

Research Article

The Impact of Inflation Rate, Leverage, and Firm Size on Banking Financial Performance

Delfihanna Permata Isnawan*, Wiwik Supratiwi

Faculty of Economics and Business, Universitas Airlangga, Surabaya, Indonesia

*Corresponding Author: pdelfihanna@gmail.com

ABSTRACT

This study examines the effect of inflation, leverage, and firm size on the financial performance of the banking sector. The research adopts a quantitative approach by utilizing secondary data obtained from the annual financial statements of banks listed on the Indonesia Stock Exchange. The sample consists of 258 observations analyzed using multiple linear regression through SPSS software. The findings indicate that the inflation rate does not have a significant effect on financial performance. Leverage is found to have a negative and significant effect, implying that higher levels of debt tend to reduce bank performance. Meanwhile, firm size has a positive and significant effect on financial performance, suggesting that banks with larger asset scales tend to demonstrate better performance. The novelty of this study lies in the integration of agency theory and signaling theory to simultaneously explain the influence of macroeconomic factors and internal firm characteristics on banking financial performance during the post-pandemic recovery period of 2019–2024. These findings imply that internal factors, such as capital structure and firm scale, play a more dominant role in influencing bank performance compared to macroeconomic factors such as inflation.

Keywords: Inflation; Leverage; Performance; Banking; Firm Size

1. INTRODUCTION

Banking plays a strategic role in supporting Indonesia's economic stability and growth, therefore its financial performance becomes an important concern (Nugrahaeni & Nugraeni, 2024). Banking financial performance is a crucial indicator in assessing the stability and health of the financial sector and has a direct impact on national economic growth. Banking financial performance needs to be considered because it is the main sector in financing the country's economy (Veizi & Çelo, 2024). Optimal financial performance reflects a company's capability in utilizing assets and resources efficiently, and in creating sustainable benefits for all stakeholders (Malik et al., 2020). The existence of economic uncertainty such as the COVID-19 pandemic caused a global crisis that significantly affected the world economy, including the banking sector. Financial performance indicators showing the level of bank efficiency in converting total assets into profit in the Indonesian banking sector declined compared to before the emergence of the pandemic (Asian Development Bank, 2023). Other challenges also emerged after the pandemic, such as high inflation spikes due to supply chain disruptions and stimulus policies that affected banking financial performance (Ahmad et al., 2022). These conditions can reduce banking performance, especially for small banks with limited capital and diversification.

Various empirical studies show that macroeconomic factors influence bank financial performance. Macroeconomic factors such as inflation rate are considered to affect banking financial performance. Inflation is the percentage fluctuation in the price level of goods and services that can be anticipated (anticipated inflation) or unanticipated (unanticipated inflation) and can affect financial sector performance through information asymmetry channels and credit market frictions (Tolulope & Oyeyinka, 2014). Annual inflation data in Indonesia during the period 2019 to 2024 can be seen in the following table.

Table 1. Inflation Rate in Indonesia for the Period 2019–2024

Year	Inflation YoY (%)
2019	2,72
2020	1,68
2021	1,87
2022	5,51
2023	2,61
2024	1,57

Source: Statistics Indonesia, 2024.

The inflation rate can affect the overall performance of banking entities including conventional commercial banks as well as Islamic banks (Rashid & Khalid, 2017). Ahmad et al. (2022) in their study show that inflation has a positive effect on bank financial performance especially when inflation is predictable because banks are able to adjust interest margins. Bayyoud et al. (2025) also prove that banks are able to generate higher profits when inflation increases due to their ability to adjust interest margins. However, according to Egbunike & Okerekeoti (2018), high unexpected inflation negatively affects banking financial performance. Tolulope & Oyeyinka (2014) also state that both anticipated and unanticipated inflation have a negative impact on financial performance. An increase in the inflation rate is often followed by an increase in interest costs and the risk of debtor default which can reduce bank performance.

