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The Effect of Sharia Monetary Instruments on the Profitability of Sharia Commercial Banks in Indonesia

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Abstract

The purpose of this study is to evaluate the impact of Sharia Interbank Money Market (PUAS), Bank Indonesia Sharia Deposit Facility (FASBIS), and Sukuk Bank Indonesia (SukBI) on Return On Assets (ROA) of Indonesian Sharia Commercial Banks. This research uses a quantitative deductive approach using EViews 10 test tools and VAR / VECM techniques. This study uses secondary data with time series data from January 2019 to November 2023. The dependent variable in this analysis is ROA, while the independent variables are SukBI, FASBIS, and PUAS. Based on the research findings, over time, the SukBI variable significantly reduces the ROA of Indonesian Sharia Commercial Banks; on the contrary, the FASBIS variable has no significant effect on ROA, and the PUAS variable has no significant effect on ROA. The SukBI and FASBIS factors did not have a significant short-term impact on the ROA of Indonesian Sharia Commercial Banks. Meanwhile, the ROA of Indonesian Sharia Commercial Banks is significantly negatively affected by PUAS. However, this study has limitations; future researchers should use more accurate, up-to-date data over longer periods and employ the latest methods and tools to achieve more valid conclusions.

Keywords: Profitability; Sharia Monetary Instrument; Vector Error Correction Model.

INTRODUCTION

The existence and role of banking in Indonesia are very important and have a major impact on all types of industries, both large, medium, and small industries. Large corporations receive capital for investments, medium-sized enterprises benefit from credit and financial services, and small businesses rely

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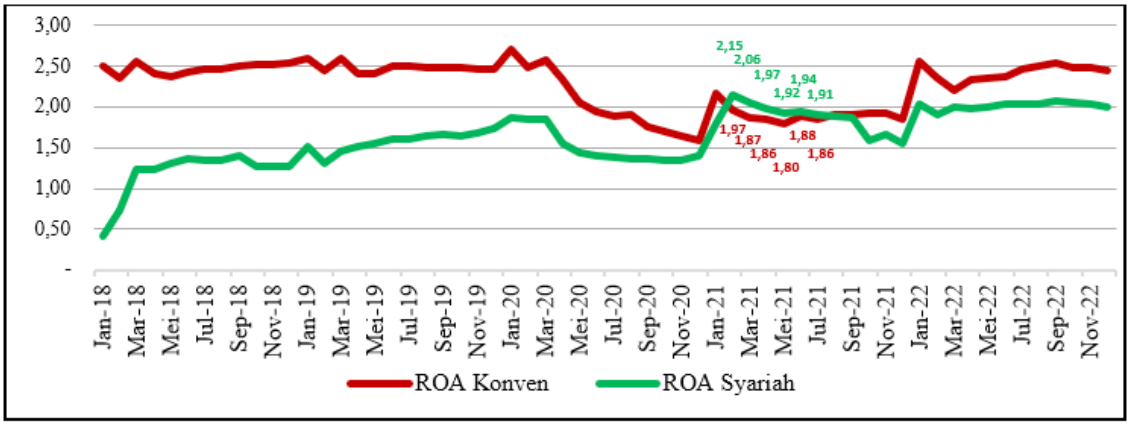
on banks for funding and guidance. Banks also promote savings, investment, and financial inclusion, creating a stable economic environment that benefits all industries. This is because banks are now commonplace places to raise capital or save money for the general public. The establishment of Sharia banks is one way to increase public confidence in banking operations, especially in Indonesia, by anticipating demands and offering a sense of security and comfort in financial transactions (Fitria, 2015).

Sharia banking is now a contemporary issue in Indonesia. Coinciding with the beginning of the collapse of the capitalist economic system, many people called on the Indonesian government to immediately open Market Operations in the Sharia economic system. Some Sharia banking practices are now growing along with the progress of other Sharia economic practices. Although Sharia economics's development still lags behind conventional economics's progress, it has continued to gain traction in recent years. However, growing interest in ethical finance, increasing demand for Shariah-compliant products, and supportive policy changes are gradually closing the gap (Suryani, 2012). This can be seen from the chart below.

Figure 1

ROA Growth of Commercial Bank and Sharia Commercial Bank



Source: www.ojk.go.id, Data processed by the author (2024)

The data above is Return On Assets (ROA) data of Conventional Commercial Banks and Sharia Commercial Banks for the 2018-2022 period sourced from the Sharia Banking Statistical Report and the Indonesian Banking Statistics Report by OJK (Financial Services Authority, *Otoritas Jasa Keuangan*). In Figure 1, until

now, the growth of Sharia banking has been below conventional banking. When viewed from 2018, the growth of Sharia banking is still far behind that of conventional banking. Over time, Sharia Commercial Banks began to show their superiority. It can be seen from the data figure above, at the beginning of 2021, during the Covid-19 pandemic, Sharia banking growth was higher than conventional banking growth precisely in February 2021 with a rate of 2.15% until July 2021 with a rate of 1.91%.

This can be proven during the COVID-19 pandemic. Many business sectors in Indonesia experienced negative impacts due to the pandemic. The performance of companies engaged in various fields such as tourism, automotive, property, manufacturing, and even MSMEs also decreased. However, behind that, there is a financial sector that still survives with stable financial performance, namely Sharia banking (Fitriani, 2020).

