

## Analyzing Company Value in Indonesian Pharmaceuticals and Health Care Research Companies

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### Abstract

The development of pharmaceutical and health care research companies shows positive dynamics, driven by innovation, digitalization, supportive regulations, and increased health awareness among the public. Companies continue to adapt to market and technological changes to remain competitive and relevant in both domestic and international markets while responding to evolving global health challenges. The aim of this study is to analyze the return on assets (ROA) and debt-to-equity ratio (DER) in relation to price-to-book value (PBV). This research uses a quantitative approach. The population consists of 13 companies. The sample was determined using purposive sampling, resulting in 10 companies that met the research criteria. Data analysis was conducted using multiple linear regression analysis. The results show that ROA and DER each have a positive and significant impact on PBV. These findings highlight the importance of effective asset management to improve ROA as well as optimal debt management to maximize the use of equity and investments. Enhancing operational performance and efficient asset utilization can increase company value with the PBV indicator, which encourages company to focus on profitability in order to increase their competitiveness and relevance in both domestic and international markets.

**Keywords:** company value; debt-to-equity ratio; price-to-book value; return on assets.

### INTRODUCTION

The pharmaceutical research and health services industry is experiencing various phenomena that reflect the dynamics and challenges in the global health sector. The global development of the pharmaceutical research and healthcare industry is playing an increasingly important role, both in research and development and generic drug production, in countries such as China and India. Additionally, increasing access to essential medicines in developing countries remains a focus, with global initiatives aimed at reducing costs and improving distribution. The development of pharmaceutical and health research companies shows positive dynamics, with growth driven by innovation, digitalization, supportive regulations, and increased health awareness among the public. These companies continue to adapt to market and technological changes to remain competitive and relevant in both domestic and international markets while responding to evolving global health challenges. In addition, industry consolidation occurs in line with increasing merger and acquisition activity, where several large companies acquire small companies or collaborate to expand their product and market portfolios. Another development is the increasing use of generic drugs, driven by government policy and the need to provide affordable medicines to the public. Many companies are increasing their corporate social responsibility programs, particularly in supporting public health and access to medicines.

Based on the above description, considering the current developments of pharmaceutical and health care research companies in Indonesia, this research limits the sample to pharmaceutical and health care research companies listed on the Indonesia Stock Exchange (IDX). This reflects the rapid growth of companies listed on the IDX, along with increased interest from both local and foreign investors in Indonesia's pharmaceutical and health care research industries through direct investments or stock purchases on the

exchange. Several pharmaceutical and health care research companies listed on the IDX report provide financial performance data, such as net profit growth, driven by domestic sales and export growth. The development conditions of pharmaceutical and health care research companies on the IDX in 2024 are influenced by various factors, including financial performance, product innovation, government regulations, market sentiment, and global economic conditions. Overall, pharmaceutical and health care research companies that demonstrate strong financial performance, innovate in products, and adapt to regulatory changes and market trends tend to reflect an increase in stock prices.

Market sentiment and investor reactions, such as positive or negative news related to the company like strategic partnerships and acquisitions, can affect stock prices. Additionally, the increased participation of retail investors in the Indonesian stock market can influence the volatility and stock prices of pharmaceutical companies. An increase in the price-to-book value (PBV) indicates that the market perceives an increase in the intrinsic or fundamental value of pharmaceutical and health care research companies listed on the Indonesia Stock Exchange (IDX). Furthermore, rising net profits lead to increased company equity, ultimately boosting the company's book value. If the market anticipates sustained profit growth, stock prices will rise, reflecting an increase in PBV. Another factor in profit growth is debt reduction, which can enhance the book value of equity, as lower debt levels can increase the company's total assets.

