

THE EFFECT OF INCOME DIVERSIFICATION AND PROFITABILITY ON THE FINANCIAL STABILITY OF BANKS IN INDONESIA FOR THE PERIOD 2019-2023

¹Lissa Febriana,²Muhammad Iqbal Pribadi,³Rahman Anshari

^{1,2,3}Management, Faculty of Economics, Business and Politics, Universitas Muhammadiyah Kalimantan Timur, Samarinda, Indonesia

Author's email:

¹2011102431337@umkt.ac.id; ²mip733@umkt.ac.id; ³ra940@umkt.ac.id

Corresponding author: 20111024313372@umkt.ac.id

Abstract. *This study aims to analyze the effect of Revenue Diversification and Profitability on Bank Financial Stability using panel data from Conventional Banks listed on the Indonesia Stock Exchange and Regional Development Banks listed on ASBANDA. The sample collection technique used in this study is Purposive Sampling. Based on the sampling collection technique that has been determined, the amount of data is 235 data that has been transformed and outliers with the observation period 2019-2023 to eliminate extreme data to qualify for the normality test. The data analysis technique used is Panel Data Regression Analysis. In this study, Revenue Diversification is measured using Fee-Based Income (FBI), Profitability is measured using Return On Assets (ROA) and Bank Financial Stability is measured using (ZScore). The results of the study showed that Income Diversification has a negative and significant effect on Bank Financial Stability, while Profitability has a positive and significant effect on Bank Financial Stability.*

Keywords: *Bank Financial Stability, Income Diversification, Profitability.*

1. INTRODUCTION

Banking is an economic variable of a country that cannot be eliminated by monetary-based economic circumstances through policies that affect the country's exchange rate. The use of banks, both conventional and sharia, as a means of collecting and distributing funds to the public can increase national financial stability (Ningsih & Mahfudz, 2020). The banking sector is an important pillar of the Indonesian economy that plays a role in maintaining economic stability and growth. Based on Banking Law No. 10 of 1998, banks collect and distribute funds to improve the welfare of the community. The application of economic principles in this sector has a significant impact on all aspects of the Indonesian economy and finance (Pertiwi & Suhartini, 2022). Banking plays an important role in maintaining financial stability and promoting economic growth and poverty alleviation. Bank financial stability means a bank's ability to operate normally and profitably, despite unstable economic or financial conditions (Bokiu et al., 2023).

Bank stability is critical to maintaining public confidence and preventing a financial crisis. During the Covid-19 pandemic, economic sectors, including UMKM, were significantly affected, hampering credit expansion and threatening financial sector stability. The Covid-19 pandemic caused credit, which is the backbone of banks, to potentially grow, but the economy deteriorated. Many businesses failed, non-performing loans increased, and people had difficulty paying loans at banks including in Indonesia, so banks and companies had to reassess their assets, in order to improve financial stability (Paltrinieri et al., 2021). Due to the COVID-19 pandemic, online accounts have increased. The strategy carried out by the banking industry due to the COVID-19 pandemic is to implement security for existing loans. How to maintain the credit in question so that it remains current and does not recognize any debt due to delinquency to the debtor (Santoso et al., 2023). The rapid growth of technology-based non-bank

money exchange organizations challenges the banking sector in Indonesia to be more innovative and efficient. Banks need to find alternative sources of income and place more liquidity in risk-free assets to maintain financial stability. This step was taken to address the contraction in credit growth and prevent a decline in profitability due to increased credit risk during the COVID-19 pandemic (Bank Indonesia, 2023). The following is data regarding the value of assets in 2018-2022 according to (Badan Pusat Statistik, 2024).