Leverage is also considered a determinant that helps determine the level of financial performance. Leverage is defined as the use of funds originating from debt to finance company needs with the aim of increasing potential returns for shareholders or referring to the proportion of debt-based financing in the company's capital structure (Akhtar et al., 2022). Modigliani & Miller (1958) also add that leverage refers to the proportion of debt-based funds relative to equity provided by company owners. Companies whose leverage ratio shows dominance of external financing sources are considered to have confidence in the company's capacity to generate sufficient operating cash flows to meet debt payment obligations (Connelly et al., 2011). Jensen & Meckling (1976) through agency theory and Ross's signaling theory (1977) explain that high leverage can increase managerial discipline and provide positive signals to investors (M. Jensen & Meckling, 1976): (Connelly et al., 2011). Empirically, leverage has a positive effect on banking performance (Egbunike & Okerekeoti, 2018). Conversely, other studies find that high leverage can reduce financial performance due to increased financial risk (Ahmad et al., 2022).

There are other determinants that affect corporate financial performance. Firm size is usually considered to have a positive influence on financial performance because larger firms possess greater economic benefits (Ahmad et al., 2022). Firm size represents the company's economic capacity which is generally measured using total assets (Oyelade, 2019). Egbunike & Okerekeoti (2018) and Ningsih & Waspada (2019) also examine that total assets as an indicator of firm size show a positive and significant relationship with financial performance. However, an increase in firm size is not always aligned with an increase in financial performance. According to Oyelade (2019) and Meiryani et al. (2020), there is no significant correlation between the magnitude of company assets and its financial performance. A large amount of assets owned does not automatically generate better performance if it is not accompanied by efficiency in asset utilization (Oyelade, 2019). Large entities face bureaucratic challenges and complexity that can suppress operational efficiency and profitability, thereby reducing performance.

Based on agency theory, high inflation can increase moral hazard risk, where bank managers (agents) may take more speculative lending decisions to pursue short-term profits, sacrificing the interests of capital owners (principals). Banking faces potential adverse selection and moral hazard risks arising from conflicts of interest among related parties. This risk can encourage disproportionate risk-taking behavior by bank management, especially due to the existence of limited government deposit guarantees, thereby creating incentives to pursue profits without fully considering potential losses (Bayyoud et al., 2025). According to Tolulope & Oyeyinka (2014), both anticipated and unanticipated inflation have a negative impact on performance in the financial sector. The higher the inflation, the more credit to the private sector tends to decline, thereby damaging the bank's financial intermediation function. The research results of Bilalli et al. (2024) show that the inflation rate has a significant negative effect on banking efficiency because when inflation increases, credit market frictions become greater and disrupt the financial sector.

Agency theory also highlights how the use of debt can reduce agency conflicts between agents and principals and may create new conflicts (Akhtar et al., 2022). This theory explains that leverage can be used as a strategic effort to minimize or reduce agency problems between managers and shareholders due to differences in interests. The use of debt can limit managers' freedom in using company funds for personal interests due to the obligation to pay interest and principal debt, so debt has the potential to increase managerial prudence in strategic decision-making processes so that the company is able to meet its financial obligations (M. C. Jensen, 1986). High leverage is considered capable of improving bank financial performance. Signaling theory also emphasizes that entities with high leverage are considered capable of generating adequate cash flows to meet their obligations, thereby providing positive signals to investors (Connelly et al., 2011). Egbunike & Okerekeoti (2018) also confirm that leverage has a positive effect on financial performance.

Firm size can function as a signal of quality to stakeholders. In line with signaling theory, firm size provides an indication of the company's ability to fulfill its financial obligations. Entities with large total assets are generally perceived to have greater resource capacity and the capacity to operate efficiently. This signals to investors that the company has the opportunity to generate higher profits. Large companies tend to be more trusted by investors. According to Connelly et al. (2011), firm size can increase legitimacy in the eyes of stakeholders and plays an important role in strengthening signals. Zhao & Jian (2013) prove that an increase in firm size tends to be followed by an increase in financial performance. Larger banks are able to manage resources and costs more efficiently compared to smaller banks.

