The Role of Profit-Sharing Ratio, Sharia Financial Market Securities, and Covid-19 in Influencing Third Party Funds of Islamic Banking in Indonesia

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Abstract: This study aims to analyze the influence of Profit Sharing Ratio (Nisbah), Sharia Money Market Securities (SBPU Syariah), and the Covid-19 pandemic on Islamic banking Third Party Funds (DPK) in Indonesia. The data used is a monthly time series secondary data from January 2018 to December 2023 consisting of 72 observations, obtained from OJK Sharia Banking Statistics. The analysis methods used were multiple linear regression and quadratic functional form regression with the application of STATA. The results of the study show that the variables of Profit Sharing Ratio and Sharia Money Market Securities (SBPU Syariah) have a positive and significant effect on Third Party Funds. However, the relationship between the Ratio and the Third Party Funds is non-linear, where the increase in the ratio to a certain point encourages the growth of the Third Party Fund, but will decrease after passing the optimal point. Meanwhile, the Covid-19 dummy variable also has a positive and significant influence on Third-Party Funds, showing that during the pandemic people tend to increase their deposits in Islamic banking.

Keywords: *Third Party Funds, Profit Sharing Ratio, Islamic Money Market Securities, Covid-19.*

Introduction

Islamic banking as an integral part of the national financial system continues to demonstrate its important role in driving financial inclusion and economic stability. The competition of the banking industry, especially Islamic banking, requires Islamic banks to improve their performance in collecting banking funds. Banking fund collection is called Third Party Fund (DPK), broadly speaking, the funds obtained are used by banks to carry out their functions as collectors and distributors of funds. Third-party funds (DPK) can be collected in the form of current accounts, savings, and time deposits from corporate or corporate customers, using profit-sharing instruments where profits are based on the amount of profits obtained. The increase in profits obtained by Islamic banks will provide more profit sharing. The growth rate of deposits reflects the level of public trust in the Islamic banking system and the effectiveness of the fund-raising strategy implemented (Shara, 2021).

However, in the last few years, especially since the slowdown in global economic growth due to the Covid-19 pandemic, the stability of Sharia banking deposit collections has shown significant fluctuations. Of course, with this crisis, it raises the question, whether the slowdown in economic growth caused by Covid-19 has a significant impact that affects the ability of Islamic banks to attract deposits. Here the Covid-19 pandemic plays an exogenous factor with two other instruments in this context being the profit sharing ratio and Sharia money market securities (SBPU Syariah), which can affect people's behavior in placing their funds in financial institutions when in a situation of uncertainty. Of course, the preference for liquidity increases and the risk of massive withdrawals (rush) can occur, including in Islamic Banking. Therefore, understanding the influence of the combination of profit-sharing ratios, Sharia SBPU, and the Covid-19 pandemic on Third-Party Funds (DPK) is crucial in formulating adaptive and resilient Islamic banking policies.

Literature Review and Hypothesis

Third Party Funds (DPK) in Islamic Banking

Third-party funds (DPK) are funds that come from the public or customers consisting of current accounts, savings, and term deposits, certificates, and other immediate obligations. Technically, what is meant by the funds of the party in Sharia banking are wadiah current accounts, wadiah savings, mudharabah deposits. One of the sources of funds used in financing includes deposits or funds from customers (DPK). So that the larger the available third-party funds, the more Sharia Banks will offer musharakah financing (Fitri, 2016).

Revenue Share Ratio

The profit sharing ratio is a certain percentage that must be discussed when conducting mudharabah and musharakah business cooperation contracts that have been agreed upon by both parties. The use of profit sharing is a common characteristic as well as a basic foundation applied to the operation of Islamic banks in totality. The principle is based on the principle of al-mudharabah where Sharia banking institutions play the role of partners, on the other hand, customers play the role of *shahibul maal* or the source of funds (Wahyu Fauziah & Segaf, 2022).

