

The Effect Of EVA, Leverage, And Liquidity On The Stock Price

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Abstract: The study intends to find empirical evidence that shows the effect of economic value added, leverage, and liquidity on stock prices in the manufacturing industry registered on the Indonesia Stock Exchange in the period 2018 to 2020. The study was conducted by taking 71 samples using the technique of purposive sampling. From the results of the partial t-statistical test, it was proved that leverage (DAR) and liquidity (CR) had positive and significant influences towards stock prices, while economic-value-added (EVA) had no significant influence towards stock prices.

Keywords: Stock Price; Economic Value Added; Leverage; Liquidity.

Abstrak: Objektif riset ini adalah untuk menemukan bukti empiris yang memperlihatkan pengaruh variabel economic-value-added, likuiditas, dan leverage kepada harga saham dari perusahaan sektor industri manufaktur yang teregistrasi di Bursa Efek Indonesia pada rentang waktu tahun 2018 sampai tahun 2020. Penelitian dilakukan dengan mengambil 71 sampel dengan teknik purposive sampling. Dari hasil uji parsial t-statistik ditemukan bahwa leverage (DAR) dan likuiditas (CR) berpengaruh positif terhadap harga saham, sementara EVA tidak signifikan mempengaruhi harga saham.

Kata Kunci: Harga Saham; Economic Value Added; Leverage; Likuiditas.

INTRODUCTION

It is undeniable that the rapid pace of technological development in the current era of globalization has resulted in many companies from various industrial fields having to be ready to compete with other companies. To increase economic activity, these companies are trying to enter domestic and international markets. One aspect that must be fulfilled is the issue of funding. These companies try to raise funds by issuing shares in the capital market so that investors can inject funds into the company. The capital market is used by companies as a funding facility and investment vehicle for companies. Stock is one of the securities that are profitable and can also be detrimental because of its fluctuating prices, which means that the price can go up and down, so investors have a high risk of investing in stocks.

The stock price has been seen as a gauging instrument in assessing the success of managing a company. The stock price that has consistently increased will make investors have a positive view and believe that the company is successful in managing its business. The trust of a good investor in a company is very important because the trust of an investor in a particular company, the greater the possibility of the investor investing in the company. The higher demand for a company's shares can increase the stock price. If high stock prices can be maintained in a stable condition, then investors or potential investors will increasingly have high confidence in the company, where the impact will be an increase in the value of the company. If the opposite situation occurs, namely when the stock price



continues to decline, the result will be that investors will judge the value of the company to be lower. For rational prospective investors, the decision to invest in stock will be preceded by the process of analyzing variables that are expected to affect the stock price. This is due to the nature of stocks that are very sensitive to changes that occur both in changes in money market conditions, financial performance, and the domestic political situation. Before investing in stocks, investors will first see and analyze the performance of the company. Analysis of the company's performance is carried out to determine whether the company is in good health and is experiencing development or vice versa. To see the performance of companies that have gone public is usually seen in financial reports that are published to the public. Earnings information is the information that gets the most attention from various groups, especially investors. When a company's stock price rises consistently, investors will have a positive image and believe that the company is well managed its business. This trust from investors or worthy investors is what the company wants because this trusts the greater the opportunity for investors to invest their funds in the company. The higher demand for a company's shares will push the stock price up. A high stock price can be maintained and stable, the confidence of investors or potential investors in the company will also be higher, and this can increase the company's value. The opposite situation occurs, where the stock price has decreased continuously, which will result in reducing the company's value in the eyes of investors or potential investors. For rational prospective investors, the decision to invest in stock will be preceded by process of analysis of variables that are expected to affect the price of a share. This is due to the nature of stocks that are very sensitive to changes that occur both in changes in money market conditions, financial performance, and the domestic political situation. Before investing in stocks, investors will first see and analyze the company's performance. Analysis of the performance of the company is carried out to determine whether the company is in good health and is experiencing development or vice versa. To see the performance of companies that have gone public is usually seen in financial reports that are published to the public. Earnings information is the information that gets the most attention from various groups, especially investors.

