ANALYSIS OF FACTORS INFLUENCING THE CAPITAL BUFFER IN SHARIA COMMERCIAL BANKS IN INDONESIA

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Abstract

Capital Buffer is the difference between the ratio of bank capital to the minimum capital adequacy ratio in accordance with central bank regulations. This study aims to determine the determinants of Capital Buffer in Islamic Commercial Banks in Indonesia in 2018-2021. This study aims to examine the effect of ROE, NPF, FDR, BOPO, and Bank Size on the Level of Capital Buffer simultaneously. The analytical method uses a quantitative research approach and uses secondary data. In this study, the analysis technique used was panel data regression with a fixed effect model using the Eviews 10 tool. Based on the results of the analysis of this study, it shows that ROE has no significant effect on Capital Buffer. FDR has no significant correlation to Capital Buffer. NPF has no significant effect on the Capital Buffer, BOPO has no significant correlation on the Capital Buffer, and Bank Size has a significant effect on the Capital Buffer. Simultaneously ROE, FDR, NPF, Bank Size, and BOPO have a significant effect on Capital Buffer. the results of the regression estimation show that the independent variable has a predictive ability of the model of 80.25%, while the remaining 19.75% is influenced by other factors outside the model.

Keywords*:* *Capital Buffer, ROE, FDR, NPF, BOPO, Bank Size*

Abstrak

Capital Buffer adalah selisih antara rasio modal bank terhadap rasio kecukupan modal minimum yang sesuai dengan peraturan bank sentral. Penelitian ini bertujuan untuk mengetahui faktor penentu *Capital Buffe*r pada Bank Umum Syariah di Indonesia tahun 2018-2021. penelitian ini bertujuan untuk menguji pengaruh ROE, NPF, FDR, BOPO, dan Bank *Size* Terhadap Tingkat *Capital Buffer* secara simultan. Metode analisisnya dengan pendekatan Penelitian Kuantitatif dan menggunakan data sekunder. Dalam penelitian ini, Teknik analisis yang digunakan adalah regresi data panel dengan *fixed effect model* menggunakan alat *Eviews* 10. Berdasarkan hasil analisis penelitian ini menunjukkan bahwa ROE tidak berpengaruh signifikan pada *Capital Buffer*. FDR memiliki korelasi tidak pengaruh signifikan terhadap *Capital Buffer*. NPF tidak berpengaruh signifikan terhadap *Capital Buffer*, BOPO memiliki korelasi tidak berpengaruh signifikan terhadap *Capital Buffer*, dan Bank *Size* memiliki

pengaruh signifikan terhadap *Capital Buffer*. Secara simultan ROE, FDR, NPF, Bank *Size*, dan BOPO berpengaruh signifikan terhadap *Capital Buffer*. hasil estimasi regresi menunjukkan variabel bebas memiliki kemampuan prediksi model sebesar 80,25%, sedangkan sisanya 19,75% dipengaruhi oleh faktor lain diluar model.

Kata Kunci*:* *Capital Buffer; ROE; FDR; NPF; BOPO; Bank Size*

Introduction

A bank is a type of financial institution that primarily serves as a bridge between individuals who have extra money and others who need it. Customers and organizations that deposit money or invest capital in a bank may be impacted if the bank fails, hence it is important for the bank to keep its position strong.(Nasution, 2014) The adequate level of capital a bank has is one sign that it is considered to be healthy. In order to keep customers confident in banking operations, banks must offer enough capital.

The Capital Buffer's purpose is to protect against and prepare for any losses. In the case of a future risk shock, the bank will be safeguarded by this Capital Buffer. This serves as a safeguard against future losses and tries to improve the banking system. The bank must have a Capital Buffer as a safety measure when dealing with a loss in an effort to prevent one. Capital Buffer is a crucial reserve resource for banks. Because the government's minimum capital requirements could not always be sufficient to cover potential losses for banks, it is necessary to have a capital buffer. Therefore, banks must offer financial Buffers as security for expenses that could arise in the event that they face financial shock and have trouble obtaining new capital. (Shim, 2013) This study aims to measure the factors that influence the Capital Buffer of Islamic banks going public in Indonesia.

Table 1
Average Capital Buffer Ratio for Islamic Commercial Banks in Indonesia in 2018-2021

Issuer Code	Bank name	2018	2019	2020	2021
BMI	PT. Bank Muamalat Indonesia	12,36	12,42	15,21	23,76
BRIS	PT. Bank Syariah Indonesia	16,26	16,15	18,24	22,09
BMS	PT. Bank Mega Syariah	20,54	19,96	24,15	25,59

BCAS	PT. BCA Syariah	24,27	28,28	45,26	41,43
ABA	PT. Bank Aceh Syariah	19,67	18,9	18,6	20,02
BBS	PT. Bank Bukopin Syariah	19,31	15,25	22,22	23,74
BVS	PT. Bank Victoria Syariah	22,07	19,44	24,6	33,21
BPDS	PT. Bank Panin Dubai Syariah	23,15	14,46	31,43	25,81
BJB	PT. Bank Jabar Banten Syariah	16,43	14,95	24,14	23,47
BANK	PT. Bank Aladin Syariah	163,07	241,84	329,09	390,5
BTPNS	PT. Bank Tabungan Pensiunan Nasional	40,92	44,57	49,44	58,10
BPDNTBS	PT. BPD Nusa Tenggara Barat Syariah	35,42	35,47	31,6	29,53