Sharia Financial Market Securities

Sharia Money Market Securities are proof of investment based on Sharia principles that are commonly traded in the money market and/or capital market such as money orders, Sharia bonds, Sharia fund certificates and other securities based on Sharia principles.

The types of instruments or securities of Sharia banks offered by the money market with the Sharia system in Indonesia include (Agustinar, 2016):
1. Bank Indonesia Syariah Certificate
2. Repurchase Agreement (Repo) SBIS
3. State Sharia Securities (SBSN)
4. Sharia Interbank Money Market Instruments (PUAS)

Covid-19 pandemics

The COVID-19 pandemic is an extraordinary event that has a systemic impact on all sectors, including Islamic finance. Since the beginning of 2020, policies to limit economic activities (lockdown), declining people's purchasing power, and global uncertainty have caused a contraction in national economic activity. Indonesia's economic growth even contracted to minus 2.07% in 2020, accompanied by a surge in unemployment and a slowdown in the real sector (BPS, 2021).

The hypotheses in this study are as follows:
1. *Profit Sharing Ratio on Third Party Funds*

   The Profit Sharing Ratio as a profit-sharing system in Islamic banking can be one of the attractions for customers to place their funds. There is a difference in the findings by (Muhammadinah, 2020), which states that the profit-sharing ratio does not have a significant effect on Ketia's Funds, but (Marlina & Iskandar, 2019) states the opposite, theoretically, the profit-sharing ratio is the main incentive in the Sharia banking system that encourages customers to save funds. Therefore, the hypothesis is still formulated in the form of an influence, the funds will be empirically tested in this study.

   H_1: Profit Sharing Ratio has a positive effect on Third Party Funds
2. *Sharia Financial Market Securities on Third Party Funds*

   Based on (Agustinar, 2016) it is stated that Sharia Money Market Securities have a negative impact on Financing Disbursement. In his explanation, it was stated that the higher the level of Sharia SBPU, the lower the ability of Sharia banks to carry out their intermediation function functions, because funds are more likely to be deposited in SBPU Instruments rather than channeled to customer financing or deposits. By combining these findings and adjusting them into the context of the influence on the Third Pihka Loan, because Sharia Money Market Securities are an alternative

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to fund placement by banks and not directly by customers, but can influence public preferences for deposits in Sharia banks.

H$_2$: SBPU Syariah has a positive effect on Third Party Funds

3. *The Covid-19 Pandemics on Third Party Funds*

The Covid-19 pandemic that has hit Indonesia since early 2020 has had a major impact on various sectors, including the financial and banking sectors. Based on research (Pangaribuan & Asmalidar, 2022), the Covid-19 pandemic has had an impact on Third Party Funds at PT Bank SUMUT, although it was statistically found that the number of deposits actually increased during the pandemic. However, theoretically, the pandemic causes economic instability, a decrease in people's income, and increases unemployment, which should reduce people's ability to save and entrust their funds to banks, in crisis conditions, weakening economic activity and pressure on the financial sector can reduce people's interest in storing data, especially if the level of trust in financial system stability decreases.

H$_3$: The Covid-19 pandemic has a negative effect on Third Party Funds

Methodology

This study uses quantitative data This study uses monthly time series secondary data covering the period from January 2018 to December 2023, so that there are 72 observations. The source of data from this study comes from Sharia Banking Statistics (SPS) – Financial Services Authority (OJK). The type of data used is quantitative, in the form of numerical data from the variables being studied. The variables used for this study consisted of bound variables (dependent variables), namely Islamic Banking Third Party Funds and independent variables consisting of Profit Sharing, Sharia Money Market Securities (SBPU) and Covid-19 Pandemic (dummy).