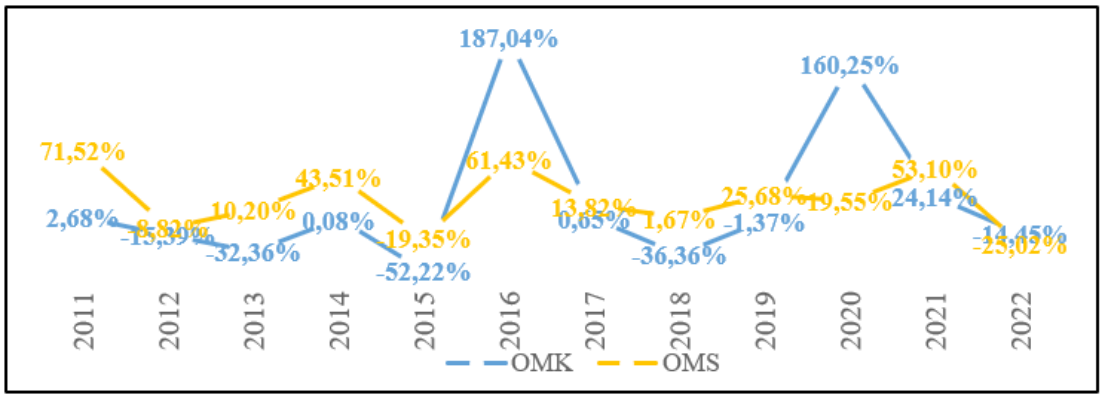
According to research conducted by Fajri et al. (2022), the COVID-19 pandemic does not affect the profitability of Sharia banking in Indonesia (Fajri et al., 2022). During the Covid-19 pandemic in early 2021, Bank Aladin Syariah Tbk. successfully listed on the stock exchange with the code BANK. This bank is the first full Sharia digital bank in Indonesia, where the Aladin application has been launched since 2022 (Syariah, 2023). In the same year, digital bank Jago established UUS (Sharia Business Unit) to serve the mass market segment based on Sharia principles (Jago, 2023). It can be concluded that despite the COVID-19 pandemic, Sharia banking is able to grow and develop even though it has relatively less risk than other sectors. Sharia banking has demonstrated strong growth and resilience. Its risk-averse, Sharia-compliant practices, such as asset-backed financing and profit-and-loss sharing, have provided stability. The sector's ethical and socially responsible approach has also attracted more customers, contributing to its continued development during this period (Imam & Kpodar, 2010).

Meanwhile, Bank Indonesia issued a Sharia Monetary Operations policy to influence the adequacy of Sharia banking liquidity in the money market and foreign exchange market with Sharia principles. Based on the regulation issued by Bank Indonesia, Number 22/14/PBI/2020 concerning Monetary Operations, Bank Indonesia, already has a way to control monetary by implementing Conventional Monetary Operations and Sharia Monetary Operations (22/14/PBI/2020).

Since its implementation, Monetary Operations have experienced ups and downs every year. This can be seen from the graphic image below.

Figure 2

Growth of Monetary Policy in Indonesia



Source: www.bi.go.id, Data processed by the author (2024)

The data above is from Monetary Operations for 2013-2022, sourced from the Sharia Economic and Financial Statistics Report and the Economic and Financial Statistics Report prepared by Bank Indonesia. In 2011-2015, despite experiencing several declines, the growth of Sharia Monetary Operation can be considered better than Conventional Monetary Operation. However, in 2016, Conventional Monetary Operation experienced an extraordinary increase of 187.04% with a value of IDR380,678 (billion). However, from 2017 to 2019, Sharia Monetary Operation increased again. However, in 2020, Conventional Monetary Operation increased again by 160.25% with a value of IDR625,856 (billion). Until 2022, the growth of Sharia Monetary Operation has decreased and is lower than that of Sharia Monetary Operation.

According to Borio et al. (2017), in their research Monetary Operations positively impact bank profitability, even if the impact is stronger when interest rates are low (Borio et al., 2017). On the other hand, some monetary variables do not affect the profitability of Sharia banks. Muhfiatun (2016) explained that SBIS and GWM did not have a significant effect on ROA (Muhfiatun, 2016). Several variables also affect ROA, such as *Sukuk* (Sholikhin et al., 2020). Sharia monetary instruments like Sukuk, *Murabahah*, and *Ijarah* significantly enhance

the profitability of Sharia banks by improving liquidity and operational efficiency. These tools also help maintain Sharia compliance, boosting customer trust and profitability (Waluyani & Muflih, 2022). In addition, Bank Indonesia Sharia Deposit Facility (FASBIS) also affects the profitability of Sharia banks (Siregar, 2020). On the other hand, PUAS also plays an important role in Sharia banking liquidity. So that PUAS also affects the profitability of Sharia banks (Widayatsari, 2014).

LITERATURE REVIEW

Profitability of Sharia Commercial Bank

According to UU No. 4 of 2023 concerning the development and strengthening of the financial sector, the banking system in Indonesia is divided into two systems: conventional banking systems and Sharia banking systems (Indonesia, 2023). Sharia banks are banks that, in their operations, follow the principles of Sharia provisions, especially those concerning Sharia Muamalah procedures. However, broadly speaking, the operational activities of Sharia commercial banks are based on five contracts, namely *Wad'iah, Shirkah, Tijarah, Ijarah*, and *Ujroh* (Putra & Ryandono, 2017).

Sharia banks have become a fascinating phenomenon in the national economy, not only because of their immunity but also because of their promising benefits and excellent market potential. Therefore, several countries in the world are competing to establish Sharia banks in their respective countries or the Sharia financial industry (Parisi, 2017). The characteristics of the Sharia banking system that operates based on the profit-sharing principle provide an alternative banking system that is mutually beneficial for all people and banks and also shows aspects of fairness in transactions and investment, promoting the values of togetherness and brotherhood, and avoiding speculative transactions (Lathif, 2017).

