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Analysis of Islamic Bank Financial Performance Before and After Merger: Study on Islamic Banks in Indonesia

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Abstract

This study aims to analyze the differences in the financial performance of Islamic banks in Indonesia before and after the merger, especially in the case of Bank Syariah Indonesia (BSI) which was formed from the merger of three Islamic banks owned by Himbara. Financial performance is measured using financial ratios such as Return on Assets (ROA), Return on Equity (ROE), Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), and Capital Adequacy Ratio (CAR). The method used in this study is a quantitative approach with a comparative design, and uses secondary data in the form of annual financial reports from the period before and after the merger. Data analysis techniques are carried out using paired sample t-test or Wilcoxon signed-rank test depending on the data distribution. The results of the study indicate that there are significant differences in several financial ratios before and after the merger, which reflect the positive or negative impacts of the consolidation process on the stability and profitability of Islamic banks. These findings are expected to be a consideration for regulators, investors, and bank management in evaluating the effectiveness of mergers as a growth strategy in the Islamic banking industry.

1. Introduction

Bank or company mergers are considered as one of the efforts to achieve efficiency in the scope of the economy, eliminate overlapping services and increase awareness of innovative banking devices. However, this statement needs to be analyzed and reviewed carefully. This is because many previous studies have focused on market-driven mergers or voluntary mergers. On the one hand, voluntary bank mergers refer to the process by which two or more banks merge and become a new entity. The merger takes place without objection from the shareholders and management of both banks. The purchase is considered complete after the acquirer buys the shares of the target bank. On the other hand, involuntary mergers refer to the merger of companies that are bankrupt or in danger of bankruptcy and are initiated by the government or bank regulatory authorities. The concept of mergers and acquisitions (M&A) is not new to

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banking in Indonesia. In the previous period in Indonesia, several commercial banks had merged, including with relatively large assets, the merger of several banks into Bank Mandiri in October 1998 and the merger of several banks into Bank Bali in 2001 (changed to Bank Permata in October 2002).

Merger is the combination of 2 (two) or more companies which then become one new company, while acquisition is defined as the purchase of 1 (one) company by another company without any new company being formed (Cartwright and Schoenberg, 2006). The joint venture retains its identity, while the acquired company is lost. For a merger to occur, approval by a majority vote of shareholders is usually required. However, other variations of mergers can also be done by one company acquiring another company by purchasing some or all of the company's assets or purchasing outstanding shares (DePamphilis, 2008; Sharma, 2009; Kemal, 2011).

This study is based on the analysis of variables that have occurred previously with the merger event with the previous merger conditions, so this type of research is usually called casual research, comparative research or also called ex post facto research. This study attempts to determine the effects of the merger of several Islamic banks that occurred in Indonesia. Based on the study, in Indonesia there are already 3 (three) banks operating with Islamic principles that have merged into Bank Syariah Indonesia, namely Bank Syariah Mandiri owned by Bank Mandiri with 50.83% ownership, with Bank BNI Syariah owned by Bank BNI with 24.85% ownership, and Bank BRI Syariah owned by Bank BRI with 17.25% ownership. The purpose of the merger is to improve services, expand reach, and increase capital. As a country with the largest Muslim population, Indonesia has a very large opportunity for the development of Islamic banking.

Previous studies, including research conducted by Yusuf Ali AL-Hroot, et al., which stated that the profitability ratio, namely the ROA, ROE, and Interest Margin (IM) or Net Return ratio in Islamic banking increased significantly, while the IS (Interest Spread) ratio did not increase significantly. The research gap of this study is the object of research and the research period. Previous studies on the impact of mergers include: Research conducted by Yusuf Ali AL-Hroot, et al. (2020), who conducted a study on the effect of mergers on the performance of banks in Jordan in the period 2001 to 2009, with a sample of the merger of Jordan Ahli Bank (AHLI bank) with Philadelphia Bank which merged in 2005. The results of the study showed that there was an insignificant increase in the ratios of AHLI bank in the period after the merger, except for the superior results provided by this study which showed that the leverage ratio increased significantly. The reason for the insignificant increase in financial ratios is possible because the post-merger period corresponds to the period of the global financial crisis that began in 2007. The results of the study also showed that the profitability ratios, namely the ROA, ROE, and IM ratios increased significantly, while the IS ratio increased insignificantly. The research gap in this study is that the research sample only contains the case of the merger of 2 banks, namely AHLI Bank with Philadelphia Bank in 2005 to become Jordan Ahli Bank. In addition, the study was conducted on conventional commercial banks, not on Islamic commercial banks.