This study analyzes the Effect of Profit Sharing Ratio, Sharia SBPU and Covid-19 Pandemic on Third Party Funds (DPK) of Sharia Banking in Indonesia using multiple linear regression tests, namely using more than two independent variables. The analysis tool used in this study is the STATA application if formulated as follows

$$Y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$
$$DPK = \beta o + \beta_1 \text{ nisbah} + \beta_2 \text{ SBPU} + \beta_3 \text{ Covid} + \varepsilon$$

Description:
Y/DPK   : Third-Party Funds
α   : Constanta
β1,β2,β3   : Directional number of regression coefficients
X1/PSR   : Revenue Share Ratio
X2/SBPU : Sharia Money Market Securities
X3/Covid : Covid-19 pandemics

This study also uses a quadratic functional forms regression test, which is a process of testing whether a regression model that uses a quadratic function form provides a better explanation of the data than a simple linear regression model. with the following formula:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_1^2 + \beta_3 X_3 + \varepsilon$$
$$DPK = \beta o + \beta_1 \text{ nisbah} + \beta_2 \text{ nisbah2} + \beta_3 \text{ SBPU} + \beta_4 \text{ Covid} + \varepsilon$$

The requirements for the regression test must meet the classical assumption test, including the normality, heteroscedasticity, multicollinearity and autocorrelation test as explained below:

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Descriptive Statistical Test

This test uses hypothesis tests including t-test, f-test, and R2 determination coefficient test.

Partial test (t-test)

The t-test is used to determine the extent of the influence of independent variables in explaining the partial variation of variables.

H_0: independent variable is insignificant or has no dependent variable (probability value> .05 = H_0 accepted, H_1 rejected)

H_0: a significant independent variable or has the influence of a dependent variable (probability value> .05 = H_0 rejected, H_1 accepted)

Test F

The F test is used to find out whether independent variables have the same effect on dependent variables. To find out whether there is a simultaneous influence of independent variables on dependent variables, namely at a significant level of 0.05.

H_0: all independent variables have no simultaneous and significant effect on the dependent variables. (probability value>0.05 = H_0 accepted, H_1 rejected)

H_1: all independent variables have a simultaneous and significant effect on the dependent variables (probability value <0.05= H_0 is rejected, H_1 is accepted)

Normality Test

The normality test is intended to test whether or not the standardized residual values on the regression model are normally distributed. Violations of the assumption of normality in the regression model will have consequences. The consequence if the assumption of normality is not fulfilled in a regression model is that the predictive value is biased and inconsistent. A good regression model is to have a normal or near-normal distribution (Kumala, 2018).

Hypothesis :

H_0: Normal distributed model

H_1: Normal undistributed model

If p>0.05, H_0 is accepted (normal)

If p<0.05, H_0 is rejected (abnormal)

Multicollinearity Test (VIF)

The multicollinieriety test aims to test whether there is crelation between variables (independent) and variable (dependent). Multicollinearity tests can also be used to determine the relationship between two or more independent and dependent variables. The coefficient test containing elements of multicollinearity for the variables X1 and X2. The test steps are as follows:

H_0 = No multicollinearity

Independent variables do not have a strong linear relationship with their independent variables (VIF<10 or tolerance >0.1)

H_1 = There are multicollinearities

Independent variables have a strong linear relationship with their other independent variables. (VIF>10 or tolerance <0.1)

There are several ways to overcome the problem of multicollinearity, including: by looking at existing similar interpretations, removing variables and looking for additional data (Kristina & Esya, 2018).

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Heteroskedasticity Test (Breusch-Pagan)

Heteroscedasticity is a residual variant that is not the same in all observations in the regression model. A good regression should not occur heterokedasticity. This test aims to test whether the regression model occurs of variance inequality from residual from one observation to another. If the variance from residual of an observation to a fixed observation, then it is called homokedasticity (Prassetio, 2017). To see the extent of this heterokedasticity, the White test can be used by comparing the probability value of R-Square with α=0.05 The test steps are as follows:
Hypothesis:

H0: Homoskedasticity (no heteroscedasticies)