The market often assesses companies with a high return on assets (ROA), reflecting the financial performance of companies that are well managed and able to provide good returns to shareholders. Investors understand how companies effectively manage their assets to generate profits (Dewi et al., 2021). Companies with a high ROA usually have competitive advantages that can drive long-term growth, thereby attracting more investors, which drives demand for shares higher. This can lead to a higher share price increase, along with a higher increase in PBV. Apart from ROA, investors usually also assess the debt-to-equity ratio (DER). The effect of DER on PBV can vary depending on how the company uses debt and how the market views the risk of that debt. Effective and wise use of leverage can increase PBV, while excessive and unproductive use can reduce PBV. Wise debt management can help a company fund expansion and new projects, which can increase sales and profits. When the project is successful, the company's market value can increase, which has an impact on increasing PBV.

Artamevia & Almalita, 2021; Dewanti & Djajadikerta, 2018; Febriana, 2019; Maharani et al., 2021; Misran & Chabachib, 2017; Nasution, 2019; Nofriyani et al., 2021; Safutri et al., 2024; Sari et al., 2021; Suardy et al., 2023; Sudjiman & Sudjiman, 2022) stated that return on assets (ROA) has a positive and significant effect on price-to-book value (PBV). This reflects a high ROA, indicating that the company is able to use its assets efficiently to generate profits, which are usually viewed positively by investors because they show good management capabilities. Investors tend to believe more that the company is able to generate consistent profits in the future. This belief can encourage demand for company shares, thereby increasing the stock market price. A high PBV means the market values the company higher than its book value. An increase in ROA is usually accompanied by an increase in share price (if all other factors remain the same) because the market views the company as a more

valuable and efficient entity. This has an impact on increasing PBV. In contrast, Putra & Sari (2023); Sondakh et al. (2019) stated that ROA does not have a significant effect on PBV. Not all research results show the influence of ROA on PBV; there are still different findings across various industry sectors. The potential increase in PBV may be influenced by market sentiment and/or investor perception, which can fluctuate and do not always align with financial performance. Changes in macroeconomic conditions, government regulations, or global market trends can affect PBV values without being directly related to a company's financial performance as measured by ROA.

Febriana (2019); Misran & Chabachib (2017); Safutri et al. (2024); Sari et al. (2021) stated that the debt-to-equity ratio (DER) has a positive and significant effect on price-to-book value (PBV). This indicates that an increase in DER is followed by an increase in PBV. Companies that use debt to finance profitable projects can potentially boost sales growth and profits, thereby increasing the company's market value, which is reflected in a higher PBV. When a company can manage its debt well and demonstrate stable sales growth, investors may have more confidence in the company's future prospects. This confidence can raise the market price of the company's shares, leading to an increase in PBV. Conversely, Dewanti & Djajadikerta (2018); Maharani et al. (2021); Mahayati et al. (2021); Nasution (2019); Nofriyani et al. (2021); Putra & Sari (2023); Sondakh et al. (2019); Suardy et al. (2023); Sudjiman & Sudjiman (2022) stated that DER does not have a significant effect on PBV. This reflects that not all research findings indicate that DER does not significantly affect PBV, which can vary across different industry sectors. Investors may have differing views on debt. Some investors perceive debt as a risk, while others may see it as an opportunity for company growth.

## LITERATURE REVIEW

### Company Value

According to Hery (2017), the value of a company reflects its future financial performance prospects. The company's value represents investors' views on its stock price, which also reflects their perception of the company's success level, typically associated with stock prices. A higher stock price indicates increasing value. This ratio is used to measure the ratio between the stock price and the profit earned by shareholders. The company's value can be formulated using the Price to Book Value (PBV) ratio, which measures the value that the financial market will give to the company's management. If PBV increases, it means the company has successfully provided good value to shareholders (Fahmi, 2017). PBV serves as an indicator determining how the market assesses the book value of a company. The formula for PBV is as follows:

$$PBV = \frac{\text{Stock Price}}{\text{Earnings per Share}}$$

### Return on Assets

Return on assets (ROA) is the ability of a company to achieve profit after tax using all of its own assets. This ratio is crucial for assessing how effectively a company's management utilizes its assets. The higher the ROA, or, in other words, the greater the profit generated by the assets, the more efficient the company is in utilizing its assets. This ratio examines the

extent to which investments yield expected returns, and those investments are equivalent to the assets of a company that have been invested or placed. If ROA is high within a company, then the company has the capability to generate profit, and investors will become more confident in investing in the company (Yahya & Fietroh, 2021). The formula for ROA is as follows:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

