

The Effect of Liquidity on Stock Prices of Manufacturing Companies in the Automotive Industry Listed on the Indonesia Stock Exchange (IDX) for the Period 2018–2022

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ABSTRACT

The objective of this study is to examine and explain the effect of liquidity on stock prices in manufacturing companies in the automotive industry listed on the Indonesia Stock Exchange (IDX) during the 2018–2022 period. The population of this study consists of 17 manufacturing companies in the automotive industry from 2018 to 2022. Sampling in this study used purposive sampling, which involves selecting samples based on specific criteria; 9 companies were selected over the 5-year period, resulting in 45 observations. This study employed regression analysis using the EViews 12 software. The independent variable in this study is liquidity, and the dependent variable is stock price. The results of this study indicate that the liquidity variable does not affect stock prices.

Keywords: Liquidity, Stock Price.

1. INTRODUCTION

The automotive industry is a key sector in Indonesia's economy, making a significant contribution to GDP and employment. Amid fierce competition, automotive companies need to optimize their financial strategies to enhance shareholder value and attract investors. A critical aspect is understanding the impact of liquidity on stock prices. Indonesia's automotive industry has become a key pillar of the country's manufacturing sector, as many world-renowned automotive companies have opened car factories or expanded production capacity in Indonesia [1]. Furthermore, Indonesia has undergone a remarkable transformation, evolving from a base for export vehicle production (particularly for the Southeast Asian region) into a large-scale domestic vehicle sales market. The growth in vehicle sales in Indonesia is closely tied to the growth of the national economy [1]. The automotive industry encompasses a business chain ranging from parts manufacturing, vehicle assembly, sales networks and after-sales services, to authorized repair shops and general maintenance, including a nationwide parts distribution network. This is because the majority of Indonesians prefer to own private vehicles. Consequently, many investors are interested in investing in Indonesian automotive companies [2].

A high level of liquidity can boost investor confidence in a company, which increases demand for its shares and drives up the stock price. This aligns with capital structure theory, which states that liquidity reflects a company's ability to meet its short-term obligations, thereby enhancing investor confidence and increasing the stock price [3]. Sumarni and Soeprihanto (2014: 331) state that the liquidity ratio is a company's ability to meet its obligations that must be fulfilled immediately in the short term. According to Harahap (2013:301), the liquidity ratio is a ratio that represents a company's ability to meet its short-term obligations.

The liquidity variable, as measured by the current ratio, has a significant positive relationship with stock prices [3]. This is consistent with the findings of a study conducted by [4], which found that liquidity has a significant positive effect on stock prices. Meanwhile, according to research conducted by [5], liquidity measured by the current ratio (CR) does not affect stock prices. This study aims to fill a gap in the literature by empirically examining how capital structure mediates the effect of liquidity on stock prices in automotive manufacturing companies in Indonesia. This study offers a new contribution to understanding the relationship between these variables and provides valuable practical insights for investors and manufacturing companies in the automotive sector when making investment and financing decisions.

2. LITERATURE REVIEW

2.1. Liquidity

Liquidity ratios measure a company's ability to pay its debts in the short term. Calculating liquidity ratios can help company management determine the likelihood of the company repaying various amounts with the goal of making repayments within 365 days from the date of the financial statements [6]. According to Sumarni and Soeprihanto (2014: 331), the liquidity ratio represents a company's ability to meet its obligations that must be fulfilled immediately in the short term. According to Harahap (2013:301), the liquidity ratio is a measure that reflects a company's ability to meet its short-term obligations. On the other hand, Taswan (2010: 246) also expressed a similar view that liquidity can also be defined as a company's ability to meet its payment obligations. This liquidity ratio is highly significant. This is evident in companies that prioritize fulfilling their short-term obligations, as a company's liquidity indicates its ability to meet short-term obligations to creditors. The higher this ratio, the more efficiently the company uses its current assets to meet its current liabilities.