Research conducted by Prakash Kumar Bipin, et al. (2018), who conducted research on 10 banks in Nepal, which had merged or amalgamated (2010-2014). The results of the study through the T-Test showed that: Return on Equity (ROE) increased significantly from 4.85% to 12.25% which showed a significant increase in ROE after the merger. The Mean Return on Assets value of 0.90% increased to 1.84% with a t-value of -1.246 which showed an increase in ROA after the merger, but was not significant at the 10% significance level. The average NPL of 10 banks in 1 period before the merger was 5.66% and after the merger it became 5.65%. Likewise, NPL in the 2 periods before the merger was 5.82% and after the merger became 5.26% and in the 3 periods before the merger was NPL 5.66% and after the merger became 4.29%, so that NPL decreased slightly after the merger, and there was no significant increase. The CAR ratio decreased from 16.65% to 14.55%, the capital adequacy ratio changed slightly but not significantly. The Research Gap of this study is that the sample of banks studied is still limited to commercial banks, research on the impact of Islamic bank mergers has not been carried out.

Research conducted by Baburam Adhikari, Marie Kavanagh and Bonnie Hampson, who conducted a study on the extent to which mergers and acquisitions affect financial performance (before and after the merger) in 2 (two) commercial banks in Nepal, namely Bank of Kathmandu and Prabhu Bank by measuring the ratios of profitability, liquidity, leverage, and shareholder wealth and their significant differences before and after the merger period. The study used descriptive and comparative methods using paired sample t-tests using SPSS to test the hypothesis at a significance level of 5%. The results of the study showed that: At Bank of Kathmandu which is the result of a merger with Bank Lumbini, it showed that there was a significant increase in 2 (two) financial ratios, namely the ROA and NIM ratios, while the other ratios, namely ROE, CAR and NPL did not increase significantly in the period before and after the merger. At Prabhu Bank, which is the result of a merger of Kist Bank Limited, Gaurishankar Development Bank Limited, and Zenith Finance Limited, it showed that the ROE, ROA, and NIM ratios increased insignificantly. Likewise, the CAR and NPL ratios did not experience a significant increase. Research Gap of this study is the unavailability of data from electronic databases, in addition there is a limited scope of the impact of mergers and acquisitions on the financial performance of the acquiring bank ignored in the data analysis, so that subsequent research is recommended to use a longer period to measure the overall impact of mergers and acquisitions using qualitative and quantitative methods. In addition, the research conducted is limited to conventional commercial banks in Nepal.

Research conducted by Satish Kumar and Lalit K. Bansal, who conducted research on the effect of mergers and acquisitions on the performance of 74 (seventy four) companies in India that had merged in the period 1998 to 2005. The results of the study using the Rho Spearman correlation test and the Chi Square test, showed that: Of the 22 merger cases, 17 companies that merged were able to increase their operating profits after the merger years, while in the case of five companies, operating profits decreased in the years after the merger. Of the 17 companies that merged, which showed an increase in operating profits on average for three years after the merger, the operating profits of ten companies increased sharply which can be interpreted that their operating efficiency improved after the merger.