H1: Heteroscedasticity exists

If p<0.05, then H0 is rejected because there is heteroscedasticity

Autocorrelation Test (Durbin-Watson)

Autocorrelation is a statistical analysis that aims to identify whether there is a relationship between variable values in a predictive model as time changes. In time series data, autocorrelation is one of the common problems that can cause data to become stationary (not fixed). To detect the presence of autocorrelation, one method that can be used is the Lagrange Multiplier Test (LM Test), which is by comparing the probability value of R-Squared to the significance level of α=0.05. The testing steps are as follows:
Hypothesis:
H_0: No autocorrelation
H_1: There is an autocorrelation
Criteria (standard):
DW = 2 , No autocorrelation
DW < 2, Indication of positive autocorrelation
DW >2, Negative autocorrelation indication

Discussion
Data Description

Var	Labels/Descriptions	Obs	Mean	Std.Dev.	Min	Max
DPK	Third Party Funds (billion rupiah)	72	400613	118190.8	179131.4	606062.8
Ratio	Profit Share Ratio (%)	72	0.0863205	0.0076182	0.077134	0.1057133
SBPU	Sharia Money Market Securities (billion rupiah	72	31401.94	19550.89	208.2413	64828.76
dummy_covid	1 : time of pandemic 0 : Not the time of pandemic	72	0.5416667	0.5017575	0	1

Table 1. Descriptive statistics, source: Stata output

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The results of this data provide a preliminary picture of the characteristics of the variables studied. High variation in deposits and SBPUs reflects complex banking market dynamics, while a stable profit-sharing ratio reflects the resilience of the sector. The covid-19 dummy is important for further analysis, especially in identifying the impact as the basis for regression analysis or further hypothesis testing in the study.

Regression Test equation results

	DPK	DPK
	(1)	(2)
nisbah	1.38e+07 (2211641)***	9.63e+07 (2.76e+07)***
nisbah2		-4.57e+08 (1.53e+08)***
SBPU	5.879611 (0.9790455)***	6.113054 (0.9296421)***
dummy_covid	90652.03 (2812.04)***	92772.06 (26637.14)***
constanta	-1023817 (213894.3)***	-4725275 (1253412)***
F statistic	29.63	27.06
Adjusted R-squared	0.5666	0.6177
Root MSE	79509	75230
Information 1. Numbers in parentheses are standard errors 2. Means p<0.1;* p<0.05:** p<0.01:*** 3. Note: (1) Multiple Linear OLS Regression Test (2) Uji Regresi quadratic functional forms		

Table 2. Regression test equation results

This study compares two model, namely:

(1) Multiple Linear regression and Model
DPK = -1023817 + 1.38e+07.nisbah + 5.879611.SBPU + 90652.03.Covid + ε
(2) Quadratic Functional Forms
DPK = -4725275 + 9.63e+07.nisbah + -4.57e+08. nisbah2 +6.113054.SBPU + 92772.06Covid + ε

The results of the analysis showed that Model(2) had a higher Adjusted R2 (0.6177) and a lower Root MSE (75.230) compared to Model(1) (Adjusted R2=0.5666:Root MSE =79.509). This means that quadratic model is better at explaining deposit variations and providing higher prediction accuracy.

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T-test (partial)

Variabel	t	Prbabilitas
Nisbah	6.24	0.000
SBPU	6.01	0.000
Dummy_covid	3.22	0.002

Table 3. T-test (partial)

From the calculation of multiple linear OLS regression, the calculation for the t-test (partial) is obtained with the following description:

Variable Nisbah (X_1):

t-count =6.24 and p-value = 0.000<0.05, then statistically significant value = H1 is accepted. This means that the ratio variable has a significant effect on the dependent variable (DPK) partially. Changes in the ratio significantly affect deposits, assuming other variables are constant.

Variable SBPU (X_2):

t-count = 6.01 and p-value 0.000<0.05, then statistically significant =H1 is accepted. SBPU also has a significant influence on deposits. This shows that changes to the SBPU partially affect deposits.