Liquidity refers to a company's ability to meet its short-term obligations. Liquidity is one of the tools used to measure whether a company is meeting its current obligations. A company is considered liquid if it is able to meet its short-term and long-term financial obligations due within the year [7]. Liquidity is treated as the independent variable X1, proxied by the Current Ratio (CR). The Current Ratio (CR) is a ratio used to measure a company's ability to settle current liabilities that are due and payable in the near term, calculated by using its current assets. The current ratio is measured by comparing current assets and current liabilities Keown (2008). This means that the higher the ratio of current assets to current liabilities, the greater the company's ability to pay its short-term debts. A result of 2 is considered ideal, less than 1 is considered low, and greater than 3 is considered too high. Therefore, the current key figure for a company should be greater than 1. However, if the company's value is less than 1, the company can still settle its debts [8].

2.2. Stock Price

Stock prices serve as an indicator of a company's management. Profits ensure investor satisfaction. High stock prices provide companies with the benefits of a positive image and capital gains, thereby making it easier for managers to raise external funds [9]. Meanwhile, according to [10], stocks are a well-known capital market instrument, making them an attractive investment opportunity for investors and considered more profitable than investments in banking institutions. [11] Stock prices are determined by the capital market and are influenced by supply and demand. If business risks increase, stock prices may decline, and stock prices are also difficult to predict.

A stock represents proof of capital contribution or ownership of funds in a company. A stock is a certificate bearing a par value and the company's name, and it outlines the rights and obligations of each shareholder. The stock price is the prevailing buy and sell price in the securities market and is determined by the forces of supply and demand in the capital market. The price per share also reflects the value of the company itself [12]. According to [13], the stock price is the price of a share listed on a stock exchange at a specific time, determined by market participants and influenced by the supply and demand for that stock in the capital market. A stock price is the value of a share that reflects the assets of the company issuing the stock, and fluctuations and changes in stock prices are primarily determined by supply and demand in the stock market. Therefore, the more investors who want to buy or hold a particular stock, the higher its price will rise. Conversely, the more investors who want to sell or no longer hold a company's stock, the lower its price will become.

There are two factors that influence stock price fluctuations: internal factors and external factors. Internal factors originate from within the company itself and can influence stock prices in relation to the company's financial performance. External factors, on the other hand, are factors outside the company that are not directly related to the company's condition [1]. [14] noted that investors are more concerned with current dividend payments than with future capital gains. This is because dividend income carries lower risk, even though future capital gains may yield higher returns. In addition to these risks, there is also uncertainty regarding the company's future cash flows. The prices of the 20 stocks in this study were measured by calculating the closing prices on www.yahoofinance.com.

3. METHODOLOGY

The subjects of this study are manufacturing companies in the automotive industry listed on the Indonesia Stock Exchange (IDX) during the 2018–2022 period. The researcher chose to study automotive companies listed on the Indonesia Stock Exchange because automotive companies are capital-intensive—meaning they invest large amounts of money in their operations—and are actively traded on the Indonesia Stock Exchange. The automotive

industry has unique characteristics, such as large capital requirements, a volatile business cycle, and sensitivity to changes in the macroeconomy. This study will make a significant contribution by analyzing the influence of these variables on the stock prices of companies in the automotive industry.

The population in this study consists of all automotive manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2022 period. Based on IDX data, the study population comprises 17 companies. A sample is a subset of the population selected as the subject of the study [15]. When the population is large, it is impossible for the researcher to study the entire population. Therefore, the study focuses on examining a representative sample. The sample used in this study consists of manufacturing companies in the automotive industry listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. This study uses a sample of 9 companies.

