

The Effect of Firm-Specific Risk and Macro Economic Factors on The Performance of Islamic and Conventional Bank

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Abstract: The performance of Islamic banks still fluctuates every year and even their performance ratios are still below the BI standard per bank. The purpose of this research is to evaluate the impact of firm-specific risk (credit risk, liquidity risk and operational risk) and macroeconomic factors (inflation, GDP and unemployment) on the performance of Islamic commercial banks and conventional banks (ROA) in Indonesia. Comparison of Islamic banks with conventional banks is made because of differences in the respective banking systems and operational. The research uses quantitative research methods with secondary data on Islamic and conventional banking recorded at BI and OJK for the 2017-2021 period. The result n Islamic banking, only the credit risk variable and the operational risk II variable have a significant negative effect on the ROA of Islamic banks. The other four variables have no effect on the performance of Islamic banks. In conventional banks, operational risk II variables, inflation, and GDP have a significant effect on conventional bank ROA. The other three variables have no effect on the performance of conventional banks.

Keywords: firm-specific risk; macroeconomic; performance; Islamic bank; conventional bank.

1. Introduction

Based on the Islamic Finance Development Indicator (IFDI), the Global Islamic Finance Asset Development Report was recorded at \$4.0 billion in 2021, growing 17% from 2020 (Revinitif, 2022). The distribution of Islamic financial assets includes several sectors, only the Islamic banking sector contributes the largest 69%, the rest is other Islamic finance. Based on IFDI reports from eight countries that support development in this sector, only Indonesia and Malaysia are included in the Top Countries in the Islamic Banking Assets category for 5 consecutive years, even though Indonesia is the second best industry in the world based on IFDI with a score of 76 points in 2021 (Alif & Bayu, 2022).

However, when measured in terms of market share as of August 2021, Islamic banking only controlled 7.03%, while conventional banking controlled 92.97% (OJK, 2022). The number of Islamic bank customers as of December 2021 was only 35.14 million (Hartomo, 2021), while the Indonesian population who adhered to Islam reached 235 million people or 87.2% of the total population (BPS, 2022). In 2021 Islamic banks experienced a decline in asset growth to 11.26% from 13.33% in 2020. In the same year, conventional banks experienced an increase in

asset growth of 12.28% from 7.10% in 2020. When viewed from the average growth of Islamic and conventional bank assets from 2017 to 2021, Islamic banks are superior with an average growth of 11.29% compared to conventional banks of 8.95% (OJK, 2022). However, this asset growth was not matched by the performance and productivity of Islamic banks.

The ability of the bank to generate net profit using all of its total assets is measured by the financial ratio Return on Assets (ROA), which can be used to assess bank performance. Based on the annual reports from 2017 -2021, Islamic banks or conventional banks performance continues to fluctuate, this is natural in the financial sector. However, if you look at the average per Islamic bank in 2017-2021, there are still Islamic bank performances that are below BI standards with ROA <1.5% (Report, 2021), meaning that the ROA of Islamic banks is still not optimal. The average performance of Indonesian Islamic banks from 2017 to 2021 is displayed in Table 1.1 and is as follows.

Table 1. The Average Performance of Sharia Banks for 2017-2021

No	Bank Name	ROA
1	Aceh Syariah	2,16
2	BPD NTB Syariah	2,06
3	Muamalat	0,058
4	Bank Victoria Syariah	0,32
5	BJB Syariah	-0,54
6	Mega Syariah	1,84
7	Panin Dubai Sy	-6,72
8	Sy Bukopin	0,02
9	BCA Syariah	1,16
10	Aladin Sya	-0,56
11	BTPN Syariah	11

Source: BUS annual report, 2017-2021

Inf: under BI standards

Based on Table 1 it can be concluded that seven of the 11 Islamic banks registered with Otoritas Jasa Keuangan (OJK) are still performing below BI standards, which are not optimal. If look at the graph of the average performance of Islamic banks and conventional banks proxied by ROA, it continues to fluctuate as shown in Figure 1.1, where in 2019 it has increased and in 2020-2021 it has decreased due to the COVID-19 crisis that hit Indonesia.

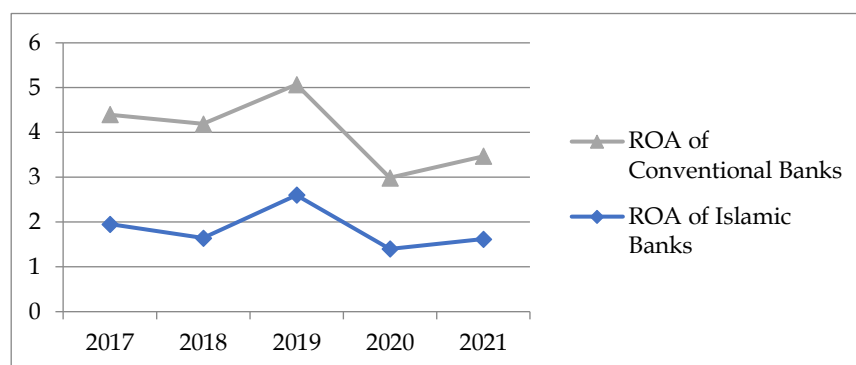


Figure 1. Average Performance of Conventional Banks and Islamic Banks in 2017 to 2021

The performance of Islamic banks and conventional banks has fluctuated, this is normal in the financial sector. However, if we look at the average decline in bank performance from 2017 to 2021, it can be seen that conventional banks are superior, namely with a decrease in ROA of 0.28%, while the rate of decline in ROA for Islamic banks is 0.30%. This needs to be immediately corrected and considered by conducting research and developing strategies in order to improve banking performance, especially for Islamic banks.