This study aims to confirm the inconsistencies in previous research results and to contribute to the literature by analyzing the influence of macroeconomic variables and internal company characteristics, namely inflation, leverage, and firm size, on the financial performance of banking institutions in Indonesia. The novelty of this study lies in its theoretical approach that links the analysis with agency theory and signaling theory.

2. RESEARCH METHOD

This study applies a quantitative approach by utilizing secondary data covering all banking institutions listed on the Indonesia Stock Exchange and having complete financial statement availability throughout 2019–2024. Macroeconomic data were obtained from publications of Badan Pusat Statistik and Bank Indonesia, while bank financial data were collected through annual reports compiled from publications available on the official company websites, the Bursa Efek Indonesia

(BEI), and the OSIRIS database. The tests conducted were descriptive statistical tests, classical assumption tests, and multiple linear regression tests. The data analysis process was carried out using SPSS (Statistical Product and Service Solutions) software. This study involves three independent variables, namely inflation rate, leverage, and firm size, to determine their effect on the dependent variable, namely financial performance. The research population includes all banks listed on the Indonesia Stock Exchange during the period 2019–2024. From the total population, 258 observations were obtained from 43 banking companies selected using purposive sampling techniques based on the criteria that the banks were listed on the BEI during the 2019–2024 research period and had complete data used in the study.

Table 2. Sample Selection Criteria

Sample Criteria	Number of Banks
Banks with complete required data during the 2019–2024 research period	47
Banks with complete required data during the 2019–2024 research period	(4)
Banks meeting the sample criteria	43
Observation period (years)	6
Total observations	258

Source: Research data, 2025

This study adopts independent variables including INFLATION (X₁), LEV (X₂), and SIZE (X₃) to test their effect on the dependent variable ROA (Y). The operational measurement of variables is explained as follows.

Table 3. Operational Variables and Their Measurement

No.	Variable	Indicator	Scale
1.	INFLASI (X ₁)	Annual percentage change in the Consumer Price Index (Bilalli et al., 2024)	Ratio
2.	LEV (X ₂)	Total liabilities / total equity (Shaik & Sharma, 2021)	Ratio
3.	SIZE (X ₃)	Natural logarithm of total assets (Zhao & Jian, 2013)	Ratio
4.	ROA (Y)	Net income / total assets (Zhao & Jian, 2013)	Ratio

Source: Research data, 2025

This study is directed to explore the influence of inflation, leverage, and firm size variables in explaining variations in corporate financial performance with the following model.

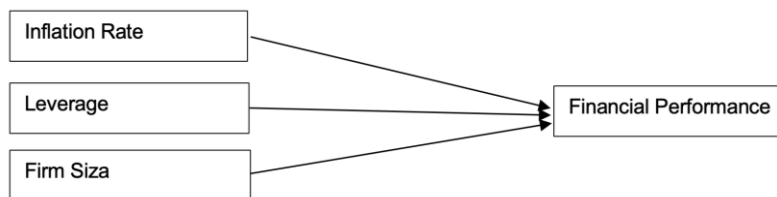


Figure 1. Research Model

Research Hypotheses

H1: Inflation rate has a negative effect on financial performance

H2: Leverage has a positive effect on financial performance

H3: Firm size has a positive effect on financial performance

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistical Results

Table 4. Descriptive Statistical Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
INFLASI	258	1,57	5,51	2,6600	1,35053
LEV	258	0,12	17,07	5.1243	2.95599
SIZE	258	20,39	28,52	24,5295	1,76965
ROA	258	-0,18	0.11	0.0040	0.02513
Valid N (listwise)	258				

Source: Processed Data, 2025

The number of firm-year observations of 258 indicates a balanced panel data structure during the observation period. The inflation rate variable (INFLATION), which represents macroeconomic conditions, has a minimum value of 1.57% and a maximum of 5.51%, with an average of 2.66% and a standard deviation of 1.35. These findings indicate that during the observation period, the inflation rate in Indonesia was relatively stable with fluctuations that were not too high. The narrow data distribution shows that the impact of inflation on corporate financial performance is relatively consistent across all sample units.

