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THE SHARIA BANK STABILITY: HOW FINTECH AND FINANCIAL RATIO FIXED IT?

Ailsa Nabila Az Zahra^{1*}, Titis Miranti²⁾

¹²Department of Islamic Banking, State Islamic University of Maulana Malik Ibrahim
 (UIN) Malang, Indonesia

Correspondence Email*: 19540018@student.uin-malang.ac.id

Abstract

This study aims to see whether the stability of Islamic banks is sufficiently dependent on financial technology and several financial ratios. The research was conducted at Islamic banks in Indonesia and Malaysia. To get the research sample used, a purposive sampling technique. The research sample consisted of 14 Islamic banks and was observed from 2017 to 2021. The analytical method uses panel data regression. The research results show. Capital Adequacy Ratio, Non-Performing financing (NPF), Equity-to-Assets Ratio (EAR) and firm size significantly affect bank stability, while financial technology, Assets Turnover, and Cost to Income Ratio (CIR) have no significant effect. Bank stability is one of the determinants of the goodness of state finances, so it needs to be a concern. Banks can increase capital values and firm size, then maintain NPF and EAR values to keep bank financial stability. Even though several other factors are not significant, banks still need to maintain the stability of their value so that the impact does not get worse.

Keywords: *Stability, Financial Technology, Financial Ratios, Sharia Bank; NPF; CAR*

INTRODUCTION

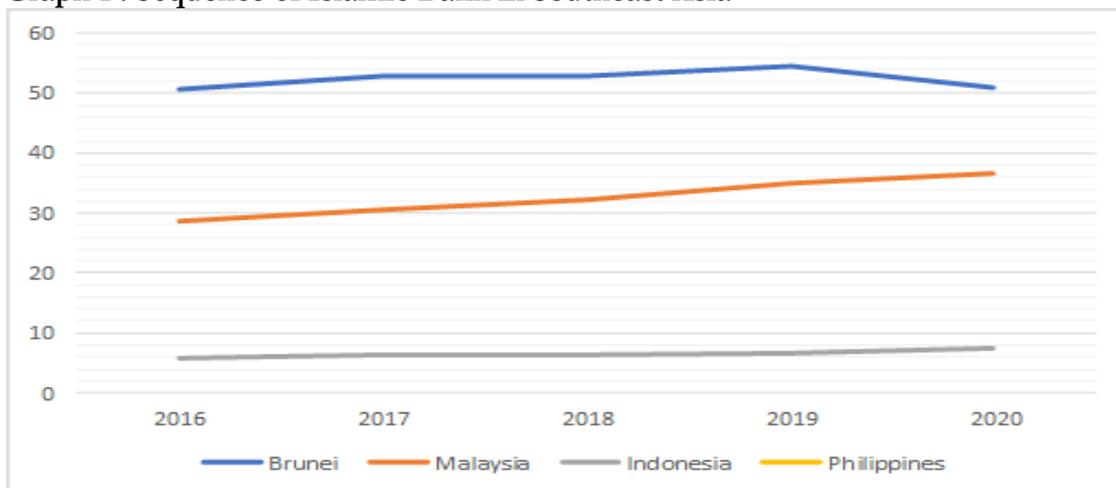
Bank stability is essential in maintaining a country's financial system (Fauzan, 2018; Nizam et al., 2019; Salim et al., 2023). Bank instability can have severe impacts, such as financial crises, economic recessions, and uncertainty for bank customers and shareholders (Gulati et al., 2023; Kabir & Worthington, 2017; Shaddady & Moore, 2019). Therefore, it is essential to understand the factors that affect bank stability and the efforts that can be made to maintain it.

Table 1. The Order of The World's Islamic Banks According to The Number of Assets

Region	Islmic Finance Assets (USD Billion)
GCC	1,499
Other MENA	902
Southeast Asia	754
Europe	119
South Asia	87
Sub – Saharan Africa	8
Americas	3
Other Asia	1

Source: Islamic Finance Development

Table 1 shows that Southeast Asia has the third largest Islamic bank assets in the world after the Gulf Cooperation Council (GCC) and Other MENA (Middle East and North Africa) (Islamic Finance Development, 2021).

Graph 1 . Sequence of Islamic Bank in Southeast Asia

Source: Islamic Finance Outlook 2022 Edition

Graph 1 shows that in Southeast Asia, Indonesia and Malaysia are two of the ASEAN countries whose development of Islamic banking is rapid (Ghozali et al., 2019). The rapid growth of Islamic banks in Indonesia and Malaysia is influenced by the stability of the banks, which are always maintained by these two countries (Ayu Rahma Putri & Rachmawati, 2022; Uddin et al., 2020). So that when an economic shock occurs, such as COVID-19, stability in Islamic banks does not decrease and remains stable (Putri, 2021).