(Dornean and Cristian, 2017) Explain that stock prices act as the most dominant market mover in the corporate social responsibility of corporate organizations. The stock price is proof of ownership of the company's shares which is used as a capital investment which, in turn, will get results in the form of rights to the resulting dividends. Therefore, the stock price for the company is very important because it can be taken into consideration by investors in investing in the purchase of the company's shares. This makes investors have to be able to consider and get a lot of information about both a fundamental and technical point of view of the company. There are several companies whose stock prices fluctuate or change, such as PT. Perusahaan Gas Negara, Tbk (PGAS). and PT. Katarina Utama, Tbk. The case of PT. GAS, Tbk. (PGAS) in 2007 where the stock price of PGAS fell by around 23 per cent in one day due to violating regulations in the delivery of information related to the delayed commercial schedule for the pipeline project in South Sumatra, West Java, resulting in panic selling which caused PGAS company shares to fall by around 23 per cent in one day. PT Katarina Utama, Tbk. In 2010, there were deviations in the use of Initial Public Offering (IPO) funds, so the company's stock transactions were temporarily suspended due to the occurrence of this deviation; then, the following day, the shares immediately fell by about 25per cent. From these cases, it can be seen that many factors can affect the ups and downs of the stock price in the capital market.



Shareholders often suspect that directors are reluctant and not serious about maximizing shareholder wealth, which should be the main duty and function of a manager to give maximum efforts to increase shareholder wealth. But in reality, managers' decisions are often more in favour of the interests of other parties outside the shareholders and at the expense of the interests of shareholders (Sintyawati and Dewi, 2018). One of the efforts to improve the company's economy is by issuing securities or shares to attract investors to inject their funds into the company. There are many studies conducted on the factors that can affect the stock price, including traditional performance, EVA (Economic Value Added), DER (Debt Equity Ratio), EPS (Earning Per Share), and others. Given the limited time and energy in this study, and because there are so many factors that can affect the movement of stock price, this study only takes a few factors influencing the stock price, including EVA (Economic Value Added), Leverage (DAR), and Liquidity (CR).

According to (Irawan and Manurung, 2020), Economic Value-added (EVA) is a measuring tool that can be used to quantify the level of profitability in the current year of a company. It can also measure company performance based on the size of the added value obtained in a certain period. EVA can be used as a value-based benchmark for company performance, which describes the absolute amount of shareholder value that can be generated or destroyed in a certain period.

The definition of leverage according to (Rosyida et al., 2020) said that leverage is defined as the utilization of company resources and funds that have fixed costs in the interest of increasing the potential profits of shareholders. According to (Utami and Pardanawati, 2016), the leverage or solvency ratio shows that a company can meet its short-period and long-term obligations. Leverage is closely related to funding policies that affect the achievement of company profits. If the leverage is higher, it will show greater trust from outside parties. This can encourage an increase in the stock price of a company because the large capital provided, the greater the opportunity to achieve a level of profit (Rani, 2019).

According to (Utami and Pardanawati, 2016), "liquidity is a financial ratio that can be used to determine a company's ability to meet its short-term financial obligations on time", while according to (Hanie and Saifi, 2018), management can take advantage of liquidity as a tool to measure the extent to which the company is able to pay its obligations to external parties as they fall due. Measurement of liquidity analysis is carried out to assess whether the company can settle its financial obligations or pay debts promptly.

THEORETICAL REVIEW

Agency Theory. The Theory of Agency is a theory that explains the relationship between the investor/owner (principal) and management (agent). Investors require management to be able to make decisions that are not detrimental to the investor, even though there are various conflicts of interest and decisions that investors and management have (Sintyawati and Dewi, 2018). According to agency theory is a relationship between superiors and subordinates where the agent is a representative of the principal, and the agent is expected to act as the principal wishes, including which decision-making is allowed by management.