### Debt to Equity Ratio

Kasmir (2018) states that the debt-to-equity ratio (DER) can serve as a measure related to a company's financial structure. The DER ratio functions to determine how much equity is used as collateral for debt. The higher the DER, the less advantageous it becomes because of the increased risk associated with potential company failures. The amount of debt carried by the company can decrease the amount of profit earned by the company. DER that is too high will pose risks to the company if not managed and met timely, but DER that is too low is also not favorable as it may indicate insufficient funds for innovation and expansion. The use of debt is not always negative because it can be utilized by the company to support operational activities and investments. The formula for DER as follows:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Equity}}$$

Artamevia & Almalita (20210; Dewanti & Djajadikerta (2018); Febriana (2019); Maharani et al. (2021); Misran & Chabachib (2017); Nasution (2019); Nofriyani et al. (2021); Safutri et al. (2024); Suardy et al. (2023); Sudjiman & Sudjiman (2022) stated that return on assets (ROA) has a positive and significant effect on price-to-book value (PBV). This reflects ROA as an efficiency measure, indicating how well a company uses its assets to generate profit. When a company has a high and efficient ROA, it indicates that the company can generate substantial profits relative to its assets. A high ROA is typically considered more efficient in managing assets to generate profit, which impacts investor confidence. Increased investor confidence translates into higher demand for shares, there increasing stock market prices. A high ROA indicates good financial performance along with positive growth projections. An increase in ROA positively influences PBV. Companies with high ROA tend to have strong financial performance, including stable profits and good growth potential. This financial performance makes the company more attractive to investors due to its healthy growth prospects and the ability to generate good returns on their investments. This can enhance the company's market valuation. Based on the above description, the first hypothesis ( $H_1$ ) is as follows:

$H_1$ : The Effect of positive return on assets on price-to-book value.

Febriana (2019); Misran & Chabachib (2017); Safutri et al. (2024) stated that the debt-to-equity ratio (DER) has a positive and significant effect on price-to-book value (PBV). DER is an important indicator used to measure the leverage, or the level of debt, of a company relative to its equity. The influence of DER on PBV can vary depending on various factors, such as the industry sector, market conditions, and the company's debt management strategy. Generally, a higher DER tends to decrease PBV due to increased financial risk. However, if

leverage is managed well and used for productive growth, its impact can be positive. Companies that effectively use debt to finance growth and expansion can increase market value, reflected in higher PBV. This occurs because well-managed leverage can enhance profits and productive growth. If investors believe that the company can manage its debt well and generate sufficient profits not only to cover debt costs but also to finance operational activities and increase its investment and equity value, then many investors are more willing to buy the company's shares, leading to increased demand for shares and thus an increase in PBV. Based on the above description, the second hypothesis ( $H_2$ ) is as follows:

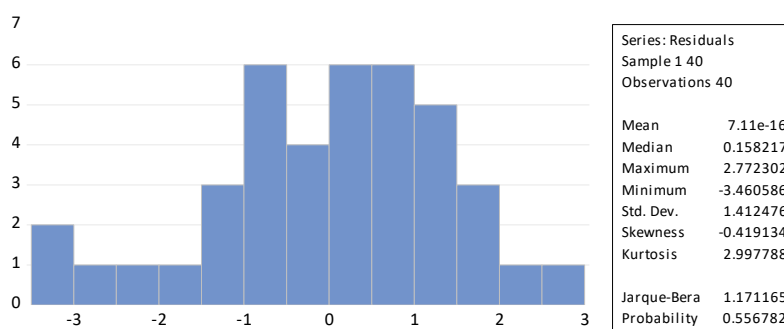
$H_2$ : The Effect of positive debt-to-equity ratio on price-to-book value.