Variable dummy_covid (X_3):

t-count= 3.22, p-value=0.002<0.05, then statistically significant =H1 is accepted. The dummy variable that presents the COVID-19 pandemic period also has a significant effect on deposits. This means that the pandemic period has a real impact on deposits statistically.

F-Test Results

Indicates for Model(1), F-stat=29.63 which is (significant). And model (2) F-statistics=27.06 (significant). This means that all independent variables simultaneously have a significant effect on deposits, which shows that the regression mdel used is statistically valid.

Classic Assumption Test
Normality Test

Jarque-Bera normality test: 11.46 Chi(2) 0.0032

Table 4. Normality test

Normaliity tests are performed to ensure that the residual in the model is normally distributed. Based on the Jarque-Bera test. Diperleh p value<0.05, meaning both mdel (1) and model (2), which means that the residual is not normally distributed. However, because the number of observations is quite large (n=72), the assumption of normality is not too serious, according to the Central Limit Theorm.

Multicollinearity Test (VIF)

Var	VIF	1/VIF
lnnisbah	4.11	0.243014
lnSBPU	3.19	0.313646
dummy_covid	2.24	0.446552
Mean VIF	3.18	

Table 5. Multicollinearity Test

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In the Multicollinearity test, all VIF<5 values are present, meaning that there is no significant multicollinearity between the independent variables in this model. SBPU has the highest VIF (4.11), but it is still within safe limits, meaning that SBPU is indeed related to other variables, but not strong enough to cause diversion in the regression model. Meanwhile, the Covid-19 variable had the lowest VIF (2.24), showing the weakest correlation with other variables. Mean VIF =3.18, well below the threshold of 10, confirms that the model does not experience multicollinearity problems so that the regression estimation results can be considered stable and reliable.

Heteroscedasticity Test (Breusch-Pagan)

The Heteroscedasticity test is the opposite of homogeneity, i.e. the state in which there is a variance of the variance of the error for all observations of each independent variable in the regression model. For the heteroscedasticity test there are many methods, but in this case the Breusch-Pagan method is used. It is said that heteroscedasticity does not occur if the P-value indicated by Prob>chi2 is greater than 0.05

H0 : constant variance
Chi2(1) = 3.04
Prob > chi2 = 0.0810

Table 6. Heterscedasticity test

The probability (p-value) is 0.0810>0.05 which means H0 is accepted. From this test, there was no heteroscedasticity in the model. That is, the residual distribution is homoskedasticity (standard constant erorr deviation). And model already fulfills this assumption.

Autocorrelation Test (Durbin-Watson)

d-statistic (4,72) = 0.5402905

Table 7.Autocorrelation test

A DW value of <2 indicates that there is a strong positive autocorrelation, which means that the error at one time correlated with the previous time error. This violates the OLS assumption and can cause the error stander to be inaccurate (the t-test and the F-test become biased).

Conclusion

Based on the result of multiple linear regression and quadratic regression analysis, the conclusions of this study are as follows:

1. The Profit Sharing Ratio variable (Nisbah) has a positive and significant effect on Third-Party Funds (DPK). However this relationship is non-linear, as indicated by the negative coefficient on the squared term (Nisbah2). This suggests that while an increase in the profit-sharing ratio initially attracts more deposits, the effect diminishes after reaching an optimal point. This may be due concerns about bank profitability risks or customer perceptions of sustainability.
2. The Islamic Money Market Instruments (SBPU) show a significant and positive effect on DPK in both the linear and quadratic models. This confirms that SBPU is an effective instrument for attracting deposits and plays a strategic role in supporting Islamic banking liquidity
3. The Covid-19 Pandemic Dummy Variable also shows a significant and positive impact on DPK, contradicting the initial hypothesis (thus H_3 is rejected). This phenomenon may be explained by behavioral changes, where individuals increased their savings in response to economic uncertainty,

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and by regulatory from Islamic banks offering incentives or attractive returns during the pandemic period.