It can be said that the increasing sales growth will increase profit as well. It is undeniable that managers will certainly try to maximize the profits obtained by thinking about various ways that can be done. The same thing happens with leverage. The implementation of a leverage policy to utilize external funding to support the company's



operations can indeed increase interest, but this leverage policy can reduce the tax expense that must be paid immediately by the company because of the policy on tax protection. Both situations are certainly included in the calculations of managers in formulating profit-maximizing programs.

It can be seen that the principal has the desire to get the maximum return for the principal or raise the stock price as high as possible, while the agent wants to advance the company broadly for the long term and maximize the company's revenue. Therefore, the occurrence of misaligned interests between the agent and the principal cannot be avoided due to conflicting desires.

Agency theory has weaknesses. One of the weaknesses of agency theory is the possibility of interest conflict between the principal and agent. This conflict can occur due to several different desires, such as interests, expectations, the role of governance, and also the desire of agents to have high salaries (Ross et al., 2019). Another weakness of this theory is the presence of information asymmetry, where management (agent) has more information related to the condition of the company internally than the investor/owner as a principal.

Signalling Theory. (Mayangsari, 2018) explained that a signal is a form of concrete steps as a signal taken by the company's management to be able to convey a signal or information to investors that reflects the condition of the company so that investors get a picture of the company's prospects. (Mariani and Suryani, 2018) Argue that this signal theory explains that companies are required to be able to provide information about financial reports to investors because these signals are related to information about companies that must be disclosed to the public in a complete, accurate, and relevant manner for use in decision-making. Investment in the capital market. Companies that always provide positive signals for investors can certainly increase investors' interest in conducting transactions in these companies because they have customer confidence that this company has good prospects.

It can be concluded that the signalling theory is related to this research, signals are used to describe the behaviour when individuals or companies in a network obtain information. The sending party must choose how to communicate or give a signal about the information obtained from the source, and the receiving party must be able to interpret the signal. The signal can also be used for promotional activities to provide information about the advantages of a company. This can emphasize that the company has a good reputation for maintaining its value. A signal is not only about superior information. On the other hand, there are good signals (good news) and bad signals (bad news). A good signal certainly means a positive thing in the form of an increase in sales or favourable conditions. Bad signals mean unwanted negative things, such as losses.

Shareholder Theory. According to Smerdon's Shareholder Theory, the most basic responsibility of the board of directors is to increase shareholder value (Langager and Brock, 2022). That's why most companies prioritize the interests of shareholders over the interests of their employees, customers, suppliers, and the environment. Shareholder theory states that management will try to build cooperation with shareholders to increase company value. Management will carry out many activities to maximize profits and minimize losses. To achieve this goal, management can use all existing resources, such as physical assets, company buildings, and also human resources, to gain profits. In the implementation process, management can manage all existing resources in the company, starting from employee capital (human capital), and physical assets (physical capital), to buildings (structural capital). Utilization and management of all resources properly can increase and



generate added value for the company so that, in time, it will have an impact on the better financial performance of the company. All benefits from activities carried out by company management are intended for the benefit of shareholders or shareholders.

The shareholder theory is a theory that says there is a group of people who have interests and obligations other than shareholders. This is what is called a shareholder (Bello and Abu, 2021). While (Pattisahusiwa and Diyanti, 2017) reveal that shareholder theory is a set of regulations and practices associated with shareholders, values, compliance with the law, and community respect for the surrounding environment. This shareholder theory is the basis of corporate social responsibility. Shareholder theory explains if a company is not an entity that only operates for the benefit of the entity itself, the company must provide benefits for its shareholders. Therefore, shareholder theory forces companies to focus not only on financial reports but also focus on social factors.

This creates consideration for consumers in making decisions to make purchases at the company, thus influencing stakeholders to see the strengths of the company so that the consideration for investing in a company is not only on the company's financial performance but also on concern for the environment around the company.