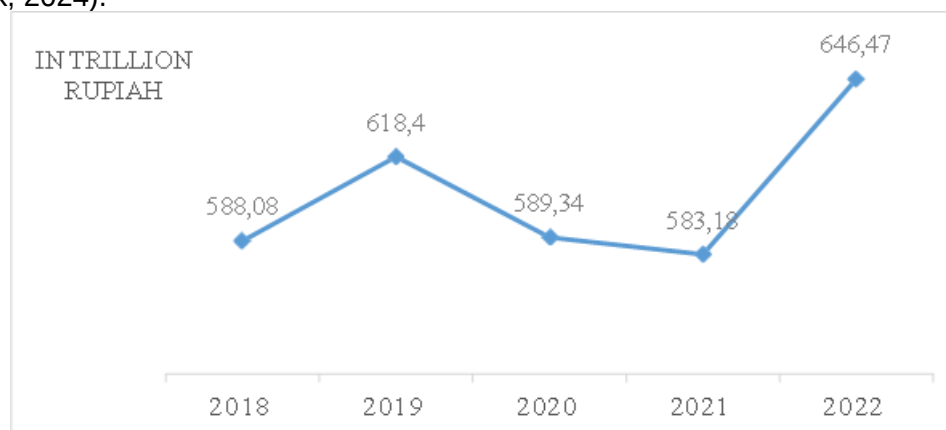


Figure 1 Value of Banking Financing Assets 2018-2022

In Figure 1, it shows that during the period 2018-2022, the value of banking financing assets has decreased and increased every year. In 2019 the value of financing assets increased and decreased in 2020-2021. Experiencing a drastic increase in 2022, the value of banking financing assets shows that the value of financial assets has made significant progress and is getting better. Banking assets are largely derived from debt. Since the business capital of banks is based on collecting funds from the public through deposits such as deposits, savings, and current accounts, deposits and loans received by banks are considered liabilities, while loans granted by banks to customers are considered assets. In other words, liabilities are funds raised from the public will be the main source of working capital for banks, which will then be invested in the form of loans or other assets to generate profits. In return, banks earn income from loan interest that exceeds the interest paid on deposits, so debt is the basis of most banking assets (Laily et al., 2022). This financial stability includes the bank's ability to meet short-term and long-term obligations, maintain healthy capital, and manage risks well, including credit, liquidity, and market risks. Financial stability is very important for banking companies, as it affects various aspects of bank operations and performance.

Factors that affect the financial stability of banks include the ability to manage risks, such as minimizing the risk of loan defaults and meeting payment obligations. During the COVID-19 pandemic, companies that have good profitability are better able to survive the crisis, invest in operational adjustments, attract investors, and manage debt well. Stable profitability also increases consumer and business partner confidence, making the company more stable and sustainable amidst uncertainty (Ningsih & Mahfudz, 2020). As such, financial stability serves as the foundation that sustains sustainability, growth, and confidence in banking operations. (Ketaren & Haryanto, 2020).

The goal of financial stability is to ensure that banks remain solvent and not vulnerable to economic shocks that could trigger systemic failures. Apart from stabilizing the economy, financial stability also aims to improve people's living standards through financial institutions such as banks (Setiyono et al., 2019). The purpose of writing for this research is to find out the effect of income diversification and profitability on bank financial stability in Conventional Commercial Bank companies and Regional Development Banks. The importance of this research is to determine the effect of income diversification and profitability on bank financial stability.

2. LITERATURE REVIEW

2.1 *The Effect of Income Diversification on Bank Financial Stability*

Income diversification is a very important bank strategy to overcome declining income. Income diversification in the context of banking refers to a bank's efforts to obtain new sources of income other than interest, such as service fees, commissions, and profits from deposit payments (Setiawan & Shabrina, 2018). Income diversification can significantly improve bank stability as it reduces the risks associated with income fluctuations. By having income sources derived from various businesses or products, banks can increase the potential income that may occur in one location by performing better than average in other locations. This reduces the likelihood of large-scale fluctuations that could undermine the financial stability of the bank (Adem, 2023). In this concept, the related theory is portfolio theory. According to (Alghifari et al., 2023) portfolio theory is a mathematical theory that improves investment decisions by balancing potential profits with potential risks.

Studies conducted by (Kim et al., 2020; Sarpong & idun, 2024; Shahriar et al., 2023) show that income diversification has a positive impact on bank stability. In other words, when banks have more deposit accounts, they are better equipped to manage risk and maintain the financial stability of the bank.

2.2 *The Effect of Profitability on Bank Financial Stability*

According to (Jiang et al., 2023) Profitability is a measure of a company's ability to balance its operations with sales, activities, and cash flow. Profitability itself is usually correlated with a bank's ability to manage liabilities associated with transactions, sales, or total activity (Mehzabin et al., 2023). It is also important to look at the relationship between bank profitability and stability as the Indonesian banking sector has a relatively low employee turnover rate. This concept is related to signaling theory, signaling theory is to provide insight into company performance as a basis for investment decisions.

According to several studies, profitability can have a positive and significant impact on bank financial stability (Bokiu et al., 2023; Le, 2020; Supiyadi, 2021). High profitability will have a positive impact on the ability of the business to continue operations as it will increase investor confidence and business income (Nisar et al., 2018).

3. RESEARCH METHODS

3.1 *Type of research*

According to (Jiang et al., 2023) Profitability is a measure of a company's ability to balance its operations with sales, activities, and cash flow. Profitability itself is usually correlated with a bank's ability to manage liabilities associated with transactions, sales, or total activity (Mehzabin et al., 2023). It is also important to look at the relationship between bank profitability and stability as the Indonesian banking sector has a relatively low employee turnover rate. This concept is related to signaling theory, signaling theory is to provide insight into company performance as a basis for investment decisions.

3.2 *Population and Sampling*

The sample determination was carried out using the Purposive Sampling method, which is a sampling technique with certain considerations, criteria, or characteristics (Sugiyono, 2021).

