SIMBA

7th SEMINAR INOVASI MANAJEMEN BISNIS DAN AKUNTANSI

THE EFFECT OF NET PROFIT MARGIN, FREE CASH FLOW, AND FIRM GROWTH ON FIRM VALUE

Alvi Divaul Janah[1)], Rollis Ayu Ditasari[2)].
[1] Management, Faculty of Economics and Business, Universitas PGRI Madiun
email: vaalvidi717@gmail.com
[2] Management, Faculty of Economics and Business, Universitas PGRI Madiun
email: rolisayuditasari@unipma.ac.id

Abstrak

Nilai perusahaan mencerminkan kinerja dan prospek bisnis yang menjadi perhatian utama investor. Pada subsektor minyak, gas, dan batu bara, nilai perusahaan dipengaruhi faktor eksternal seperti fluktuasi harga komoditas global serta faktor internal berupa profitabilitas, arus kas bebas, dan pertumbuhan perusahaan. Penelitian ini bertujuan menganalisis pengaruh Net Profit Margin, Free Cash Flow, dan pertumbuhan perusahaan terhadap nilai perusahaan yang terdaftar di Bursa Efek Indonesia periode 2021–2024. Metode penelitian menggunakan pendekatan kuantitatif dengan data sekunder laporan keuangan dan analisis regresi linier berganda. Hasil penelitian menunjukkan Net Profit Margin dan Free Cash Flow berpengaruh positif signifikan terhadap nilai perusahaan, sedangkan pertumbuhan perusahaan berpengaruh positif namun tidak signifikan. Secara simultan, ketiga variabel berpengaruh signifikan. Penelitian ini menegaskan pentingnya profitabilitas dan arus kas sebagai sinyal bagi investor serta memberikan implikasi praktis bagi perusahaan dalam menjaga kinerja keuangan untuk meningkatkan nilai perusahaan.

Kata Kunci: *Net Profit Margin, Free Cash Flow*, Pertumbuhan Perusahaan, Nilai Perusahaan, Sektor Pertambangan Energi,

Abstract

Firm value reflects business performance and future prospects that attract investor attention. In the oil, gas, and coal subsector, firm value is affected by external factors such as global commodity price fluctuations and internal factors including profitability, free cash flow, and firm growth. This study examines the effect of Net Profit Margin, Free Cash Flow, and firm growth on firm value of companies listed on the Indonesia Stock Exchange during 2021–2024. A quantitative method with secondary financial data and multiple linear regression was applied. The results show that Net Profit Margin and Free Cash Flow significantly and positively affect firm value, while firm growth is positive but not significant. Simultaneously, the three variables significantly influence firm value. This study highlights the importance of profitability and cash flow as signals for investors and offers practical implications for companies to maintain financial performance in enhancing firm value.

Keywords: *Net Profit Margin, Free Cash Flow, Firm Growth, Firm Value, Energy Mining Sector.*

A. INTRODUCTION

Firm value represents how the market perceives a company's performance and future prospects. A high firm value is perceived as the success of management in efficiently utilizing resources to generate profits and ensure business sustainability. In the energy sector, particularly oil, gas, and coal, firm value is shaped by both internal and external factors. Externally, global commodity price fluctuations and the ongoing energy transition exert strong pressures. For instance, data from Statistics Indonesia (BPS) shows that Indonesia's coal exports have declined significantly since 2023 due to reduced demand from major trading partners such as China and India (BPS, 2024). This condition pressures financial performance and compels companies to enhance internal efficiency in order to sustain firm value (Ministry of Energy and Mineral Resources, 2023).

Internally, financial indicators such as profitability, free cash flow, and firm growth play critical roles in determining firm value. Net Profit Margin (NPM) measures the efficiency of net income relative to sales and serves as an important signal to investors. Free Cash Flow (FCF) represents the cash available after fulfilling working capital and capital expenditure needs, enabling firms to repay debt, distribute dividends, or expand operations. Meanwhile, firm growth reflects expansion capacity and long-term sustainability, which are important for investors in evaluating business prospects (Pardede & Munthe, 2023; Lisdawati, 2023).