Table 1. List of Research Samples

Code	Company Name
ASII	PT Astra Internasional; Tbk
AUTO	PT Astra Otoparts Tbk
BOLT	PT Garuda Metalindo Tbk
IMAS	PT Indomobil Sukses Internasional Tbk
GJTL	PT Gajah Tunggal Tbk
LPIN	PT Multi Prima Sejahtera Tbk
INDS	PT Indospring Tbk
PRAS	PT Prima Alloy Steel Universal Tbk
SMSM	PT Selamat Sempurna Tbk

3.1. Sampling Techniques

The research sample was selected using purposive sampling, based on the following criteria:

- Automotive manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2022 period.
- Automotive manufacturing companies that consistently published complete and audited annual reports during the 2018–2022 study period
- Automotive manufacturing companies that present complete financial data in accordance with the variables studied, namely liquidity, dividend policy, asset structure, stock price, and capital structure.

The purposive sampling process in this study is shown in Table . below:

Table 2. Research Purposive Sampling Process

No	Purposive Sampling	Total
1.	Automotive manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2022 period	17
2.	Excluding companies that did not publish complete financial statements during the 2018–2022 study period	(5)
3.	Excluding companies that did not provide complete financial data according to the variables under study, namely liquidity, dividend policy, asset structure, stock price, and capital structure..	(3)
Total		9
Data observations over 5 years (2018–2022)		45

Based on the purposive sampling process in Table 2. above, there are 9 companies selected as samples in this study.

4. RESULTS

4.1. Descriptive Analysis

Descriptive analysis is a statistical method used to analyze data by describing the collected data as it is, without intending to draw conclusions that can be generalized. This analytical technique provides a detailed description of the obtained data through a theoretical approach, specifically in the form of frequency distributions, measures of central tendency, and graphical representations.

Table 3. Descriptive Test Results

	Stock Price	Liquidity
Mean	1641.630	2.943987
Median	1115.000	1.682129
Maximum	8225.000	13.04157
Minimum	122.0000	0.601606
Std. Dev.	1871.292	2.616419
Skewness	2.152883	1.857301
Kurtosis	6.829235	6.598602
Jarque-Bera	62.25499	50.15290
Probability	0.000000	0.000000
Sum	73873.33	132.4794
Sum Sq. Dev.	1.54E+08	301.2086
Observations	45	45

Based on the test results presented in Table 3, the following can be explained:

- Looking at stock prices from 2018 to 2022, the highest stock price recorded by companies in the automotive industry sector was 8,225,000, while the lowest was 122,000. Overall, the average stock price (Mean) for companies in the automotive industry sector listed on the Indonesia Stock Exchange is 1,641,630, with a standard deviation of 1,871,292.
- Liquidity from 2018 to 2022 shows that the lowest liquidity ratio for companies in the automotive industry sector was 0.601606, or 60%, while the highest was 13.04157, or 130.415%. Overall, the average (mean) liquidity value generally held by automotive industry companies on the Indonesia Stock Exchange is 2.943987, with a standard deviation of 2.616419.