Table 3.1 Research Sample Screening with Purposive Sampling technique

Criteria	Total
----------	-------

Commercial Bank Companies Listed on the BEI	25
Regional Development Bank Companies Listed in Asbanda	22
Commercial Bank and Regional Development Bank Companies that Present Financial Statements Consecutively During 2019-2023	47
Sample Quantity	47 x 5 (Tahun) = 235

3.3 Population and Sampling

3.3.1 Bank Financial Stability

The dependent variable used in this study is bank financial stability. According to (Awliya, 2022) explains that maintaining financial system stability is an activity carried out by analyzing the factors that cause financial sector instability. To measure the level of financial stability of banks can use the Z-score value (Ali & Puah, 2019; Polizzi et al., 2020). In this study Z-score is used as an indicator of financial stability. Based on research (Audi et al., 2021; Mkadmi et al., 2021) Z-score can be calculated using the following formula:

$$Z - score = \frac{ROA + \frac{Eq}{TA}}{\sigma ROA}$$

Description:

Z-Score = Bank Financial Stability Index

ROA = Return on Asset

Eq = Total Equity or Bank Capital

TA = Total Assets of the Bank

σROA = Standard Deviation of Return on Asset

3.3.2 Bank Financial Stability

Sugiyono (2019) explains that independent variables have an influence on the dependent variable, which in this study, the first independent variable is Income Diversification. Income Diversification is a method for measuring the various amounts of income received by the bank. To measure the level of income diversification, banks can use the Fee-Based Income (FBI) Ratio. The formula used according to (Astuti & Utami, 2022) is:

$$Rasio FBI = \frac{Fee Based Income}{Total Pendapatan Operasional}$$

3.3.3 Profitability

It is explained that Return on Asset (ROA) is a ratio that describes the amount of assets invested in the business. Furthermore, ROA illustrates the higher profitability of the company as it highlights the effectiveness of management in implementing strategies to increase revenue. Return on assets (ROA) is one of the profitability ratios applied with the aim of limiting the ability of a business to use its assets to make a profit, (Awliya, 2022). According to (Rohmansyah et al., 2022) the calculation model used is:

$$ROA = \frac{\frac{Laba Bersih Setelah Pajak}{Total Asset}}{\times 100\%}$$

3.4 Data collection and data analysis techniques

In this study, the data collection method used is documentation, where information is obtained from various documents or sources available with supporting documentation (Kusumadewi et al., 2024). Descriptive statistics refer to the process of transforming research data into a format that is easier to understand and analyze. Data collection, processing, and analysis are presented in the form of tables and graphs. Researchers use descriptive statistics to identify correlations between research variables and to adjust the variables in question (Wahyuni, 2020).

3.5 Panel Data Regression Analysis

This study uses panel data regression analysis as a data analysis method. Panel data uses time-series data (observations made over several time periods) with cross-sectional data (observations made at the same time) (Baltagi, 2021). The panel data regression method allows researchers to model the relationship between variables more thoroughly by utilizing data from several units and time periods (Fatoni & Sidiq, 2019). For the general panel data regression used in this study, the parameters are as follows:

$$Y = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it}$$

Description:

Y = Financial Stability

β_0 = Constant

β_1, β_2 = Independent Variable Regression Coefficient X_1 = Income Diversification

X_2 = Profitability

i = Company

t = Time

ε = Error

In panel data regression, there are three methods or models to estimate panel data parameters. Here are the three models:

3.5.1 Common Effect (CEM) or Pooled Least Square (PLS)

This model indicates that each unit in the panel has the same fixed effects, which means that there are no differences in fixed effects between units in the analysis. According to (Basuki & Prawoto, 2019).

3.5.2 Fixed Effect Model (FEM)

This model suggests that differences between units or individuals in the data can be explained by an intercept that is unique to each unit of observation. The Least Squares Dummy Variable (LSDV) technique is used to calculate this variable, which allows the slope of the independent variable to be exactly one unit, even though the intercept is different within the panel data unit (Baltagi, 2021).

3.5.3 Random Effect Model (REM)

According to (Hidayah & Mardiningsih, 2023) The regression technique, also known as the REM method, uses the Generalized Least Squares (GLS) method to minimize model error. Opinion (Das, 2019) the tools used to select the three models are: (i) Chow Test, Chow Test is a statistical technique used to determine which of the two models Fixed Effect Model and Common Effect Model is more accurate. (ii) Hausman Test, can be defined as a statistical test used to determine which of the two models, namely the Fixed Effect Model and the Random Effect Model, is the most accurate.

3.6 Classical Assumption Test

Must be considered in multiple regression analysis to reduce data quality is the assumption test (Rajagukguk et al., 2019). Although the classical assumption test is an important step in linear regression with the OLS method, not all classical test results are required in panel regression. Heteroscedasticity, multicollinearity and autocorrelation tests are generally relevant and necessary in panel data analysis.

3.6.1 The Heteroscedasticity Test

Is used to determine whether in a regression model there are differences between observations in a regression model. This test can be done through the Glejser Test, which represents the absolute value of the residuals against the independent variable (Ghozali, 2018a). (i) If the probability value > 0.05 , then H1 is rejected and H0 is accepted, which means there is no heteroscedasticity problem. (ii) If the probability value < 0.05 , then H0 is rejected and H1 is accepted, which means there is a heteroscedasticity problem.

3.6.2 Multicollinearity Regression

Analysis is performed to determine whether there is a significant correlation between the independent variables in a regression model. To detect the presence of multicollinearity between independent variables, it can be seen in the correlation table with a significance level of 90% or 0.90. The decision-making criteria in the multicollinearity test are as follows (Ghozali, 2018b): (i) If the coefficient of determination of individual variables > 0.90 , then multicollinearity occurs. (ii) If the correlation coefficient for each variable < 0.90 , then there is no multicollinearity.