Efforts to improve bank performance are inseparable from risks. Every bank must closely monitor its risks in order to maintain bank profitability (Hidayat et al., 2021). Failure to manage risk effectively can lead to systematic bank failures, as happened in the Asian banking crisis of 1997–1998 and the global financial crisis of 2007–2008. At the same time, implementing good risk management is the right choice to save banking companies from losses that can cause company failure (Hunjra et al., 2022).

Classical microeconomic theories regarding the banking system and financial intermediation perspectives such as D.W. Diamond and Dybvig (1983) show that credit and liquidity risks are the most crucial financial risks directly related to banking performance. Based on the findings of Abu Hussain and Al-Ajmi (2012), credit, liquidity, and operational risks are the three main categories of risk that financial organizations must deal with.

Financing is one of the bank's operational activities which is considered as the fundamental core of both sharia and conventional banking activities. In the five year period from 2017 to 2021, the condition of the ratio of Islamic bank financing has been in a good position, namely 2% -5% according to the OJK. Even though the condition of the financing ratio is considered to be in a "good" position, the increase in the financing ratio over the last three years is considered to be quite worrying due to COVID-19. If not handled properly, serious problems can arise such as a default and pose a risk to the bank which is called credit risk or financing risk.

Apart from financing risk, banks generally face several other internal risks that have the potential to affect their performance achievements, such as liquidity risk and operational risk (Hunjra et al., 2022). During the five-year period 2017-2021, the condition of the liquidity risk ratio was 95.03%. Despite the fact that liquidity risk is regarded as the most significant risk for banks, this percentage is still more than enough because it is within the range of 90% to 100% according to BI requirements. Adalsteinsson (2014) asserts that this risk might result in a "bank run" or insolvency, particularly if the bank is unable to give depositors the withdrawals they require when they need them.

Operational risk is also very important to examine in relation to bank performance. During the five-year period 2017-2021, the operational risk ratio was 96.58%. This is considered worrying because it has exceeded the maximum provisions imposed by Bank Indonesia, which is 78% OJK (2022).

According to Puspaningtyas & Zuraya (2020), the impact of COVID-19 has had more of an impact on Islamic banks than conventional banks, considering that Islamic banks implement a profit sharing system. If the business activities of Islamic bank customers do not meet their goals (less than the target), profit sharing will also decrease, and besides that Islamic bank customers will also easily switch to conventional banks because the profit from savings (interest) is higher than profit sharing. Subsequent empirical studies, namely according to Maliha & Marlina (2019), indicate that Islamic banks, if there is an economic crisis both from within and outside the country will not have an impact on it. In contrast to conventional banks with solvency problems, if there is a financial crisis then conventional banks will always fluctuate. According to Rahman (2020), Islamic banks have resilience against the economic crisis that hit in 2008.

In order to assist economic growth in any nation, including Indonesia, financial institutions, particularly banks, play a critical and strategic role. In this instance, several studies have established a significant relationship between bank performance and a nation's economic circumstances. For instance, a study by Ledhem & Mekidiche (2020) in the banking industries of Brunei, Indonesia, Malaysia, Saudi Arabia, and Turkey found that the profitability of Islamic banking and finance, used as a proxy for ROE, had a substantial impact on economic development in these five nations. The topic of measuring a country's economic health is still being debated because there are so many different methods that can be used. For example, Al-Nasser Mohammed & Muhammed (2017) used common indicators including the inflation rate (IR), unemployment rate, and GDP.

Further research is required to determine the effect of company-specific risks and macroeconomic variables on the performance of Islamic commercial banks and conventional banks in Indonesia, based on the industry and research gaps. Based on research by Hunjra et al (2022), which discusses the correlation between credit risk, liquidity risk, and operational risk on bank performance (ROA) to be applied and compares Islamic banks and conventional banks in Indonesia by adding several key variables that are predicted to affect bank performance. First, macroeconomic factors by considering financing, operational and liquidity risks. Second, comparisons between Islamic banks and conventional banks are carried out due to differences in the operational systems of each bank, and third consider adding a standard deviation indicator of profitability for three years as income uncertainty due to operating expenses in testing the influence of operational risk (Hidayat et al., 2021), (Alshammari, 2021), (El-Chaarani et al., 2022), (Lebdaoui & Chetoui, 2020) dan (Akkas & Asutay, 2022).

These differences will be evaluated based on two main characteristics, namely firm-specific risk and macroeconomic factors faced by the two groups of banks and their impact on performance in terms of profitability, so as to increase the performance of Islamic banks in particular those still affected by the COVID-19 crisis. Thus this research can fill the existing literature gap regarding certain variables and can be used as material for consideration in making decisions to set up new strategies to improve the financial performance of Islamic banks. The purpose of this study is to evaluate the impact of firm-specific risk (credit risk, liquidity risk and operational risk) and macroeconomic factors (inflation, GDP and unemployment) on the performance of Islamic commercial banks and conventional banks (ROA) in Indonesia.

2. Literature Review

This study applies signaling theory to demonstrate the use of financial reporting information as a signal of bank financial performance.