Types of cybercrimes in the banking sector include skimming, malware, and hacking. This crime is detrimental to the bank and customers financial (Dwi Kurniawan & Ratna Indri Hapsari, 2021). Ransomware is a type of malware crime that Bank Syariah Indonesia (BSI) experienced in early May 2023. This crime caused an error in the service system at Bank Syariah Indonesia (BSI), both ATM and m-banking services (Tech, 2023). Then, there is news stating that Bank Syariah Indonesia (BSI) has received threats in the form of leaking customer data on the dark web (Ramadhan Rambe, 2023). It caused customer trust to begin to decline in Bank Syariah Indonesia (BSI) (Sumitro, 2023). The following research (Sari, 2022) states that the occurrence of cybercrime can have a significant positive effect on customer trust in using m-banking. Decreasing customer trust can reduce bank stability (Isma, 2022).

One of the ways for Islamic banks to reduce this level of risk is to start using fintech, or in other words, Islamic banks follow the flow of technological developments. Fintech, one of the newest innovations today, is very helpful and makes it easier for customers to transact online. This follows Islamic Sharia, which always provides convenience to Muslims (Febrianti, 2018).

The development of fintech companies from 2003 to 2018 increased the stability of banks in Malaysia (Safiullah & Paramati, 2022). In the United States, both in the short and long term, the stability and efficiency of banks are affected by digital finance (Syed et al., 2022). Meanwhile, in India, digital finance significantly affects banking stability and efficiency in the long term. However, in the short term, digital finance does not significantly affect banking stability and efficiency (Syed et al., 2022). Digital finance is enabled by fintech (Khera et al., 2021). In Indonesia, in the long term, financial stability (banking and payment systems) is positively influenced by P2P fintech lending and payment (e-money) fintech (OJK, and; Saraswati & Tisnawati, 2021). What is more,

currently, banks are faced with technological developments that lead to increased bank risks in terms of data privacy and reduced market share due to fintech (Rupeika-Apoga & Wendt, 2012; Varma et al., 2022). On the other hand, banks must be able to reduce these risks while increasing capital adequacy and increasing income stability due to increasing regulations every time (Buchak et al., 2018).

Apart from being influenced by fintech, the stability of Islamic banks is also influenced by two things, namely internal factors and external factors (Allegra, 2022; Miranti et al., 2022), where internal factors are measured using Operational efficiency ratio (BOPO), Non-Performing Financing (NPF), and Financing to Deposit Ratio (FDR). While external factors are measured using inflation and Gross Domestic Product (GDP). It is different from (Kurniawati & Indriyani 2022). According to her, bank stability is influenced by three things, namely pressure, intermediation, and efficiency. Pressure is measured using Non-Performing Loans (NPL), Delta (AL-GWM/TA), Capital Adequacy Ratio (CAR), and Return on Assets (ROA). At the same time, intermediation is measured by Credit with Third Party Funds (DPK), GAP Loan to Deposit Ratio, and GAP Credit/GDP. Moreover, efficiency is measured using Net Interest Margin, Operational efficiency ratio (BOPO), Cost to Income Ratio (CIR), and OHC/PO.

According to (Berniz, 2019; Dutta & Saha, 2021; Ririt & Setiawati, 2020; Saraswati & Tisnawati, 2021) states that fintech, assets turnover, Net Interest Margin (NIM), and Capital Adequacy Ratio (CAR) have a positive effect on the stability of Islamic banks. This contradicts research conducted by (Nugroho & Anisa, 2018; Rusdianasari, 2018; Uddin et al., 2020) which states that fintech does not affect bank stability and asset turnover, Net Interest Margin (NIM), Non-Performing Financing (NPF), and Capital Adequacy Ratio (CAR) hurts bank stability.

This study considers fintech, assets turnover, Non-Performing Financing (NPF), Capital Adequacy Ratio (CAR), Equity-to-Assets Ratio (EAR), and firm size as independent variables. However, this research has an update on the fintech variable, the sample being Islamic banks in Indonesia and Malaysia. So significantly, this study has differences in the measurement of fintech with previous studies. This research is expected to be an evaluation material for developing Islamic Banking in Indonesia and Malaysia.

The researcher is interested in conducting in-depth research regarding the influence of Financial Technology and Financial Ratios on Bank Stability. However, this research has an update on fintech variables whose samples had taken from Islamic banks. In addition, this study has an update on the sample taken, namely Islamic Banks in Malaysia. The selection of Islamic banks in Malaysia as a sample because the institutional system mostly the same (Yandi Sirajuddin, 2018). So that the Islamic banks of the two countries can be measured. In addition, this research is also expected to be able to assess the effect of financial technology and financial ratios on the stability of the combined Islamic commercial banks of the two countries. Hopefully, this research can be an evaluation material for developing Islamic banking in Indonesia and Malaysia.