3.6.3 Autocorrelation Test

is to determine whether there is a correlation between regression model errors in different time periods. Autocorrelation indicates that observations are inaccurate and closely related, with the aim of ensuring accurate parameter estimation and proper interpretation of results (Ghozali, 2018b). One method to detect autocorrelation is to use the Durbin-Watson test (DW test) with the following criteria (Santoso, 2015): (i) If the DW value is below -2, it means there is positive autocorrelation. (ii) If the DW value is above +2, it means there is negative autocorrelation. (iii) If the DW value is between -2 to +2, it means there is no autocorrelation.

3.7 Hypothesis Test

3.7.1 T Test

Is used to calculate the hypothesis. It is used to provide an overview of the previous hypotheses. Each independent variable in the multiple regression model and panel data regression model is evaluated using the t-test to determine its significance and whether it has a significant effect on the dependent variable. The t test is carried out with the aim of knowing how one independent variable (free) affects one dependent variable (bound) partially (individually) (Alfika & Azizah, 2020). The t test is carried out by comparing the calculated t value with the t table or by looking at the probability value.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Data statistics are used to recognize information from the mean (average), standard deviation, maximum and minimum values. The following table shows the results of descriptive statistical analysis of research:

Table 4. 1 Descriptive Statistics

	N	Minimum	Maksimum	Mean	Std. Deviasi
Zscore	235	0,44	203,55	50,1	42,47
DP	235	-0,36	1,64	0,24	0,26
ROA	235	-0,15	0,6	0,01	0,04

The table shows the minimum, mean and standard deviation values of the related variable, namely Financial stability (Y), as well as the independent variables, namely Income diversification (X1) and Profitability (X2), with the following explanation:

1. Bank Financial Stability (Y)

Based on descriptive statistical testing, it shows that the lowest value on the Financial Stability variable, which is 0,44, is found in Bank Artha Graha Internasional in 2020. The highest value of 203,55 is found in Bank Kaltimara in 2023. The average value is 50.10 and the standard deviation value is 42,47.

2. Income Diversification (X1)

Based on descriptive statistical testing, it shows that the lowest value on the Income Diversification variable, amounting to -0,36, is found in Bank Lampung in 2021. The highest value, namely 1,64 is found in Bank Jateng in 2021. The average value is 0,24 and the standard deviation value is 0,26.

3. Profitability (X2)

Based on descriptive statistical testing, the lowest value in the Profitability variable, which is -0,15 is found in Bank Jago Tbk in 2019. The highest value is 0,6 found in Bank Artha Graha in 2023. The average value is 0,01 and the standard deviation value is 0,04.

4.2 Panel Data Regression

In this study, the panel data regression method is used to examine the relationship between the independent and dependent variables. There are three methods or models to adjust panel data parameters in panel regression analysis. The models include the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) (Das, 2019).

Fixed Effect (F) must be tested for significance. The alternative hypothesis states that using the CEM model is more effective than using the Fixed Effect model, while the null hypothesis states that using the Common Effect model is more effective (Hutagalung & Darnius, 2022). Model (CEM) than Fixed Effect. If the probability value is smaller than α (0.05), the null hypothesis is rejected and the alternative hypothesis is accepted.

The purpose of the Chow test is to reject H_0 which states that the model does not perform POLS (insignificant), and H_a which states that the model performs FEM.

Table 4.2 Chow Test Identification of common effect or fixed effect

F (46,186)	80,81
Prob > f	0,0000

The Fixed Effect Model (FEM) and Random Effect Model (REM) were selected using the Hausman method. After determining that the fixed effect model is superior to the common effect model, it is then compared to the random effect model. Then the calculation is carried out using the Hausman method as follows.

Table 4.3 Hausman Test Result

Chi2 (2)	= $(b-B)'[(V_b - V_B)^{-1}](b-B)$
	= 0,69
Prob > chi2	= 0,7085

Based on the results from Stata, the value of the Hausman test for profitability is $0.69 > 0.05$, indicating that the selected model is the Random Effect Model (REM).

Based on the results of the Hausman test output using Stata, it can be seen that the p-value is greater than 0.05, which is 0.7089. Thus in this study it is better to use the Random Effect Method compared to the Fixed Effect Method.

4.3 Classical Assumption Test

Classical assumptions are used to determine the type of analysis used in panel data

regression. These assumptions include heteroscedasticity, multicollinearity, and autocorrelation. The following are the results related to these:

1. Heteroscedasticity Test

Is referred to as heteroscedasticity when the two variables vary and homoscedasticity when the two variables remain constant. Thus, if the experimental result is more than 0.05 then there is no heteroscedasticity.

Table 4.4 Heteroskedastisitas Test Result

Chi2 (1)	= 2,82
Prob > chi2	= 0,0934

According to the table above, it is known that the probability value is 0.09 (greater than 0.05), so it can be said that there is no heteroscedasticity.

2. Multicollinearity Test

The investigation is conducted by determining the correlation between the independent variables. If the correlation coefficient between two independent variables is equal to or more than 0.8, then this indicates the presence of multicollinearity in the data.