## METHOD

This quantitative research methodology is structured to empirically assess the hypotheses postulated within this study. The study delineates two independent variables, namely Return on Assets (ROA) and Debt-to-Equity Ratio (DER), while Price-to-Book Value (PBV) is designated as the dependent variable. The analysis process was facilitated through the utilization of Eviews software, a powerful tool known for its proficiency in conducting econometric and statistical analyses. The population under scrutiny for this research consists of 13 companies operating within the pharmaceutical and healthcare research sector. Utilizing a purposive sampling technique, a representative sample of 10 companies meeting the predetermined research criteria was selected. Data collected from company website were subjected to meticulous analysis employing multiple linear regression to ascertain the relationships between ROA, DER, and PBV. This methodological approach ensures a comprehensive understanding of the financial dynamics within pharmaceutical and healthcare research companies, thereby providing valuable insights for both academic research and practical applications within the industry.

## RESULT AND DISCUSSION

### 1. Normality Test



Source: Data processed (2024)

**Figure 1. Normality Test**

Based on Figure 1, the normality test is conducted to determine whether the research data follows a normal distribution or not. The normality test used in this study is the Jarque-Bera test. The probability value of 0.556782, or 55.68%, is greater than 0.05. This indicates that the research data follows a normal distribution, there justifying the use of this regression model for further analysis in the study.

## 2. Autocorrelation Test

**Table 1. Autocorrelation Test**

|                   |          |                    |          |
|-------------------|----------|--------------------|----------|
| F-statistic       | 20.31253 | Durbin-Watson stat | 1.050210 |
| Prob(F-statistic) | 0.000001 |                    |          |

Source: Data processed (2024)

Based on Table 1, the autocorrelation test is conducted to determine whether there is a correlation between disturbance variables in period  $t$  and the error at  $t-1$  (previous). The Durbin-Watson statistic is 1.050210, which falls between the range of  $-2$  to  $+2$ . This indicates that there is no autocorrelation issue therefore, all variables in the study can be included in the regression model.

## 3. Multicollinearity Test

**Table 2. Multicollinearity Test**

|     | ROA       | DER       |
|-----|-----------|-----------|
| ROA | 1.000000  | -0.725651 |
| DER | -0.725651 | 1.000000  |

Source: Data processed (2024)

Based on Table 2, the multicollinearity test is conducted to determine whether there is a correlation among the independent variables used in this study. The correlation value between return on assets and debt-to-equity ratio is  $-0.725651$ , which is less than  $0.90$ . This indicates that the independent variables are free from multicollinearity issues. Therefore, the independent variables can be analyzed to predict the dependent variable, which is price-to-book value.

## 4. Heteroskedasticity Test

**Table 3. Heteroskedasticity Test**

Heteroskedasticity Test: Breusch-Pagan-Godfrey  
 Null hypothesis: Homoskedasticity

|                     |          |                      |        |
|---------------------|----------|----------------------|--------|
| F-statistic         | 2.673389 | Prob. F (2,37)       | 0.0823 |
| Obs*R-squared       | 5.050470 | Prob. Chi-Square (2) | 0.0800 |
| Scaled explained SS | 4.316529 | Prob. Chi-Square (2) | 0.1155 |

Source: Data processed (2024)

Based on Table 3, the heteroskedasticity test is conducted to examine whether there is variance inequality in the regression function used in this study using the Breusch-Pagan-Godfrey test. The Chi-Square probability value of  $0.0800$  is greater than  $0.05$ . This indicates that there is no heteroskedasticity issue. Therefore, all variables in the study can be included in the regression model.