Of the five cases where operating profits decreased in the years after the merger, one company showed a sharp decline in the company's operating profits. Of the 52 acquisition cases, 33 acquiring companies increased their operating profits after the acquisition agreement. Acquirers managed to increase their profits. The percentage is more than 60 percent of successful cases from the total cases. While 19 cases failed to increase operating profits. Of the 33 acquirers, which increased their operating efficiency in the post-acquisition period, 17 acquirers increased their operating profit by more than two times. The Research Gap of this study shows that management cannot simply accept that synergies can be generated and profits can be increased only by conducting mergers and acquisitions, so that further research can be started to get closer to reality (reality show). Further research is expected to use more parameters including for the same study in order to obtain better conclusions. In addition, this study cannot be conducted on all cases of mergers and acquisitions for a certain time, which can provide more detailed and in-depth results.

Research conducted by Burhan Ali Shah and Niaz Khan, who conducted a study on the effect of mergers and acquisitions on the operational performance of acquiring banks in Pakistan. The sample used 18 transactions involving acquiring banks listed on the Karachi Stock Exchange. The results of the study using the Paired T-Test showed that most profitability ratios, including ROE, and ROA decreased in the post-merger period. There was only a slight increase in the net interest margin and administrative expenses to profit before tax ratio in the post-merger period. A decrease also occurred in the liquidity ratio of the acquiring bank in the post-merger period. Cash

and Cash Equivalents to total assets decreased and progressed significantly, and the investment ratio to total assets increased, but not significantly. Likewise, the performance of the acquiring banks did not reflect significant improvements in terms of capital stability in the post-merger period. The ratio of deposits to owner's equity increased significantly, but the capital adequacy ratio decreased, indicating a negative impact on the performance of the acquiring bank in the post-merger period. The Research Gap of this study is limited to the financial sector of Pakistan, including only mergers and acquisitions that occurred in the banking sector, thus limiting the scope of this study.

Research conducted by Jasmine Maani, Dunstan Rajkumar A, on 4 (four) banks in India that merged in 2019, namely Canara Bank, Punjab National Bank, Indian Bank, and Union Bank of India. The research period was 3 (three) years before the merger and 3 (three) years after the merger. The variables used include ROE, ROA, NIM, CAR, LDR and NPL ratios as well as Equity per Share which are considered important to evaluate the bank's financial performance related to the parameters of profitability, liquidity, leverage, and shareholder wealth. The results of the study show that: The CAR ratio increased but not significantly; The ROA ratio increased but not significantly; The ROE ratio increased significantly; The NIM ratio increased but not significantly; The NPL ratio decreased (improved) but not significantly; and the LDR ratio decreased but not significantly.

In general, the financial ratios increased but not significantly (<5%) except for ROE of 12.50% which was followed by an increase in earnings per share of 49.66%, mainly because before the merger the bank experienced losses. This also affects the market price per share which increased by 17.25% along with the increase in public trust. The research gap of this study is that the side of significance measured is not statistically significant, has not involved commercial banks in mergers with other commercial banks to obtain synergistic benefits, diversify risks, achieve cost efficiency and increase competitiveness. In addition, the study is limited to mergers of conventionally operating commercial banks.

2. Methods

The research is quantitative in nature where the data to be processed is numerical data. The research was conducted using secondary data, derived from bank financial reports in the form of time series data in the positions of December 2018, 2019, 2020, 2021, 2022, 2023 and 2024. The data source is from the publication report of each bank and Indonesian Banking Statistics data. Population is an object/subject that has a certain quantity and characteristics determined by the researcher to be studied and then conclusions drawn by the researcher (Hendryardi 2019). The population used in the study were all Islamic Banks in Indonesia that merged. The sampling method is by using the purposive sampling method, namely all Islamic banks operating in Indonesia that merged into sampling.