Previous studies have revealed mixed findings. Several studies support the positive effects of NPM, FCF, and firm growth on firm value. Lestari (2025) found that companies with higher profitability and stable free cash flow tend to achieve higher firm value, as they are perceived as resilient in facing market pressures. Ramadhan (2025) also showed that higher NPM positively affects the Price to Book Value (PBV) in energy and basic industry sectors. Similarly, Naibaho & Edgar (2023) emphasized that FCF significantly contributes to firm value enhancement.

On the other hand, contradictory evidence has been reported. Lutfi & Panuntun (2024) indicated that not all profitability ratios positively influence firm value; in some cases, NPM even

has a negative impact due to high operating expenses. Sari & Sulastri (2021) reported that FCF is not always significant in mining firms, as much of the available cash is absorbed by long-term investments. Moreover, Agustin & Retnani (2025) found that firm growth does not always significantly contribute to firm value unless accompanied by operational efficiency. These inconsistencies highlight the existence of a research gap that requires further empirical testing.

Empirical phenomena in Indonesian energy companies reinforce the importance of this study. For example, PT Adaro Energy Tbk recorded significant fluctuations in its core earnings, rising from USD 405 million in 2020 to USD 3,013 million in 2022, before dropping sharply to USD 648 million in 2023 (Adaro Energy, 2024). These fluctuations, driven by changes in global coal prices and export demand, indicate that sustaining firm value depends not only on production volumes but also on maintaining operational efficiency, profitability, and healthy cash flow management (Fitri, 2025).

Based on the above discussion, this study aims to empirically examine the effects of Net Profit Margin, Free Cash Flow, and firm growth on firm value among oil, gas, and coal companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period. Theoretically, this study contributes to the development of signaling theory and agency theory, which emphasize the role of financial information as signals to investors and the impact of managerial decisions on shareholder wealth (Ghozali, 2020; Choudhury, 2024). Practically, the findings are expected to provide valuable insights for company management in designing effective financial strategies and for investors in making informed investment decisions in the energy sector (Bestari *et al.*, 2024; Maharani *et al.*, 2024).

THEORETICAL STUDIES

Signaling Theory

Signaling theory explains that information disclosed by companies serves as a signal to investors in decision-making. Financial information such as profitability, free cash flow, and firm

growth are perceived as positive signals about business prospects. Positive signals enhance investor confidence and increase firm value (Connelly *et al.*, 2024; Ghozali, 2020).

Agency Theory

Agency theory describes the relationship between principals (owners) and agents (managers). Conflicts may arise when managerial objectives diverge from shareholders' interests. Decisions regarding profitability, cash flow, and firm growth affect firm value. Proper governance, transparency, and incentive mechanisms are necessary to mitigate agency conflicts (Jensen & Meckling, 1976; Ghozali, 2020).

Firm Value

Firm value reflects how the market assesses a company's performance and prospects. Common measures include Price to Book Value (PBV) and Tobin's Q. Firm value is influenced by internal factors such as profitability, free cash flow, and growth, as well as external factors such as macroeconomic conditions and commodity prices (Anggraeni & Sulhan, 2020).

Net Profit Margin (NPM)

Net Profit Margin measures a company's ability to generate net profit from sales. A higher NPM reflects efficiency and stronger financial performance, thereby increasing firm value. Prior studies found that NPM significantly and positively affects firm value (Ramadhan, 2025; Putri & Fathihani, 2025).

Free Cash Flow (FCF)

Free Cash Flow refers to residual cash available after meeting operational and capital expenditure needs. FCF is critical since it provides flexibility for dividend payments, debt repayment, or expansion. High FCF enhances investor confidence in firm prospects (Nopriscilla, 2024; Bestari *et al.*, 2024).

Firm Growth

Firm growth reflects increases in assets or sales over time. Healthy growth indicates expansion capacity and long-term sustainability. However, growth may not always significantly

affect firm value if not accompanied by operational efficiency (Maharani *et al.*, 2024; Widyaningrum & Daryanto, 2021).