Therefore, to maintain public trust in banking, it is necessary to have important parameters. One of them is maintaining the health level of the bank. Because the health of the bank will affect its performance (Kusmayadi, 2017), according to Permana (2012), a healthy bank can maintain public trust, carry out intermediation functions, help smooth payment traffic, and implement government policies, especially monetary policy (Permana, 2012). According to OJK Regulation Number 8/POJK.03/2014, the level of bank health is the result of

an assessment of a bank's condition based on risk, including risks related to the application of Sharia principles and bank performance (POJK 8/POJK.03/2014).

To maintain the soundness of commercial banks, Bank Indonesia, as the central bank, also plays an important role in regulating the health level of both sharia and conventional banks. The assessment of the level of health can be used as a tool by managers to determine policies and implement bank management in the future, both conventional and sharia banking. Meanwhile, Bank Indonesia can utilize the results of the bank health assessment to implement appropriate guidance, development, and supervision plans for Sharia banks (Andriasari & Munawaroh, 2020). Bank Indonesia requires all banking institutions to maintain and improve the level of bank health as written in Bank Indonesia Regulation Number 13/1/PBI/2011. The regulation states that banks are required to conduct self-assessments of the Bank Health Level (PBI 13/1/PBI/2011).

Profitability is an element that affects bank performance because profitability is important in understanding the circumstances and causes of future-threatening situations (Iacobelli, 2017). Tobin (1969) discusses the traditional theory of bank profitability, focusing on the relationship between bank assets and liabilities and operating expenses. In theory, it is explained that bank profitability is determined by the spread between loan rates and deposit rates, net of operating costs (Tobin, 1982). According to research by Molyneux and Thornton (1992), bank profitability is influenced by factors related to management decisions and macroeconomic conditions. The study also found that bank size positively affects profitability, while capital adequacy and asset quality negatively affect profitability. The study concluded that the determinants of bank profitability are complex and depend on various factors (Molyneux & Thornton, 1992). Likewise, research by Alshatti (2016) explains that capital adequacy, capital, and leverage variables have a positive effect on bank profitability, and asset quality variables negatively affect bank profitability (Alshatti, 2016).

In addition to these factors, several internal and external factors affect bank profitability, such as bank characteristics, macro indicators, taxation, financial structure, asset quality, capital, and liquidity (Anto & Wibowo, 2012). The ratio to measure the level of profitability of banks is divided into two ratios, namely Return on Assets (ROA) and Return on Equity (ROE). Nonetheless, in some studies, ROA is a more frequently used ratio than ROE. ROA measures the company's ability to generate profits from all assets owned, including those

financed by debt. While ROE only measures the company's ability to generate profits from capital owned by shareholders. ROE does not take into account the effect of debt in generating profits, so ROE can provide a less accurate picture of a company's efficiency in generating profits (Wijaya, 2019). In addition to the factors already mentioned, according to research, Yuanita (2019) explained that competition is an essential factor that determines the profitability of banks in Indonesia, and policymakers must consider the impact of competition when formulating policies related to the banking sector (Yuanita, 2019).

Sharia Monetary Operation

Monetary policy is crucial for shaping macroeconomic outcomes, particularly in controlling inflation and stabilizing economic activity. Woodford (2002) highlights the role of central banks in influencing expectations, interest rates, and aggregate demand. He emphasizes the importance of clear communication, credibility, and forward guidance in conducting effective policy. Overall, the book underscores the significance of monetary policy in promoting price stability, economic growth, and financial stability (Woodford, 2002).

Bank Indonesia conducts several monetary policies to achieve monetary stability and maintain the performance of conventional and sharia banks in Indonesia. Monetary policy is an attempt to improve the state of the macroeconomic system by controlling the money supply. This better condition is characterized by increased output balance and maintained price stability. This can be done in several ways, including changing interest rates, conducting open market transactions, and using certain assets and deposits. Monetary policy is applied with various strategies in each country according to the goals to be achieved and transaction methods applicable to the economy of each country (Ajuna, 2017).

Monetary policy is considered very important for the country's economy because it aims to stabilize its economic condition. This monetary policy will be felt first by banks and then by the rill sector. The objective of the policy is to achieve high economic growth sustainably by maintaining price stability, namely by regulating the supply of money with the supply of goods to avoid inflation (Roedyhantoro & Cahyono, 2019). Unlike conventional monetary instruments, Sharia monetary instruments are central bank instruments used to influence operational targets set to affect rupiah stability based on Sharia economic

principles with provisions set by Bank Indonesia. In monetary policy, sharia does not apply interest instruments because it prohibits interest. The Sharia monetary system applies a profit-sharing system so that the amount of profit or loss to be obtained depends on the real sector (Fadhilah et al., 2021).

Under Bank Indonesia regulation Number 22/14/PBI/2020, the implementation of Sharia Monetary Operations must comply with Sharia principles in the form of fatwas or opinions by the competent National Sharia Board – Indonesian Ulama Council (DSN-MUI) fatwa authority. The implementation of Sharia monetary policy is carried out through Open Market Operations activities and the provision of standing facilities based on Sharia principles (PBI 22/14/PBI/2020).

Sharia Open Market Operation

Sharia Open Market Operations, also known as Sharia Open Market Operations, are money market transactions based on Sharia principles carried out by Bank Indonesia with other parties in the framework of Sharia Monetary Operations (PBI 22/14/PBI/2020). Sharia Open Market Operations are carried out periodically; however, sometimes, it can be implemented at any time through auction or non-auction mechanisms (Batubara, 2020). Here are some Sharia Open Market Operations instruments, including:

1. Bank Indonesia Sukuk (SukBI): Bank Indonesia Sukuk, or so-called SukBI, is a sukuk issued by Bank Indonesia using underlying assets in the form of securities with Sharia principles owned by Bank Indonesia. SukBI uses the contract Al-Musyarakah Al-Muntahiyah bi Al-Tamlik.