2.1. Banking Performance

According to Harker & Zenios, (1998), the performance of financial institutions is defined as economic performance that is assessed using a variety of financial ratios and indicators over both the short and long term. In terms of profit or return on assets (ROA), financial ratios may be utilized to evaluate bank performance (Hunjra et al., 2022). One of the statistics used to assess a bank's stability and profitability is ROA, or return on assets. Operating profit before taxes divided by average total assets is used to calculate ROA (Kaaya & Pastory, 2013).

2.2. Firm-Specific Risk

This study applies signal theory to demonstrate the use of information contained in financial

reports as a signal of suitability for a bank's financial performance. Credit, liquidity, and operational are among the dangers that banks must deal with (Hunjra et al., 2022).

2.2.1. Credit risk

Credit risk is One of the most challenging hazards that banks must manage. Credit risk occurs as a result of certain clients' failure to repay their financial installment to the bank. It gives evidence that credit risk adversely impacts bank financial performance in line with the conclusions of of Ekinci, (2016), Gadzo et al., (2019), Saleh & Afifa, (2020), Shawtari et al., (2019) Saleh & Afifa, (2020), Shawtari et al., (2019), (Ridwan et al., 2021) (Kusumastuti & Alam, 2019), (Miswar, R. & Nita, 2021) and (Almunawwaroh & Marlina, 2018) which state that credit risk has a negative correlation on ROA such bank performance. Based on these findings, allow us to evaluate the following hypothesis on the impact of credit risk, as measured by NPL/NPF, on the performance of Islamic and conventional banks:

H1a: Credit risk has a negative effect on the ROA of Islamic banks

H1b: Credit risk has a negative effect on the ROA of conventional banks

2.2.2. Liquidity risk

Liquidity risk is related to the bank's inability to serve customer needs on a regular basis. Several studies have discussed the negative impact of liquidity risk on bank profitability (Rasiah, n.d.), (Phan et al., 2020). Likewise, Islamic banks with their unique values and operations must also maintain liquidity based on Islamic principles. Based on these findings, the following hypothesis can be developed to test the effect of liquid risk reflected by the FDR on the performance of Islamic and conventional banks.

H2a: Liquidity Risk has a negative effect on the ROA of Islamic banks

H2b: Liquidity Risk has a negative effect on the ROA of conventional banks

2.2.3. Operational risk

Operational risk is the chance of experiencing a loss directly or indirectly as a result of unfavorable external events and shortcomings in internal systems, processes, and people. Based on the literature on the correlation between operational risk and banking performance, which is negative (Gadzo et al., 2019), Nur & Emanuel, (2018) oleh (Adiatmayani & Panji, 2021) end (Kusumastuti & Alam, 2019) end (Hasmiana & Pintor, 2022) (Martins et al., 2019). Based on these findings, the following hypothesis can be developed to test the effect of operational risk as reflected by OER and the standard deviation of bank performance on the performance of Islamic and conventional banks.

H3a: Operational Risk I has a negative effect on the ROA of Islamic banks

H3b: Operational Risk I has a negative effect on the ROA conventional bank

H3c: Operational Risk II has a negative effect on the ROA Islamic bank

H3d: Operational Risk II has a negative effect on the ROA conventional bank

2.3. Macroeconomic Factors

The profitability of a bank is significantly impacted by the health of a country's economy.

2.3.1. Inflataion Rate

The term inflation rate refers to a sustained rise in overall price levels or a steady decline in

the purchasing power of money over time. According to research by Majumder & Li, (2018), which was based on a study by Huybens and Smith (1999), special emphasis is paid to the most recent theory on how rising inflation affects credit market friction and has a detrimental effect on the performance of the financial sector. Based on the research of Arpa et al., (2001) it was said that when inflation rises, so does the proportion of total loans made by the banking sector that include risk provisions. Hussain & Hassan (2006) dan Al-Nasser Mohammed & Muhammed (2017) and Revell (1979) in the journal O'Connell (2023) and (Fajri et al., 2022) argue that the inflation rate can affect bank profitability as a whole. positive. Based on these findings, the following hypothesis can be developed to test the effect of rate inflation on the performance of Islamic and conventional banks.

H5a: The Inflation Rate has an effect on the ROA of Islamic banks

H5b: Rate Inflation has an effect on the ROA of conventional banks

2.3.2. GDP

An indicator of a nation's wealth called the gross domestic product (GDP) is directly tied to the banking industry. Based on the findings and literature on the economic determinants of profitability, such as the growth rate of GDP and inflation. The findings indicate a favorable correlation between economic expansion and banking performance, particularly in terms of inflation and GDP (Dietrich & Wanzenried, 2011). Studies carried out in the Indonesian and UK banking industries by Sastrosuwito & Suzuki (2012), Muhammad Sajid Saeed (2014), Bourke (1989), Sufian & Chong (2008) and Rasiah (2010) similarly reveal a substantial negative association between bank profitability and yearly growth rate. The following hypothesis may be established based on these facts to investigate the impact of GDP on the performance of Islamic and conventional banks.

H4a: GDP has an affects the ROA of Islamic banks

H4b: GDP has an effect on conventional bank ROA

2.3.3. The Unemployment Rate

Unemployment rate is the most commonly used indicator to understand conditions in the labor market. The lower the unemployment rate, it is predicted to increase the number of customers in banking and improve bank performance (Education, 2022). A person's income can prosper his family and can save some of it. In connection with a study conducted by Ndlovu & Alagidede, (2018) it has a negative impact on bank performance (ROE). The hypothesis was developed to test the effect of unemployment on the performance of Islamic and conventional banks.