Based on this description, shareholder theory can be said to be the basis for the emergence of Corporate Social Responsibility (CSR) in a company as a concept and action taken by the company to realize a social sense and a form of sense of responsibility towards the community in the environment where the company stands. Examples of CSR activities include carrying out activities that can improve the welfare of the surrounding community, providing educational scholarships to underprivileged children, building public facilities, and providing financial assistance for the prosperity of the community in general, and the community around the company's environment in particular.

Stock Price. The stock price is the price that occurs on the exchange at a certain time. Stock prices can increase or decrease in a matter of time so quickly. Stock prices can change in minutes or even seconds. This is because it is affected by demand and supply between stock buyers and stock sellers.

The stock price is one of the indicators used by investors to estimate the profits to be obtained (Idris et al., 2021). The stock price can show the state of the company in question and the industry involved in it. The average increase in the total share price of a company can indicate that the company is strengthening. Market perception of the company's condition and economic conditions can affect stock prices. There are at least four types of prices on the IDX, namely the first opening price (open price), second highest price (high price), third lowest price (low price) and fourth closing price (closing price) (Idris et al., 2021). The process of stock price occurrence begins when the industry is established, the stock price is seen from the composition of its own capital per share, and then as the industry progresses, the demand for supply of stock prices occurs on the stock exchange. The rise and fall of stock prices is something that is common because the forces of supply and demand drive it. If the demand is high, the price will go up; otherwise, if the supply is high, the price will go down. Stock prices fall when demand is lower than supply. On the other hand, if supply is less than demand, the stock price will rise. This research uses closing prices.

Economic-Value-Added (EVA). The EVA method is one of the applications of VBM (value-based management), which was first developed by Joel M. Stern and Stewart, financial analysts from the company Stern Stewart & Co, in the late 1980s. Economic Value Added (EVA) is an approach or method of measuring the company's operational



performance taking into account the interests and expectations of the providers of funds (creditors and shareholders). Then it is also referred to as a performance measurement tool and a value creation measure (Khan and Ali, 2016). Putra and Sibarani (Putra and Sibarani, 2018) suggest that EVA is an estimate of the actual economic profit of a business for a certain year and is very much different from accounting profit because accounting net income is not reduced by the cost of equity while in EVA calculation, these costs will be incurred. According to (Sabol and Sverer, 2017) Economic-Value-Added is a concept of assessing the firm's financial performance, with the calculation of Economic Value-added it is hoped that investors can obtain the results of calculations about the company's performance correctly.

Leverage. According to Weston and Copeland (Hertina et al., 2019), leverage is a measure of how much the company's assets are budgeted for by debt compared to private equity. Leverage is one of the company's efforts in processing debt funds or loan capital used by the company with the aim of increasing the return on funds and generating company profits.

Leverage is one of the important aspects in influencing the value of a company which will have an impact on market valuations that influence the company's stock price. Likewise, companies with high liquidity will have an impact on stock prices because it indicates that at any time, the company can meet the payments needed for the smooth running of the company. In addition, the high profitability of the company indicates that the company's performance is very good and the company's profits increase so that the stock price will rise, and decision-making by investors is also influenced by these factors (Sicily et al., 2022)

Liquidity. The liquidity ratio is basically a ratio or comparison that represents the ability of an organization to fulfil its financial obligations in a short period of time (Suhendro, 2017). Liquidity is not only related to the situation of all financial matters of a company but also has to do with the ability to convert current assets into cash (Dewi, 2016). From this explanation, it can be seen that the purpose of liquidity ratio analysis is to determine the ability of a company to pay its short-term obligations on time. An organization that has a certain liquidity so that all of its financial obligations can be fulfilled is said that the organization is liquid, and vice versa if an organization does not have liquidity, it is unable to meet its financial obligations that must be resolved immediately, it is called an insolvable company or organization (Dewi, 2016). That way, the ratio or liquidity ratio has an influence on the financial performance of a company, which in the end, the ratio has a relationship with the company's stock price.