Leverage (LEV) is calculated from the ratio between total liabilities and equity, with results showing considerable variation among companies. Leverage values range from 0.12 to 17.07, with an average of 5.12 and a standard deviation of 2.96. This suggests that although most companies have relatively high dependence on debt, there are significant differences among companies in their funding structures. This variation indicates that capital structure contributes differently to corporate risk and performance, which may be influenced by the business scale of each entity.

Firm size (SIZE) is proxied through the natural logarithm of total assets, with values ranging from 20.39 to 28.52, an average of 24.53, and a standard deviation of 1.77. This indicates that the sample consists of medium to large-scale financial companies with a relatively even distribution of size. Firm size is widely recognized as an important determinant of financial performance, as it relates to economies of scale, market power, and access to financing.

The Return on Assets (ROA) variable as the main indicator of financial performance shows a value range from -0.18 to 0.11. The average ROA is recorded to be very low, around 0.004, with a standard deviation of 0.025. The negative minimum value indicates that some companies recorded losses during the observation period, which is most likely influenced by uncertain economic conditions, operational inefficiencies, or contraction in certain industrial sectors. The very small average and low standard deviation reflect weak but relatively consistent profitability levels across the sample. Overall descriptive statistical results show considerable variability in leverage and firm size variables, while inflation and profitability tend to show moderate and stable values.

3.2 Classic Assumption Test

3.2.1 Normality Test

The normality test was conducted to ensure whether the research data are normally distributed. This test used the Kolmogorov–Smirnov method, with the criterion that data are declared normally distributed if the significance value is greater than 0.05. The results of the normality test are presented in **Table 5**.

Table 5. Normality Test Results

Test	Value
N (Sample)	258
Test Statistic	.055
Asymp.Sig.(2-tailed)	.098 ^c

2025 Source: Processed Data, 2025

Based on the results of the normality test using the One-Sample Kolmogorov-Smirnov Test, the Asymp. Sig. (2-tailed) value obtained is 0.098, which is greater than 0.05. This indicates that the residuals in the regression model are normally distributed. Thus, it can be concluded that the research model has met the normality assumption so that regression analysis can proceed to the hypothesis testing stage.

3.2.1 Multicollinearity Test

The multicollinearity test was conducted to identify whether there is correlation among independent variables in the regression model. This test was carried out by examining the Variance Inflation Factor (VIF) value and tolerance value. The results of the multicollinearity test can be seen in **Table 6**.

Table 6. Multicollinearity Test Results

Variable	Tolerance	VIF
INFLASI	.998	1.002
LEVERAGE	.777	1.287
SIZE	.777	1.287

Dependent Variable: ROA

Source: Processed Data, 2025

Based on the multicollinearity test results, all independent variables have tolerance values greater than 0.10 and Variance Inflation Factor (VIF) values less than 10. Thus, it can be concluded that the regression model does not experience

multicollinearity problems and is appropriate for further analysis.

3.2.3 Heteroskedasticity Test

The heteroskedasticity test was conducted using the Glejser method by regressing the absolute residual value on the independent variables. The regression model is declared free from heteroskedasticity if the significance value of each independent variable is greater than 0.05. The results of the heteroskedasticity test can be seen in [Table 7](#).

Table 7. Result of Linearity

Variable	Sig.
INFLASI	.934
LEVERAGE	.005
SIZE	.057

Source: Processed Data, 2025

Based on the presented Glejser test results, the inflation variable has a significance value of 0.934 and firm size of 0.057, both greater than 0.05. However, the leverage variable has a significance value of 0.005, which is less than 0.05. This indicates that the leverage variable significantly affects the absolute residual value, so there is an indication of heteroskedasticity in the regression model.