METHODS

Types of Research

This research method is quantitative research. The quantitative method focuses on the results of empirical research data. The data used in this study is secondary data, namely the financial statements of Islamic banks from the research sample.

Population and sample

The population in this study are all Islamic banks in Indonesia and Malaysia. The sampling technique in this study used a purposive sampling method. The criteria used in determining the sample in this study are all Islamic Commercial Banks that operate and have published annual reports and have complete variables according to what will be examined (financial ratios, bank stability, fintech, firm size) from 2017 to 2021. The total of the sample is 14 Islamic banks, namely 7 Islamic banks from Indonesia (PT Bank Muamalat Indonesia, PT Bank Victoria Syariah, PT Bank Mega Syariah, PT Bank Panin Dubai Syariah Tbk, PT Bank KB Bukopin Syariah, PT Bank BCA Syariah, PT Bank BTPN Syariah Tbk.) and 7 sharia banks from Malaysia (Affin Islamic Bank Berhad, Alliance Islamic Bank Berhad, AmBank Islamic Berhad, RHB Islamic Bank Berhad, Standard Chartered Saadiq Berhad, OCBC Al-Amin Bank Berhad, Maybank Islamic Berhad).

Definition of variables

This study utilizes two types of variables: the independent variable and the dependent variable. The dependent variable is bank stability. The independent variables include Financial Technology, Assets Turnover, Cost-to-income ratio (CIR), Capital Adequacy Ratio (CAR), Equity-to-Assets Ratio (EAR), Non-Performing Financing (NPF), and Firm Size. Table 2 shows the variable definitions of this study.

Table 2. Definition of Variable

No	Variable	Definition	Formulas	Source
Dependent Variable				
1.	Bank Stability	Bank stability is banking stability is a picture of bank performance as a whole (Fauzan, 2018) .	$Z\text{-score} = (\text{ROA} + \text{E/A}) / \sigma(\text{ROA})$	(Shabir et al., 2021)
Independent Variable				
2.	Financial Technology (X1)	Financial Technology is an innovation in the financial sector wrapped in modern technology (Ririt & Setiawati, 2020) .	$\text{Fintech} = \text{Ln}(\text{non-interest operating costs})$	(Uddin et al., 2020)
3.	Assets Turnover (X2)	Assets Turnover is a ratio that measures whether all assets owned by a company are operated in support of the sales company (Nurlaela et al., 2019) .	$\text{Assets Turnover} = \text{Sales} / \text{Total Assets}$	(Nurlaela et al., 2019)
4.	Cost-to-income ratio (X3)	The cost-to-income ratio is a ratio for calculating efficiency at banks (Ibrahim & Raharja, 2018) .	$\text{CIR} = [\text{Overhead Cost} / (\text{Net interest income} + \text{non-interest income})] \times 100\%$	(Hafidz & Astuti, 2013)

No	Variable	Definition	Formulas	Source
5.	Capital Adequacy Ratio (X4)	The Capital Adequacy Ratio is the ratio of a bank's capital adequacy or the bank's ability in existing capital to cover possible losses in credit or securities trading (Fauzi et al., 2020) .	$CAR = \frac{Capital}{RWA} \times 100\%$	(Ayuni & Rani, 2020)
6.	Equity-to-assets (X5)	Equity-to-assets is a ratio used to measure the size of capital issued by a company to fund its assets (Candraeni et al., 2013) .	$EAR = \frac{Own\ Capital}{Total\ Assets} \times 100\%$	(Candraeni et al., 2013)
7.	Non-Performing Financing (X6)	Non-Performing Financing is a ratio used to measure whether a company can overcome problem financing (Kuswahariani et al., 2020).	$NPF = \frac{Amount\ of\ Troubled\ Payments}{Total\ Payments} \times 100\%$	(Hasnani, 2022)
8.	Firm Size (X7)	Firm size describes the size of a company that can be measured using total assets, sales or company capital (Ria 2022)	$Firm\ Size = Ln\ natural\ (total\ assets)$	(Widianingsih, 2018)

Data Analysis Techniques

The data analysis technique uses panel data regression. This can reduce the bias of research results. Panel data results from periodic observation of cross-sectional data on the same object (Gujarati, 2003). Thus, panel data combines cross-section and time series (Indrasetyaningsih & Wasik, 2020). This study's panel data regression model is in Equation (1).

$$Y = \alpha + \beta_{1,t}X_{1,t} + \beta_{2,t}X_{2,t} + \dots + \beta_{7,t}X_{7,t} + \varepsilon$$

Information:

Y = Stability Sharia Bank

α = Constant

t = Time

β = Regression Coefficient

X_1	= Financial Technology
X_2	= Assets Turnover
X_3	= Cost-to-Income Ratio (CIR)
X_4	= Capital Adequacy Ratio (CAR)
X_5	= Equity-to-Assets Ratio (EAR)
X_6	= Non-Performing Financing (NPF)
X_7	= Firm Size
ε	= Error

The model goodness-of-fit test is used to determine the best model in this study. There are 3 tests, namely the Chow test, the Hausman test, and the Breusch-pagan test. The results of these tests will determine whether this research uses *the Fixed Effect Model* (FEM), *Common Effect Model* (CEM) or *Random Effect Model* (REM). This study also uses the classical assumption test, including normality, multicollinearity, and homoscedasticity tests. The classic assumption test is carried out to ensure that the regression equation obtained is correct, unbiased and consistent (Meiryani, 2021). Hypothesis testing is used to see the effect of the independent variables on the dependent variable. This study uses the t-test to see the effect of each independent variable on the dependent variable.

RESULTS AND DISCUSSION

Result of This Research

Descriptive statistics

Descriptive analysis aims to provide an overview of the data obtained from the samples that have been selected for research. This study uses data in the form of financial technology, assets turnover, Cost-to-Income Ratio (CIR), Capital Adequacy Ratio (CAR), Equity-to-Assets Ratio (EAR), Non-Performing Financing (NPF), firm size, and bank stability from Islamic commercial banks in Indonesia and Malaysia in 2017-2021, which meet the sample criteria. Table 3 shows the descriptive data showing the mean value, standard deviation value, minimum value, and maximum value for the selected samples:

Table 3. Descriptive of Research Data

Variable	Means	Median	Maximum	Minimum	std. Dev.
Bank Stability (Y)	0.52	0.21	4.65	-3.58	1.008
Fintech (X_1)	11.67	11.53	14.71	9.05	1.33
Assets Turnover (X_2)	0.04	0.009	0.32	0.0001	0.06
CIR (X_3)	2,12	0.57	17,61	0.04	3,12
CAR (X_4)	0.21	0.19	0.58	0.10	0.09
EARs (X_5)	0.13	0.09	0.38	0.03	0.08
NPF (X_6)	1.17	0.03	4.98	0.00	1.67
Firm Size (X_7)	16,61	16,46	18,41	14,27	1.05

Source: Data processed with Eviews 10, 2023

Financial technology

The average value (mean) and standard deviation of the financial technology variable (X_1) are 11.66821% and 1.329531% in succession. It shows that the mean value of financial technology is greater than the standard deviation. It means that the data varies less, but the data can be said to be more accurate than the mean. It can indicate that the

results are quite good and the data deviation on this financial technology can be said to be good.

The maximum value of the financial technology variable (X1) that measure using Ln operating expenses is 14.71. This maximum value had owned by Bank BTPN in December 2020. It was due to an increase in operating expenses of 18%. This increase was due to a loss in the form of impairment of approximately threefold (Nur Alfi, 2021). The minimum value for the financial technology variable (X1) that measure using Ln operating expenses is 9.05. This minimum value had owned by Bank RHB Malaysia in June 2017. The low values of operating expenses were due to the previous year. In the same period, there was a significant decrease of 4.2%. So even though in June 2017 operational costs increased. But the increase was not much, namely 1.9%.

Assets Turnover

The average value (mean) and standard deviation of the assets turnover variable (X2) are 0.040285% and 0.058720% in succession. It shows that the mean value of assets turnover is smaller than the standard deviation. It means that the data varies, but it can be said to be inaccurate with the mean. It can indicate that the results are not good enough. The data deviation on asset turnover can be said to be not good.

The maximum value of the assets turnover variable (X2) was measured using total assets turnover is 0.32. This maximum value had owned by Bank BTPN Syariah in December 2017. The minimum value for the asset turnover variable (X2) is measured using total assets turnover of 0.0001. This minimum value had owned by Bank Affin in December 2018.

Cost-to-Income Ratio

The average value (mean) and standard deviation of the cost-to-income ratio variable (X3) are 2.122232% and 3.116838% in succession. It shows that the mean value at CIR is smaller than the standard deviation. It means that the data varies, but it can be said to be inaccurate with the mean. It can indicate that the results are not good enough. The data deviation at this CIR can be said to be not good.

The maximum value of the CIR variable (X3) was measured using total assets turnover is 17.61. This maximum value had owned by Bank Affin in December 2018. The minimum value for the variable CIR (X3) is measured using total assets turnover of 0.04. This minimum value had owned by Bank Victoria in March 2018.

Capital Adequacy Ratio

The mean value (mean) and standard deviation of the Capital Adequacy Ratio (X4) variable are 0.214610% and 0.086661% in succession. It shows that the mean value of the Capital Adequacy Ratio is greater than the standard deviation. It means that the data varies less, but the data can be said to be more accurate than the mean. It can indicate that the results are quite good. So the data deviation on the Capital Adequacy Ratio can be said to be good.