H6a: Unemployment has a negative effect on the ROA of Islamic banks

H6b: Unemployment has a negative effect on the ROA of conventional banks

3. Research Methods

This study employs quantitative research techniques since the data it uses are numerical and have undergone statistical processing. Badan Pusat Statistik (BPS), Bank Indonesia (BI), the official websites of Islamic commercial banks, conventional banks, and OJK are used to collect secondary data.

The population of this research is 12 Islamic banks and 95 conventional banks, which are officially registered with BI and OJK in Indonesia during the 2017–2021 period. This research uses purposive sampling (Kothari, 2004), because the information that the authors need and

the characteristics in this study can be provided by Islamic and conventional banks, which are samples with the following criteria:

- 1) Registered at Bank Indonesia (BI) and Otoritas Jasa Keuangan (OJK).
- 2) Annual reports published by BUS and BUK in Indonesia, respectively, during the period 2017–2021
- 3) Registered on The Stronger Banks Asia Pacific and The Stronger Islamic Bank issued by The Asean Banker in 2021.

Based on the provisions above, the number of samples that met the criteria consisted of nine Islamic banks, namely Mega Syariah Bank, BTPN Syariah, BCA Syariah, Aceh Syariah Bank, NTB Syariah Bank, Muamalat, Panin Dubai Bank, Bukopin Syariah and BJB Syariah. While conventional banks consist of 16 banks namely BCA, Mega Bank, OCBC NISP Bank Indonesia, Mandiri Bank, UOB Indonesia Bank, HSBC Indonesia Bank, Panin Bank, Permata Bank, BRI, BNI, CIMB Bank, BJB, BTPN, BTN, Danamon Bank and Maybank.

The variables used in this study are the Independent Variables denoted X (credit risk, liquidity risk, operational risk, gdpg, inflation rate and unemployment) and the dependent variables denoted Y (ROA). This study uses a multiple regression analysis model that compares multiple regressions between Islamic banks and conventional banks. The equation model used in the study is:

$$ROA_{it} = \beta_0 + \beta_1 CRISK_{it} + \beta_2 LRISK_{it} + \beta_3 ORISK_{it} + \beta_4 GDPG_{it} + \beta_5 INFLA_{it} + \beta_6 UNEMP_{it} + \varepsilon_{1it} \dots \dots \dots (1)$$

4. Results and Discussion

4.1. Results

The real state of the variables employed in this study is described via descriptive research findings. A descriptive analysis of the research variables for Islamic banks is shown in Table 2.

Table 2. Islamic Bank Descriptive Analysis

Nilai	ROA	FRISK	LRISK	ORISK	ORISK_2	INFLASI	GDPG	UNEMP
Mean	1.464000	3.421111	87.20178	1.484278	95.02333	2.602000	15.33446	4.120000
Median	1.090000	1.720000	88.82000	0.410163	88.73000	2.720000	16.18848	4.300000
Max	13.58000	22.04000	196.7300	6.665091	217.4400	3.610000	16.22970	4.400000
Min	-10.77000	0.320000	38.33000	0.011547	58.07000	1.680000	16.13316	3.600000
Std. Dev.	4.353563	3.826756	21.25717	2.032812	31.72039	0.742418	0.032285	0.322349
Obs	45	45	45	45	45	45	45	45

Based on Table 4.1 related to the descriptive analysis of nine Islamic banks in Indonesia as a sample of this study, It can be seen that the minimum value of ROA is -10.70 and the maximum is 13.58, with an average of 1.46. This means that overall, the level of profit obtained by Islamic banks in Indonesia for the 2017–2021 period is 1.46%. The minimum Frisk value is 0.32 and the maximum is 22.04, with an average of 3.4, which means that the overall risk level of Islamic bank financing is 3.4%. The average liquidity risk level is 87.20%, the operational risk level is 1.48% and 95%, respectively. The inflation rate is 2.6%, the GDP level is 15.33 trillion, and unemployment is 4.1%. Meanwhile, Table 4.2 presents a descriptive analysis of conventional bank research variables:

Table 3. Conventional Bank Descriptive Analysis

	ROA	FRISK	LRISK	ORISK1	ORISK_2	INFLASI	GDP	UNEMP
Mean	2.194304	2.635570	87.48949	0.515482	80.28266	2.602000	15.33446	4.120000
Median	1.850000	2.700000	88.11000	0.378594	82.06000	2.720000	16.18848	4.300000
Max	6.500000	4.780000	163.0000	3.234708	98.12000	3.610000	16.22970	4.400000
Min	0.130000	0.800000	52.30000	0.025166	54.20000	1.680000	16.13316	3.600000
Std. Dev.	1.368489	0.997506	16.46212	0.534262	10.18817	0.742418	0.032285	0.322349
Obs	80	80	80	80	80	80	80	80

Based on Table 3 regarding the descriptive analysis of 16 conventional banks in Indonesia as a sample for this study. It can be seen that the minimum value of ROA is 0.13 and the maximum is 6.5, with an average of 2.19. This means that overall, the level of profit obtained by conventional commercial banks in Indonesia for the 2017–2021 period is 2.19%. The average level of finance risk is 2.6%, the average level of liquidity risk is 87.48%, and the average level of operational risk is 0.51% and 80.28%, respectively. The inflation rate is 2.6%, the GDP rate is 15.33 trillion, and unemployment is 4.1%.

The results of the analysis of nine Islamic banks and 16 conventional banks recommend that the Random Effect Model (REM) is better for use with the Hausman test results showing PROB results > 0.05, namely with a probability of 1,000, which means greater than 0.05, then the REM model is accepted as the Random Effects Model. The results of the random effect of nine Islamic banks are shown in Table 4.4 below.