Source: Financial Services Authority (processed)

It is evident from table 1 above that the Capital Buffer has grown. Sharia Commercial Banks have kept their capital buffer at a level higher than the 8% minimum set by the Financial Services Authority (OJK). According to the aforementioned data, Bank BTPN Syariah will have the biggest Capital Buffer in 2021, at 58.10%, and each bank will generally witness annual growth. Islamic Commercial Banks are qualified to have a CAR of 13% in order to implement Basel III regulations based on the average CAR owned by Islamic Banking. However, a large CAR figure is not advantageous for banks as it suggests that they have more modalities to hold, which they can use in their daily operations to generate profits.

Basic Theory Related to Capital Buffer

1. Pecking Order Theory

Stewart C. Myers proposed the Pecking Order theory, which claimed that when financial managers issued shares, they were concerned about the reaction of investors. (Najmudin, 2011) According to the Pecking Order Theory, equity is less profitable because interest expense is incurred before taxes. High Return On Equity also indicates high bank profits. When this significant profit materializes, it turns into retained

earnings, which are subsequently used to boost the capital buffer.. This is in line with the Pecking Order Theory, according to which businesses prefer to raise extra capital through the comparatively inexpensive issuing of shares rather than through the use of retained earnings. (Bayuseno & Chabachib, 2014)

2. Charter Value Theory

Marcus's 1984 theory of charter value explains why banks always hold back additional capital to safeguard against deteriorating stability and manage the risk of business collapse. According to this hypothesis, banks will experience income losses in the future if bankruptcy occurs, and the effects of these losses will be felt by many people, including shareholders. As a result, the bank will continue to retain capital over the minimum required.(Marcus, 1984)

3. Too Big To Fail Consensus

Because they are by definition too big to fail, giant banks behave differently than small banks, according to Kane and Miskin (Too Big To Fail). Large banks also find it simple to obtain capital from the capital market, and they have a competitive advantage in overcoming informational monitoring challenges, which motivates them to achieve a balance between the costs of supervision and equity. By lowering their capital reserves, banks will lower the cost of equity. The premise for study on capital buffer is made obvious by the relationship between the nature of too big to fail and bank size, where capital buffer is strongly associated.(Andiani & Kurnia, 2017)

a. Return On Equity (ROE)

A ratio known as return on equity is used to assess a bank's paid-in capital's capacity to generate profits or the management of the bank's usage of available capital to produce profits after taxes. The ratio of net income to the typical capital or investment of shareholders is known as ROE. The bank's management capability to handle existing capital to create income is assessed using the ROE ratio.(Kasmir, 2009).

b. Financing To Deposit Ratio (FDR)

A bank's ability to pay back depositors by relying on the financing it receives as a source of liquidity is shown by the financing to deposit ratio, which calculates the amount of financing a bank provides in relation to the funds it receives. Therefore, the bank's liquidity capability decreases as the ratio increases. Some experts concur that a bank's financing to deposit ratio should not exceed 80%.(Hakim, 2016)

c. Non Performing Finance (NPF)

Non-Performing Finance refers to financing that, during implementation, fell short of the goals set by the bank, such as poor profit sharing or principal returns, and financing that could expose the bank to further risks in the future. Financing that falls under the special mention category, the dubious and loss categories, as well as the current category, which could result in return arrears.(Veithzal Rivai, 2007)

d. BOPO (Operating Cost Against Operating Income)

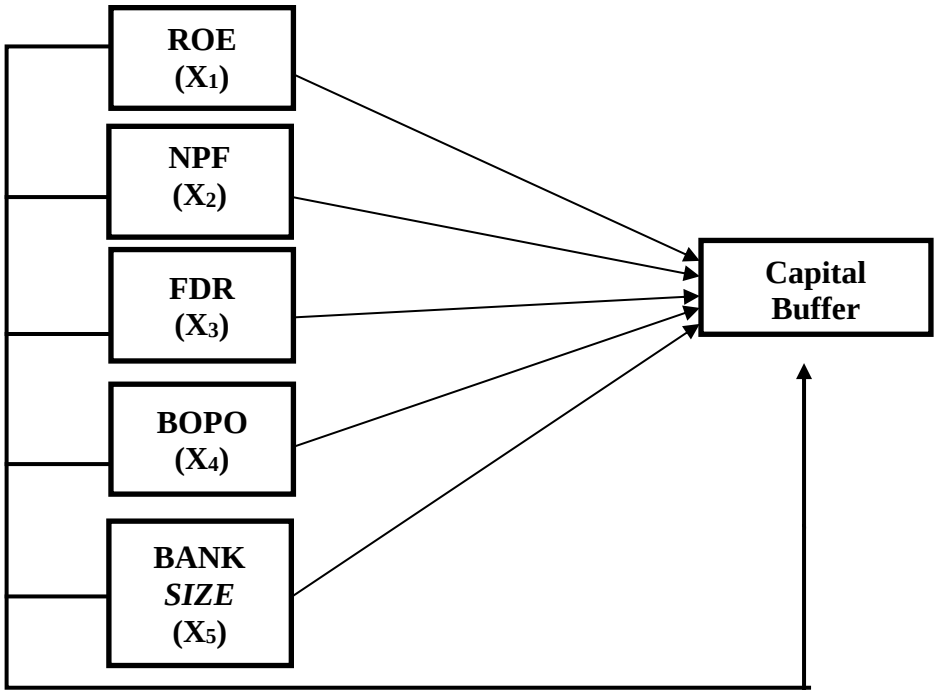
A ratio called BOPO is used to assess how effectively and effectively a bank is able to conduct its operational tasks. An increase in operational costs will have an effect on the particular bank. By using BOPO, bank management will be able to gauge how successfully and efficiently it utilised each of its production elements. The total operating costs increase in direct proportion to BOPO, which tends to lower bank profitability. Problem Financing (KL, D, and M) x 100%, the lower the BOPO NPF Total Funding Provided 28 shows how effectively the bank's operational costs were managed. (Rafelia, 2013)