Table 4.5 Heteroskedastisitas Test Result

Variable	VIF	1/VIF
DP	1,00	0,997899
ROA	1,00	0,997899
Mean VIF	1,00	

From the table above, there is a VIF value of the DP variable of $1.00 < 10$ and a $1/VIF$ value of $0.997899 > 0.10$, and a VIF value of the ROA variable of $1.00 < 10$ and a $1/VIF$ value of $0.997899 > 0.10$, it can be concluded that there are no symptoms of multicollinearity (passing the multicollinearity test).

3. Autocorrelation Test

Autocorrelation can be done using the residual data runtest method. If the test probability is smaller than 0.05, it indicates an autocorrelation problem.

Table 4.6 Autocorrelation Test Results

Obs	= 235
N (runs)	= 22
Z	= -12,62
Prob > Z	= 0

Based on the residual data runtest results $\text{prob} > |z| = 0$, the data results are found to have the presence of autocorrelation problems.

4.4 Hypothesis Test

Using the z-test, hypotheses can be tested to validate previous hypotheses. To overcome autocorrelation in the data, robust estimation is used. It can be seen in the standard error, whether there is a change in the previous or not (Porter et al., 2009).

In the classical assumption test, it is known that the panel data in this study is indicated to have symptoms of autocorrelation and heteroscedasticity. Meanwhile, if there are symptoms of autocorrelation (serial correlation) and heteroscedasticity in the data, the generalized least square method must be used to overcome these symptoms. The results of the analysis using the generalized least square method obtained the following results. (i) Hypothesis 1 test results can be observed in table 3.7, the

Diversification of Income (DP) variable has a sig level of 0.007 smaller than 0.05 ($0.007 < 0.05$) and has a Z-count value of -2.71. This explains that there is a negative and significant effect of income diversification proxied by (DP) on the Bank's Financial Stability, so hypothesis 1 is rejected. (ii) Hypothesis 2 test results can be observed in table 3.6, the Profitability (ROA) variable has a significance level of 0.001 less than 0.05 ($0.001 < 0.05$) and has a Z-count value of 3.37. This provides an explanation that there is a positive and significant effect of Profitability proxied by (ROA) on Bank Financial Stability, so hypothesis 2 is accepted.

4.5 Discussion

4.5.1 The Effect of Income Diversification on Bank Financial Stability

Based on the results of data analysis, the results showed that income diversification has a negative and significant impact on bank financial stability. This indicates that an increase in income diversification will reduce the financial stability of the bank, these results indicate that H1 is rejected. According to (Paltrinieri et al., 2021) Revenue diversification, or a bank's ability to increase revenue from new sectors or services, can increase risk if not managed properly. When a bank enters a sector outside of its core competencies, this can lead to inefficient management, increased operational costs, and difficulties in decision making. Inadequate diversification may cause a bank to lose focus on its core business, resulting in lower productivity and less efficient management. Income diversification does not necessarily improve bank performance or stability. The results of this study are not in accordance with the author's initial hypothesis, in line with studies conducted by (Abuzayed et al., 2018; Alkhouri & Arouri, 2019; Edirisuriya et al., 2019; Paltrinieri et al., 2021) which state that income diversification has a negative effect on Bank Financial Stability.

With such results, it can be analyzed that revenue diversification does not always guarantee improved performance or better financial stability. However, if revenue diversification is too aggressive, it can make banks lose focus on their core expertise and result in unstable revenues and increase the risk of loss.

4.5.2 The Effect of Profitability on Bank Financial Stability

The results of this study indicate that Profitability has a positive and significant effect on bank financial stability. This indicates that an increase in Profitability can increase the Bank's Financial Stability, these results indicate that H2 is accepted. These findings indicate that profitability reflects the bank's ability to generate profits from its operational activities. When profitability is high, the bank has more profits than expenses, which serves as an important financial cushion to deal with risks such as bad debts or market fluctuations. These profits can strengthen the bank's capital, as some can be held in reserve to increase financial resilience. Therefore, banks with high profitability generally have better financial stability. The results of this study are in line with research conducted by (Bokiu et al., 2023; Le, 2020; Supiyadi, 2021). Which interpreted a significant positive correlation between the Profitability ratio (ROA) and Financial Stability. Based on the research results, high profitability will have a positive impact on the ability of the business to continue operating as it will increase investor confidence and business profits. Good profitability also indicates operational efficiency which supports the bank's ability to manage risk better. In addition, a high ROA can increase investor and customer confidence, which is important for maintaining fund inflows and financial stability. With a strong foundation, banks are more resilient in the face of market conditions.

CONCLUSION

This study aims to investigate the impact of income diversification and profitability on the financial stability of banks in Indonesia. Based on the previous analysis, the following conclusions can be drawn.

The test results show that income diversification has a negative and significant effect

on bank financial stability. This means that the higher the income diversification, the lower the financial stability of the bank. This may be due to the greater risk of non-interest income or the complexity of management as well as the Covid 19 pandemic in that year resulting in low transaction activity. Banks also need to be careful in diversification to maintain their financial stability.