Table 4. Results of random effect of Islamic banks

Variable	ROA		
Variable	Coefficient	Std. Error	Prob.
C	-121.0581	108.1591	0.2702
CRISK	-0.195713	0.050956	0.0005
LRISK	0.003740	0.006991	0.5959
ORISK 1	0.032353	0.107497	0.7651
ORISK 2	-0.077498	0.005786	0.0000
INF	0.512913	0.308318	0.1046
GDP	7.968549	6.613024	0.2359
UNEMP	-0.029023	0.411759	0.9442
R-squared	0.846284		
Adjusted R-squared	0.875772		

Based on the results of REM Table 4, the equation is as follows: $ROA_{it} = -121.0581 - 0.195713 CRISK_{it} + 0.003740 LRISK_{it} + 0.032353 ORISKI_{it} - 0.077498 ORISKII_{it} + 0.512913 INFL_{it} + 7.968549 GDP_{it} - 0.029023 UNEMP_{it} + \varepsilon_{1it}$. $Y = -121.0581$, meaning that if the independent variables, namely Frisk, Lrisk, Orisk, inflation, GDP, and unemployment do not change or are considered constant, then the ROA level is -121.0581%. In the first regression for Y ROA the R-squared value obtained was 0.84, where the dependent variable in this study, credit risk, liquidity risk, operational risk, inflation, GDP, and unemployment, had an effect of 84% on the independent variable, namely ROA. The remaining 16% did not exist in this study. The results of the random effect of 16 conventional banks are shown in Table 4.4 below.

Tabel 5. Results of random effect of Conventional banks

Variable		ROA	
Variable	Coefficient	Std. Error	Prob.
C	10.76994	1.491266	0.0000
CRISK	0.041582	0.058828	0.4820
LRISK	0.003388	0.003679	0.3602
ORISK 1	-0.139660	0.079939	0.0849
ORISK 2	-0.092136	0.006561	0.0000
INF	0.207829	0.091312	0.0259
GDPG	-0.080033	0.022259	0.0006
UNEMP	-0.198275	0.105241	0.0637
R-squared	0.838976		
Adjusted R-squared	0.823100		

Based on the results of REM Table 5, the equation is as follows: $ROA_{it} = 10.76994\beta_0 + 10.76994CRISK_{it} + 0.003388LRISK_{it} - 0.139660ORISKI_{it} - 0.092136ORISKII_{it} + 0.207829INFL_{it} - 0.080033GDPG_{it} - 0.198275UNEMPI_{it} + \varepsilon_{1it}$. $Y = 10.76994$, meaning that if the independent variables, namely Frisk, Lrisk, Orisk, inflation, GDP, and unemployment do not change or are considered constant, then the ROA level is 10.76%. In the second regression for Y ROA, the R-squared value obtained is 0.83 where the dependent variables in this study, credit risk, liquidity risk, operational risk, inflation, GDP, and unemployment have an effect of 83% on the independent variable, namely ROA. The remaining 17% did not exist in this study. Furthermore, the results of partial tests on Islamic and conventional banks.

This study used the one tail test (left side test and right side test) on Islamic banks. The t distribution table is used to determine the value of the t table in the first regression test on Islamic banks, where $df = 45 - 8 = 37$. With df 37 and a significant level of 5% ($\alpha = 0.05$), the t table used in this study is 1.687. If $t \text{ count} > t \text{ table}$, then H_1 is accepted, and if $t \text{ count} < t \text{ table}$, then H_1 is rejected and H_0 is accepted. The following is a summary of the t test on nine Islamic banks shown in Table 6.

Table 6. Result t test islamic bank

Variabel independent	Coefficient	Std.Error	t statistic	Prob	Result	Keterangan
Credit Risk	-0.195713	0.050956	-3.840817	0.0005	Accepted H_1	Significant
Liquidity Risk	0.003740	0.006991	0.534955	0.5959	Accepted H_0	Not Significant
Operational Risk I	0.032353	0.107497	0.300971	0.7651	Accepted H_0	Not Significant
Operational Risk II	-0.077498	0.005786	-13.39335	0.0000	Accepted H_1	Significant
Inflasi	0.512913	0.308318	1.663582	0.1046	Accepted H_0	Not Significant
GDP	7.968549	6.613024	1.204978	0.2359	Accepted H_0	Not Significant
Unemployment	-0.029023	0.411759	-0.070486	0.9442	Accepted H_0	Not Significant

Based on Table 6, the partial test's findings reveal that only the operational risk II and credit risk variables significantly lower the ROA of Islamic banks. The performance of Islamic banks is unaffected by the other four variables.

The partial test on the second regression on conventional banks uses the one tail test (left side test and right side test). The t table value in this study was obtained from the t distribution table, where $df = 80 - 8 = 72$, then with df of 72 and a significant level of 5% ($\alpha = 0.05$), the t table used in this study is 2.140. If $t \text{ count} > t \text{ table}$ then H_1 is accepted and if $t \text{ count} < t \text{ table}$ then H_1 is rejected and H_0 is accepted. The following is a summary of the t test on nine Islamic

banks shown in Table 7.