Effect of EVA on Stock Price. According to Shareholder Theory, the main objective for companies to carry out company operations is to maximize shareholder value, one of which is the stock price. Management is expected to have good performance and a way of expressing the company management's performance. If the performance of management is considered good by investors, the value of the stock price will increase (Kumar, 2017).

If the company can disclose the value of Economic Value-added properly, the company will provide a green light for investors to invest or buy company shares on the stock market. Investment or the purchase of company shares will ultimately increase the stock price in the market. This statement is supported by some research conducted by (Fajaria et al., 2018) and (Nugroho, 2018) which states that a good disclosure of Economic Value-added values will have a significant effect on the stock price.

Effect of Leverage on Stock Price. Debt to Asset Ratio is a proxy that can be used to evaluate financial statements as an indicator that indicates the amount of collateral for



creditors. According to research conducted by (Lie and Ruslim, 2020), a higher DAR will increase the debt cost, where the impact is that investors will want greater profits. A high DAR ratio indicates a weak proportion of own capital in financing assets. This condition will create a negative image in the eyes of investors in the capital market. In other words, an increased DAR value will lead to a decrease in the company's stock price, and in turn, will reduce the company's profitability. The decline in company profits will cause investor demand for these shares to decrease, which in turn will cause the share price to decrease.

Effect of Liquidity on Stock Price. Refers to the theory brought up by (Brigham and Houston, 2019) states that stock prices can continue to rise if the value of the asset management liquidity ratio, profitability ratios, and debt management looks good, and these conditions continue and are quite stable from year to year. The current ratio is a liquidity ratio that shows the comparison between current assets and current liabilities. When the current ratio is good, the company's ability will be able to meet its short-term debt and can avoid problems related to liquidity. That is what ultimately attracts investors and results in an increase in stock price.

Based on the linkages between the variables described and some previous studies above, the following is a framework of thought in this study, namely:

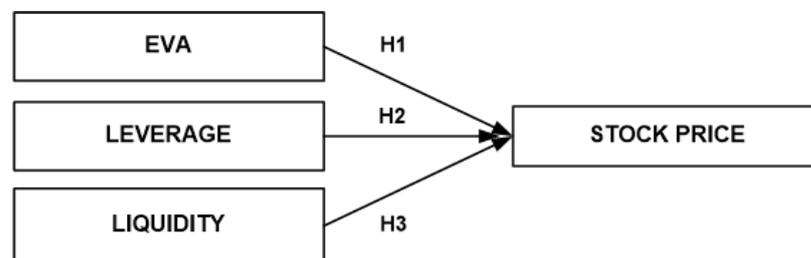


Figure 1. Research Model

The following is a hypothesis based on the previous framework:

Ha1: Economic Value-added influences the stock price positively.

Ha2: Leverage affects the Stock Price positively.

Ha3: Liquidity affects the Stock Price in a positive direction.

METHODS

The subjects and population of this study include all companies in the manufacturing industry group at IDX, which are listed from 2018 to 2020. The objects analyzed include Economic Value Added, Leverage, and Liquidity. Stock Price act as the dependent variable in this study. The research panel data is obtained by extracting the company's financial statements, which can be accessed from IDX's official website. Samples were collected by purposive technique. From the companies included in the population, samples were selected with the following criteria: (1) The company has been listed on the IDX continuously during the year 2018-2020. (2) The company has comprehensive financial statements for the year 2018-2020. (3) The company provides all the necessary data for this research.

Variable operationalization consists of two types of variables; namely, the dependent variable consists of Stock Price, while the independent variables are Economic Value Added, Leverage, and Liquidity.

Dependent Variable. The stock price in this study was obtained from the closing stock price at the end of the year as of 31 December with the 2018-2020 time period from each company in the manufacturing industry sector.