3.3 The Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to measure the ability of independent variables to explain the variation of the dependent variable. The R value indicates the strength of the relationship among variables, while R Square shows the proportion of variation in the dependent variable that can be explained by the model. The results of the coefficient of determination test can be seen in [Table 8](#).

Table 8. Correlation Coefficient Test Results (R)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.483	0.233	0.223	0.04312
Predictors: (Constant), SIZE, INFLASI, LEV				
Dependent Variable: ROA				

Source: Processed Data, 2025

Based on the results of the regression analysis, an R value of 0.483 was obtained, which indicates a moderate relationship between inflation, leverage, and firm size variables on ROA. The R Square value of 0.233 indicates that 23.3% of the variation in ROA can be explained by inflation, leverage, and firm size variables in this research model. Meanwhile, the Adjusted R Square value of 0.223 indicates that after being adjusted for the number of independent variables, the model is able to explain 22.3% of the variation in ROA, while the remaining 77.7% is explained by other factors outside the research model.

3.4 Simultaneous Test (F Test)

The simultaneous test (F test) is used to examine whether all independent variables collectively influence the dependent variable in the regression model. The results of the simultaneous test can be seen in [Table 9](#).

Table 9. Simultaneous Test Results (F Test)

Model	Sum of Squares	Mean Square	F	Significance
Regression	.152	.051	29.310	.000 ^b
Residual	.372	.002		
Total	.524			
Dependent Variable: ROA				
Predictors: (Constant), SIZE, INFLASI, LEV				

Source: Processed Data, 2025

Based on the ANOVA test results, an F value of 29.310 was obtained with a significance level of 0.000 which is smaller than 0.05. This indicates that firm size (SIZE), inflation (INFLASI), and leverage (LEV) simultaneously have a significant effect on ROA.

3.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to determine the effect of inflation (INFLASI), leverage (LEV), and firm size (SIZE) variables on financial performance proxied by ROA. The results of the multiple linear regression test can be seen in [Table 10](#).

Table 10. Partial Test Results (t Test)

Model	Unstandardized Coefficients B	t	Sig.
(Constant)	-0.193	-4.729	0.000
INFLASI	0.001	0.332	0.740
LEV	-0.038	-7.695	0.000
SIZE	0.015	8.316	0.000

Source: Processed Data, 2025

The results of the multiple linear regression test indicate that of the three independent variables analyzed, two of them, namely leverage and bank size, are proven to have a significant effect on banking financial performance in Indonesia. Meanwhile, the inflation rate variable does not show statistical significance.

3.6 Discussion

3.6.1 The Effect of Inflation Rate on Financial Performance

The inflation rate in this analysis shows a p-value of 0.740. The p-value for the inflation variable is recorded at 0.740, which exceeds the significance threshold of 0.05. It can be concluded based on the results of the significance test that there is insufficient statistical support regarding the effect of the inflation rate on financial performance. This means that the inflation rate does not have a significant effect on financial performance proxied by ROA. The insignificance of the effect of inflation on ROA indicates that the dynamics of general price changes in the economy do not directly affect bank financial performance during that period. These results are consistent with the findings of [Nugrahaeni & Nugraeni \(2024\)](#), which highlight that during periods of intensive fiscal and monetary policy intervention, the influence of inflation on the financial performance of banking institutions becomes non-dominant. [Kelmendi \(2024\)](#) also proves that the inflation rate does not have a significant effect on financial performance proxied by ROA. A similar statement is also proven by [Raharjo et al. \(2014\)](#), where inflation does not significantly affect the financial performance of banks in Indonesia. From the perspective of signaling theory, macroeconomic variables such as inflation should ideally serve as important indicators for market participants. However, in crisis situations such as the pandemic, government intervention in the form of fiscal stimulus and credit policy relaxation acts as a buffer against the impact of inflation on banking performance.