The maximum value of the CAR variable (X4) was measured using total assets turnover is 0.58. This maximum value had owned by Bank BTPN Syariah in December 2021. The minimum value for the variable CAR (X4) is measured using total assets turnover of 0.10. This minimum value had owned by Bank Muamalat in December 2017.

Equity-to-Assets Ratio

The average value (mean) and standard deviation of equity-to-assets ratio variable (X5) are 0.129958% and 0.078272% in successions. It shows that the mean value of the EAR is greater than the standard deviation. It means that the data varies less, but the data can be said to be more accurate than the mean. It can indicate that the results are quite good. So, the data deviation in this EAR can be said to be good.

The maximum value of the EAR variable (X5) is 0.38. This maximum value had owned by Bank BTPN Syariah in December 2021. The higher the value of the equity-to-assets ratio, the greater the profit for this Sharia bank. Seen on December 2021, BTPN Sharia Bank experienced an increase in profit of 71.35% from the same period in the previous year. It touched Rp 1.46 trillion. The minimum value for the variable EAR (X5) is 0.03. This minimum value had owned by Panin Bank in December 2017.

Non-Performing Financing

The average value (mean) and standard deviation of the variable Non-Performing Financing (X6) are 1.167238% and 1.669614% in succession. It shows that the mean value in Non-Performing Financing is smaller than the standard deviation. It means that the data varies. The data can be said to be inaccurate with the mean. It can indicate that the results are not good enough. The data deviation on Non-Performing Financing can be said to be not good.

The maximum value of the NPF variable (X6) is 4.98. This maximum value had owned by Bank Muamalat in March 2020. In March 2020 or at the start of the Covid-19 outbreak, Bank Muamalat experienced an increase in the NPF account. It's because during the Covid-19 period, lots of customers lost their jobs. Then the condition of Indonesia's economic was decrease. So that many customers are unable to pay off their financing. So it happened financing jams occur which increase the NPF value of Bank Muamalat. The minimum value on the NPF variable (X6) is 0.00. This minimum value had owned by Bank BTPN in June and September 2020. BTPN Sharia Bank managed to achieve the lowest level of NPF in that month because it focused on and optimized financing services for low-income productive underprivileged during the pandemic. By implementing the precautionary principle, Bank BTPN Syariah has succeeded in increasing the value of productive underprivileged financing to Rp 9.1 trillion.

Firm Size

The mean value (mean) and standard deviation of Firm Size (X7) are 16.61459% and 1.047344% in successions. It shows that the mean value of Firm Size is greater than the standard deviation. It means that the data varies less, but the data can be said to be more accurate than the mean. It can indicate that the results are quite good because so the deviation of the data on this Firm Size can be said to be good.

The maximum value for the variable firm size (X7) as measured using total assets turnover is 18.41. This maximum value had owned by Bank RHB Malaysia in December 2021. The minimum value for the variable firm size (X7) as measured uses total assets turnover of 14.27. This minimum value had owned by Bank Muamalat in December 2021.

Stability Bank

The average value (mean) and standard deviation of the bank stability variable (Y) are 0.520750% and 1.008133% in succession. It shows that the mean value of bank stability is smaller than the standard deviation. It means that the data varies. The data can be said to

be inaccurate with the mean. It may indicate that the results are not good enough. The data deviation on the stability of this bank can be said to be unfavorable.

The maximum value of the bank stability variable (Y) is 4.65. This maximum value had owned by Bank BTPN Syariah in March 2020. The minimum value for the bank stability variable (Y) is -3.58. This minimum value had owned by Panin Bank in December 2017.

Regression Model Selection

There are 3 tests conducted for choosing the best model in panel data regression, namely the Chow test, Hausman test, and Lagrange Multiplier test. Chow's test was used to do comparison as well as model selection to be used between *Common Effect Model* (CEM) or *Fixed Effects Model* (FEM). The chow test is determined with see mark chi-square cross-section probability. If mark the probability of chi square is bigger than 0.05 (5%), then the best model is used is *Common Effect Model* (CEM) and continued with the lorange multiplier test. However, if mark the probability of chi square is smaller than 0.05 (5%), then the best model is used is *Fixed Effects Model* (FEM) and continued with the Hausmann test. Based on the test results listed in table 4, show that mark more chi-square cross-section probabilities small of 0.05 (5%). It means the best model used was *Fixed Effects Model* (FEM) and continued with the Hausmann test.