Secondary data to be used in this study were collected from publication report data, and other published reports (annual report, sustainability report). The study uses an analysis technique in the form of panel data regression. Sir Francis Galton who first discovered the "regression" analysis technique in 1986 which was later developed and updated by Gujarati in 2003. Regression analysis is related to research on the dependency between one variable and another variable which is an explanatory variable to predict and/or estimate the average in a population or the average from the earliest in terms of its known value and the last value in terms of repeated sampling. The researcher used financial data from 3 (three) Islamic Banks that Merged in early 2021 with a data period of 2019 to 2024. Based on the data used, it can be categorized as data obtained from more than one specific period (time series) and in one specific time period there are data from 3 banks (cross section) so that the method used is panel data regression.

3. Results and Discussion

Result

Pre-Merger Model Suitability Test

Common Effect Panel Data Regression Analysis

After selecting the equation model using the Chow Test, Hausman Test, and Lagrange Multiplier Test, the results of the model were obtained.The most appropriate equation for this research is the Common Effect equation model.

Panel Data Regression Model Estimation

The results of the panel data regression model that has been tested for several classical assumptions are free from the problems of normality, multicollinearity, heteroscedasticity, and autocorrelation. Testing the panel data regression model in this study uses Eviews 13 software. The estimation results for the Random Effect model are shown in the following table:

Table 1.
Panel Data Regression Model Estimation Results

Dependent Variable: ROE
Method: Panel Least Squares
Date: 06/13/25 Time: 10:57
Sample: 2018 2020
Periods included: 3
Cross-sections included: 3
Total panel (balanced) observations: 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54,77549	30.78442	1.779325	0.1498
FDR	-0.527423	0.31405	-1.679422	0.1684
NPF	-1.308831	3,131288	-0.417985	0.6974
CAR	-0.401911	0.918276	-0.43768	0.6842
NI	1,204615	2,133612	0.564589	0.6025

R-squared	0.811749	Mean dependent variable	9.113333
Adjusted R-squared	0.623497	SD dependent var	5.224117
SE of regression	3,205508	Akaike information criterion	5.467799
Sum squared residual	41,10113	Black criterion	5,577368
Log likelihood	-19,6051	Hannan-Quinn critter.	5.231349
F-statistic	4.312048	Durbin-Watson stat	1.87456

Prob(F-statistic)	0.092973

Source: Eviews data processing (2025)

The linear regression equation model of panel data in this study obtained the following equation: Y =54,77549-0.527423X1-1,308831X2-0.401911X3+0.401911X4

Based on the regression equation, it can be interpreted that if the FDR increases by 1 unit, assuming the other variables remain constant, the ROE will decrease by-0.527423times, jIf NPF increases by 1 unit, assuming other variables remain constant, then ROE will decrease by -1,308831time,If CAR increases by 1 unit assuming other variables remain constant, ROE will decrease by -0.401911times andIf NI increases by 1 unit assuming other variables remain constant, ROE will increase by1,204615time.

Coefficient of Determination (R2)

The coefficient of determination (R2) is essentially to measure the ability of the model to explain the dependent variable. The value of R (R square) that is close to one means that the independent variable provides almost all the information needed to predict the variation of the dependent variable. In this regard, the results of the calculation of the coefficient of determination are presented in the following table:

Table 2.
Coefficient of Determination (R2)

R-squared	0.811749
Adjusted R-squared	0.623497

Source: Eviews 9 Data Processing Results

Based on the calculation results as in table 4.12 above, it can be seen that the influence of the independent variable on the dependent variable of the ROE of Islamic Banks before the Merger can be seen from the adjusted r-squared value, which is0.623497or62,3497%. This indicates that62,3497% of ROE that can be explained by the variation of all independent variables, namely FDR, NPF, CAR and NI. While the rest is 100% -62,3497% = 37.6503% is explained by other independent variables not studied.