The test results show that profitability has a positive and significant effect on bank financial stability. This means that the higher the level of profitability, the bank's financial stability tends to increase. This suggests that good profitability can improve the bank's financial position, increase capacity in risk management, and reduce operational risk. Profitability allows companies to develop better risk management systems to deal with economic fluctuations. With stable profitability, a company can also increase the confidence of shareholders, investors and customers, thereby strengthening its overall reputation and financial stability. It should be emphasized that the conclusion is not a summary but the results of research that describe the opinion or analysis of the author/researcher. Generally, the conclusion is written in a paragraph, without using serial numbers or citations. However, each journal or proceeding has its own writing rules, so the author must comply with the writing guidelines.

REFERENCES

- Abuzayed, B., Fayoumi, N., & Molyneux, P. (2018). Diversification and bank stability in the GCC. *Journal of International Financial Markets, Institutions and Money*, 57, 17–43. <https://doi.org/https://doi.org/10.1016/j.intfin.2018.04.005>
- Adem, M. (2023). Impact of income diversification on bank stability: a cross-country analysis. *Asian Journal of Accounting Research*, 8(2), 133–144. <https://doi.org/10.1108/AJAR-03-2022-0093>
- Alfika, S. E. D., & Azizah, N. (2020). Pengaruh Return On Assets, Net Profit Margin, Dept to Equity Ratio, dan Corporate Social Responsibility terhadap nilai perusahaan pada perusahaan manufaktur sektor food and beverages yang terdaftar di Bursa Efek Indonesia (BEI) periode 2015-2018. *Liability*, 2(1), 70–89.
- Ali, M., & Puah, C. H. (2019). The internal determinants of bank profitability and stability: An insight from banking sector of Pakistan. *Management Research Review*, 42(1), 49–67. <https://doi.org/10.1108/MRR-04-2017-0103>
- Alkhouri, R., & Arouri, H. (2019). The effect of diversification on risk and return in banking sector: Evidence from the Gulf Cooperation Council countries. *International Journal of Managerial Finance*, 15 No.1, 100–128. <https://doi.org/https://doi.org/10.1108/IJMF-01-2018-0024>
- Astuti, T., & Utami, K. (2022). Peran Diversifikasi Pendapatan Dalam Peningkatan Kinerja Bank Pada Masa Pandemi Covid 19. *Accounting Profession Journal*, 4(2), 1–11. <https://doi.org/10.35593/apaji.v4i2.40>
- Audi, M., Kassem, M., & Roussel, J. (2021). Determinants of banks fragility in the MENA region using a dynamic model. *The Journal of Developing Areas*, 55(1). <https://doi.org/10.1353/jda.2021.0007>
- Awliya, M. (2022). Analisis Profitabilitas (Return On Asset (Roa) dan Return On Equity (RoE) Pada PT Sido Muncul Tbk (Periode 2015-2018). *Journal of Economic Education*, 1(1), 10–18.
- Badan Pusat Statistik. (2024). *Statistik Lembaga Keuangan (Financial Institution Statistics) 2022/2023*.
- Baltagi, B. H. (2021). *Econometric Analysis of Panel Data*.
- Bank Indonesia. (2023). Booklet Perbankan Indonesia. In *Booklet Perbankan Indonesia 2023*. https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/booklet-perbankan-indonesia/Documents/booklet_2014_opt_1395931938.pdf
- Basuki, A. T., & Prawoto, N. (2019). Analisis Regresi dalam Penelitian Ekonomi dan Bisnis. In *PT Rajagrafindo Persada*.
- Bokiu, J., Ardjun, T. A., & Mustaoa, S. Y. (2023). Pengaruh Profitability Terhadap Capital Buffer : Implikasi Terhadap Stabilitas Keuangan Bank Pada Tahun 2018-2021. *Jurnal Ilmiah Wahana Pendidikan*, 9(14), 416–425.
- Das, P. (2019). *Econometrics in Theory and Practice*. Springer.
- Edirisuriya, P., Gunasekarage, A., & Perera, S. (2019). Product diversification and bank risk: evidence from South Asian banking institutions. *Applied Economics*, 51(5), 444–464. <https://doi.org/10.1080/00036846.2018.1489516>