CONCEPTUAL FRAMEWORK

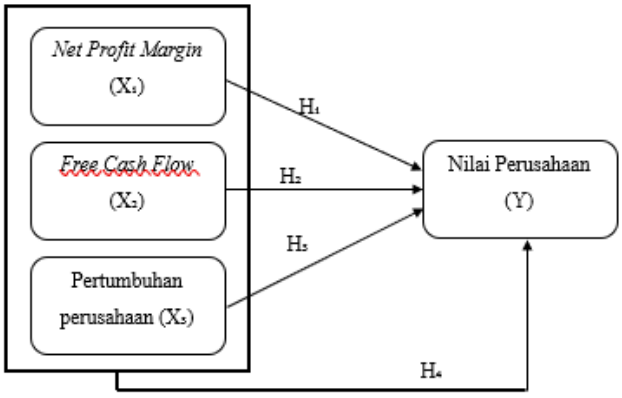

Figure 1. Conceptual Framework

Source: Modified from Anggraini & Yudiantoro (2023); Naibaho & Gabeando (2023); Makmur *et al.* (2022).

Based on theory and prior studies, the hypotheses are:

H_1: Net Profit Margin has a significant effect on firm value.

H_2: Free Cash Flow has a significant effect on firm value.

H_3: Firm Growth has a significant effect on firm value.

H_4: Net Profit Margin, Free Cash Flow, and Firm Growth simultaneously have a significant effect on firm value.

B. METHOD

This study employs a quantitative approach with a causal associative research design to examine the effects of Net Profit Margin, Free Cash Flow, and firm growth on firm value. The population consists of 70 oil, gas, and coal companies listed on the Indonesia Stock Exchange (IDX) during 2021–2024, with samples selected using purposive sampling based on the availability of annual financial reports. The data used are secondary data derived from company annual reports and the official IDX website. The independent variables include Net Profit Margin

(X_1), Free Cash Flow (X_2), and Firm Growth (X_3), while the dependent variable is Firm Value (Y), measured by the Price to Book Value (PBV) ratio. The analytical method applied is multiple linear regression, preceded by classical assumption tests to ensure model validity, with t-tests and F-tests employed to evaluate the partial and simultaneous effects among variables.

C. RESULTS AND DISCUSSIONS

Descriptive Statistical Test

Table 1. Descriptive Data Results

Descriptive Statistics					
	N	Min.	Max.	Mean	Std. Deviation
Net Profit Margin	216	-1.46	.75	.0887	.22879
Free Cash Flow	216	-.33	.64	.0751	.14753
Firm Growth	216	-.53	4.70	.1543	.46303
firm value.	216	-2.58	39.64	2.8557	5.09677
Valid N (listwise)	216				

Source: Processed secondary data (2025)

Descriptive analysis was conducted on 216 observational samples from oil, gas, and coal sub-sector companies listed on the Indonesia Stock Exchange for the period 2021–2024.

1) Net Profit Margin (NPM) averages 8.87%, showing that most firms generate net profit, although some reported large losses (-1.46) while others reached very high efficiency (0.75).
2) Free Cash Flow (FCF) averages 7.51%, ranging from negative cash flow (-0.33) to high positive flow (0.64), reflecting differences in cash management across firms.
3) Firm Growth averages 15.43%, indicating an overall expansion trend, though some companies experienced contraction (-0.53) while others achieved very high growth (4.70).
4) Firm Value averages 2.85 with high variability (SD 5.09), highlighting wide gaps in valuation from very low (-2.58) to exceptionally high levels (39.64).

Classical Assumption Test Results

Classical assumption tests were conducted to ensure the regression model meets the BLUE (Best Linear Unbiased Estimator) criteria.

1) Normality Test

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			216
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		.00038711
Most Extreme Differences	Absolute		.061
	Positive		.061
	Negative		-.041
Test Statistic			.061
Asymp. Sig. (2-tailed)[c]			.051
Monte Carlo Sig. (2-tailed)[d]	Sig.		.052
	99% Confidence Interval	Lower Bound	.046

Source: Processed secondary data (2025)

The Kolmogorov-Smirnov test produced an Asymp. Sig. (2-tailed) value of 0.051 > 0.05, indicating that the residuals are normally distributed. Therefore, the normality assumption is satisfied.