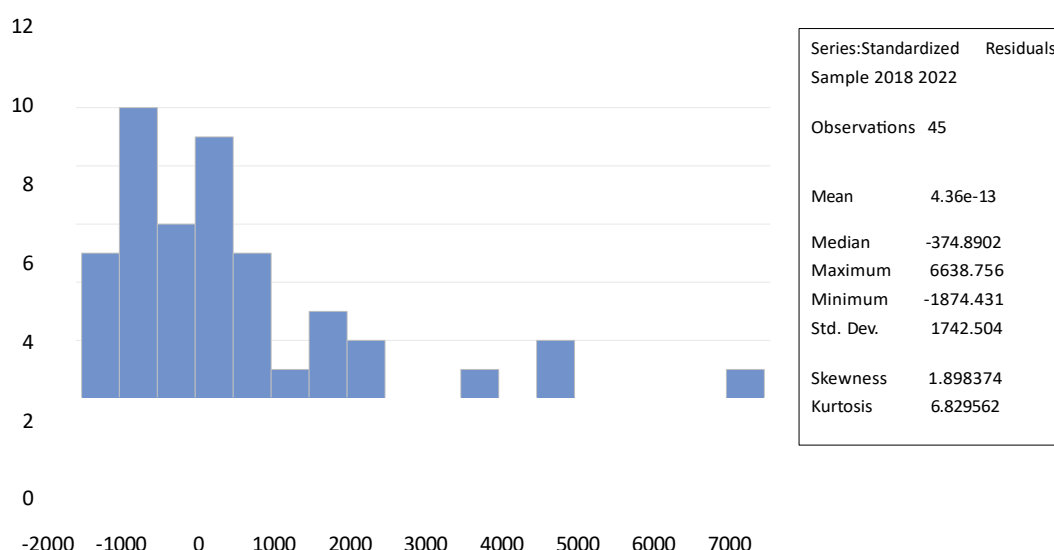
4.2. Classical Assumption Tests

Classical assumption testing is a type of statistical test that examines the assumptions that must be met in multiple linear regression analysis for the data to be suitable for analysis. The primary purpose of classical assumption testing is to ensure that the resulting linear regression model meets the necessary criteria to be considered valid and that its results are reliable.

4.2.1. Normality Test

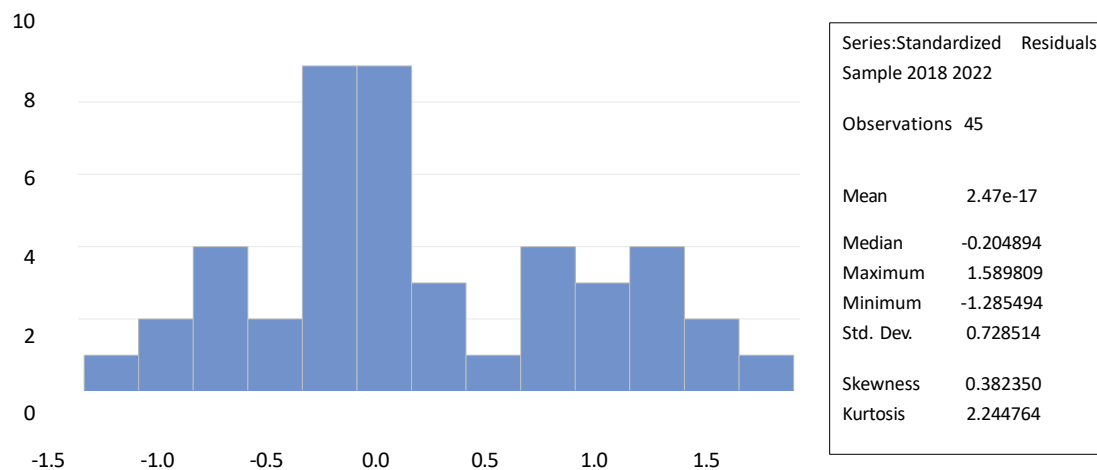
A normality test is used to determine whether the residuals are normally distributed or not. To determine whether they are normally distributed, the Jarque-Bera test is used. If the Jarque-Bera (JB) value is greater than 0.05, the residuals can be said to be normally distributed. If the Jarque-Bera probability value is less than 0.05, the residuals can be said not to be normally distributed.

Tabel 4. Normality Test Results



It can be concluded that the results of the normality test for the output in Table 4 show a probability value of $0.000000 < 0.05$; therefore, the residuals are not normally distributed. To address the non-normal distribution of the data, we will use the natural logarithm.

Table 5. Results of the Normality Test Using the Natural Logarithm



It can be concluded that the results of the normality test for the output in Table.5 show a probability value of $0.338595 > 0.05$; therefore, it can be concluded that the residuals are normally distributed using the natural logarithm.

4.2.2. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is unequal variance in the residuals from one observation to another within the regression model. There are several methods for detecting the presence of heteroscedasticity, including the Glazer test. The significance level used is $\alpha = 0.05$, which is commonly employed in research.