Table 7. Result t test conventional bank

Variabel independent	Coefficient	Std.Error	t statistic	Prob	Result	Keterangan
Credit Risk	0.041582	0.058828	0.706847	0.4820	Accepted H0	Not Significant
Liquidity Risk	0.003388	0.003679	0.920952	0.3602	Accepted H0	Not Significant
Operational Risk I	-0.139660	0.079939	-1.747085	0.0849	Accepted H0	Not Significant
Operational Risk II	-0.092136	0.006561	-14.04353	0.0000	Accepted H1	Significant
Inflasi	0.207829	0.091312	2.276021	0.0259	Accepted H1	Significant
GDP	-0.080033	0.022259	-3.595561	0.0006	Accepted H1	Significant
Unemployment	-0.198275	0.105241	-1.884005	0.0637	Accepted H0	Not Significant

The partial test findings are shown in Table 4.6, and they indicate that operational risk II factors, inflation, and GDP significantly affect conventional bank ROA. The performance of conventional banks is unaffected by the other three variables.

4.2. Discussion

4.2.1. *The Effect of Credit Risk on the Performance of Islamic and Conventional Banks*

Referring to the results of the first regression in this study, credit risk or financing risk has a significant negative correlation with the ROA of Islamic banks. Based on the average financing risk level from 2017 to 2021, it is 3.4%. If we look at the financing risk trend data from 2017 to 2021, it continues to fluctuate, but in 2019 and 2020 it has increased, this is because the COVID-19 pandemic crisis is currently hitting Indonesia and its impact has also affected sharia banking. When the distribution of financing was carried out at the time of the COVID-19 pandemic crisis and with a lack of prudential principles, Islamic banks got two impact. The first will make profit and improve performance, and the second will increase the risk of financing. Where many customers have difficulty returning installments to the bank. When the risk of financing increases in a bank, it will reduce the bank's performance, all forms of activity carried out by each company will, of course, lead to the benefits that will be obtained. New credit that appears to raise concerns is hindering how well these Islamic banks perform in terms of profit potential. This means that the bank loses the opportunity to get a profit sharing portion, which will result in a decrease in income (Ismail, 2010). This research is in line with research by Saleh & Afifa (2020), Shawtari et al., (2019), Ridwan et al., (2021), Kusumastuti & Alam (2019), Miswar, R. & Nita (2021) and Almunawwaroh & Marliana (2018) which reveals that NPF has a negative correlation with the ROA.

In contrast to the results of the second regression on conventional banks, which show no correlation between credit risk and the ROA of conventional banks. There is no correlation between financing risk and performance in terms of ROA due to several factors, including large NPL conditions in certain periods, and it does not have a direct impact on profit reduction. This is so because the degree of funding bottlenecks given by a bank directly affects the relationship between NPL and ROA. So that the depiction of NPL having a negative correlation on bank performance does not show the actual figure in accordance with existing theory. In line with research conducted by Subekti & Wardana, (2022), which states that financing risk has no correlation with ROA. In contrast to research conducted by Ekinci, (2016) and Gadzo et al., (2019) It claims that the performance of banks is significantly impacted negatively by credit risk.

4.2.2. *The Effect of Liquidity Risk on the Performance of Islamic and Conventional Banks*

Liquidity risk arises due to an imbalance between total financing and total funds available at the bank. When a bank provides liquidity to borrowers in the form of financing and depositors by providing funds on demand. These features make banks vulnerable to a systematic increase in liquidity demand from borrowers, and in extreme cases, banks can fall victim to depositors (Berger, 2011). Islamic banks must have their own values and business processes and maintain liquidity based on Islamic principles. Islamic banks could experience deeper and broader misalignments between assets and liabilities that could destroy bank profitability (Douglas W Diamond & Rajan, 2002).

According to the findings of this study's first regression, liquidity risk has no impact on Islamic banks' return on assets (ROA). The upshot of this is that Islamic banks can still pay their short-term debts. Liquidity risk for Islamic banks does not directly affect their earnings or performance. This can also be seen from the average liquidity of Islamic banks in this study, which is 87.20%. This figure is still normal and in accordance with BI standards, which is 80% -100. However, if we look at the trend data, the liquidity risk ratio from 2017 to 2021 continued to decline in the year that COVID-19 hit, so that in 2021 it decreased to 79%.

When the liquidity risk ratio increases, this indicates that the bank's liquidity has decreased, and vice versa, if the liquidity risk ratio decreases, it indicates that the bank is becoming more liquid. The condition of a bank that is increasingly liquid is also not always good because it means that there are idle funds, which will reduce the revenue that will be received by the bank. Therefore, in order to preserve the liquidity circumstances of the bank or firm in compliance with the requirements established by Bank Indonesia, banks must be able to manage their funds as efficiently as possible when disbursing them. However, Islamic banks can still manage liquidity risk ratios well. This research is in line with research conducted by La Difa et al., (2022) and Amalia et al., (2022) is inversely proportional to research results (Rasiah, n.d.) and (Phan et al., 2020)

The results of the second regression also show that there is no influence of liquidity risk on the ROA of conventional banks. This can be seen in the average conventional bank liquidity of 87.48%. The average liquidity is still relatively normal, but with low liquidity, conventional banks will not get maximum income. This situation is closely related to the situation of the COVID-19 pandemic, which has led to a disproportionate reduction in revenue and operating expenses. Bank managers in Indonesia require a lot of effort to improve the efficiency of their clients' money management and generate high profits. The conventional bank regression results are in line with research (Masdjojo, 2023) and inversely proportional to research (Berger, 2011).