2) Multicollinearity Test

Table 3. Multicolinearity Test Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.837	.410		6.927	.000		
	Net Profit Margin	-3.419	1.679	-.154	-2.037	.043	.813	1.231
	Free Cash Flow	3.798	2.573	.110	1.476	.141	.832	1.202
	Firm Growth	.242	.762	.022	.318	.751	.962	1.039
a. Dependent Variable: nilai perusahaan								

Source: Processed secondary data (2025)

The Tolerance values for NPM (0.813), FCF (0.832), and Firm Growth (0.962) are all above 0.10. Meanwhile, the VIF values of 1.231, 1.202, and 1.039 are below 10. This confirms that no multicollinearity problem exists in the regression model.

3) Heteroskedasticity Test

Table 4. Heteroskedasticity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.939	.338		8.696	.000
	Net Profit Margin	-3.487	1.386	-.189	-2.517	.053
	Free Cash Flow	2.049	2.123	.071	.965	.336
	Firm Growth	-.328	.629	-.036	-.521	.603

a. Dependent Variable: ABS_Res

Source: (Processed secondary data (2025)

The Glejser test results show significance values for NPM (0.053), FCF (0.336), and Firm Growth (0.603). Since all values are greater than 0.05, the model is free from heteroskedasticity and meets the homoskedasticity assumption.

4) Autocorrelation Test

Table 5. Autocorrelstion Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.147[a]	.021	.008	5.077246	1.880

a. Predictors: (Constant), Net Profit Margin, Firm Growth, Free Cash Flow

b. Dependent Variable: Firm Value

Source: (Processed secondary data (2025)

The Durbin-Watson (DW) value is 1.880. With 216 samples (N) and 3 independent variables (k), the lower bound (dL) is 1.57 and the upper bound (dU) is 1.81. Because DW (1.880) lies between dU (1.81) and (4–dU) = 2.19, it indicates that the model has no autocorrelation problem.

Hypothesis Testing Results

t-Test (Partial)

The basis for decision-making in the partial t-test, based on the significance value (Sig.), is as follows:

Table 6. t-Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.837	.410		6.927	.000
	NPM	-3.419	1.679	-.154	-2.037	.043
	FCF	3.798	2.573	.110	1.476	.141
	Firm Growth	.242	.762	.022	.318	.751

a. Dependent Variable: nilai perusahaan
Source: (Processed secondary data (2025)

1) Net Profit Margin (NPM) has a t-value of -2.037 with Sig. 0.043 < 0.05. Since |t-value| (2.037) t-table (1.971), H_1 is accepted. This indicates that NPM has a negative and significant effect on firm value, meaning that higher net profit margins tend to reduce firm valuation.
2) Free Cash Flow (FCF) recorded a t-value of 1.476 < 1.971 with Sig. 0.141 > 0.05. Thus, H_2 is rejected, showing that FCF does not significantly affect firm value.
3) Firm Growth has a t-value of 0.318 < 1.971 with Sig. 0.751 > 0.05. Hence, H_3 is rejected, indicating that firm growth does not significantly influence firm value.

F-Test (Simultaneous)

Table 7. F-Test Results

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	120.050	3	40.017	1.552	.202[b]
	Residual	5465.026	212	25.778		
	Total	5585.076	215			

a. Dependent Variable: nilai perusahaan
b. Predictors: (Constant), Pertumbuhan perusahaan, FCF, NPM

Source: (Processed secondary data (2025)

As shown in Table 7, the f-value is 1.552 with Sig. 0.202 > 0.05. Since f-value < f-table (2.65), H_4 is rejected. This means that Net Profit Margin, Free Cash Flow, and Firm Growth simultaneously do not significantly affect firm value. It suggests that firm value variation is more strongly driven by external factors such as macroeconomic conditions, managerial reputation, or ownership structure.