3.6.2 The Effect of Leverage on Financial Performance

Leverage is proven to have a significant negative effect on Return on Assets (ROA), therefore the second hypothesis is declared supported. This finding indicates that leverage has a significant negative directional impact on the financial performance of the banking sector, as shown by the p-value of 0.000 (below the significance limit of 0.05) and a coefficient value of -0.038. The p-value obtained at 0.000 provides strong evidence that leverage statistically has a relatively significant influence on financial performance. The coefficient of -0.038 indicates that every one-unit increase in leverage will result in a decrease in ROA of 0.038, confirming the negative nature of this effect. This finding supports the argument in agency theory, which explains that a capital structure that is excessively dependent on debt can increase financial risk and generate higher agency costs ([M. Jensen & Meckling, 1976](#)). These results are in line with research conducted by [Calomiris & Kahn \(1991\)](#) and [Egbunike & Okerekeoti \(2018\)](#), which show that high leverage narrows the flexibility of banks in managing risk and optimizing funding sources, thereby negatively affecting the bank's ability to generate profits. [Vithessonthi & Tongurai \(2015\)](#) also prove that there is a negative effect of leverage on financial performance. Companies with high levels of leverage must pay interest and debt installments that can reduce net income. If revenue does not increase proportionally, it will negatively affect their performance. This is important for the banking sector because banks must manage their assets and liabilities carefully to maximize financial performance.

3.6.3 The Effect of Firm Size on Financial Performance

The firm size variable is proven to have a significant positive effect on ROA, meaning that the third hypothesis is accepted. Firm size has a p-value of 0.000 (less than 0.05) and a coefficient of 0.015. The p-value obtained at 0.000 provides strong evidence that firm size statistically has a significant effect on financial performance. The coefficient of -0.015 indicates that every one-unit increase in firm size will result in an increase in ROA of 0.015, which shows a positive direction. This reflects that banks with larger assets tend to have economies of scale efficiency, better risk management capabilities, and more diversified income. These results support the studies of [Berger & Mester \(1997\)](#) and [Bolivar et al. \(2023\)](#), which emphasize the importance of business scale in achieving efficiency and profitability. Research by [Ernawati & Santoso \(2022\)](#) also supports that bank size significantly affects the financial performance of commercial banks in Indonesia. Banks with larger

asset ownership tend to have better capabilities in achieving operational efficiency compared to smaller banks (Zhao & Jian, 2013). This directly impacts the increase in profit margins, thereby improving financial performance. This finding is consistent with the perspective of signaling theory, which states that firm size functions as a positive signal and good reputation for investors (Suryani & Purbohastuti, 2020). This positive investor reaction will improve financial performance (Ontorael et al., 2024).

3. CONCLUSION

This research was conducted to examine the effect of inflation, leverage, and firm size on the financial performance of the banking sector in Indonesia. The research results provide evidence that the inflation rate does not directly affect banking financial performance, possibly due to fiscal and monetary policy interventions during the observation period. In contrast, leverage is proven to have a significant negative relationship with financial performance, where an increase in the debt-to-equity ratio leads to a decrease in bank profitability. This finding supports the view of agency theory, which states that a capital structure that is excessively dependent on debt can create conflicts of interest between shareholders and creditors, as well as increase financial risk and interest burdens. Meanwhile, firm size has a significant positive effect on financial performance, indicating that banks with large assets have advantages in operational efficiency and access to cheaper financing. This provides benefits in improving overall performance. In general, the results of this study emphasize the importance of strategically managing capital structure and company scale in order to face economic uncertainty and maximize bank financial performance. This research is not free from several limitations, including the use of inflation rate data that only represents macroeconomic aspects, as well as the limited scope of the sample to banks listed on the Bursa Efek Indonesia. The observation period is also relatively short, covering only the years 2019 to 2024, which may limit the generalization of the research findings. Future research needs to expand the model by including variables that are empirically more sensitive to banking industry dynamics. Macro factors such as benchmark interest rates (BI Rate), GDP growth, and exchange rates are important to test because they directly affect cost of funds, credit demand, and market risk. From the internal perspective, Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), and operational efficiency ratio (BOPO) more accurately represent the fundamental condition of banks compared to merely firm size. In addition, governance aspects such as the quality of Good Corporate Governance (GCG) implementation and institutional ownership structure are worth considering because they are related to risk control and managerial discipline. Expanding the observation period is also necessary so that research results are not biased toward certain economic conditions and have a stronger level of generalization.

