression model. The multicollinearity can be detected by considering the tolerance value and the Variance Inflation Factor (VIF) value. The two measures show which independent variable being explained by the other independent variables (Watung & Ilat 2016, 522). The following is the result multicollinearity test by using spss:

Table 1. Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>24.628</td>
<td>10.518</td>
<td>2.341</td>
<td>.025</td>
</tr>
<tr>
<td>ROA</td>
<td>.390</td>
<td>.351</td>
<td>.175</td>
<td>1.111</td>
</tr>
<tr>
<td>BOPO</td>
<td>-.114</td>
<td>.042</td>
<td>-.433</td>
<td>-2.735</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>-1.758</td>
<td>1.629</td>
<td>-.175</td>
<td>-1.079</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PROFIT SHARING

Based on the table above, it can be seen that the tolerance value is more than 0.100, and the VIF value is less than 10.00. Thus, it can be stated that multicollinearity did not occur in the data of this study.

Autocorrelation Test

The autocorrelation test aims to test the correlation between the confounding errors in the previous period (t-1) in the regression model. The autocorrelation can be detected using the Lagrange Multiplier test (LM test), which will produce Breusch-Godfrey statistics (Watung & Ilat 2016, 522). The following is the result autocorrelation Test by using spss:

Table 2. Autocorrelation Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.499a</td>
<td>.249</td>
<td>.187</td>
<td>4.26161</td>
<td>.249</td>
<td>3.985</td>
<td>.015</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), INTEREST, ROA, BOPO
b. Dependent Variable: PROFIT SHARING

The results in table 2 above show that the value of Durbin Watson in this study is 2.111. Based on k (3) and N (40) with a significance of 5%, it can be stated that the Durbin Watson value is between the values of du (1.659) and 4-du (2.341). Therefore, the data in this study did not indicate any autocorrelation.

Hypotesis Test
The T-statistic test is to investigate the influence of one independent variable on the dependent variable. The t-test in this study examines the independent variables in that, namely, ROA, BOPO, and interest rates partially on the dependent variable, namely the rate of profit sharing on *mudharabah* deposits. The following are the results of the t-test using the spss application:

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>.390</td>
<td>.351</td>
<td>.175</td>
<td>1.111</td>
<td>.274</td>
</tr>
<tr>
<td>BOPO</td>
<td>-.114</td>
<td>.042</td>
<td>-.433</td>
<td>-2.735</td>
<td>.010</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>-1.758</td>
<td>1.629</td>
<td>-.175</td>
<td>-1.079</td>
<td>.288</td>
</tr>
</tbody>
</table>

Based on table 3, the significance value of the ROA variable (0.274) is greater than the degree of error (0.05); thus, H0 is accepted, and H1 is rejected. Further, it can be concluded that ROA does not significantly affect the rate of profit-sharing for *mudharabah* deposits. BOPO has a smaller significance value than the degree of error of 0.010; consequently, H0 is rejected, and H2 is accepted. Thus, BOPO has a significant effect on the rate of profit-sharing for *mudharabah* deposits. The significance value of the Interest Rate is 0.288, where the value is greater than the degree of error (0.05), causing H0 to be accepted and H3 to be rejected. Therefore, the interest rates do not significantly affect the rate of profit-sharing for mudharabah deposits.

Table 3 shows a multiple linear regression equation as follows: \( Y = 24,628 + 0.390X_1 - 1.758X_2 + e \). The equation can be concluded as follow:

1. The constant value in the table above is 24,628; if the independent variables that include ROA, BOPO, and interest rates are considered constant or have not experienced a change, the profit-sharing can be concluded rate is 24,628.
2. The ROA coefficient value is 0.390, meaning that if the ROA variable has a positive regression coefficient on the rate of profit-sharing for mudharabah deposits while other independent variables (BOPO and interest rates) are fixed, there will be an increase in the profit-sharing rate by 0.390 per unit increase in the ROA variable and vice versa.
3. The value of the BOPO coefficient is 0.114, meaning that if the BOPO variable has a negative regression coefficient on the rate of profit-sharing for mudharabah deposits while other independent variables (ROA and interest rates) are fixed, there will be a decrease in the profit-sharing rate by 0.114 for each increase per unit of the BOPO variable, and vice versa.
4. The interest rate coefficient is 1.758, meaning that if the interest rate variable has a negative regression coefficient on the profit-sharing rate for mudharabah deposits, while other
independent variables (ROA and BOPO) are fixed, there will be a decrease in the profit-sharing rate by 1,758 for each increase per unit of the Interest Rate variable, and vice versa.

Based on the test results, ROA has no effect on the profit-sharing rate for mudharabah deposits at BPRS in Indonesia for the 2015-2019 period. This finding is because the significance value of ROA is much greater than the degree of error, which is 0.274. Thus, the escalation in ROA value of a BPRS in Indonesia will not have a significant increase in the profit-sharing rate for mudharabah deposits. This finding contradicts the existing theory that proposes that the high profits of a company will increase the number of new investors so that the level of profit sharing will also increase. However, this study is in line with research conducted by Muzaky, (2015), which states that ROA has no effect on the rate of profit-sharing for mudharabah deposits of Islamic Commercial Banks for the period 2012-2014.