4.2.3. Effect of Operational Risk on Islamic and Conventional Bank Performance

Operational risk, in contrast to liquidity and credit risk, especially internal bank, is challenging to assess and can have an impact on an organization's viability Jorion, (2003). Laker (2007) says that operational risk has grown to be one of the largest hazards for banks as banking has gotten more sophisticated and dependent on knowledge and technology. The danger of creating and putting into practice the incorrect policies can significantly affect profitability by adhering to insufficient procedures, resulting in gaps in banking operations (Hunjra et al., 2022).

The findings obtained from the study of the first regression in this study show that operational risk I, determined by the standard deviation of Islamic banks' returns over three years, does not affect Islamic banks' ROA. The ROA of Islamic banks is significantly affected by the value determined by OER Operational Risk II. This implies that Islamic banks perform worse the greater the operational risk. The ratio of total operating expenses to total operating

income is reflected in the operating risk ratio II. Operational effectiveness and profitability are causally and negatively correlated, with a rise in operating costs invariably resulting in a decline in bank profits. In a study, Nur & Emanuel, (2018) discovered that BOPO has a negative and considerable influence on profitability. The findings concur with those of studies by (Adiatmayani & Panji, 2021) and (Kusumastuti & Alam, 2019).

In the second regression of this study, it was found that operational risk I, expressed as the three-year standard deviation of conventional bank earnings, does not affect conventional bank ROA. In the second regression on operational risk II proxied by OER, there is a significant negative correlation with the ROA. This means that operational risk in conventional banks also has a negative impact on the performance of conventional banks. This research is in line with research conducted by (Hasmiana & Pintor, 2022) and (Martins et al., 2019). The cause of operational risk ratio II proxied by OER has a negative and significant correlation on conventional bank ROA because in terms of data trends the OER continues to increase every year from 2017 to 2021 especially in the year Covid 19 hit it reached 84.94%. Even though this figure is still normal according to BI standards of <90%, if the trend continues to increase every year, a negative effect will also be seen on the ROA. If this ratio continues to increase, which means it reflects the bank's inability to reduce operational costs compared to increasing its operating income, it can even cause losses due to the bank's inefficiency in managing its business.

4.2.4. The Effect of Inflation on the Performance of Islamic and Conventional Banks

Inflation is a continuous increase in the general price level or decrease in the value of money over a period of time (Umar, 2014). Many economists interpret a rise in the money supply as an increase in inflation. The diversity in schools of economic thought gives rise to many arguments about what causes inflation and the uncertainty of inflation. High inflation will reduce the level of consumption of goods and services due to rising prices of these goods and services. The impact of a decrease in the economic turnover of the community or a decrease in people's purchasing power will affect the production of a company and also affect company profits. This situation causes a high percentage of non-performing loans (NPF), making it more difficult for customers to pay Islamic banks. Inflation from 2017-2021 continued to decline from 3.61% to 1.87% in 2021.

The first regression's results show that the ROA of Islamic banks is unaffected by the rate of inflation. This indicates that the income of Islamic banks is unaffected by the fall in the rate of inflation. Because the inflation rate has continued to decline from 2017 to 2021, it should have had a positive impact, when inflation decreases, people's purchasing power will increase, economic turnover will also increase, and income will also increase, so installments to banks must also be smooth. Perhaps because consumers prefer to spend instead of paying installments to the bank, the ROA of Islamic banks is unaffected by the decline in the inflation rate. The result indicates that the findings of this research are consistent with previous findings by Istan & Fahlevi (2020). ROA is not significantly and negatively impacted by inflation because, at the time of inflation the central bank will increase the BI rate. Islamic banks have no effect on interest because they use profit and loss sharing for financing. this research, which is inversely proportional to research Hussain & Hassan, (2006) and Al-Nasser Mohammed & Muhammed, (2017) argue that the inflation rate can positively affect bank profitability.

In the second regression of this study, it was found that the rate of inflation greatly improves conventional banks' ROA. The performance of conventional banks has improved as a result of the decrease in inflation between 2017 and 2021. When inflation decreases people's purchasing power will increase, economic turnover will also increase and income will also

increase so that repayments to banks will also become smoother, so that the income received by banks will also increase. In line with the findings Revell (1979) in a journal (O'Connell, 2023) where inflation affects bank profitability depending on whether bank wages and other operational costs increase at a faster rate than inflation. Long-term interest rates are used to get a sense of how well banks anticipate expected inflation, allowing management to adjust interest rates accordingly, allowing income to grow faster than expenses to (Perry, 1992), in line with research (Fajri et al., 2022) and (O'Connell, 2023).

4.2.5. *The Impact of GDP on the Performance of Islamic and Conventional Banks*

Gross Domestic Product (GDP) is a metric used to assess a nation's economic health. If the country's GDP decreases, it will have an impact on the return of financing to banks due to a decrease in the ability of producers. During 2017–2019, Indonesia had a fairly high level of GDP, but in 2020, the level of GDP in Indonesia decreased and will increase again in 2021. A high GDP in a country indicates that the income received by the public is quite high. It will be simpler for the people to meet their installment debt commitments to the bank if they receive more money. Automatically, the smoother the installments to the bank, the more the bank's income will also increase.

The results of this study's first regression show that the GDP level has no bearing on the ROA of Islamic banks. This means that the level of GDP does not have a direct impact on the performance of Islamic banks, and the high income received by the public does not have a direct effect on bank installments because perhaps consumptive people prefer consumption rather than paying bank installments. This research is in line with research conducted by Ahmed et al (2021) which states that the results of research on the level of GDP do not have an effect on the ROA of Islamic banks.