e. Bank Size

The scale of the business that a company owns determines the size of the bank based on the entire assets or assets of the company.(Siringoringo, 2012) A company's size can be divided into three categories: large corporations, medium-sized firms, and tiny companies. When regarded from the perspective of the size of the company, large organizations tend to demand substantial money as well; this is because large companies tend to own significant amounts of wealth. enormous banking institutions can therefore

access enormous sums of money and hence have a say in how these businesses will finance themselves.

Picture 1



Hipotesis

1. $H0_1$: There is no significant effect of return on equity on the capital buffer in Islamic commercial banks in Indonesia

   Ha_1 : There is a significant effect of return on equity on the capital buffer FDR (X3) ROE (X1) NPF (X2) BOPO (X4) BANK SIZE (X5) Capital Buffer (Y) in Islamic commercial banks in Indonesia
2. $H0_2$: There is no significant effect of financing to deposit ratio on capital buffer on Islamic commercial banks in Indonesia

   Ha_2 : Terdapat pengaruh signifikan financing to deposit ratio terhadap capital buffer
3. $H0_3$: There is no significant effect of non-performing finance on capital buffer on Islamic commercial banks in Indonesia

   Ha_3 : There is a significant influence of non-performing finance on the capital buffer in Islamic commercial banks in Indonesia
4. $H0_4$: There is no significant effect of BOPO on the capital buffer at banks general

sharia in Indonesia

Ha_4 : There is a significant effect of BOPO on the capital buffer at commercial banks sharia in Indonesia

5. $H0_5$: There is no significant effect of bank size on the capital buffer in Islamic commercial banks in Indonesia

   Ha_5 : There is a significant effect of bank size on the capital buffer at the bank general sharia in Indonesia

6. $H0_6$: ROE, FDR, NPF, BOPO, and Bank Size have no effect simultaneously on the capital buffer in Islamic commercial banks in Indonesia

   Ha_6 : ROE, FDR, NPF, BOPO and Bank Size simultaneously affectcapital buffer on Islamic commercial banks in Indonesia

Research Methods

This study's research methodology is a quantitative one. The analytical method used panel data or pool data, which is a combination of time series data and cross section data, because the data in the study were collected from time to time series on multiple cross section objects. Because each unit cross section includes the equal amount of time series observations, the study's data include balanced panel data. (Sulianto, 2011) To ascertain the influence of the independent variables, which are numerically determined using statistical techniques with the aid of the Eviews 10 application, the panel regression test is utilized. In this study, panel data analysis tests (common effects, fixed effects, or random effects) were employed for data analysis.

The population of an object or topic is also more than simply the quantity present; it also refers to all the traits or qualities that the subject or object possesses. In this study, the population of Islamic Commercial Banks registered with OJK, consisting of 14 banks in 2018–2020 and 12 banks where BRIS, BNIS, BSM, Merger becomes BSI in 2021, is referred to as secondary data population. Samples 44 samples from the annual report and the 2018–2021 Islamic Bank Sustainable Financial Performance Report were used in this study.

Research Instrument Test

1. Descriptive statistics

The standard deviation is used to determine how closely the data corresponds to the average given the results of the descriptive statistics test that determines the average value (mean) of the data.

Table 2
Descriptive Statistical Test

	Y	X1	X2	X3	X4	X5
Mean	25.49750	6.870682	1.665682	85.59227	92.03159	30199863
Median	23.31000	3.560000	1.250000	84.65500	89.94500	10888989
Maximum	58.10000	31.20000	4.950000	196.7300	202.7400	2.65E+08
Minimum	12.36000	-31.76000	0.010000	38.33000	58.07000	1660848.
Std. Dev	10.42396	12.08679	1.520531	21.84537	24.80864	54500001
Skewness	1.244005	-0.392427	0.596939	2.811491	2.931171	3.308920
Kurtosis	4.100188	4.870216	2.067489	16.66180	13.50174	13.62878
Jarque-Bera	13.56777	7.541794	4.207355	400.1485	265.1984	287.4058
Probability	0.001132	0.023031	0.122007	0.000000	0.000000	0.000000
Sum	1121.890	302.3100	73.29000	3766.060	4049.390	1.33E+09
Sum Sq. Dev	4672.333	6281.893	99.41668	20520.46	26465.16	1.28E+17
Observation	44	44	44	44	44	44

Source: Data processed with Eviews 10,2022

Following the independent variable descriptive statistical test (X1), it was discovered that the minimal value for ROE was -31.76000, which was discovered in Bank Panin Syariah. The BTPN Syariah bank's ROE cap is 31.20000, in the meantime. The ROE variable's standard deviation is 12.08679. According to this, ROE at Islamic Commercial Banks spans from -31.76% to 31.20%, with an average (Mean) ROE of 6.870682 or 6.87% annually.