Table 4. The Chow Test

Effect Test	Probability
Chi-square cross-sections	0.0000

Source: Data processed with Eviews 10, 2023

Hausman's test was used to do comparison as well as model selection to be used between *Random Effect Model* (REM) or *Fixed Effects Model* (FEM). Hausmann's test determined with see mark chi-square cross-section probability. If mark the probability of chi square is bigger than 0.05 (5%), then the best model is used is *Random Effect Model* (REM) and continues with the lorange multiplier test. However, if mark the probability of chi square is smaller than 0.05 (5%), then the best model is used is *Fixed Effects Model* (FEM) without must continue to the next test. Based on the test results listed in table 5, show that mark more chi-square cross-section probabilities smaller than 0.05 (5%). This means that the best model used in this research is *Fixed Effects Model* (FEM).

Table 5. The Hausman Test

Test Summary	probability
Random cross-sections	0.0000

Source: Data processed with Eviews 10, 2023

The Classical Assumption Test

On research This assumption normalcy tested use mark Jarque-Bera. If mark Jarque-Bera bigger than α (0.05) then the residual model is normally distributed. Based on from the test results listed in table 6, were obtained mark probability Jarque fallow of 0.212497. it shows that mark probability Jarque-Bera bigger than α (0.05). It means data on research This normally distributed.

Table 6. The Normality Test

Jarque-Bera	3.097651
Probability	0.212497

Source: Data processed with Eviews 10, 2023

Test multicollinearity used to see There is or nope correlation (strong relationship) between independent variables (free or X) on a research. Multicollinearity test determined with see mark from centered VIF. If the value of centered VIF is smaller than 10, then the research data free multicollinearity. Based on the test results listed in table 7, show that Centered VIF values on each independent variable are smaller than 10. It means the data in the research This free multicollinearity.

Table 7. The Multicollinearity Test

Variables	Centered VIF
Fintech (X_1)	1.499289
Assets Turnover (X_2)	1.338430
CIR (X_3)	1.035677
CAR (X_4)	3.035439
EARs (X_5)	2.478963
NPF (X_6)	1.066417
Firm Size (X_7)	1.477599

Source: Data processed with Eviews 10, 2023

Heteroscedasticity test used to know variance inequality of residual one observation to other observations. _ Heteroscedasticity test determined with see mark probability on each variable independent. If mark probability bigger than 0.05, then the research data free heteroscedasticity. Based on the test results listed in table 8, show that mark the probability on each of the independent variables is bigger than 0.05. It means data on research This free heteroscedasticity.

Table 8. The Heteroscedasticity Test

Variable	Probability
Fintech (X_1)	0.2315
Assets Turnover (X_2)	0.3364
CIR (X_3)	0.1989
CAR (X_4)	0.6677
EARs (X_5)	0.2550
NPF (X_6)	0.2550
Firm Size (X_7)	0.8234

Source: Data processed with Eviews 10, 2023

Panel Data Regression Coefficient Estimation and Hypothesis Testing

This study aims to determine the effect of fintech and financial ratios on the stability of Islamic banks in Indonesia and Malaysia. The research results are divided into two parts, namely descriptive data and results of hypothesis testing. There are three models in panel data regression, namely, Common Effect Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM). After processing the data, the best model for this study was obtained, namely the Fixed Effect Model (FEM). Table 9 shows the

coefficient and t-statistic values of the FEM model so that an equation model can be formed in Equation (2).

Table 9. Estimation of Panel Data Regression Coefficient Values

Variable	Coefficient	t-statistic	Probability
Fintech (X ₁)	-0.025763	-0.582589	0.5607
Assets Turnover (X ₂)	-0.518864	-0.619572	0.5361
CIR (X ₃)	-0.004435	-0.249735	0.8030
CAR (X ₄)	-3.496847	-4.044637	0.0001
EARs (X ₅)	6.646133	5.250820	0.0000
NPF (X ₆)	-0.068304	-1.860418	0.0640
Firm Size (X ₇)	0.271741	1.923616	0.0555

Source: Data processed with Eviews 10, 2023

Based on the t-statistic value in Table 9, the results of the research hypothesis test can be seen. The aim is to see that there is a partial influence between the independent variables on the dependent variable. Therefore, the most appropriate test is the t-test or partial test. To see the results of the partial test, the t-statistic value or probability value of the coefficient of each independent variable is needed. Provisions for the t-test: If the t-statistic value is greater than the t-table value or the probability value is less than 0.1 (alpha = 10%), then the independent variable significantly affects the dependent variable. Table 9 is the result of the t-test in this study.