F Test

The F Statistic Test basically shows whether all independent variables entered into the model have a joint influence on the dependent variable. The following are the results of the F Test:

Table 3.
F Test Results

F-Statistic	4.312048
Prob(F-Statistic)	0.092973

Source: Eviews 9 Data Processing Results

The results of the simultaneous significant test can be seen in Table 3. The F test was conducted to determine the influence of the FDR, NPF, CAR and NI variables on ROE simultaneously. The Sig value is0.092973shows that the alpha significance level of 0.05 two tailed is not significant. Meanwhile, testing with the F test is done by comparing the Ftable value with the Fcount. The Fcount value is4.312048, Ftable is 4.530 (see Table F), thus the calculated F result is obtained (4.312048) < F table (4.530) then the hypothesis is rejected. It can be concluded that

FDR, NPF, CAR and NI do not have a simultaneous effect on ROE in Islamic Banks before the Merger in the 2018 - 2020 period.

T-test

The t-test basically shows how far the influence of one independent variable partially affects the dependent variable included in the model. Here are the results of the T-test:

Table 4.
T-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54,77549	30.78442	1.779325	0.1498
FDR	-0.527423	0.31405	-1.679422	0.1684
NPF	-1.308831	3,131288	-0.417985	0.6974
CAR	-0.401911	0.918276	-0.43768	0.6842
NI	1,204615	2,133612	0.564589	0.6025

Source: Eviews Data Processing Results (2025)

From the results of the model estimation, hypothesis testing is carried out in accordance with the objectives of this study. The T test is carried out to determine the influence of the FDR, NPF, CAR, and NI variables.tagainstROEin Islamic Bank before the Merger partially (individually). The T-test is conducted by comparing the calculated t value with the t table. If t count> t table, then the influence is said to be significant, and if t count < t table, then the influence is said to be insignificant. The results of the hypothesis testing can be described below:

H11 : FDR has a positive effect on the financial performance of Islamic Banks in Indonesia before the merger

Based on the t-test at α = 5% in table 4, the probability value of the FDR variable is0.1684or greater than 0.05, it can be concluded that FDR has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is1,833, while the calculated t value is-1.679422(negative),then H11 is rejected. Thus, it can be concluded that FDR has a negative but insignificant effect on ROE in Islamic Banks before the Merger in the 2018-2020 period.

H21 : NPF has a negative impact on the financial performance of Islamic Banks in Indonesia before the merger

Based on the t-test at α = 5% in table 4, the probability value of the NPF variable is0.6974or greater than 0.05, it can be concluded that NPF has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is1,833, while the calculated t value is-0.417985(negative),then H21 is rejected. Thus, it can be concluded that NPF has a negative but insignificant effect on ROE in Islamic Banks before the Merger in the 2018-2020 period.

H31 : CAR has a positive effect on the financial performance of Islamic Banks in Indonesia before the merger

Based on the t-test at α = 5% in table 4, the probability value of the CAR variable is0.6842or greater than 0.05, it can be concluded that CAR has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is1,833, while the calculated t value is-

0.43768(negative),then H31 is rejected. Thus, it can be concluded that CAR has a negative but insignificant effect on ROE in Islamic Banks before the Merger in the 2018-2020 period.

H41 : NI has a positive influence on the financial performance of Islamic Banks in Indonesia before the merger

Based on the t-test at α = 5% in table 4, the probability value of the NI variable is0.6025or greater than 0.05, it can be concluded that NI has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is1,833, while the calculated t value is0.564589(positive),then H41 is rejected. Thus, it can be concluded that NI has a positive but insignificant effect on ROE in Islamic Banks before the Merger in the 2018-2020 period.

Classical Assumption Test After Merger

This study uses a panel data regression model to test the effect of FDR, NPF, CAR, and NI onROE. Panel data regression analysis requires the fulfillment of various classical assumptions so that the model can be used as a good prediction or analysis or has met the best linear unbiased estimator (blue). These basic assumptions include normality, multicollinearity, heteroscedasticity, and autocorrelation. If these assumptions are not met, it will not produce a blue parameter value. Testing classical assumptions on the panel data regression model in this study uses Eviews software.

Regression Analysis

To analyze the research on the influence of FDR, NPF, CAR and NI on ROE in Islamic Banks after the Merger for the period 2021 - 2024 using the multiple linear regression analysis method with the help of Eviews software.