- Fatoni, A., & Sidiq, S. (2019). Analisis Perbandingan Stabilitas Sistem Perbankan Syariah Dan Konvensional Di Indonesia. *Ekspansi: Jurnal Ekonomi, Keuangan, Perbankan Dan Akuntansi*, 11(2), 179–198. <https://doi.org/10.35313/ekspansi.v11i2.1350>
- Ghozali, I. (2018a). Aplikasi Analisis Multivariate dengan Program IBM SPSS 25. Edisi 9. Universitas Diponegoro.
- Ghozali, I. (2018b). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23*. Univ. Diponegoro Press : Semarang.
- Hidayah, F., & Mardiningsih. (2023). Model Estimasi Produksi Padi Menggunakan Analisis Regresi Data Panel Di Provinsi Sumatera Utara Berdasarkan Data Tahun 2015-2019. *Jurnal Riset Rumpun Matematika Dan Ilmu Pengetahuan Alam*, 2(1), 61–75. <https://doi.org/10.55606/jurrimipa.v2i1.722>
- Hutagalung, I. P., & Darnius, O. (2022). Analisis Regresi Data Panel Dengan Pendekatan Common Effect Model (CEM), Fixed Effect Model (FEM) dan Random Effect Model (REM) (Studi Kasus : IPM Sumatera Utara Periode 2014 – 2020). *FARABI: Jurnal Matematika Dan Pendidikan Matematika*, 5(2), 217–226. <https://doi.org/10.47662/farabi.v5i2.422>
- Jiang, H., Xu, S., Cui, J., & Subhani, G. (2023). The impact of bank capital, liquidity and funding liquidity on sustainable bank lending: Evidence from MENA region. *Economic Analysis and Policy*, 79, 713–726. <https://doi.org/https://doi.org/10.1016/j.eap.2023.06.043>
- Kim, H., Batten, J. A., & Ryu, D. (2020). Financial crisis, bank diversification, and financial stability: OECD countries. *International Review of Economics and Finance*, 65(January 2019), 94–104. <https://doi.org/10.1016/j.iref.2019.08.009>
- Kusumadewi, T., Ermawati, W. J., & Irawan, T. (2024). Pengaruh Diversifikasi Pendapatan Terhadap Profitabilitas dan Stabilitas Perbankan di Indonesia. *Jurnal Aplikasi Bisnis Dan Manajemen*, 10(1), 239–250. <https://doi.org/10.17358/jabm.10.1.239>
- Laily, S. T., Husnan, L. H., & Hidayati, S. A. (2022). Pengaruh Struktur Aset dan Profitabilitas terhadap Struktur Modal pada Perusahaan Perbankan yang terdaftar di Bursa Efek Indonesia Tahun 2014-2020. *Target : Jurnal Manajemen Bisnis*, 4(1), 105–116. <https://doi.org/10.30812/target.v4i1.2045>
- Le, T. D. Q. (2020). The interrelationship among bank profitability, bank stability, and loan growth: Evidence from Vietnam. *Cogent Business and Management*, 7(1). <https://doi.org/10.1080/23311975.2020.1840488>
- Mehzabin, S., Shahriar, A., Hoque, M. N., Wanke, P., & Azad, M. A. K. (2023). The effect of capital structure, operating efficiency and non-interest income on bank profitability: new evidence from Asia. *Asian Journal of Economics and Banking*, 7(1), 25–44. <https://doi.org/10.1108/ajeb-03-2022-0036>
- Mkadm, J. E., Baccari, N., & Ncib, A. (2021). The Determinants of Banking Stability: The Example of Tunisia. *International Academic Journal of Accounting and Financial Management*, 8(1), 01–10. <https://doi.org/10.9756/iajafm/v8i1/iajafm0801>
- Ningsih, M. R., & Mahfudz, M. S. (2020). Dampak Pandemi Covid-19 Terhadap Manajemen Industri Perbankan Syariah: Analisis Komparatif. *Point*, 2(1), 1–10. <https://doi.org/10.46918/point.v2i1.576>
- Nisar, S., Peng, K., Wang, S., & Ashraf, B. N. (2018). The impact of revenue diversification on bank profitability and stability: Empirical evidence from south asian countries. *International Journal of Financial Studies*, 6(2). <https://doi.org/10.3390/ijfs6020040>
- Paltrinieri, A., Dreassi, A., Rossi, S., & Khan, A. (2021). Risk-adjusted profitability and stability of Islamic and conventional banks: Does revenue diversification matter? *Global Finance Journal*, 50(February), 1–15. <https://doi.org/10.1016/j.gfj.2020.100517>
- Pertiwi, S. P., & Suhartini, D. (2022). Pengaruh Diversifikasi Pendapatan, Modal Intelektual, Dan Pengungkapan Manajemen Risiko Terhadap Nilai Perusahaan. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(7), 1082–1094. <https://doi.org/10.32670/fairvalue.v4i7.1179>
- Polizzi, S., Scannella, E., & Suárez, N. (2020). The Role of Capital and Liquidity in Bank Lending: Are Banks Safer? *Global Policy*, 11(S1), 28–38. <https://doi.org/10.1111/1758-5899.12750>
- Porter, D. C., Burr Ridge, B., Dubuque, I., New York San Francisco St Louis Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City Milan Montreal New Delhi Santiago Seoul Singapore Sydney Taipei Toronto, I., & Gujarati, D. N. (2009). *About the Authors and the Republic of South Korea*.
- Rajagukguk, Lasmanita, Ariesta, V., & Pakpahan, Y. (2019). Analisis pengaruh profitabilitas, ukuran perusahaan, keputusan investasi, dan kebijakan utang terhadap nilai perusahaan. *Jurnal Inspirasi Bisnis Dan Manajemen*, 77–90.