Based on the findings of this study, Islamic banking are advised to set profit-sharing ratio that is both competitive and sustainable by identifying its optimal level-high enough to attract depositors without indicating excessive risk. The use of Islamic money market instruments like SBPU should also be optimized through diversification and broader access to support liquidity and fund mobilization. Additionally, the positive deposit growth during the Covid-19 period underscores the need for adaptive crisis strategies, hence, Islamic banks should continue offering Sharia-compliant incentuves and savings program to maintain depositor trust during uncertain times.

References

Agustinar. (2016). *Analisis Pengaruh DPK, NPF, SWBI dan Surat Berharga Pasar Uang Syariah Terhadap Penyaluran Pembiayaan Perbankan Syariah di Indonesia*.

BPS. (2021). Pertumbuhan Ekonomi Indonesia 2020. Retrieved from https://www.bps.go.id

Fitri, M. (2016). Peran Dana Pihak Ketiga Dalam Kinerja Lembaga Pembiayaan Syariah Dan Faktor-Faktor Yang Memengaruhinya. *Economica: Jurnal Ekonomi Islam*, *7*(1), 73–95. https://doi.org/10.21580/economica.2016.7.1.1033

Kristina, I., & Esya, L. (2018). Pengaruh Inflasi dan Sertifikat Bank Indonesia Syariah (SBIS), dan Kurs terhadap Dana Pihak Ketiga (DPK) Perbankan Syariah di Indonesia. *Media Ekonomi*, *30*(2), 115–144.

Kumala, A. D. (2018). *Pengaruh dana pihak ketiga, inflasi, suku bungabi, nilai tukar rupiah dan non performing financing terhadap jumlah pembiayaan bank umum syariah*. http://repository.uinjkt.ac.id/dspace/handle/123456789/42002

Marlina, L., & Iskandar, J. (2019). Pengaruh Bagi Hasil Dan Pendapatan Per Kapita Terhadap Peningkatan Dana Pihak Ketiga. *Jurnal Ekonomi Syariah*, *4*(1), 1–17. https://doi.org/10.37058/jes.v4i1.798

Muhammadinah. (2020). Pengaruh Inflasi, BI Rate dan Nisbah Bagi Hasil Terhadap Penghimpunan Dana Pihak Ketiga Pada Perbankan Syariah di Indonesia. *Jurnal Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi*, *IV*(2), 105–116.

OJK. (2023). *Statistik Perbankan Syariah (SPS), Otoritas Jasa Keuangan*. Ojk.Go.Id. https://www.ojk.go.id/

Pangaribuan, G. Y., & Asmalidar. (2022). Dampak Covid-19 Terhadap Dana Pihak Ketiga Pada PT Bank Sumut. *Konferensi Nasional Sosial Dan Engineering Politeknik Negeri Medan*, *3*(1), 256–265.

Prassetio, E. (2017). *Pengaruh Tingkat Nisbah Bagi Hasil, Penerapan Akad, Citra Merek, Promosi, dan Kualitas Pelayanan Terhadap Minat Menabung pada Lembaga Keuangan Perbankan Syariah*.

Shara, Y. (2021). Anteseden Penghimpunan Dana Pihak Ketiga Bank Syariah Di Indonesia. *Jurnal Riset Akuntansi Dan Bisnis*, *21*(1), 54–62. https://doi.org/10.30596/jrab.v21i1.6395

Wahyu Fauziah, N., & Segaf. (2022). Seberapa Pengaruh Penetapan Nisbah Bagi Hasil, Inflasi, Dan Jumlah Uang Beredar Terhadap Deposito Mudharabah Di Indonesia. *Jurnal Tabarru': Islamic Banking and Finance*, *5*(2), 435–447. https://doi.org/10.25299/jtb.2022.vol5(2).9681

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