## 5. Hypothesis Test

Based on Table 4, the test hypothesis in this research model as follows:

**Table 4. Hypothesis Test**

| Variable           | Coefficient | Std. Error         | t-Statistic | Prob.  |
|--------------------|-------------|--------------------|-------------|--------|
| C                  | 0.063499    | 0.484310           | 0.131112    | 0.8964 |
| ROA                | 20.28582    | 3.471727           | 5.843151    | 0.0000 |
| DER                | 0.316518    | 0.127207           | 2.488210    | 0.0175 |
| Adjusted R-squared | 0.497585    | S.D. dependent var | 2.045885    |        |
| F-statistic        | 20.31253    | Durbin-Watson stat | 1.050210    |        |
| Prob(F-statistic)  | 0.000001    |                    |             |        |

Source: Data processed (2024)

Based on Table 4, the goodness-of-fit test shows an adjusted R-squared value of 0.497585, or 49.76%. This means that return on assets and debt-to-equity ratio have contributed 49.76% to explaining the variation in price to book value, while the remaining 50.24% is explained by other factors not included in this research model. The probability value of the F-statistic is 0.000001, which is less than 0.05. This means that the alternative hypothesis ( $H_a$ ) is accepted, while the null hypothesis ( $H_o$ ) is rejected. Return on assets and debt-to-equity ratios collectively (simultaneously) have a significant effect on price-to-book value. Therefore, this research model is deemed suitable for analysis in a regression model, as all independent variables are capable of predicting the dependent variable. Next, partial hypothesis testing among the variables is conducted, as follows:

### 1. Effect Return on Assets on Price-to-Book Value

Based on Table 4, the probability value is 0.0000, which is less than 0.05. Therefore, the alternative hypothesis ( $H_1$ ) is accepted, while the null hypothesis ( $H_o$ ) is rejected. This means that return on assets has a positive and significant effect on price to book value. With a positive coefficient value of 20.28582, a 1% increase in return on assets will result in a 2028.58% increase in price to book value.

### 2. Effect Debt-to-Equity Ratio on Price-to-Book Value

Based on Table 4, the probability value is 0.0175, which is less than 0.05. Therefore, the alternative hypothesis ( $H_2$ ) is accepted, while the null hypothesis ( $H_o$ ) is rejected. This means that the debt-to-equity ratio has a positive and significant effect on price-to-book value. With a positive coefficient value of 0.316518, a 1% increase in the debt-to-equity ratio will result in a 31.65% increase in price-to-book value.

## DISCUSSION

Return on assets has a positive and significant effect on price-to-book value. The results of this study indicate that the alternative hypothesis ( $H_1$ ) is accepted, which is consistent with the research hypothesis.

Artamevia & Almalita (2021); Dewanti & Djajadikerta (2018); Febriana (2019); Maharani et al. (2021); Misran & Chabachib (2017); Nasution (2019); Nofriyani et al. (2021); Safutri et al. (2024); Suardy et al. (2023); Sudjiman & Sudjiman (2022) states that return on

assets (ROA) has a positive and significant effect on price-to-book value (PBV). This shows that pharmaceutical and health research companies in general have a high ROA, which is statistically correlated with increasing PBV. This supports the first research hypothesis that companies that are more efficient in using their assets to generate profits tend to have higher market valuations. A high ROA shows that a company has good operational efficiency in generating profits from the assets available within the company. When a company can use its assets efficiently to generate profits, investors tend to assess its strong financial performance, followed by projected profit growth, often considering the company to be healthy and profitable. Increased investor confidence usually means higher demand for a company's shares, leading to an increase in PBV.

The debt-to-equity ratio has a positive and significant effect on the price-to-book value. This research result indicates that the alternative hypothesis ( $H_2$ ) is accepted, consistent with the research hypothesis. Febriana (2019); Misran & Chabachib (2017); Safutri et al., (2024) state that the debt-to-equity ratio (DER) has a positive and significant effect on price-to-book value (PBV). This indicates that pharmaceutical and health care research companies with a statistically high DER are correlated with an increase in PBV, supporting the second research hypothesis that companies with high debt levels capable of financing their equity for growth and expansion have a higher market valuation. DER reflects an interesting dynamic in financial structure with an aggressive but well-managed financing strategy. Investors may see greater profit potential in companies that utilize debt for expansion and growth. A high DER, within reasonable limits, can indicate that a company is using debt to finance potentially profitable projects, thus maximizing profits and reflecting healthy financial performance. Well-managed leverage can enhance profit growth. Maximum profit can, in turn, increase the company's equity. If investors believe that the company can manage its debt effectively and generate sufficient profits to cover all necessary costs, they will be willing to purchase the company's shares, leading to an increase in PBV.