Regression model equation

The regression model equation is used to describe the relationship between a dependent variable (Y) and one or more independent variables (X). The general form of a linear regression equation is Y = a + bX, where 'a' is the intercept (the point of intersection on the Y-axis) and 'b' is the regression coefficient (the slope of the line).

Table 5.
Linear Regression Equation

Dependent Variable: ROE
Method: Least Squares
Date: 06/14/25 Time: 10:24
Sample: 2021Q1 2024Q4
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	34,95541	7.324407	4,772456	0.0006
FDR	-0.002734	0.054645	-0.050032	0.9610
NPF	-2.933154	0.812511	-3.609989	0.0041
CAR	-0.473547	0.085176	-5.559663	0.0002
NI	-0.188233	0.870555	-0.216221	0.8328
R-squared	0.909878	Mean dependent variable		16.54438
Adjusted R-squared	0.877106	SD dependent var		1.665072
SE of regression	0.583711	Akaike information criterion		2.011486
Sum squared residual	3.747907	Black criterion		2.252920

Log likelihood	-11,09189	Hannan-Quinn critter.	2.023849
F-statistic	27.76416	Durbin-Watson stat	1,788616
Prob(F-statistic)	0.000011		

Source: Eviews data processing (2025)

Equation modellinear regression in this study obtained the following equation: Y =34.95541 - 0.002734X1- 2.933154X2- 0.473547X3- 0.188233X4

Based on the regression equation, it can be interpreted that if the FDR increases by 1 unit, assuming the other variables remain constant, the ROE will decrease by-0.002734 times, jIf NPF increases by 1 unit, assuming other variables remain constant, then ROE will decrease by -2,933154 times,If CAR increases by 1 unit assuming other variables remain constant, ROE will decrease by -0.473547 times andIf NI increases by 1 unit assuming other variables remain constant, ROE will decrease by -0.188233 times.

CoefficientDetermination (R2)

The coefficient of determination (R2) is essentially to measure the ability of the model to explain the dependent variable. The value of R (R square) that is close to one means that the independent variable provides almost all the information needed to predict the variation of the dependent variable. In this regard, the results of the calculation of the coefficient of determination are presented in the following table:

Table 6.
Coefficient of Determination (R2)

R-squared	0.909878
Adjusted R-squared	0.877106

Source: Eviews 9 Data Processing Results

Based on the calculation results as in table 4.19 above, it can be seen that the influence of the independent variable on the dependent variable of the ROE of Islamic Banks after the Merger can be seen from the adjusted r-squared value, which is0.623497or0.877106%. This indicates that87,7106% of ROE that can be explained by the variation of all independent variables, namely FDR, NPF, CAR and NI. While the rest is 100% -87,7106% = 12.2894% is explained by other independent variables not studied.

F Test

The F Statistic Test basically shows whether all independent variables entered into the model have a joint influence on the dependent variable. The following are the results of the F Test:

Table 7.
F Test Results

F-Statistic	27.76416
Prob(F-Statistic)	0.000011

Source: Eviews Data Processing Results (2025)

The results of the simultaneous significant test can be seen in Table 5. The F test was conducted to determine the influence of the FDR, NPF, CAR and NI variables on ROE simultaneously. The Sig value is0.000011shows that the alpha significance level of 0.05 two tailed is significant. Meanwhile, testing with the F test is done by comparing the Ftable value with the Fcount. The Fcount value is27.76416, Ftable is 3.180 (see Table F), thus the calculated F result is obtained (27.76416) > F table (3.180) then the hypothesis is accepted. It can be concluded that FDR, NPF, CAR and NI have a simultaneous effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024.