Table 6. Heteroscedasticity Test Result

Sample: 2018-2022

Periods included: 5

Cross-sections included: 9

Total panel (balanced) observations: 45

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0.327374	0.094689	3.457346	0.0013
X1	0.081559	0.021176	3.851442	0.0004

Based on the results in Table 6. above, it can be concluded that the results of the heteroscedasticity test indicate that the probability values for X1 are greater than 0.05; therefore, it can be concluded that the data do not exhibit heteroscedasticity.

4.2.3. Autocorrelation Test

The autocorrelation test aims to determine whether, in a linear regression model, there is a correlation between the residuals at period t and those at period $t-1$ (the previous period). If such a correlation exists, it is referred to as an autocorrelation problem. Autocorrelation can be assessed using the Durbin-Watson (DW) statistic. The DW test is only used to detect first-order autocorrelation and requires the presence of an intercept (constant) in the regression model and the absence of lagged variables among the independent variables.

Table 7. Autocorrelation Test Result

Sample: 2018-2022

Periods included: 5

Cross-sections included: 9

Total panel (balanced) observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1780.894	480.0245	3.710007	0.0006
X1	-176.5608	107.3528	-1.644678	0.1077
Root MSE	1723.034	R-squared		0.132909
Mean dependent var	1641.630	Adjusted R-squared		0.069463
S.D. dependent var	1871.292	S.E. of regression		1805.129
Akaike info criterion	17.91934	Sum squared resid		1.34E+08
Schwarz criterion	18.07993	Log likelihood		-399.1851
Hannan-Quinn criter.	17.97921	F-statistic		2.094847
Durbin-Watson stat	0.271094	Prob(F-statistic)		0.115729

Based on the output in Table 7. above, it can be concluded that the results of the autocorrelation test show a Durbin-Watson statistic of 0.271094. Given that N (number of data points) is 45 and K (number of independent variables) is 3, based on the Durbin-Watson reference table with $\alpha = 5\%$, the following results are obtained:

- L value = 1.3832
- 4-DL value = 2.6168
- DU value = 1.6662
- 4-DU value = 2.3338
- Durbin-Watson value = 0.271094

Therefore, the results of the Durbin-Watson autocorrelation test show that $DU < DW < 4-DU$ ($1.6662 < 0.271094 < 2.3338$). It can be concluded that the data does not exhibit autocorrelation or passes the autocorrelation test because the Durbin-Watson statistic falls between the DU and 4-DU values.

4.3. Hypothesis Testing

4.3.1. Partial Hypothesis Testing (t-Test)

A t-test is conducted to examine the effect of a single independent variable on the dependent variable, assuming that all other independent variables are held constant Ghozali, (2017). If the probability value for each independent variable is less than 0.05, there is an effect of the independent variable on the dependent variable. Conversely, if the probability value for each independent variable is greater than 0.05, there is no effect of the independent variable on the dependent variable.

Table 8. Results of the Partial Hypothesis Test (T-Test)

Sample: 2018-2022

Periods included: 5

Cross-sections included: 9

Total panel (balanced) observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1780.894	480.0245	3.710007	0.0006
X1	-176.5608	107.3528	-1.644678	0.1077

Based on the results in Table 8. above, the results of the t-test—or the partial effect of the independent variables on the dependent variable—are as follows:

- The Prob. value for X1 is 0.1077, which is greater than 0.05; therefore, H_a is rejected and H_o is accepted. It can thus be concluded that the liquidity variable does not affect stock prices. This means that H1, which states that liquidity has a positive and significant effect on stock prices, is not proven or is rejected.

4.3.2. Simultaneous Hypothesis Test (F-Test)

Table 9. Simultaneous Hypothesis Test (F-Test) Result

R-squared	0.132909
Adjusted R-squared	0.069463
S.E. of regression	1805.129
Sum squared resid	1.34E+08
Log likelihood	-399.1851
F-statistic	2.094847

Prob(F-statistic)	0.115729
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Based on the results in Table 9. above, the F-test results can be seen. The simultaneous hypothesis test in this study was conducted to determine whether the independent variables have a combined effect on the dependent variable. Since the probability value of 0.115729 is greater than 0.05, H_a is rejected and H_o is accepted; thus, it can be concluded that liquidity, dividend policy, and asset structure do not affect stock prices. Consequently, the independent variables do not have a simultaneous effect on the dependent variable.