## CONCLUSION

The conclusion of this research is that return on assets (ROA) and debt-to-equity ratio (DER) each have a positive and significant effect on price-to-book value (PBV) for pharmaceutical and health care research companies listed on the Indonesia Stock Exchange (IDX) during the period 2019–2022. The implications of these findings are that the positive relationship between these variables encourages companies to focus on effective and efficient asset management. Companies need to improve operational performance and maximize asset utilization to increase ROA. Additionally, companies should implement effective debt management to enhance profitability through the optimal use of debt to finance equity and investments, thereby generating returns that exceed the cost of capital and debt. Understanding the partial positive and significant impact of ROA and DER on PBV is crucial in the context of finance and investment. This indicates that the market values the efficiency of asset utilization in generating profits. Investors tend to view companies with a high ROA as safer and more profitable investments, reflecting lower perceived risk and better profit prospects. A high ROA indicates that the company has good operational efficiency in generating profits from its assets. Pharmaceutical and health care research companies demonstrating healthy financial performance can send a positive signal to investors that the



company is well-managed, ultimately boosting investor confidence and driving up stock prices, which in turn increases PBV. Future research could focus on analyzing the relationship between ROA, DER, and PBV across different industries. This is important because market sensitivity to debt and operational efficiency can vary between industries. Additionally, exploring the role of mediation or moderation variables in the context of the relationship between ROA, DER, and PBV is necessary. Potential variables include company size, dividend policy, operating cash flow, or capital expenditures (CAPEX). Non-financial factors such as reputation, innovation, and corporate sustainability.

## REFERENCES

- Artamevia, J., & Almalita, Y. (2021). Pengaruh Return on Assets, Debt to Assets Ratio dan Faktor Lainnya Terhadap Nilai Perusahaan. *E-Jurnal Akuntansi TSM*, 1(3), 313–324.
- Dewanti, M. P. R. P., & Djajadikerta, H. (2018). Pengaruh Kinerja Keuangan dan Tata Kelola Perusahaan Terhadap Nilai Perusahaan pada Industri Telekomunikasi di Bursa Efek Indonesia. *Jurnal Akuntansi Maranatha*, 10(1). <https://doi.org/10.28932/jam.v10i1.932>
- Dewi, C. S., Jordy, B., & Wijays, H. (2021). Determinants of Capital Structure: Evidence from Indonesian Palm Oil Companies. *Business Excellence and Management*, 11(4), 50–63. <https://doi.org/10.24818/beman/2021.11.4-04>
- Fahmi, I. (2017). *Analisis Laporan Keuangan*. Bandung: Alfabeta.
- Febriana, F. (2019). Pengaruh Dividen Payout Ratio, Return on Asset dan Debt to Equity Ratio Terhadap Nilai Perusahaan (Pada Perusahaan Sektor Consumer Goods Industry yang terdaftar di Bursa Efek Indonesia Tahun 2012-2016). *Jurnal Ekonomi Vokasi*, 2(1).
- Hery. (2017). *Kajian Riset Akuntansi Mengulas Berbagai Hasil Penelitian Terkini Dalam Bidang Akuntansi Dan Keuangan*. Jakarta: PT. Grasindo.
- Kasmir. (2018). *Analisis Laporan Keuangan*. Depok: Rajawali Pers.
- Maharani, A. J., Roswaty, R., & Purnamasari, E. D. (2021). Pengaruh Return on Asset dan Debt to Equity Ratio Terhadap Nilai Perusahaan Subsektor Makanan dan Minuman di Bursa Efek Indonesia. *Jurnal Bisnis, Manajemen, Dan Ekonomi*, 2(1), 29–43. <https://doi.org/10.47747/jbme.v2i1.412>
- Mahayati, F., Fatonah, S., & Meilisa, R. (2021). Pengaruh Return on Equity (ROE) dan Debt to Equity Ratio (DER) Terhadap Nilai Perusahaan (PBV) Pada Perusahaan Manufaktur Sub Sektor Logam dan Sejenisnya Yang Terdaftar Di BEI. *Jurnal Valuasi: Jurnal Ilmiah Ilmu Manajemen Dan Kewirausahaan*, 1(1), 258–267. <https://doi.org/10.46306/vls.v1i1.26>
- Misran, M., & Chabachib, M. (2017). Analisis Pengaruh DER CR dan TATO Terhadap PBV Dengan ROA Sebagai Variabel Intervening (Studi pada Perusahaan Properti dan Real Estate yang Terdaftar pada BEI Tahun 2011 – 2014). *Diponegoro Journal of Management*, 6(1), 1–13.
- Nasution, Y. (2019). Analisis Kepemilikan Institusional, Struktur Modal dan Return on Assets (ROA) Terhadap Nilai Perusahaan Manufaktur Yang Terdaftar Di BEI Periode 2015 -2017. *Jurnal Manajemen*, 3(2), 13–29. <https://doi.org/10.54964/manajemen.v3i2.122>
- Nofriyani, F. E., Halawa, R. A. K., & Hayati, K. (2021). Pengaruh Struktur Modal, Aktivitas, Current Ratio, dan Profitabilitas Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur. *ARBITRASE: Journal of Economics and Accounting*, 1(3), 136–144. <https://doi.org/10.47065/arbitrase.v1i3.180>