2. Sharia Interbank Money Market (PUAS): Sharia Interbank Money Market, or so-called PUAS, is a short-term financial transaction between banks based on Sharia principles, either in the form of rupiah or foreign currency. PUAS was the main instrument used before the issuance of SBIS. This is because the auction process at PUAS is much easier and can be done every day, so the liquidity carried out by PUAS is higher (Muchtar & Najma, 2019).

Sharia Standing Facilities

Sharia Standing Facilities is a facility provided by Bank Indonesia to banks in order to control Sharia Monetary Operations (PBI 22/14/PBI/2020). Sharia Standing Facilities are carried out with a non-auction mechanism by providing deposit facilities in the form of Bank Indonesia Sharia Deposit Facility, also known as FASBIS, by applying a Wadi'ah contract (Siregar, 2020). Based on Bank Indonesia Regulation number 22/14/PBI/2020 concerning Monetary Operations, FASBIS is a deposit facility provided by Bank Indonesia to Sharia Commercial Banks or Sharia Business Units to place funds in Bank Indonesia within the framework of Sharia Standing Facilities (22/14/PBI/2020).

Some of the Sharia monetary instruments described above are efforts of the government. Bank Indonesia drives the national economy by maximizing and controlling money circulation and maintaining the liquidity of each bank. Monetary policy aims to create job opportunities by distributing funds from banks to entrepreneurs who need funds to build or develop their businesses. Besides creating job opportunities, another goal is to maintain price stability by keeping inflation in check. Price stability can be controlled where the production output produced by the company is not too different from its demand. Here, the demand for money and supply plays a significant role in maintaining price stability. Therefore, Bank Indonesia must maintain the circulation of money in the community so as not to overdo it. If too much money is circulating in the market while the production of goods is not comparable, it can cause inflation. This is where Sharia monetary policy instruments, such as SukBI, FASBIS, and PUAS, have a role in playing their roles (Roedyhantoro & Cahyono, 2019).

The research of Yungucu and Saiti (2016) shows that most studies show the negative effects of conventional monetary policy. This effect is particularly noticeable in the sharia banking sector in terms of interest rate risk, asset-liability mismatch, and deposit and financing instability. Although the impact of the global financial crisis on the Sharia finance industry is limited, its impact is still inevitable due to the lack of strong Sharia money and capital markets and a dual banking system. However, it is worth mentioning that the investigated studies have confirmed the viability of sharia's monetary policy, with greater emphasis on profit-sharing instruments. Therefore, if examined empirically, the proposed model could provide some good insights for policymakers (Yungucu & Saiti, 2016).

The research of Muhfiatun (2016) shows that the quality of mudharabah and Musharakah financing and SBIS does not affect ROA, while Murabahah and reserve requirement financing variables affect ROA. The variables that have a significant effect on QR are ROA as the quality of Murabahah financing, reserve requirements, and SBIS, and the other two variables, namely Musharakah and Mudharabah, did not affect QR (Muhfiatun, 2016).

Mimouni et al. (2019) show that Sukuk does not affect ROA. Sukuk reduces the profitability of Sharia banks but has no impact on the performance of conventional banks (Mimouni et al., 2019). Also, Sholikhin et al. (2020) show that Sukuk itself has a small effect on ROA. At the same time, the inflation variable, in the long run, does not affect ROA. Then, in the short term, Sukuk and inflation have no significant effect on ROA (Sholikhin et al., 2020). Then the research hypothesis proposed is as follows:

H1: SukBI negatively affects the profitability of Sharia Commercial Banks in 2019-2023.

Riyanto and Asakdiyah (2020) showed that partial inflation did not have a significant effect on ROA, the money supply had a negative effect, and gross domestic product had a positive and significant effect on ROA. It simultaneously shows that inflation, money supply, and gross domestic product have a significant effect on ROA (Riyanto & Asakdiyah, 2020).

Trihantana et al. (2022), The variables used are Current Account/ Deposit, SBIS, FASBIS, other variables, and ROA. The research methods used are quantitative and qualitative. The results showed that the four variables mentioned had a significant effect on ROA (Trihantana et al., 2022). Then the research hypothesis proposed is as follows:

H2: FASBIS has a positive effect on the profitability of Sharia Commercial Banks in 2019-2023.

Widayatsari (2014) stated that PUAS also has an important role in Sharia banking liquidity. So that PUAS also affects the profitability of Sharia banks (Widayatsari, 2014). Then the research hypothesis proposed is as follows:

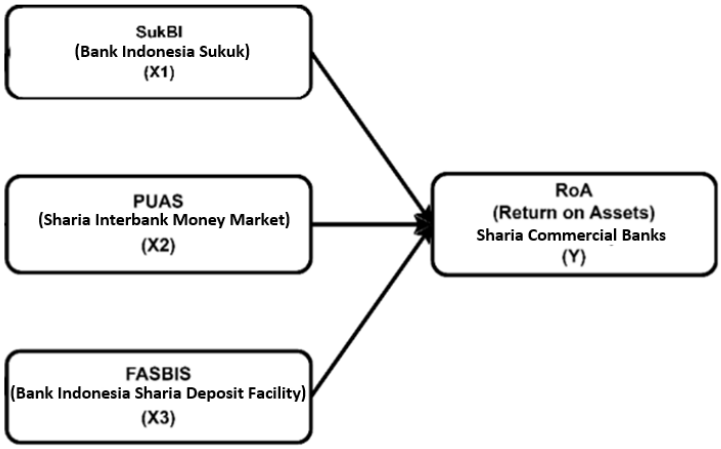
H3: PUAS has a positive effect on the profitability of Sharia Commercial Banks in 2019-2023.