4.3.3. R-Square (R²)

Table 10. R-Square Test Results

R-squared	0.132909
Adjusted R-squared	0.069463
S.E. of regression	1805.129
Sum squared resid	1.34E+08
Log likelihood	-399.1851
F-statistic	2.094847
Prob(F-statistic)	0.115729

Based on the results in Table 10. above, the R-Square test results can be seen. The independent variables—liquidity—explain 0.06, or 6%, of the dependent variable (stock price), while the remaining 94% is explained by other variables.

5. DISCUSSION

This discussion is based on the results of tests conducted to obtain analytical findings that explain the relationship between the independent and dependent variables. In the test results from this study, there are two variables: one independent variable liquidity and one dependent variable stock price

5.1. The Effect of Liquidity on Stock Prices

Based on the results of the hypothesis test (t-test) for the liquidity variable, as projected by the current ratio (CR), on stock prices, the calculation shows that the Prob. value obtained is 0.1077, which is greater than 0.05. Therefore, it can be concluded that the liquidity variable does not affect stock prices. This means that hypothesis H_1 , which states that liquidity has a positive and significant effect on stock prices, is not proven or is rejected. This implies that stock prices will not rise even if a company does not manage its debt effectively. This study aligns with the research by [5], [16], and [17], which state that liquidity does not affect stock prices. Meanwhile, this study contradicts the research conducted by [18], which states that liquidity has a positive and significant effect on stock prices.

6. CONCLUSION

Based on the results of a study on the effect of liquidity on stock prices of manufacturing companies in the automotive industry listed on the Indonesia Stock Exchange (IDX) for the period 2018–2022, the following conclusions can be drawn. The effect of liquidity on stock prices, as directly indicated by the hypothesis test (t-test), shows a Prob. value of 0.1077, which is greater than 0.05. Therefore, based on these calculations, it can be concluded that the liquidity variable does not affect stock prices in automotive manufacturing companies listed on the IDX during the 2018–2022 period.

REFERENCES

- [1] Anisya, V., & Hidayat, I. (2021). Pengaruh Rasio Likuiditas, Aktivitas, Profitabilitas Dan Tingkat Suku Bunga Terhadap Harga Saham Perusahaan Otomotif Yang Terdaftar Di Bei. *Jurnal Ilmu Dan Riset Manajemen*, 10(1), 1–21.
- [2] Prabowo, R., & Sutanto, A. (2019). Analisis Pengaruh Struktur Modal, dan Likuiditas terhadap Profitabilitas pada Perusahaan Sektor Otomotif di indonesia. *Jurnal Samudra*