- Putra, P., & Sari, E. P. (2023). Pengaruh ROA, CR, dan DER terhadap PBV Pada Sektor Manufaktur Sub Sektor Makanan dan Minuman Yang Terdaftar di Bursa Efek Indonesia Periode 2018-2020. *Manajemen Kreatif Jurnal*, 1(4), 189–202. <https://doi.org/10.55606/makreju.v1i4.2167>
- Safutri, R., Dunakhir, S., & Azis, F. (2024). Pengaruh Current Ratio, Debt Equity Ratio, dan Return on Assets terhadap Price Book Value pada Perusahaan Pertambangan Sub Sektor Batu Bara yang Terdaftar di Bursa Efek Indonesia Periode 2020-2022. *VISA: Journal of Vision and Ideas*, 4(1), 353–367. <https://doi.org/10.47467/visa.v4i1.1949>
- Sari, Chandra, T., & Panjaitan, H. P. (2021). The Effect of Company Size and DER on ROA and Company Value in The Food and Beverage Sub Sector on The Indonesia Stock Exchange (IDX). *Journal of Applied Business and Technology*, 2(2), 134–141. <https://doi.org/10.35145/jabt.v2i2.69>
- Sondakh, P., Saerang, I., & Samadi, R. (2019). Pengaruh Struktur Modal (ROA, ROE dan DER) Terhadap Nilai Perusahaan (PBV) Pada Perusahaan Sektor Properti Yang Terdaftar Di BEI (Periode 2013-2016). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(3).
- Suardy, A. D., Syahyunan, & Sunaryo. (2023). Pengaruh DER Dan TATO Terhadap PBV Dengan ROA Sebagai Intervening Pada Perusahaan Properti & Real Estate. *Jurnal Akutansi Manajemen Ekonomi Kewirausahaan (JAMEK)*, 3(1), 11–20. <https://doi.org/10.47065/jamek.v3i1.355>
- Sudjiman, P. E., & Sudjiman, L. S. (2022). Analisis Pengaruh Profitabilitas, Likuiditas, dan Solvabilitas Terhadap Nilai Perusahaan. *Intelektiva*, 3(10).
- Yahya, K., & Fietroh, M. N. (2021). Pengaruh Return on Asset (ROA) Return on Equity (ROE) Dan Net Profit Margin (NPM) Terhadap Nilai Perusahaan. *Jurnal Manajemen Dan Bisnis*, 4(2).