RESEARCH METHOD

In this study, there are four variables, namely SukBI (Sukuk Bank Indonesia), FASBIS (Bank Indonesia Sharia Deposit Facility), PUAS (Sharia Interbank Money Market) as independent variables, and the ROA of Sharia Commercial Banks as dependent variable. The four variables are secondary data obtained from the official websites of Bank Indonesia and the Financial Services Authority.

SukBI, PUAS, and FASBIS data sources are obtained from the Indonesian Economic and Banking Statistics (SEKI) through the official website of Bank Indonesia (www.bi.go.id). The SukBI data type is nominal data, while the PUAS and FASBIS data are ratio data. Furthermore, the ROA data of Sharia Commercial Banks is obtained from the Sharia Banking Statistics report through the official website of the Financial Services Authority (www.ojk.go.id) for the 2019-2023 period, and the data is ratio data. The secondary data used in this study is time series data for a monthly period from January 2019 to November 2023. Therefore, a research framework was compiled, which can be seen in the picture below:

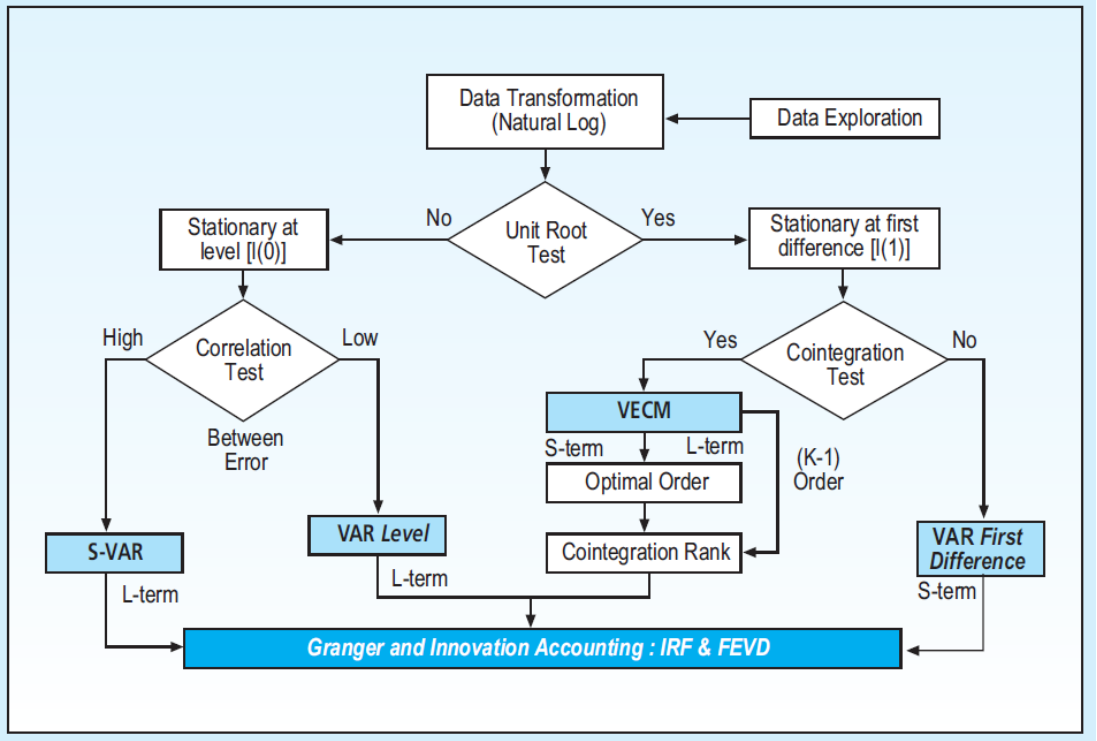
Figure 3 *Research Framework*



Source: Author, 2024

The data analysis technique used in this study is the Vector Autoregression (VAR) or Vector Error Correction Model (VECM) method. VAR is a multivariate time series model that analyzes relationships between several interrelated variables. VAR is based on the assumption that these variables influence each other, both in the long and short term. Meanwhile, the VECM is a VAR model designed to be used on time series data that is not stationary but has a cointegration relationship. Cointegration occurs when two or more variables have a stable long-term relationship, and then the VECM model can be used (Sulistiana et al., 2017).

Figure 4. Roadmap of VAR/VECM Method



Source: https://patrastatistika.com/

RESULTS AND DISCUSSION

Data Analysis Results

Results of the VAR/VECM test using e-Views 10 are presented as follows: (1) Ordering Test; (2) Stationarity Test; (3) Lag Open Market Operationsimal

Determination; (4) Stability Model test; (5) Cointegration Test; (6) VECM test; (7) IRF (Impulse Response Function) test; (8) FEVD (Forecast Error Variance Decomposition) test (Sulistiana et al., 2017).

Table 1 *Ordering Test*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PUAS	0.002549	0.027110	0.094035	6,426388889
LNSUKBI	0.334933	0.045824	7.309.059	0.0000
FASBIS	0.095053	0.052320	1.816.760	0,51875
C	-2.083.409	0.565214	-3.686.053	0.0005

Source: EViews 10, 2024

The ordering test method is conducted to establish the sequence or rank of variable X. This method uses an equation test by positioning ROA as a Y variable. Table 1 shows that SukBI data has the lowest probability value of 0.0000. It was followed by FASBIS of 0.0747 and PUAS of 0.9254. It can be concluded that the sequence of variables X is as follows. SukBI as X1, FASBIS as X2, and PUAS as X3.