REFERENCES

- Ahmad, Z., Hassan, A., & Dakingari, U. M. (2022). Effect of Firm Characteristics and Some Key Monetary Variables on the Financial Performance of Unilever Nigeria Plc. *Asian Journal of Economic Modelling*, 10(4), 236–244. <https://doi.org/10.55493/5009.v10i4.4663>
- Akhtar, M., Yusheng, K., Haris, M., Ain, Q. U., & Javaid, H. M. (2022). Impact of financial leverage on sustainable growth, market performance, and profitability. In *Economic Change and Restructuring* (Vol. 55, Issue 2). Springer US. <https://doi.org/10.1007/s10644-021-09321-z>
- Asian Development Bank. (2023). *Asian Economic Integration Report 2023* (Issue February).
- Bayyoud, M., Islam, K. M. A., Barakat, F. S. Q., & Monira, N. A. (2025). Econometric Analysis for Analyzing the Impact of Inflation and Exchange Rate on the Financial Performance of Commercial Banks in Palestine. *International Research Journal of Multidisciplinary Scope*, 6(2), 359–371. <https://doi.org/10.47857/irjms.2025.v06i02.03829>
- Berger, A. N., & Mester, L. J. (1997). Inside the black box: What explains differences in the efficiencies of financial institutions? *Journal of Banking and Finance*, 21(7), 895–947. [https://doi.org/10.1016/S0378-4266\(97\)00010-1](https://doi.org/10.1016/S0378-4266(97)00010-1)
- Bilalli, A., Sadiku, M., & Sadiku, L. (2024). The Impact of Inflation on Financial Sector Performance: Evidence From Oecd Countries. *ECONOMICS - Innovative and Economics Research Journal*, 12(2), 263–276. <https://doi.org/10.2478/eoik-2024-0028>
- Bolívar, F., Duran, M. A., & Lozano-Vivas, A. (2023). Bank business models, size, and profitability. *Finance Research Letters*, 53(November 2022), 103605. <https://doi.org/10.1016/j.frl.2022.103605>
- Calomiris, C. W., & Kahn, C. M. (1991). *The Role of Demandable Debt in Structuring Optimal Banking Arrangements*. 81(3), 497–513.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67. <https://doi.org/10.1177/0149206310388419>
- Egbunike, C. F., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria. *Asian Journal of Accounting Research*, 3(2), 142–168. <https://doi.org/10.1108/AJAR-09-2018-0029>
- Ernawati, E., & Santoso, S. B. (2022). Pengaruh Ukuran Perusahaan, Kepemilikan Institusional, Komisaris Independen Dan Leverage Terhadap Kinerja Keuangan (Studi Empiris Pada Bank Umum Syariah Yang Terdaftar Di Ojk