- Rohmansyah, B., Gunawan, I., Pambudi, J. E., & Fitria, S. N. (2022). Pengaruh Ukuran Perusahaan, Struktur Modal, Likuiditas, Profitabilitas dan Invesment Opportunity Set Terhadap Kualitas Laba. *Sustainable*, 2(2), 290. <https://doi.org/10.30651/stb.v2i2.15246>
- Santoso, S. (2015). *Menguasai SPSS22 From Basic To Expert Skill*. In Elex Media Komputindo. PT Alex Media Komputindo.
- Santoso, S., Qalbia, F., & Benardi, B. (2023). Dampak Pandemi Covid 19 Terhadap Kinerja Keuangan Bank Umum di Indonesia. *ASSET: Jurnal Manajemen Dan Bisnis*, 6(1). <https://doi.org/10.24269/asset.v6i1.7133>
- Sarpong, J., & idun, anthony. (2024). Information sharing in bank diversification channels of bank stability in Ghana. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2310310>
- Setiawan, R., & Shabrina, A. (2018). Diverifikasi Pendapatan, Kepemilikan Pemerintah, Kinerja dan Risiko Bank. *Jurnal Dinamika Ekonomi & Bisnis*, 15, 49–59.
- Setiyono, A., Maramis, M. M., & Setianto, R. H. (2019). Peran Diversifikasi Pendapatan pada Pengaruh Kekuatan Pasar terhadap Stabilitas Bank. *Al Tijarah*, 5(1), 38. <https://doi.org/10.21111/tijarah.v5i1.3612>
- Shahriar, A., Mehzabin, S., Ahmed, Z., Döngül, E. S., & Azad, M. A. K. (2023). Bank stability, performance and efficiency: an experience from West Asian countries. *IIM Ranchi Journal of Management Studies*, 2(1), 31–47. <https://doi.org/10.1108/irjms-02-2022-0017>
- Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. *Alphabet*. Sugiyono. (2021). Metode Penelitian Tindakan Komperhensif. *Alphabet*.
- Supiyadi, D. (2021). The Determinant of Islamic Bank Profitability and Stability in Indonesia Periods 2010-2017. *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*, 187(Gcbme 2020), 16–21. <https://doi.org/10.2991/aebmr.k.210831.004>
- Wahyuni, M. (2020). Statistik Deskriptif Untuk Penelitian Olah Data Manual dan SPSS versi 25. In *Angewandte Chemie International Edition*, 6(11), 951–952. (Issue Mi).

Table and Figure

Table 3.2 Research Sample Screening with Purposive Sampling technique

Criteria	Total
Commercial Bank Companies Listed on the BEI	25
Regional Development Bank Companies Listed in Asbanda	22
Commercial Bank and Regional Development Bank Companies that Present Financial Statements Consecutively During 2019-2023	47
Sample Quantity	47 x 5 (Tahun) = 235

(Source: BEI and ASBANDA Year 2019-2023)

Table 4.8 Descriptive Statistics

	N	Minimum	Maksimum	Mean	Std. Deviasi
Zscore	235	0,44	203,55	50,1	42,47
DP	235	-0,36	1,64	0,24	0,26
ROA	235	-0,15	0,6	0,01	0,04

Table 4.9 Chow Test Identification of common effect or fixed effect

F (46,186)	80,81
Prob > f	0,0000

Table 4.10 Hausman Test Result

Chi2 (2)	= (b-B)'[(V _b -V _B) ⁻¹](b-B)
	= 0,69
Prob > chi2	= 0,7085

Table 4.11 Heteroskedastisitas Test Result

Chi2 (1) = 2,82
Prob > chi2 = 0,0934

Table 4.12 Multicollinearity Test Result

Variable	VIF	1/VIF
DP	1,00	0,997899
ROA	1,00	0,997899
Mean VIF	1,00	

Table 4.13 Autocorrelation Test Results

Obs = 235
N (runs) = 22
Z = -12,62
Prob > |Z| = 0

Table 4.14 Hypothesis Test Results

Zscore	Coefficient	Std. Error	Z	Sig
DP	-42,73	15,79	-2,71	0,007
ROA	419,87	124,54	3,37	0,001
_cons	44,39	4,30	10,31	0,000

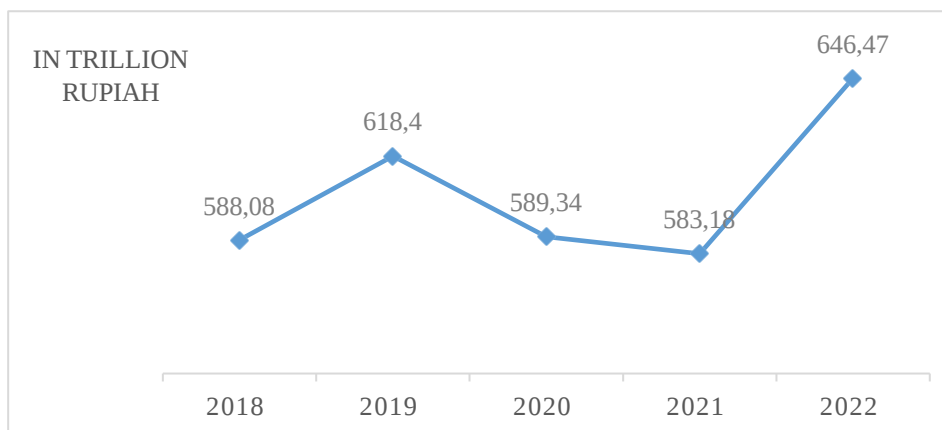


Figure 2. Value of Banking Financing Assets 2018-2022