Table 2 *Stationarity Test*

Variable	Level		1st Difference	
	t-Stationarity	Prob	t-Stationarity	Prob
ROA	-2.038.353	0.2701	-7.079.613	0.0000
SUKBI	-2.434.975	0.1369	-8.937.716	0.0000
FASBIS	-1.525.773	0.5135	-3.162.278	0.0276
PUAS	-1.792.254	0.3806	-9.960.801	0.0000

Source: EViews 10, 2024

The stationarity test method uses the ADF (Augmented Dicket Fuller) Test with a profitability value of 0.05 or 5%. The data used will be said to be stationary if the profitability value level is lower than 0.05 (p-value<a = 5%), and vice versa; the data will not be stationary if the profitability value level is higher than 0.05 (p-value>a = 5%). Based on Table 2. above, all the variables had stationarity at 1st difference.

Table 3 *Lag Open Market Operationsimal Determination*

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-7.154.598	NA	1.79e-05	0.420928	0.569629*	0.478112
1	2.030.581	4.973.961	1.16e-05	-0.011540	0.731966	0.274377*
2	4.034.695	3.327.585	1.01e-05	-0.164036	1.174.276	0.350614
3	5.530.483	2.257.793	1.08e-05	-0.124711	1.808.406	0.618673
4	7.484.369	2.654.335	9.97e-06	-0.258252	2.269.669	0.713864
5	1.018.468	32.60751*	7.20e-06*	-0.673463*	2.449.263	0.527387

Source: Eviews 10, 2024

Based on the results of Table 3. above using the smallest value of several criteria, namely Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), or Hannan Quinnon Criterion (HQ), the 1st lag is obtained.

Table 4 *Stability Test*

Root	Modulus
0.679430	0.679430
-0.366336	0.366336
-0.140699	0.140699
0.026193	0.026193

Source: EViews 10, 2024

The stability test is used to find out how stable the VAR system is. If all roots have modulus with absolute values less than one DN located in the unit circle, then the VAR model is stable, and the resulting IRF and FEVD analyses are considered valid. Based on the results of Table 4, it can be concluded that the VAR system is stable because the root tested is less than one, which ranges from 0.026193 – 0.679430.

Table 5 *Cointegration Test*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	00.05 Critical Value	Prob.**
None *	0.550637	7.581.070	5.524.578	0.0003
At most 1	0.292820	3.101.489	3.501.090	0.1258
At most 2	0.159889	1.161.258	1.839.771	0.3387
At most 3	0.032603	1.856.167	3.841.466	0.1731

Source: EViews 10, 2024

The cointegration test is used to determine if there is a long run between stationary variables at similar degrees. This cointegration test is carried out within the framework of the VAR model by integrating error correction components, which are usually referred to as Vector Error Correction. According to the previous determination, the Johansen cointegration test is used with an interval lag of 1. Based on the test results of Table 5. above, it shows that there is a cointegration relationship in the data above. This is because the value of the trace statistic is greater than the critical value, so the test can be continued with long-term testing, namely VECM.

Table 6 *VECM Estimate*

Cointegrating Eq:	CointEq1
ROA(-1)	1.000.000
LNSUKBI(-1)	-4.118.444
	(0.64048)
	[-6.43027]

FASBIS(-1)	-0.060031
	(0.21623)
	[-0.27763]
PUAS(-1)	-0.793713
	(0.12360)
	[-6.42155]
@TREND(19M01)	0.139343
C	4.016.825

Source: EViews 10, 2024

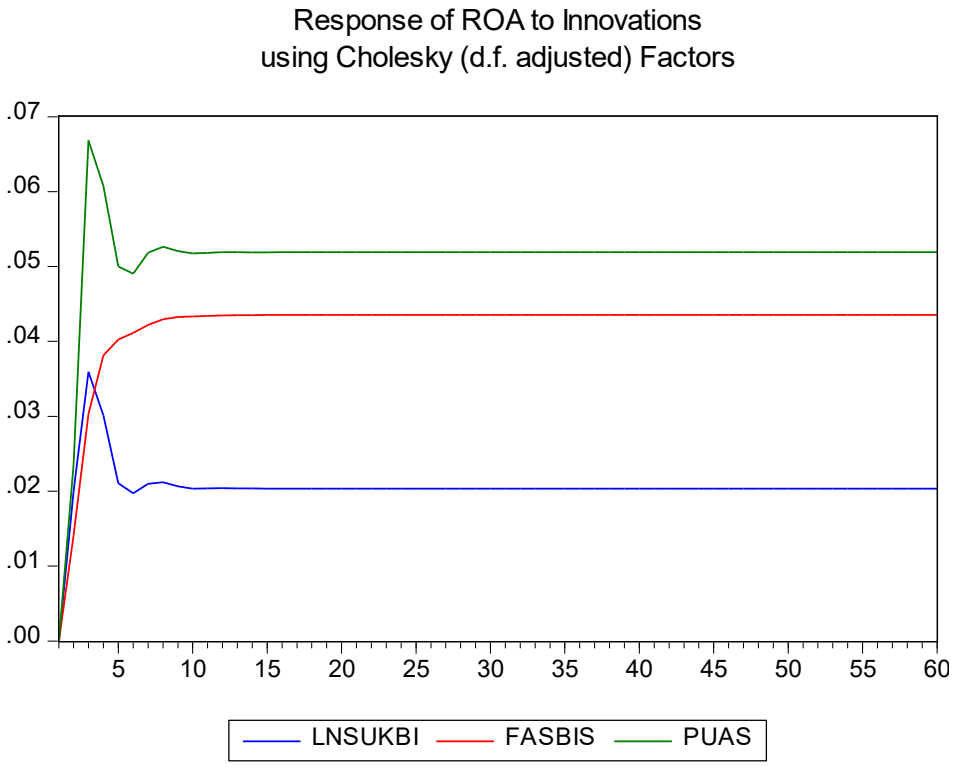
Estimation of the VECM model (Vector Error Correction Model) is done to determine the short-term and long-term relationship in a variable to find out the results of VECM testing can be known if T-statistics > T-tables, then it has an effect, but if T-statistics < T-tables it has no effect in this test using a T-table of 2.004044783. In the short-term VECM estimation, it is explained that variables are influential and not influential. This happens because this research model is a monetary transmission model, so these variables require time or pause to react to other variables. In general, the reaction of one variable to another variable occurs in the long run.