T-test

The T-test basically shows how far the influence of one independent variable partially affects the dependent variable included in the model. Here are the results of the T-test:

Table 8.
T-Test Results

C	34,95541	7.324407	4,772456	0.0006
FDR	-0.002734	0.054645	-0.050032	0.9610
NPF	-2.933154	0.812511	-3.609989	0.0041
CAR	-0.473547	0.085176	-5.559663	0.0002
NI	-0.188233	0.870555	-0.216221	0.8328

Source: Eviews Data Processing Results (2025)

From the results of the model estimation, hypothesis testing is carried out in accordance with the objectives of this study. The T test is carried out to determine the influence of the FDR, NPF, CAR, and NI variables.tagainstROEin Islamic Bank after Merger partially (individually). T-test is conducted by comparing the t-count value with the t-table. If t-count> t-table, then the influence is said to be significant, and if t-count < t-table, then the influence is said to be insignificant. The results of the hypothesis testing can be described below:

H12 : FDR has a positive effect on the financial performance of Islamic Banks in Indonesia after the merger

Based on the t-test at α = 5% in table 8. the probability value of the FDR variable is0.9610or greater than 0.05, it can be concluded that FDR has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is2,119, while the calculated t value is-0.050032 (negative),then H12 is rejected. Thus, it can be concluded that FDR has a negative but insignificant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024.

H22 : NPF has a negative impact on the financial performance of Islamic Banks in Indonesia after the merger

Based on the t-test at α = 5% in table 8. the probability value of the NPF variable is0.0041or smaller than 0.05, it can be concluded that NPF has a significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is2,119, while the calculated t value is-3.609989 (negative),then H22 is accepted. Thus, it can be concluded that NPF has a negative and significant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024.

H32 : CAR has a positive effect on the financial performance of Islamic Banks in Indonesia after the merger

Based on the t-test at α = 5% in table 8. the probability value of the CAR variable is0.0002or smaller than 0.05, it can be concluded that CAR has a significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is2,119, while the calculated t value is-5.559663 (negative),then H32 is rejected. Thus, it can be concluded that CAR has a negative and significant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024.

H42 : NI has a positive influence on the financial performance of Islamic banks in Indonesia after the merger

Based on the t-test at α = 5% in table 8. the probability value of the NI variable is0.8328or greater than 0.05, it can be concluded that NI has no significant effect on ROE. If you look at the t table value at alpha 0.05 (one tail) it is2,119, while the calculated t value is-0.216221 (negative),then H42 is rejected. Thus, it can be concluded that NI has a negative but insignificant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024.

4. Discussion

The Influence of FDR on the Financial Performance of Islamic Banks in Indonesia

The first hypothesis states thatFDR has a positive effect on the financial performance of Islamic Banks in Indonesia before and after the merger. The test results show that FDR has a negative but insignificant effect on ROE in Islamic Banks before the Merger for the period 2018 - 2020 and FDR has a negative but insignificant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024. Thus, it can be concluded that H11 is rejected and H12 is rejected. The greater the financing provided, the greater the income that will be obtained, and the bank's profit will also increase. In accordance with research by Barus & Erick (2016) and Adisaputra (2015), it is known that the higher the LDR (the ratio used in conventional commercial banks), the greater the company's profit will be which comes from increased interest income due to increased credit provided which has an impact on decreasing bad debts. This is also in accordance with the results of research conducted by Mada (2015), Soebagio (2005), Diyanti (2011) which states that the higher the LDR, the lower the NPL.

The Influence of NPF on the Financial Performance of Islamic Banks in Indonesia

The second hypothesis states that NPF has a negative impact on the financial performance of Islamic Banks in Indonesia before and after the merger. The test results show that NPF has a negative but insignificant effect on ROE in Islamic Banks before the Merger for the period 2018 - 2020 and NPF has a negative and significant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024. Thus, it can be concluded that H21 is rejected and H22 is accepted. Banks that have a high NPF ratio will have an impact on the cost of productive asset reserves and other costs. So the higher the NPF ratio, the more disruptive the bank's performance will be (Ali, 2004). The high level of non-performing financing causes the bank's income received to be disrupted, and causes a decrease in the bank's profitability level.