- Indonesia Tahun 2015-2019). *Kompartemen : Jurnal Ilmiah Akuntansi*, 19(2), 111. <https://doi.org/10.30595/kompartemen.v19i2.13246>
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review*, 76(2), 323–329. <https://doi.org/10.1017/cbo9780511609435.005>
- Jensen, M., & Meckling, W. (1976). Theory of The Firm : Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305–360. <https://doi.org/10.1057/9781137341280.0038>
- Kelmendi, V. (2024). Impact of Macroeconomic Factors on Bank Financial Performance: A Turkey and Kosovo Comparative Study. *International Journal of Sustainable Development and Planning*, 19(1), 229–235. <https://doi.org/10.18280/ijstdp.190121>
- Malik, M. F., Zaman, M., & Buckby, S. (2020). Enterprise risk management and firm performance: Role of the risk committee. *Journal of Contemporary Accounting and Economics*, 16(1), 100178. <https://doi.org/10.1016/j.jcae.2019.100178>
- Meiryani, Sudrajat, J., Olivia, & Daud, Z. M. (2020). The Effect Of Firm's Size On Corporate Performance. *International Journal of Advanced Computer Science and Applications*, 11(5), 272–277.
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review*, 48(3), 261–297. <https://doi.org/10.1136/bmj.2.3594.952>
- Ningsih, M. M., & Waspada, I. (2019). Pengaruh Suku Bunga, Struktur Modal, dan Ukuran Perusahaan Terhadap Nilai Perusahaan: Studi Empiris Pada Perusahaan Di Indonesia MEIDIANA MULYA NINGSIH 1 & IKAPUTERA WASPADA. *Jurnal Riset Akuntansi Dan Keuangan*, 7(1), 97–110. <https://doi.org/10.17509/jrak.v7i1.1634>
- Nugrahaeni, R. A., & Nugraeni. (2024). Pengaruh Inflasi, Suku Bunga dan Nilai Tukar Terhadap Profitabilitas Perbankan Syariah. *Jurnal Ekonomi Bisnis Dan Manajemen*, 2(1), 1–8.
- Ontorael, R., Saifi, M., Firdausi Nuzula, N., & Zahroh, Z. A. (2024). Firm Size Moderating Effect on Financial Performance and Dividend Policy From Indonesia. *Revista de Gestao Social e Ambiental*, 18(4), 1–18. <https://doi.org/10.24857/rgsa.v18n4-109>
- Oyelade, A. O. (2019). The Impact of Firm Size on Firms Performance in Nigeria: a Comparative Study of Selected Firms in the Building Industry in Nigeria. *Asian Development Policy Review*, 7(1), 1–11. <https://doi.org/10.18488/journal.107.2019.71.1.11>
- Raharjo, P. G., Hakim, D. B., Manurung, A. H., & Maulana, T. N. A. (2014). The determinant of commercial banks' interest margin in Indonesia: An analysis of fixed effect panel regression. *International Journal of Economics and Financial Issues*, 4(2), 295–308.
- Rashid, A., & Khalid, S. (2017). Impacts of Inflation and Interest Rate Uncertainty on Performance and Solvency of Conventional and Islamic Banks in Pakistan. *Journal of Islamic Business and Management (JIBM)*, 7(2), 156–177. <https://doi.org/10.26501/jibm/2017.0702-002>
- Shaik, A. R., & Sharma, R. B. (2021). Leverage, capital and profitability of the banks: Evidence from saudi arabia. *Accounting*, 7(6), 1363–1370. <https://doi.org/10.5267/j.ac.2021.4.001>
- Suryani, E., & Purbohastuti, A. W. (2020). Ukuran Perusahaan atas Nilai Perusahaan melalui Profitabilitas. *Jurnal Riset Akuntansi Terpadu*, 13(2), 256. <https://doi.org/10.35448/jrat.v13i2.9226>
- Tolulope, A. O., & Oyeyinka, O. L. (2014). The impact of inflation on financial sector performance: A case study of sub-saharan africa. *Indian Journal of Finance*, 8(1), 43–50. <https://doi.org/10.17010/ijf/2014/v8i1/71983>
- Veizi, Z., & Çelo, R. (2024). *The Impact of Non-Performing Loans Ratio on Banking Profitability in the Albanian Banking System 2 Literature Review*. 21. <https://doi.org/10.37394/23207.2024.21.38>
- Vithessonthi, C., & Tongurai, J. (2015). The effect of leverage on performance: Domestically-oriented versus internationally-oriented firms. *Research in International Business and Finance*, 34, 265–280. <https://doi.org/10.1016/j.ribaf.2015.02.016>
- Zhao, S., & Jian, J. (2013). Size does matter for profitability! testing economies of scale in Chinese banking industry. In *Journal of Applied Sciences* (Vol. 13, Issue 17, pp. 3510–3515). <https://doi.org/10.3923/jas.2013.3510.3515>