Table 9 shows the coefficient and t-statistic values of the FEM model so that an equation model can be formed in Equation (2).

$$Y = -0,025763X_1 - 0,518864X_2 - 0,004435X_3 - 3,496847X_4 + 6,646133X_5 - 0,068304X_6 + 0,271741X_7 - 3,69674$$

(2)

An explanation of the regression line equation above can be explained as follow:

- The constant (a) is negative, namely -3.696744. It means that if financial technology, assets turnover, CIR, Capital Adequacy Ratio (CAR), EAR, Non-Performing Financing (NPF), and firm size (0) then bank stability has decreased.
- The regression coefficient value of the financial technology variable (X1) is -0.025763. It means that the relationship between financial technology and bank stability has no significant effect.
- The regression coefficient value of the assets turnover variable (X2) is -0.518864. It means that the relationship between asset turnover and bank stability has no significant effect.
- The regression coefficient value of the variable cost-to-income ratio (X3) is -0.004435. It means that the relationship between the cost-to-income ratio and bank stability has no significant effect.
- The regression coefficient value of the Capital Adequacy Ratio (X4) variable is -3.496847, meaning that the Capital Adequacy Ratio has a negative effect on bank stability. So, if Capital Adequacy increases by 3%, bank stability will decrease by 3%.
- The regression coefficient value of the EAR variable (X5) is 6.646133, meaning that compensation has a positive effect on bank stability. So, if EAR increases by 6%, then bank stability also increases by 6%.

- g. The regression coefficient value of the Non-Performing financing variable (X_6) is -0.068304. It means that compensation has a negative effect on bank stability. So, if Non-Performing Financing has increased by 0.068%, then bank stability has decreased by 0.068%.
- h. The regression coefficient value of the firm size variable (X_7) is 0.271741. It means that firm size has a positive effect on bank stability. So, if firm size increases by 0.27%, then bank stability also increases by 0.27%.

Discussion in This Research

The Influence of Financial Technology on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Financial technology (X_1) has a negative and insignificant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, that the coefficient value on financial technology (X_1) is negative. In addition, the probability value is greater than the predetermined alpha value. This means that when financial technology increases, bank stability will experience a not-so-great decline, and vice versa.

Financial Technology at Bank Muamalat in December 2018 has increased. This increase is calculated from the previous month at 0.3%. But at the same time, stability at Bank Muamalat in December 2018 decreased. The decrease if calculated from the previous month was 0.1%. This shows that when financial technology increases, bank stability will experience a not-so-great decline.

Financial technology plays an important role in Islamic banking, because of its proven function to expedite and facilitate customer transaction processes (Ma'ruf, 2021). However, in developing each year, fintech requires enormous funds (Tanjung & Aulia, 2022). This resulted in a decline in financial performance at banks due to a large amount of spending on fintech development costs (Tanjung & Aulia, 2022). Declining financial performance can cause bank stability to also decrease, as is the result of research (Ketaren & Haryanto, 2020) which states that financial performance has a positive effect. So, if the performance decreases, the stability of the bank will also decrease.

The Influence of Assets Turnover on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Assets turnover (X_2) has a negative and insignificant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, that the coefficient value on assets turnover (X_2) is negative. In addition, the probability value is greater than the predetermined alpha value. This means that when Assets Turnover increases, bank stability will experience a not-so-large decline, and vice versa.

Assets turnover at Bank Affin Islamic Berhad in September 2019 has decreased. This was due to the decrease in income earned by Bank Affin Islamic Berhad. While the total assets at that time continued to increase. So that causes a small number of asset turnover. But at the same time, bank stability at Affin Islamic Berhad Bank has increased by 0.005. This reinforces the results of the study that when Assets Turnover increases, bank stability will experience a not-so-great decrease, and vice versa.

Assets Turnover has an important role to determine the efficiency of a company in turning its assets to generate income. Assets turnover and ROA have a parallel function.

However, according to (Farhan, 2020) asset turnover does not have a significant effect on ROA. Meanwhile, ROA has a positive influence on bank stability. This is reinforced by a statement from (Hayyu Nindya Maritsa, 2020) which states that the smaller the ROA value in an Islamic bank, the stability of the Islamic bank will also decrease.

The Effect of Cost to Income Ratio on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

The Cost to Income Ratio (X_3) has a negative and insignificant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the results of the tests that have been carried out, that the coefficient value on the cost-to-income ratio (X_3) is negative. In addition, the probability value is greater than the predetermined alpha value. This means that when the CIR increases, the bank's stability will experience a slight decrease, and vice versa.

The Cost to Income Ratio (CIR) at Bank Affin Islamic Berhad in December 2018 has increased. This increase is calculated from the previous month at 7.61%. However, at the same time, stability at Affin Islamic Berhad Bank in December 2018 decreased. The decrease if calculated from the previous month was 0.07%. This shows that when financial technology increases, bank stability will experience a not-so-great decline.

The cost Income Ratio (CIR) aims to measure the efficiency of a bank. The results of this study are following research conducted by (Uddin et al., 2020) which states that the cost-to-income ratio has no significant effect on bank stability.