ROA is used as an indicator of the company in generating profits. However, the test result proves that ROA cannot be used as the single indicator in determining the rate of profit-sharing for mudharabah deposits. As an indicator of a company's profitability, ROA can only measure the efficiency of the use of capital in a company by comparing profit and capital used in operations. The company's ability to achieve profit by using its assets partially cannot be used to reference the profit-sharing rate for third-party fund owners based on mudharabah contracts.

The test result shows that BOPO affects the profit-sharing rate for Mudharabah deposits at BPRS in Indonesia for the 2015-2019 period. This finding is due to the BOPO significance value smaller than the degree of error, which is 0.010. Thus, the increased value of BOPO in BPRS in Indonesia will increase the rate of profit-sharing for mudharabah deposits. The effect of BOPO on the rate of profit-sharing for Mudharabah deposits is negative, as seen from the negative value of the BOPO coefficient. The results of this study are in line with the theory proposing that the BOPO negative effect affects the rate of profit-sharing for Mudharabah deposits. That is, if the BOPO value is getting smaller, the bank will be more efficient in carrying out its business activities; thus, the bank will be able to maximize its operational cost control, and the profits earned by the bank will increase that eventually, will increase the level of profit sharing. Operational costs and operational revenue indicate the efficiency of a company. Companies must run their business activities as efficiently as possible to get higher profits to attract new investors. In this case, as long as the company can run its business activities efficiently, the value of operational costs on operational revenue will be smaller. The operational revenue and operational costs have a significant influence on the
company's level of profit as the operational revenue is the source of the primary income of a company.

The results of this study are not in line with previous research, which examined the factors that affect the rate of profit-sharing for mudharabah deposits in Islamic Commercial Banks 2010-2013. This study concluded that BOPO had a positive and significant effect on the rate of profit-sharing for mudharabah deposits (Muzaky, 2015). However, many studies have found that BOPO has a negative effect on the rate of profit-sharing for mudharabah deposits, one of which is the results of research conducted by Sunaryo (2012), showing that BOPO has a negative effect on the rate of profit-sharing for mudharabah deposits.

However, based on the study results, the interest rates have no effect on the profit-sharing rate of Mudharabah deposits at BPRS in Indonesia for the 2015-2019 period. This finding is based on the value of t-count is smaller than the value of the t-table. In addition, it can also be seen that the significance value of interest rates is much greater than the degree of error, which is 0.288. This finding indicates that if the value of the interest rate increases, it will not result in a significant increase in the profit-sharing rate of mudharabah deposits. The level of profit-sharing is not determined by the interest rates but by the level of income achieved by the Sharia bank itself. Unlike conventional financial institutions, Islamic financial institutions, including Sharia banks, cannot determine the profit-sharing on the capital submitted to the mudharib. The reward/profit sharing is based on the income/income generated from the fund's management (Wiroso, 2011). However, this study is in line with research conducted by Muzakky (2015), who proposed that interest rates had no effect on the rate of profit sharing on mudharabah deposits of Islamic Commercial Banks for the period 2012-2014.

Based on the test results, ROA, BOPO, and interest rates have a simultaneous positive effect on the Profit Sharing Rate for Mudharabah Deposits, meaning that if there is an increase in ROA, BOPO, and Interest Rates, there will be an increase in the profit sharing rate for mudharabah deposits. On the contrary, if there is a decrease in ROA, BOPO, and interest rate, there will also be a decrease in the profit sharing rate for mudharabah deposits. The significant value of this study result, 0.015 <0.05, strengthens the mentioned finding. The finding is also strengthened by comparing the F-table value with the F-count value, which is 3.985> 2.86, meaning that Ho is rejected and HA is accepted. Thus, this evidence proves that ROA, BOPO, and interest rates positively affect the profit sharing rate of mudharabah Deposits at BPRS in Indonesia for the 2015-2019 period. The test results in this study are supported by the results
of tests conducted by Sunaryo (2012) which shows that ROA, BOPO, and interest rates have a simultaneous positive effect on the profit sharing rate of mudharabah deposits.

4. CONCLUSION

Based on the test results in this study, there are several important conclusion to take as follow: ROA has no significant effect on the variable rate of profit-sharing for mudharabah deposits BOPO significantly affects the variable rate of profit-sharing for mudharabah deposits. Interest rate has no effect on the variable rate of profit-sharing for mudharabah deposits. There are several limitation on this research: this study has lack samples, there many BPRS in Indonesia that has not published a detailed annual financial report, and the financial ratio applied in this study are only ROA and BOPO; thus, the study cannot cover all factors that may affect the profit-sharing rate of mudharabah deposits enlisted in Indonesian BPRS during 2015-2019. This research have theoretical and practical contribution. For theoretical contribution this research reveals that this result is still inconsistent and need to explore more. For practical contribution, this research the BPRS investors and those interested in doing so must pay more close attention to the BPRS performance and keep up with the current economic situation, especially regarding interest rate as it will affect the profit-sharing rate to receive For further study It is strongly suggested to add more samples, making a more extended observation period, and adding or changing the applied variable with ROE, NPF, and others.

REFERENCES


The Effect of Return on Asset, BOPO, and... (Diana Eka Saputri)