Additionally, the independent variable (X2), which is NPF, is obtained with a minimum value of 0.01% discovered in BCA Syariah. Meanwhile, the Bukopin Syariah bank offers the highest value of 4.95%. The NPF variable's standard deviation is 1.520531. The NPF of Islamic Commercial Banks spans from 0.01% to 4.95%, with an average (Mean) NPF of 1.665682, according to this data.

Therefore, at Bank Muamalat, the independent variable (X3)'s FDR has a minimum value of 38.33%. The Bukopin Syariah bank has a maximum value of 196.73%, in the meantime. The FDR variable's standard deviation is 21.84537. The FDR in Islamic Commercial Banks spans from 38.33% to 196.73%, with an average (Mean) FDR of 85.59227, according to this data..

Additionally, the BTPN Syariah has BOPO, an independent variable (X4) with a minimum value of 58.07000. Meanwhile, Bank Panin Dubai Syariah has the highest valuation at 202.7400. The BOPO variable's standard deviation is 24.80864. This demonstrates that the average (Mean) BOPO at Islamic Commercial Banks is 92.03159, with a range of 58.07% to 202.74%.

Bank Victoria Syariah has the lowest value for bank size, which is 1660848, while Bank BSI has the highest value, which is 265,289,081 in 2021. The Bank Size variable's standard deviation is 54500001. This demonstrates that the average (mean) bank size at Islamic commercial banks is 30199863.

The dependent variable (Y), which is the Capital Buffer, has the smallest value at bank Muamalat with a value of 12.36000. While in BTPN Syariah, the maximum value is 58.10000. The capital buffer variable's standard deviation is 10.42396. This demonstrates that Islamic Commercial Banks have capital buffers ranging from 12.36% to 58.10%, with a mean capital buffer of 25.49750.

2. Panel Data Regression Model Selection

The Chow test and the Hausman test are two tests that can be used to help choose between the Common Effect, Fixed Effect, and Random Effect models for panel data regression.

a. Chow Test

Table 3
Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.337145	(10,28)	0.0001
Cross-section Chi-square	52.040056	10	0.0000

Source: Data processed with Eviews 10,2022

According to the Chow test results in Table 3 above, Ha is allowed and H0 is rejected based on the cross-section F profitability of 0.0000, which is less than 0.05. Consequently, the fixed effect estimation model was chosen for the Chow test.

***b. Hausman* Test**

Tabel 4
Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	10.822073	5	0.0550

Source: Data processed with Eviews 10,2022

The profitability of the Cross-section F is 0.0550, which indicates that it is less than 0.05, which means that H0 is rejected and Ha is approved, according to the Hausman test results in Table 4 above. then the fixed effect estimation model is chosen for the Hausman test.

3. Panel Data Regression Analysis

a. Common Effect Model /CEM

Table 5
Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.46917	14.34487	1.705779	0.0962
X1	0.076105	0.278868	0.272907	0.7864
X2	-3.326367	1.123585	-2.960494	0.0053
X3	0.126941	0.066170	1.918407	0.0626

X4	-0.036612	0.124099	-0.295026	0.7696
X5	-4.80E-08	2.55E-08	-1.881222	0.0676

Source: Data processed with Eviews 10,2022

The Common Effect Model panel data regression results indicate that the ROE variable (X1) has a positive but negligible impact on Capital Buffer disclosure, with a Coefficient value of 0.076105 and a prob value of 0.7864 > 0.05. When the Coefficient is larger than -3.326367 and the Probability is greater than 0.00530.05. on the other hand, the variable NPF (X2) has a negative and significant effect on the capital buffer. With a Coefficient value of 0.126941 and a prob value of 0.0626 > 0.05, the FDR variable (X3) is said to have a favorable but inconsequential impact on Capital Buffer disclosure. BOPO is the next variable. The BOPO variable had a positive and minor impact on Capital Buffer disclosure, according to (X4), which generated a Coefficient value of -0.036612 and a prob value of 0.7696 > 0.05. and the final factor is Bank Size. As shown by the fact that (X5) yields a Coefficient value of -4.80E-08 and a prob value of 0.0676 > 0.05, the Bank Size variable is said to have a favorable and minor impact on Capital Buffer disclosure.