The Effect of Capital Adequacy Ratio on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Capital Adequacy Ratio (X_4) has a negative and significant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, that the coefficient value on the Capital Adequacy Ratio (X_4) is negative. In addition, the probability value is smaller than the predetermined alpha value. This means that when the Capital Adequacy Ratio increases, the stability of the bank will experience a large decrease, and vice versa.

According to the theory of profitability, competition, and efficiency as well as the theory of intermediation, the CAR variable has a positive effect on bank stability. However, the results of this study are inversely proportional to the theory (Ketaren & Haryanto, 2020). This could have happened because the CAR value was obtained from the bank's capital divided by RWA. RWA itself contains credit risk in it. The more customers make financing, the bank will get a large profit (Wagiarsita, 2016). However, a large RWA value can reduce the CAR value and conversely the smaller the RWA will increase the CAR value (Joko Setono, 2018).

Following the results of research conducted by (Oliveira & Raposo, 2020), the results of the Capital Adequacy Ratio (CAR) have a significant negative effect on bank stability. This is in line with the results of this study.

The Effect of Equity to Assets Ratio on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Equity to Assets Ratio (X_5) has a positive and significant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, where the coefficient value on the equity to Assets Ratio (X_5) is positive. In addition, the probability value is smaller than the predetermined alpha value. This means

that when financial technology increases, bank stability will experience a huge increase, and vice versa.

EAR is a ratio for measuring equity in maintaining liquidity and operational continuity to avoid bankruptcy for capital owners (Sulisnawati et al., 2022). A good EAR value indicates a good ROA value for Islamic banks as well (Prabowo et al., 2018). the better the ROA value in an Islamic bank, the better the stability of that Islamic bank (Fauzan, 2018).

Sepriani, (2017) in his research stated that the equity-to-assets ratio (EAR) has a significant positive effect on the stability of Islamic banks. This is following the results of research conducted by researchers. Where the Equity-to-Assets Ratio has a significant positive effect on the stability of Islamic banks in Indonesia and Malaysia.

The Influence of Non-Performing Financing on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Non-Performing Financing (X_6) has a negative and significant relationship to the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, that the coefficient value on Non-Performing Financing (X_6) is negative. In addition, the probability value is smaller than the predetermined alpha value. This means that when Non-Performing Financing (NPF) increases, the stability of the bank will experience a large decrease, and vice versa.

Non-Performing Financing (NPF) is a ratio that shows the size of the risk of financing in an Islamic bank (Ahmad Fatoni, 2022). in other words, this ratio describes the ability of customers to meet their financing obligations. An increase in NPF can lead to a decrease in bank profits. If profits at the bank continuously decrease, the stability of the bank will be disrupted and decrease (Hasnani, 2022).

According to (Nabhan & Nugraheni, 2022) in his journal stated that non-performing financing (NPF) has a significant negative effect on bank stability. Likewise, research conducted by (Hasnani, 2022), states that non-performing financing (NPF) has a significant negative effect on bank stability.

The Effect of Firm Size on the Stability of Islamic Commercial Banks in Indonesia and Malaysia

Firm Size (X_7) has a positive and significant relationship with the stability of Islamic banks in Indonesia and Malaysia. It can be seen from the test results that have been carried out, that the coefficient value on Firm Size (X_7) is positive. In addition, the probability value is smaller than the predetermined alpha value. This means that when the firm size increases, the stability of the bank will increase greatly, and vice versa.

Firm size in Islamic banks is a measure of the wealth of Islamic banks which can be seen through the assets they own (Ido, 2016). The larger the size of a bank, the bank can be said to be more able to survive when a crisis occurs and can control existing risks, and vice versa (Tri, 2017). In addition, the larger the size of a bank, the more influential it is on its stability. This can increase the confidence of bank fund providers and banks will also increase towards larger financial markets (Harun et al., 2015).

(Tri, 2017) in his research stated that firm size as measured using return on assets (ROA) has a positive effect on bank stability. The firm size will have a positive effect if it creates economies of scale. So that the bank will be more efficient and stable (Yudaruddin, 2018).

CONCLUSION

Financial technology, Assets Turnover, and Cost-to-Income Ratio have no significant effect on the stability of Islamic banks in Indonesia and Malaysia. Capital Adequacy Ratio (CAR) and Non-Performing Financing (NPF) have a significant negative effect on the stability of Islamic banks in Indonesia and Malaysia. Equity-to-Assets Ratio (EAR) and Firm Size have a significant positive effect on the stability of Islamic banks in Indonesia and Malaysia. This research has many weaknesses. Because there are limitations experienced by the author. Among them, that is lack of information regarding Islamic banks in Malaysia. Due to lack of access support. Suggestions from researchers to future researchers, that is being able to conduct research with other variables that are unique and rarely studied. In addition, future researchers can also conduct the same research, but with more updated data from this study and a larger sample.

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