Based on the results of Table 6. above, in the long term, the Bank Indonesia Sukuk variable (SukBI) has a T-Statistic value of -6.43027 greater than t-table 2.005, which means that the SukBI variable has a negative and significant influence on the ROA of Sharia Commercial Banks (BUS). In the long run, the FASBIS variable has a T-Statistic value of -0.27763 smaller than t-table 2.005, which means that the FASBIS variable does not have a significant negative influence on the ROA of Sharia Commercial Banks (BUS). Meanwhile, the Sharia Interbank Money Market (PUAS) variable has a T-Statistic value of -6.42155 greater than t-table 2.005, which means that it has a significant influence with a negative relationship on the ROA of Sharia Commercial Banks (BUS).

Meanwhile, based on the results of Table 6. above with t-table 2,005 SukBI (Bank Indonesia Sukuk) variables in the short term in the period, they have a

t-statistic value of VECM -1.97459 which means that they do not have a significant influence on the ROA of Sharia Commercial Banks (BUS). The FASBIS variable in the short term has an estimated value of VECM 0.69060, which means that the variable does not have a significant effect on the ROA of Sharia Commercial Banks (BUS). Likewise, the variable PUAS (Sharia Interbank Money Market) in the short term has a T-Statistic value of -2.77487, which means that the variable has a significant influence on the ROA of Sharia Commercial Banks (BUS).

Figure 5 *IRF Test*



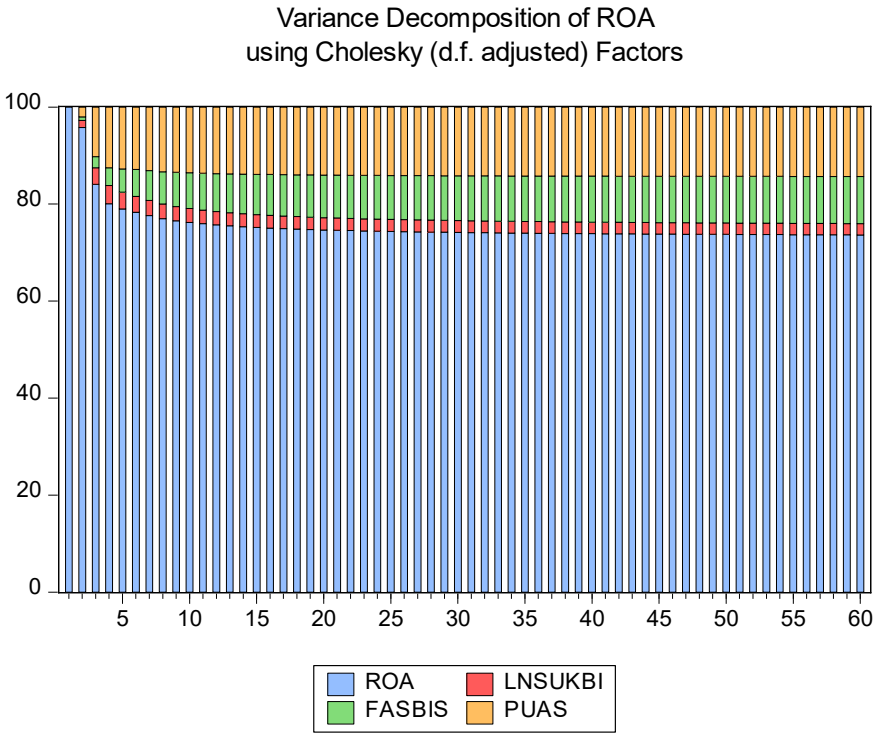
Source: EViews 10, 2024

IRF analysis was conducted to determine the effect of Sharia Monetary Operation Variables on the Profitability of Sharia Commercial Banks. If the results show a negative trend, then these variables affect the decline in profitability of Sharia Commercial Banks. Meanwhile, if the results show a positive trend, then these variables affect the increase in profitability of Sharia Commercial Banks.

The following is a description of the results of the IRF test:

1. The SukBI variable (Bank Indonesia Sukuk) shows a positive trend, so the SukBI variable has an effect on increasing ROA. It increased in periods 1-3 and decreased in periods 4-6. However, it rose again in period 8 and then stabilized from the 10th to 60th period.
2. The FASBIS (Bank Indonesia Sharia Deposit Facility) variable shows a positive trend, so the SukBI variable affects increasing ROA. In the 1st-10th period, it has increased and stabilized until the 60th period.
3. The PUAS (Sharia Interbank Money Market) variable shows a positive trend, so the SukBI variable affects increasing ROA. In the 3rd period, it increased and experienced a decrease in the 3rd to 6th period. After that, it rose in the 8th century and stabilized until the 60th period.