The profitability of the Cross-section F is 0.0550, which indicates that it is less than 0.05, which means that H0 is rejected and Ha is approved, according to the Hausman test results in Table 4 above. then the fixed effect estimation model is chosen for the Hausman test.

b. Fixed Effect Model / FEM

Table 6
Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.42357	10.83534	2.992391	0.0057
X1	-0.085710	0.198777	-0.431188	0.6696
X2	-1.574633	0.952372	-1.653379	0.1094
X3	-0.030171	0.052694	-0.572569	0.5715
X4	-0.020384	0.089390	-0.228035	0.8213
X5	2.46E-08	1.10E-08	2.245994	0.0328

Source: Data processed with Eviews 10,2022

The ROE variable (X1) obtains a Coefficient value of -0.085710 and a prob value of 0.6696 > 0.05 in panel data findings using the Fixed Effect Test, indicating that the ROE variable has no significant impact on the Capital Buffer. Although the

Coefficient value of the NPF variable (X2) is -1.574633 and the likelihood value is 0.1094 > 0.05, it is indicated that the NPF variable has no discernible impact on the Capital Buffer. With a Coefficient value of -0.030171 and a prob value of 0.5715 > 0.05 for the FDR variable (X3), it can be concluded that the variable amount of FDR has no discernible impact on the Capital Buffer. It was concluded that the BOPO variable had no discernible impact on the Capital Buffer because it had a Coefficient value of -0.020384 and a prob value of 0.8213 > 0.05. It is said that the Bank Size variable has a considerable impact on the Capital buffer when it gets a Coefficient value of 2.46E-08 with a prob value of 0.0328 0.05.

c. Random Effect) Model / REM

Table 7
Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	34.28598	13.88605	2.469095	0.0182
X1	-0.111553	0.284107	-0.392644	0.6968
X2	-2.575413	1.112076	-2.315860	0.0261
X3	0.023243	0.053930	0.430992	0.6689
X4	-0.057715	0.110658	-0.521561	0.6050
X5	-1.36E-08	2.90E-08	-0.467979	0.6425

Source: Data processed with Eviews 10,2022

The panel data results showed that the ROE variable had a positive and minor impact on the Capital Buffer, with the overall ROE variable (X1) obtaining a Coefficient value of -0.111553 and a prob value of 0.5 > 0.05. The Capital Buffer was said to be negatively and significantly impacted by the NPF variable, despite the fact that the NPF variable (X2) had a Coefficient value of -2.575413 and a prob value of 0.0261 0.05. With a Coefficient value of 0.023243 and a prob value of 0.6689 > 0.05, the FDR variable (X3) is said to have a favorable but negligible impact on the Capital Buffer. It is said that the BOPO variable has a positive and minor impact on the Capital Buffer when it reaches a Coefficient value of -0.057715 and a prob value of 0.6050 > 0.05 (X4). It is said that the Bank Size variable has a positive and minor impact on the Capital Buffer, despite the fact that the last variable, Bank Size (X5), has a Coefficient value of -1.36E-08 and a prob value of 0.6425 > 0.05.

The selected panel data is the Fixed Effect based on the findings of the panel data regression selection procedure with the Chow test and Hausman test, as shown in the table below.

Table 8
Results of Selection of FEM Model Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.42357	10.83534	2.992391	0.0057
X1	-0.085710	0.198777	-0.431188	0.6696
X2	-1.574633	0.952372	-1.653379	0.1094
X3	-0.030171	0.052694	-0.572569	0.5715
X4	-0.020384	0.089390	-0.228035	0.8213
X5	2.46E-08	1.10E-08	2.245994	0.0328

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.871426	Mean dependent var	33.88038
Adjusted R-squared	0.802546	S.D. dependent var	17.42965
S.E. of regression	5.323739	Sum squared resid	793.5816
F-statistic	12.65152	Durbin-Watson stat	1.839775
Prob(F-statistic)	0.000000		

Unweighted Statistics

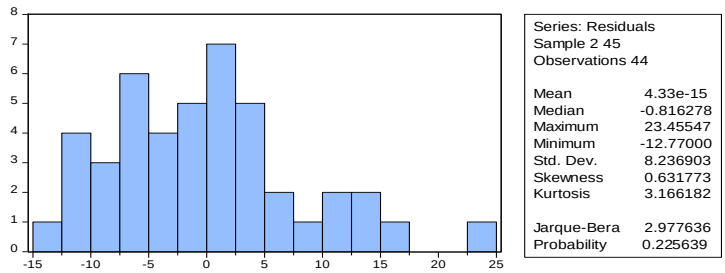
R-squared	0.801543	Mean dependent var	25.49750
Sum squared resid	927.2584	Durbin-Watson stat	1.872774

Source: Data processed with Eviews 10,2022

4. Classic Assumption Test

a. Normality Test

Picture 2



The profitability value is 0.225639, as can be observed from the normalcy test results shown in Figure 7. So, the data on the influence model of ROE, NPF, FDR, BOPO, and Bank Size on Capital buffer on Sharia commercial banks in Indonesia have a normal distribution because the results of the normality test reveal that the Profitability value is > 0.05. Consequently, the presumption of normality is true.