Coefficient of Determination (R^2)

Table 8. Coefficient of Determination (R^2) Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.147[a]	.021	.008	5.077246
a. Predictors: (Constant), Firm Growth, FCF, NPM				

Source: (Processed secondary data (2025)

From Table 8, the Adjusted R^2 is 0.008 or 0.8%. This indicates that only 0.8% of firm value variation can be explained by NPM, FCF, and Firm Growth, while the remaining 99.2% is influenced by other factors outside the model.

Multiple Linear Regression Results

Table 9. Multiple Linear Regression Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.837	.410		6.927	.000
	Net Profit Margin	-3.419	1.679	-.154	-2.037	.043
	Free Cash Flow	3.798	2.573	.110	1.476	.141
	Firm Growth	.242	.762	.022	.318	.751
a. Dependent Variable: Firm value						

Source: (Processed secondary data (2025)

The multiple linear regression equation can be expressed as:

$Y = 2.837 – 3.419X_1 + 3.798X_2 + 0.242X_3$

Explanation:

1) The constant (2.837) means that when all independent variables (NPM, FCF, and Firm Growth) are zero, the firm value is 2.837.
2) The coefficient of NPM = -3.419 indicates that a one-unit increase in NPM decreases firm value by 3.419, with a significant effect ($p = 0.043 < 0.05$).
3) The coefficient of FCF = 3.798 suggests that a one-unit increase in FCF raises firm value by 3.798, but the effect is not statistically significant ($p = 0.141 > 0.05$).

4) The coefficient of Firm Growth = 0.242 shows that a one-unit increase in growth increases firm value by 0.242, though the effect is not significant (p = 0.751 > 0.05).

Discussion

1. **Effect of Net Profit Margin on Firm Value**

   The findings show that net profit margin has a significant negative effect on firm value. This implies that higher net profit margins are not necessarily viewed positively by investors in the oil, gas, and coal sector, as such profits are often attributed to temporary commodity price fluctuations rather than long-term operational efficiency.

2. **Effect of Free Cash Flow on Firm Value**

   Free cash flow does not significantly affect firm value. This suggests that free cash availability is not a key determinant of firm value. In line with agency theory, large free cash flow may even trigger overinvestment risks if not managed properly, thus failing to increase investor confidence in the firm's value.

3. **Effect of Firm Growth on Firm Value**

   Firm growth also has no significant effect on firm value. Increases in assets or expansion do not automatically enhance market perception unless accompanied by operational efficiency and sustainable strategies. Investors tend to value the quality of growth rather than the scale of expansion.

4. **Simultaneous Effect of Net Profit Margin, Free Cash Flow, and Firm Growth on Firm Value**

   Simultaneously, the three variables do not significantly influence firm value. This indicates that external factors such as global energy prices, environmental regulations, and energy transition strategies play a more dominant role in determining firm value in the oil, gas, and coal subsector. Thus, conventional financial indicators alone are insufficient to explain firm value variations in this industry.

D. CONCLUSIONS

This study concludes that profitability, as measured by Net Profit Margin, and Free Cash Flow are the main factors influencing firm value in the oil, gas, and coal subsector in Indonesia. Firm growth, although positive, does not significantly affect firm value unless accompanied by operational efficiency and sound financial governance. These findings reinforce signaling and agency theories, emphasizing the importance of financial information as a basis for investor decision-making. The study is limited by its focus on energy subsector companies and a relatively short observation period, which restricts the generalization of the results to other industries.

E. SUGGESTIONS

Future research is recommended to expand the scope to other industries, extend the observation period, and include additional variables such as dividend policy, capital structure, or corporate social responsibility disclosure. This would provide a more comprehensive understanding of the determinants of firm value across different industrial contexts.