Figure 6 *FEVD Test*



Source: EViews 10, 2024

FEVD analysis was performed to reveal the extent to which each variable contributed to the shock caused by the major endogenous variables. FEVD aims to understand the extent to which any shock originating from variables affecting the ROA of Sharia Commercial Banks plays a role in its contribution in the form of a percentage. From the results of FEVD above, it can be seen how much influence the research variable has on the ROA of Sharia Commercial Banks. Upon entering the 1st period, the variable Return On Asset has a 100% impact on the variable itself. In the 2nd period, additional variables affecting ROA in percentage terms for SukBI are 1,464%, FASBIS is 0.728%, and PUAS is 2,032%. ROA' contribution to each variable has changed as we enter the 60th period. ROA has a 73.6% influence on its own variables, 2.32% for SukBI, 9.71% for FASBIS, and 14.31% for PUAS.

The Effect of SukBI on the Profitability of Sharia Commercial Bank

Based on the results of the VECM test conducted by researchers, the SukBI variable in the long term has a negative and significant influence on the ROA variable, and in the short term, it does not have a significant influence on ROA. The results of the IRF test show that the SukBI variable is experiencing a positive trend in the long run. It increased in periods 1-3 and decreased in periods 4-6. Nevertheless, it rose again in period 8 and stabilized from the 10th to the 60th period. Based on the results of the FEVD test, in the long run, the contribution of SukBI variables to ROA is 2.32%.

The results of long-term VECM estimates on the SukBI variable have hypothetical results in accordance with the accepted H1 word. The results of this study are in line with research conducted by Sholikhin et al. (2020), which states that in the long term, Sukuk has a negative and significant effect on ROA. However, it has no effect in the short term. This is because Sukuk is one of the investment products that compete directly with other Sharia products (Sholikhin et al., 2020). Likewise, Mimouni et al. (2019) stated that Sukuk negatively affects the profitability of Sharia Banks because Sukuk causes competition against other Sharia banking products. (Mimouni et al., 2019) It can be concluded that if the volume of SukBI increases, it will affect the profit generation of Sharia banks and vice versa.

The Effect of FASBIS on the Profitability of Sharia Commercial Bank

Based on the results of the VECM test conducted by researchers, the FASBIS variable does not have a significant effect on ROA and, in the short term, does not have a significant effect on ROA. The results of the IRF test show that the FASBIS variable is experiencing a positive trend in the long run. In the 1st-10th period, it has increased and stabilized until the 60th period. Based on the results of the FEVD test, in the long term, the contribution of FASBIS variables to ROA is 9.71%.

The results of long-term VECM estimates on FASBIS have hypothetical results that are not in accordance with the word H2 and are rejected. The results of this study are not in line with research conducted by Trihantana et al. (2022), which states that FASBIS has an effect and is significant on ROA (Trihantana et al., 2022). This is because FASBIS uses Wadi'ah contracts without profit sharing. So that this contract will not have a major effect on the profits obtained by Sharia Commercial Banks. It can be concluded that if the FASBIS ratio increases, then it will not have a significant effect on the profit generation of Sharia banks and vice versa.

The Effect of PUAS on the Profitability of Sharia Commercial Bank

Based on the results of the VECM test that has been conducted by researchers, the variable PUAS has a significant negative influence on ROA and, in the short term, has a significant negative influence on ROA. The results of the IRF test show that the PUAS variable experiences a positive trend in the long run. It decreased in the 2nd period and increased until the 5th period. After that, it fell in the 12th quarter and stabilized until the 60th period. Based on the results of the FEVD test, in the long run, the contribution of the PUAS variable to ROA is 3.51%.

The results of long-term VECM estimates on the PUAS variable have inappropriate hypothesis results; in other words, H3 is rejected. This is because no research matches the results of this study, and it is still rare for researchers to examine this variable juxtaposed with the ROA variable. On the other hand, it can be concluded that the variables of the PUAS in the short and long term do not have a significant direct impact on the profitability of Sharia commercial banks. As explained by Tho'in (2019), the ability of Sharia Banks to earn profits does not

only focus on short-term transactions but also on long-term transactions (Tho'in, 2019). Thus, if PUAS has increased, it does not mean that the ROA of Sharia Commercial Banks will also increase because they have various variables that can affect ROA, including long-term financing. On the other hand, there have not been many studies with this variable, so they do not have research results in accordance with previous studies.

CONCLUSION

Good policies will certainly affect good performance. So that Sharia banking can continue to encourage the growth of its profitability. However, the study results show that not all variables from Sharia Monetary Operations affect the profitability of Sharia commercial banks in Indonesia. Therefore, there are still many evaluations that must be done by the government and policymakers.

Sharia Monetary Operations play an essential role in the sustainability of the economic sector, especially for sharia banking. Further studies are needed to determine policies and strategies for advancing the Indonesian economy. Consequently, in determining these policies, they can continue to increase the potential of the Sharia economy in Indonesia. All policies issued by Bank Indonesia will undoubtedly affect the performance and sustainability of Sharia banking itself. Sharia Banking requires innovation and strategy in facing economic developments to advance the Sharia economy by strengthening and applying sharia principles to Sharia banking products. Thus, sharia banking has become an alternative banking system for the wider community and plays an important role in the progress of the Sharia economy in Indonesia.

This research has limitations. So, further researchers are expected to use more accurate and up-to-date data accompanied by a longer time vulnerability. The use of more accurate data and the vulnerability of longer periods allow for better research results and is expected to use the latest and accurate test methods and tools to obtain more valid conclusions.

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