b. Multicollinearity Test

Table 9
Multicollinearity Test

	Y	X1	X2	X3	X4	X5
Y	1.000000	0.350979	-0.456938	0.145321	-0.300934	-0.231257
X1	0.350979	1.000000	-0.562994	-0.192877	-0.895356	0.148022
X2	-0.456938	-0.562994	1.000000	0.310037	0.429285	-0.131041
X3	0.145321	-0.192877	0.310037	1.000000	0.178186	-0.248155
X4	-0.300934	-0.895356	0.429285	0.178186	1.000000	-0.104028
X5	-0.231257	0.148022	-0.131041	-0.248155	-0.104028	1.000000

Source: Data processed with Eviews 10,2022

Table 9 multicollinearity test results show that there are no issues with multicollinearity symptoms because the correlation value between the variables is less than 0.80. In order to satisfy the Multicollinearity assumption, the distribution of data on the influence model of ROE, NPF, FDR, BOPO, and Bank Size on the Capital Buffer at Islamic Commercial Banks in Indonesia.

c. Heteroscedasticity Test

Table 10
Heteroscedasticity Test

Heteroskedasticity Test: White			
F-statistic	1.010924	Prob. F(5,38)	0.4247
Obs*R-squared	5.165606	Prob. Chi-Square(5)	0.3960
Scaled explained SS	4.172996	Prob. Chi-Square(5)	0.5248
R-squared	0.117400	Mean dependent var	66.30460
Adjusted R-squared	0.001269	S.D. dependent var	98.71501
S.E. of regression	98.65238	Akaike info criterion	12.14721
Sum squared resid	369827.1	Schwarz criterion	12.39050
Log likelihood	-261.2385	Hannan-Quinn criter.	12.23743
F-statistic	1.010924	Durbin-Watson stat	1.722115
Prob(F-statistic)	0.424709		

Source: Data processed with Eviews 10.2022

It is clear from Table 10's heteroscedasticity test findings that the data does not exhibit heteroscedasticity issues because the prob.Chi-square value is 0.3960 > 0.05. As a result, the heteroscedasticity test results support this conclusion. In order to satisfy the assumption of heteroscedasticity, the distribution of data on the influence model of ROE, NPF, FDR, BOPO, and Bank Size in Islamic Commercial Banks in Indonesia.

d. Autocorrelation Test

Tabel 11
Hasil Uji Autokorelasi

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.435118	Prob. F(2,35)	0.2518
Obs*R-squared	3.259027	Prob. Chi-Square(2)	0.1960
R-squared	0.075791	Mean dependent var	-2.94E-16
Adjusted R-squared	-0.109050	S.D. dependent var	7.522444
S.E. of regression	7.921996	Akaike info criterion	7.143404
Sum squared resid	2196.531	Schwarz criterion	7.471069
Log likelihood	-145.5832	Hannan-Quinn criter.	7.264237
F-statistic	0.410034	Durbin-Watson stat	2.015957
Prob(F-statistic)	0.889551		

Source: Data processed with Eviews 10.2022

The Prob. Chi-Square is 0.1960 > 0.05, which indicates that the data does not exhibit autocorrelation issues, in accordance with the autocorrelation results shown in Table 11 of the analysis. So that ROE, NPF, FDR, BOPO, and Bank Size on the Capital Buffer at Islamic Commercial Banks in Indonesia are affected by the distribution of panel data under the assumption of autocorrelation..

5. Hypothesis testing

a. Partial Test (t)

Table 12 (t) Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.42357	10.83534	2.992391	0.0057
X1	-0.085710	0.198777	-0.431188	0.6696
X2	-1.574633	0.952372	-1.653379	0.1094
X3	-0.030171	0.052694	-0.572569	0.5715
X4	-0.020384	0.089390	-0.228035	0.8213

X5	2.46E-08	1.10E-08	2.245994	0.0328
R-squared	0.871426			
Adjusted R-squared	0.802546			
Prob(F-statistic)	0.000000			

Source: Data processed with Eviews 10.2022

According to the above t test findings, each t value is calculated, and the t table is 2.016692.

b. Simultan Test (F)

Table 13
Simultan Test

F-statistic	12.65152
Prob(F-statistic)	0.000000

Source: Data processed with Eviews 10.2022

The table from the results of the F test above shows an Fcount value of 12.65152 > Ftable value of 2.432236 and a Prob (F-Statistic) value of 0.000 0.05, indicating that the independent variable Capital Buffer is simultaneously influenced by the variables ROE (X1), NPF (X2), FDR (X3), BOPO (X4), and Bank Size (X5). Consequently, Ha is approved whereas H0 is refused..

c. Determinant Test (R2)

Table 14
Determinant Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.42357	10.83534	2.992391	0.0057
X1	-0.085710	0.198777	-0.431188	0.6696
X2	-1.574633	0.952372	-1.653379	0.1094
X3	-0.030171	0.052694	-0.572569	0.5715
X4	-0.020384	0.089390	-0.228035	0.8213
X5	2.46E-08	1.10E-08	2.245994	0.0328
R-squared	0.871426			
Adjusted R-squared	0.802546			
F-statistic	12.65152			

6. Multiple Linear Regression Analysis

Based on Table 14, the regression equation model of this study is as follows:

Y= 32.4257 − 0.085710(X1) – 1.574633(X2) – 0.030171(X3) -0.020384(X4) + 2.46E-08(X5)