- Ekonomi Dan Bisnis*, 10(1), 1–11. <https://doi.org/10.33059/jseb.v10i1.1120>
- [3] Widodo, M., & Jubaedah. (2021). Pengaruh Likuiditas, Profitabilitas Dan Leverage Terhadap Harga Saham Perusahaan Sub Sektor Otomotif Dan Komponennya Yang Tercatat Pada Bursa Efek Indonesia. *Journal of Young Entrepreneurs*, 2(1), 45–58
- [4] Widodo, M., & Jubaedah. (2021). Pengaruh Likuiditas, Profitabilitas Dan Leverage Terhadap Harga Saham Perusahaan Sub Sektor Otomotif Dan Komponennya Yang Tercatat Pada Bursa Efek Indonesia. *Journal of Young Entrepreneurs*, 2(1), 45–58
- [5] Widyaningrum, D., & Lisiantara, G. A. (2022). Profitabilitas, Kebijakan Dividen, Struktur Modal Dan Likuiditas Terhadap Harga Saham. *Journal of Mangement and Bussines (JOMB)*, 4 (2) <https://doi.org/10.31539/jomb.v4i2.4508>
- [6] Prestiwi, P. D. C., Kencana, D. T., & Fadly, M. (2022). Pengaruh Profitabilitas, Likuiditas Dan Aktivitas Terhadap Harga Saham Perusahaan Sub Sektor Ritel Yang Terdaftar Di Bursa Efek Indonesia Tahun 2016-2020. *JCI Jurnal Cakrawala Ilmiah*, 1.
- [7] Horne, J. C. Van, & Wachowicz, J. M. (2014). *Prinsip-Prinsip Manajemen Keuangan*. Salemba Empat. Jakarta.
- [8] Pattinaja, E., & Novitasari, A. (2021). Pengaruh Likuiditas Dan Kebijakan Dividen Terhadap Harga Saham Perusahaan (Studi Empiris Pada Perusahaan Indeks Lq45 Periode 2015-2019). *Manis: Jurnal Manajemen Dan Bisnis*, 5(1), 1–13. <https://doi.org/10.30598/manis.5.1.1-13>
- [9] Hardini, A. R., & Mildawati, T. (2021). Pengaruh Likuiditas, Profitabilitas, Dan Struktur Modal Terhadap Harga Saham. *Jurnal Ilmu Dan Riset Akuntansi*, 10. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/3810/3821>
- [10] Wardani, D. P. (2021). Pengaruh Struktur Aktiva, Pertumbuhan, Dan Profitabilitas Terhadap Harga Saham Perusahaan Indeks lq45. *Jurnal Aktual Akuntansi Keuangan Bisnis Terapan (AKUNBISNIS)*, 4(2), 119. <https://doi.org/10.32497/akunbisnis.v4i2.3112>
- [11] Prestiwi, P. D. C., Kencana, D. T., & Fadly, M. (2022). Pengaruh Profitabilitas, Likuiditas Dan Aktivitas Terhadap Harga Saham Perusahaan Sub Sektor Ritel Yang Terdaftar Di Bursa Efek Indonesia Tahun 2016-2020. *JCI Jurnal Cakrawala Ilmiah*, 1.
- [12] Fahmi, I. (2014). *Analisis laporan keuangan*. Bandung : Alfabeta.
- [13] Lumopa, C. E., Tulung, J. E., & Palandeng, I. D. (2023). Pengaruh Struktur Modal, Kinerja Keuangan, Dan Kebijakan Dividen Terhadap Harga Saham Perusahaan Idx30 Yang Terdaftar Di Bei Tahun 2017-2021. *Jurnal EMBA : Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 11(1), 992–1008. <https://doi.org/10.35794/emba.v11i1.46550>
- [14] Eugene, F. B., & Michael, C. E. (2008). *Financial Management Theory and Practice*.
- [15] Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. Alfabeta.
- [16] Rinofah, R., Sari, P. P., & Sari, N. (2022). Analisis Rasio Likuiditas, Solvabilitas, Dan Profitabilitas Terhadap Harga Saham Dengan Earning Per Share (EPS) Sebagai Variabel Moderasi. *Gorontalo Accounting Journal*, 5(1), 29. <https://doi.org/10.32662/gaj.v5i1.1879>
- [17] Hasanah, U., & Sulistiyo, H. (2021). The Effect Of CR, DER, and ROE On Stock Prices Transportation Sub Sector Companies Listed On The Indonesia Stock Exchange. *Nominal : Barometer Riset Akuntansi Dan Manajemen*, 10(1). <https://doi.org/https://doi.org/10.21831/nominal.v10i1.33761>
- [18] Sari, I. A., & Herusuprihadi. (2020). Pengaruh struktur modal, profitabilitas, dan likuiditas terhadap harga saham. *Jurnal Ilmu & Riset Manajemen*, 9(11), 1–12.