The Influence of CAR on the Financial Performance of Islamic Banks in Indonesia

The third hypothesis states thatCAR has a positive effect on the financial performance of Islamic Banks in Indonesia before and after the Merger. The test results show that CAR has a negative but insignificant effect on ROE in Islamic Banks before the Merger for the period 2018 - 2020 and CAR has a negative and significant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024. Thus, it can be concluded that H31 is rejected and H32 is rejected. A low CAR ratio indicates a low level of capitalization. The low level of bank capitalization can result in the bank's inability to bear unavoidable losses. This has an impact on the bank's ability to maintain its performance. The decline in bank performance results in decreased public trust, which can lead to decreased profitability.

The Influence of NI on the Financial Performance of Islamic Banks in Indonesia

The fourth hypothesis states thatNI has a positive effect on the financial performance of Islamic Banks in Indonesia before and after the merger. The test results show that NI has a positive but insignificant effect on ROE in Islamic Banks before the Merger for the period 2018 - 2020 and NI has a negative and significant effect on ROE in Islamic Banks after the Merger for the period 2021 - 2024. Thus, it can be concluded that H41 is rejected and H42 is rejected. One of the market risk proxies is the interest rate, where the measurement is the difference between funding and lending interest rates, or the difference between fund interest costs and loan interest costs (Net Interest Margin/NIM) (Mawardi, 2005). The NI ratio compares the income from fund distribution after profit sharing, rewards, and bonuses with the average total productive assets. In other words, the bank's profit and loss will be influenced by the size of the NI or NIM ratio, and in turn will affect the bank's performance.

5. Conclusion

Based on the analysis of the financial performance of Islamic Banks in Indonesia before and after the merger, several important conclusions have been drawn. This study assessed the impact of four key financial indicators—Financing to Deposit Ratio (FDR), Non-Performing Financing (NPF), Capital Adequacy Ratio (CAR), and Net Income (NI)—on Return on Equity (ROE) over two distinct periods: before the merger (2018–2020) and after the merger (2021–2024).

First, the Financing to Deposit Ratio (FDR) demonstrated a negative but statistically insignificant effect on ROE both before and after the merger. This indicates that while increases in FDR were associated with decreases in ROE, the relationship was not strong enough to reach statistical significance. In essence, fluctuations in FDR did not play a decisive role in influencing the profitability of Islamic banks during either period.

Second, the Non-Performing Financing (NPF) variable had a negative but insignificant impact on ROE prior to the merger. However, post-merger, NPF showed a negative and statistically significant effect on ROE. This shift suggests that, following the merger, increases in problematic financing had a clearer and more detrimental impact on bank profitability. It highlights the growing sensitivity of merged Islamic banks to credit risk and its consequences on returns.

Third, the Capital Adequacy Ratio (CAR) also exhibited a negative but insignificant effect on ROE before the merger. After the merger, however, CAR had a negative and statistically significant effect on ROE. This implies that in the post-merger period, increases in CAR—while indicating stronger capital buffers—were associated with a notable reduction in ROE, possibly due to conservative capital allocation or diminished financial leverage.

Fourth, Net Income (NI) displayed a positive but insignificant influence on ROE in the pre-merger period. Interestingly, after the merger, NI shifted to having a negative, albeit still statistically insignificant, effect on ROE. This suggests a divergence in the direction of impact across the two periods: while profitability seemed to align positively with ROE before the merger, post-merger financial performance did not translate as effectively into shareholder returns.

Lastly, when the variables FDR, NPF, CAR, and NI were tested simultaneously, the results varied across periods. Before the merger (2018–2020), these variables did not exert a statistically significant collective influence on ROE. In contrast, after the merger (2021–2024), the same set of variables demonstrated a significant simultaneous effect on ROE. This finding underscores the structural and strategic changes brought about by the merger, which likely altered the internal dynamics and risk sensitivities of Islamic banks in Indonesia.

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