The model interpretation of the equation above is as follows:

1. The constant value of 32.4257 indicates that if the variables X1, X2, and X3, X4, X5 are constant or fixed, it will increase Y by 32.4257%
2. The coefficient value of X1 = -0.085710, this indicates that if ROE increases by 1% it will increase the Capital Buffer disclosure by -0.085710%. conversely, if ROE decreases by 1% it will increase the disclosure of Capital Buffer by -0.085710%
3. The value of the coefficient X2 = -1.574633 indicates that if the NPF increases by 1% it will increase the disclosure of Capital Buffer by -1.574633%. conversely, if the NPF falls by 1% it will increase the disclosure of Capital Buffer by -1.574633%.
4. The value of the coefficient X3 = -0.030171 indicates that if the FDR increases by 1%, the disclosure of capital buffer will decrease by -0.030171%. conversely, if FDR decreases by 1% it will increase the disclosure of Capital Buffer by -0.030171%
5. The coefficient value of X4 = -0.020384 indicates that if BOPO increases by 1% it will increase the Capital Buffer by -0.020384%. conversely, if BOPO falls by 1% it will increase the capital buffer by -0.020384%
6. The coefficient value of X5 = 2.46E-08 indicates that if the Bank Size increases by 1%, it will increase the Capital Buffer by 2.46E-08%. conversely, if FDR falls by 1% it will increase the capital buffer by 2.46E-08%

Discussion

1. The Effect of Return On Equity on the Capital Buffe

A theory that is based on "Pecking Order Theory" The capital buffer is positively correlated with ROE, hence the better the ROE, the larger the capital buffer. However, in Islamic banks, it was discovered that ROE is negative, with a coefficient value of -0.085710 and tcount ttable (-0.431188 2.016692) with a probability of 0.6696 > 0.05, indicating that ROE has no significant effect with a capital buffer. It is believed that a high ROE value causes a decrease in the capital buffer, or alternatively that a low ROE value causes an increase in the capital buffer.

There are a number of elements that contribute to this. The first is a big market opportunity. Second, the development of new goods and services has not been supported by the state of Islamic banking's human resources in terms of technology, quality, and quantity. Third, the financial ratios CAR, ROE, ROA, LDR/FDR, NIM/NOM, and NPL/NPF continue to perform below industry standards. (Komite Nasional Keuangan Syariah, 2019). According to the Pecking Order Theory, which holds that businesses prefer to use retained earnings as additional capital rather than obtaining funding sources from issuing equity, which is significantly more expensive, this is in accordance with the profit made by the company if it is used by Islamic banks to have a high Capital Buffer so that when shocks occur, such as bad financing, it can cover these losses from the buffer capital. This is also consistent with a number of studies that discovered a negative relationship between ROE and the Capital Buffer, including work by Andiani, Gonca Atici & Gurner Gursoy, and Anggitasari.

2. Effect of Non-Performing Financing on Capital Buffer

The indicator that is frequently used to assess the risk of financing is non-performing financing (NPF), as there is no such thing as credit in Islamic institutions. In managing unstable bank financing, NPF demonstrates its capacity to handle Islamic banks. Banks with high NPFs typically operate inefficiently since the presence of a high NPF signals a significant bank risk. Theoretically, Non-Performing Financing (NPF) has a positive impact on the capital buffer, increasing it by a factor of the amount of credit risk that NPF represents. This is true since capital will rise in proportion to risk.

However, based on statistical findings, it was discovered that in Islamic banks, the resulting coefficient value was -1.574633 and the value of t count 0.05. Therefore, it demonstrates that NPF has no discernible impact on the capital buffer. This means that if an Islamic bank has a high capital buffer, the financing risk represented by NPF will be lower there than it would be in an Islamic bank with a lower capital buffer, and vice versa. The capital of the bank will be depleted the greater the NPF ratio. Therefore, the bank's Capital Buffer will be modest as the bank's capital shrinks. The amount of bank capital required to cover these losses will reduce the higher the bank's NPF ratio.

3. Effect of Financing to Deposit Ratio on Capital Buffer

The t test's findings reveal that the final coefficient is -0.030171 and the t count and table values are (-0.572569 2.016692) with a probability of -0.5715 0.05. Capital Buffers are not significantly impacted by the financing to deposit ratio. In other words, the Capital Buffer grows as the FDR ratio drops. The ability of an Islamic bank to repay depositor withdrawals by using the financing offered as a source of liquidity is measured by the FDR ratio. Therefore, the higher this ratio indicates a lesser level of the bank's liquidity capabilities. According to this study's analysis of the impact of the financing-to-deposit ratio on capital buffers, the quantity of financing supplied has grown faster than the amount of money raised, which suggests that the bank's liquidity capability has decreased. Therefore, meeting the public's financing needs through help from third party funds alone is insufficient to have an influence on a bank's capital. The risk that the bank will assume if the consumers are unable to meet their commitments increases with the quantity of financing granted by the bank to clients.