In the second regression of this study, it was found that the level of GDP has a detrimental impact on conventional banks' ROA. This applies because the high and low income received by the community have a direct effect on bank installments. However, since the GDP level declined in 2020 due to the spread of COVID-19, the magnitude of the GDP decline has had a negative impact on the ROA of conventional banks. According to researchers, ROA and GDP have a negative correlation with each other. Likewise, a study conducted by (Sastrosuwito & Suzuki, 2012) and (Muhammad Sajid Saeed, 2014) in the Indonesian and UK banking industries also showed a significant negative correlation between bank profitability and annual growth rates. In further studies Sastrosuwito & Suzuki, (2012) outlined how the correlation between ROA and GDP and inflation rate was determined to be negative. The impact that inflation has on the value of bank assets is the cause of this negative relationship. Numerous investigations, including the following, support this conclusion: (Bourke, 1989), (Sufian & Chong, 2008) and (Rasiah, 2010) especially at that time the bank experienced a crisis in 2008.

4.2.6. *The Effect of Unemployment on the Performance of Islamic and Conventional Banks*

From 2020 to 2021, the unemployment rate in Indonesia continues to increase due to the COVID-19 pandemic, so many workers are forced to stay at home due to restrictions on economic activity to prevent the widespread spread of the virus, and some have had to be laid off (BPS, 2021). Therefore, the unemployed will experience difficulties making installment payments because there is no income.

The results of the first regression of this study indicate that the unemployment rate has no effect on the ROA of Islamic banks. These results are inversely proportional to the existing hypotheses and theories, which state that the higher the unemployment rate, the greater the

negative impact will be on financing where there is a lack of purchasing power from businesses run by customers and will ultimately impact the income of Islamic banks Heffernan et al., (2008). Research by Ndlovu & Alagidede, (2018) shows a negative effect on bank performance (ROE). Moreover, the unemployment rate during COVID-19 has also increased, following on from the GDP level, which decreased during COVID-19, thereby reducing employment. This occurs presumably because the unemployment rate does not have a direct impact on the performance of Islamic banks, because the number of unemployed actually has its own motivation for dealing with their respective difficulties without having to financing to bank. The performance of Indonesian banks is not directly impacted by the unemployment rate, particularly within Indonesia.

In contrast to the results of this study, a study conducted by Ifeacho & Ngalawa (2014) shows that there is a statistically significant negative relationship between the unemployment rate and the return on assets (ROA in this example), which is evidence that rising unemployment produces poor bank performance. Unemployment is one of the biggest economic issues in South Africa and the rest of the globe, primarily because it can result in loss of money, loss of output, and loss of human capital (skills breakdown), all of which have a disastrous effect on developing economies.

In the second regression of this study, it was found that the unemployment rate has no effect on the ROA conventional bank. This result is also inversely proportional to the existing hypothesis and theory, which state that a higher unemployment rate will have a negative impact on the ROA of conventional banks. The unemployment rate does not have a direct impact on ROA for both Islamic and conventional banks.

5. Conclusion

Based on the explanation in the discussion, several points can be concluded, namely:

In Islamic banks, only the financing risk variable and the operational risk II variable have a significant negative effect on the ROA. The other four variables have no correlation with the ROA of Islamic banks. This proves that increases and decreases in credit risk and operational risk in Islamic banks greatly affect their performance. The results of the first regression on credit risk and operational risk II proxied by NPF and OER, show a significant negative correlation with the ROA of Islamic banks. meaning that the higher the operational risk, the lower the performance of Islamic banks.

In conventional banks, operational risk II factors, inflation, and GDP all have a major impact on ROA. The remaining three factors have no influence on conventional bank performance. The results of the second regression on operational risk II proxied by OER, have a significant negative correlation with the ROA. This means that every increase and decrease in operational risk II has an impact on the performance of conventional banks. The results of the second regression of conventional bank research show that the inflation rate has a significantly positive correlation with the ROA. The decline in inflation from 2017 to 2021 has had a positive correlation with the performance of conventional banks. When inflation decreases, people's purchasing power will increase, economic turnover will also increase, and income will also increase, so that repayments to banks will also become smoother, and the income received by banks will also increase. The results of the second regression also show that the level of GDP has a negative correlation with the ROA of conventional banks. This applies because the magnitude of the decline in GDP based on actual conditions has a negative correlation with ROA.

6. Implications

In theory, this research has contributed in two ways. First, unlike previous research conducted by Hunjra et al., (2022), which only focused on conventional financial performance analysis, this study involved both Islamic and conventional banks. The findings in this study can be used by Islamic banks to pay more attention to financing and operational risks. The aim is to identify and differentiate the factors that influence the financial performance of each bank so that it can become new literature to add insight. Second, this study expands the theory of Islamic banking, which measures financial performance by ROA, with findings proving that the ROA of Islamic banks is influenced by credit risk and operational risk, while conventional banks are influenced by operational risk, inflation, and GDP.

The finding from this study gives an implication towards the shareholders and depositors of Islamic and conventional banks is that they must have a predetermined position regarding the level of credit risk, operational risk, and macroeconomic in each banking system. For Islamic banks can manage financing risk, first bank management must ensure timely loan policies and repayment of loans from customers, the second management must maintain a healthy cost of capital to manage operational risk. For conventional banks, managers must regularly monitor and maintain a healthy cost of capital to meet operational risks, and bank managers should regularly monitor their liquidity and financing positions by maintaining the required level of loans and deposits in case of volatile inflation and a decline in GDP.

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