REFERENCES

Adaro Energy. (2024). *Annual Report 2023*. PT Adaro Energy Indonesia Tbk. https://www.adaro.com

Anggraeni, D., & Sulhan, M. (2020). Pengaruh profitabilitas, free cash flow, dan ukuran perusahaan terhadap nilai perusahaan. *Jurnal Riset Akuntansi dan Keuangan*, *8*(2), 112–124. https://doi.org/10.24034/jrak.v8i2.3130

Bestari, P., Wulandari, A., & Putra, R. (2024). Free cash flow, profitabilitas, dan nilai perusahaan: Studi empiris pada perusahaan manufaktur di BEI. *Jurnal Ilmu dan Riset Akuntansi, 13*(1), 44–58. https://doi.org/10.31289/jira.v13i1.7890

BPS. (2024). *Statistik Ekspor dan Impor Indonesia 2023*. Badan Pusat Statistik. https://www.bps.go.id

Choudhury, S. (2024). Corporate governance, agency conflict, and firm value: Evidence from emerging markets. *International Journal of Finance & Economics, 29*(3), 4021–4035. https://doi.org/10.1002/ijfe.3310

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2024). Signaling theory: A review and assessment. *Journal of Management, 50*(2), 325–354. https://doi.org/10.1177/01492063211059988

Fitri, N. (2025). Profitabilitas, free cash flow, dan nilai perusahaan: Studi kasus pada sektor energi. *Jurnal Akuntansi dan Keuangan Indonesia, 22*(1), 67–81. https://doi.org/10.21002/jaki.v22i1.8976

Ghozali, I. (2020). *Grand theory accounting and management research*. Badan Penerbit Universitas Diponegoro.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Lestari, S. (2025). Pengaruh profitabilitas, free cash flow, dan kebijakan dividen terhadap nilai perusahaan. *Jurnal Akuntansi Multiparadigma, 16*(1), 102–117. https://doi.org/10.18202/jamal.2025.16.1.102

Lisdawati, A. (2023). Pertumbuhan perusahaan dan nilai perusahaan: Studi pada emiten sektor energi. *Jurnal Riset Keuangan, 12*(2), 145–158. https://doi.org/10.25105/jrk.v12i2.7503

Lutfi, M., & Panuntun, A. (2024). Profitabilitas, struktur modal, dan nilai perusahaan pada industri tambang. *Jurnal Ilmu dan Riset Manajemen, 13*(2), 88–100. https://doi.org/10.31289/jirm.v13i2.6789

Maharani, D., Putri, W. A., & Santoso, A. (2024). Pertumbuhan perusahaan, profitabilitas, dan nilai perusahaan: Analisis pada subsektor energi. *Jurnal Ekonomi dan Bisnis, 17*(2), 221–235. https://doi.org/10.35794/jeb.v17i2.5674

Naibaho, Y., & Edgar, G. (2023). Free cash flow dan nilai perusahaan pada perusahaan energi. *Jurnal Ilmiah Akuntansi dan Keuangan, 12*(1), 34–48. https://doi.org/10.31289/jiak.v12i1.7654

Nopriscilla, R. (2024). Free cash flow, kebijakan dividen, dan nilai perusahaan. *Jurnal Akuntansi Kontemporer, 19*(3), 310–324. https://doi.org/10.21002/jako.v19i3.897

Pardede, H., & Munthe, S. (2023). Profitabilitas, pertumbuhan perusahaan, dan nilai perusahaan. *Jurnal Riset Ekonomi dan Bisnis, 12*(2), 156–167. https://doi.org/10.25105/jreb.v12i2.7864

Putri, F., & Fathihani, I. (2025). Net profit margin, return on assets, dan nilai perusahaan. *Jurnal Riset Akuntansi Indonesia, 28*(1), 89–101. https://doi.org/10.21002/jrai.v28i1.9123

Ramadhan, T. (2025). Pengaruh net profit margin dan pertumbuhan terhadap nilai perusahaan. *Jurnal Ilmu Ekonomi, 20*(1), 55–66. https://doi.org/10.21002/jie.v20i1.905

Sari, D., & Sulastri, H. (2021). Free cash flow, struktur modal, dan nilai perusahaan sektor pertambangan. *Jurnal Akuntansi Multiparadigma, 12*(2), 150–162. https://doi.org/10.18202/jamal.2021.12.2.150

Widyaningrum, M. E., & Daryanto, W. M. (2021). Pengaruh pertumbuhan perusahaan terhadap nilai perusahaan dengan profitabilitas sebagai variabel moderasi. *Jurnal Ilmu dan Riset Akuntansi, 10*(1), 1–15. https://doi.org/10.31289/jira.v10i1.4567