4. Effect of BOPO on the Capital Buffer

A healthy bank has a BOPO ratio of less than 1; in Islamic banks, statistical results show that it produces a coefficient of -0.020384 and a tcount ttable (-0.228035). In theory, BOPO has a negative impact on banks because the smaller the BOPO, the greater the capital buffer; the smaller the BOPO indicates that the more efficient the bank is in carrying out its business activities so that operational costs can be reduced so that bank capital will increase. According to the aforementioned test results, the BOPO

research had no impact on the Capital Buffer. Therefore, the capital buffer is bigger the smaller the BOPO.

Table 2 descriptive statistics results indicate that the average BOPO in Islamic banks is 92.03, which is greater than 1, and is therefore still considered to be inefficient. operational costs and operational revenues are contrasted in BOPO. Sharia can still be used for financial gain, however the average BOPO ratio in Islamic banks is nearly one, or 92.03%, indicating that the bank's profit is maximized. This is consistent with the discussion on ROE, which demonstrates that earnings in Islamic banks are still modest. In Islamic banks, the profit is utilized to boost buffer capital reserves. H4 was so excluded as a result of the partial test findings. According to research by Shintawati, Fajar, and Ahmad, BOPO has a negative impact on the capital buffer because it represents the operational risk of Islamic banks. Efficiency will be able to reduce costs in order to increase bank profits, which will increase bank capital.

5. Effect *Bank* Size on *Capital Buffer*

Large banks should theoretically have a larger capital buffer due to the "Too Big To Fail" theory, but statistical analysis revealed a coefficient of 2.46E-08 and the value of t count > t table (2.245994 > 2.016692) with a probability of 0.0328, 0.05, indicating that the direction of this research has a significant impact. This refers to how buffer capital is impacted by bank size. The findings of this study point in a positive direction: larger banks have smaller capital buffers because they are more willing to take larger risks. However, this finding is not statistically significant because other banks with larger assets also exist.

For instance, Victoria Syariah Bank has a higher overall asset base than Bukopin Syariah Bank, yet the latter has a smaller average capital cushion. Because of this, the buffer capital in Islamic banks is unaffected by the bank's size. The findings of this study concur with those of Andiani's (2017) investigation. The capital buffer is not significantly impacted by the size of the bank..

6. Effect ROE(X1), NPF(X2), FDR(X3), BOPO(X4), *Bank Size(X5)* on *Capital Buffer.*

According to the preceding F-test results, the value of Fcount > Ftable (1.019094 > 2.432236) and the Prob value (F-Statistic) are both 0.00000 0.05 in simultaneous hypothesis testing. These findings demonstrate how the capital buffer is simultaneously impacted by the variables ROE, NPF, FDR, BOPO, and Bank Size. H6 is approved as a result.

The capital buffer is the discrepancy between the Bank's CAR and the central bank's minimum CAR criteria. The capital buffer serves as a buffer against potential risks in the future as well as a function of anticipating the danger of failure that may occur in the future. The high risk nature of the banking sector necessitates that banks monitor the sufficiency of their capital.

The R-Square (R2) value is 80.25%, according to the test findings for the coefficient of determination in the aforementioned table. This demonstrates that 80.25% of the dependent variable (capital buffers) can be explained by the independent variables ROE, NPF, FDR BOPO, and Bank Size. The remaining 19.75%, however, is affected or explained by factors outside the scope of this investigation.

Coclusion

The following conclusions can be drawn from panel data regression analysis of the factors influencing capital buffer in Indonesian Islamic commercial banks:

a. The study's findings also indicate that the variables Return on Equity (ROE), Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), Operating Expenses Against Operating Income (BOPO), and Bank Size have a significant impact on Capital Buffers in Sharia Commercial Banks in Indonesia.
b. The calculated modified R-Square determinant coefficient is 80.25 percent. This demonstrates that ROE, NPF, FDR, BOPO, and Bank Size can explain the Capital buffer, whereas additional variables not examined in this study can explain the remaining 19.75%.

c. Islamic banks are unaffected by the variable Return on Equity in a substantial way. Token Buffer
d. The capital buffer of Islamic banks is not significantly impacted by non-performing finance variables.
e. The Capital Buffer of Islamic banks is not significantly impacted by the Financing to Deposit Ratio variable.
f. There is no discernible impact of variable operating expenses on operating income on Islamic banks' capital buffer.
g. The Capital Buffer is significantly impacted by the Bank Size variable. The Too Big To Fail argument is supported by these findings.

Suggestion

The author can make the following recommendations based on the findings of this study:

a. It is envisaged that Islamic commercial banks will be able to enhance their capital management and capital buffer strategies by calculating the appropriate amount of capital to be retained and paying attention to the elements thatberpengaruh terhadap *capital buffer* agar bank syariah dapat memenuhi perjanjian standar modal internasional.
b. has an impact on the capital buffer, allowing Islamic banks to adhere to global capital adequacy standards..
c. Owners of policies should continue to monitor and assess them in relation to the capital requirements for Islamic banks, as well as the commercial activities carried out by both Islamic and conventional banking.
d. It is believed that future studies will be able to include other factors or broaden relevant analyses as a determining element in thoroughly analyzing the capital buffer that exists in Islamic banks in Indonesia. Additionally, additional study can broaden the time frame and research target by include new research factors including macroeconomic indicators, efficiency, and other financial ratios.

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