Independent Variable. Economic-Value-Added (EVA). EVA is defined as a financial management system that is often used as a method to assess the economic benefits and financial performance of a company. Evaluation with the EVA method means that if the company can cover all capital costs and company operational costs, welfare will be obtained. EVA is the amount of money that can be obtained by subtracting capital expense from net operating profit (Anthony and Govindarajan, 2007). According to (Tandelilin, 2013), EVA is formulated as follows:

$$EVA = NOPAT - (WACC \times IC) \dots\dots\dots(1)$$

Where:

$$WACC = (D \times rd)(1-tax)] + (E \times re) \dots\dots\dots(2)$$

$$D = \text{Weight of Debt} = \frac{\text{Total Liabilities}}{\text{Total Liabilities and Equity}} \dots\dots\dots(3)$$

$$rd = \text{Cost of Debt} = \frac{\text{Interest Expense}}{\text{Total Non-Current Liabilities}} \dots\dots\dots(4)$$

$$E = \text{Weight of Equity} = \frac{\text{Total Equity}}{\text{Total Liabilities and Equity}} \dots\dots\dots(5)$$

$$re = \text{Cost of Equity} = \frac{\text{Net Income After Tax}}{\text{Total Equity}} \dots\dots\dots(6)$$

$$IC = \text{Invested Capital} = \text{Total Liabilities \& Equity} - \text{Total Current Liabilities} \dots\dots\dots(7)$$

Leverage. Leverage is proxied by DAR (Debt to Total Asset Ratio). DAR is the ratio of total debt to total assets. DAR can be calculated by the following formula

$$\text{Leverage (DAR)} = \frac{\text{Total Debt}}{\text{Total Asset}} \dots\dots\dots(8)$$

Liquidity. Liquidity is measured by the Current Ratio (CR) or a ratio that compares current assets to the company's short-term liabilities, which can be formulated as follows.

$$\text{Liquidity (CR)} = \frac{\text{Current Asset}}{\text{Current-Liabilities}} \dots\dots\dots(9)$$

Panel Data Regression Model. In this study, panel data was used, namely data consisting of several individual companies observed over a certain period. Panel Data Regression Model is represented by:

$$(\text{Stock Price})_{it} = \alpha + \beta_1(\text{EVA})_{it} + \beta_2(\text{DAR})_{it} + \beta_3(\text{CR})_{it} + e_{it} + \mu_{it} \dots\dots\dots(10)$$

Where:

$\beta_1, \beta_2, \beta_3$ are coefficients of regression

i = the entity

t = the period

e_{it} = Error

μ_{it} = random error term

According to (Widarjono, 2018), there are three kinds of regression models that are often used to estimate panel data, namely:



Pooling Least Square (Common Effect Model-CEM). This model is the simplest model because this model combines cross-sectional and time-series data. In this method, the difference between individuals and the difference between times cannot be shown because the intercept and slope of the model are equal. And also, it assumes that there is no difference between individuals and time because the intercept α and slope β are considered the same. Here is the statistical equation of the pooling least square:

$$Y_{it} = \alpha_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \dots + \beta_n X_{nit} + \varepsilon_{it} \dots \dots \dots (11)$$

Fixed-effect (FE). In the Fixed-effect model, there is a dummy variable used to estimate the change in the intercept. Then the fixed-effect model can be formulated as follows:

$$Y_{it} = \alpha_1 + \alpha_2 D_2 + \dots + \alpha_n D_n + \beta_1 X_{1it} + \dots + \beta_n X_{nit} + \varepsilon_{it} \dots \dots \dots (12)$$

Random Effects Model (RE). RE model assumes the intercept value of each individual is random, taking into account the error in the time_series and cross_section data. The RE model equation is estimated using the formula below:

$$Y_{it} = \alpha_0 + \beta_1 X_{1it} + \dots + \beta_n X_{nit} + \varepsilon_{it} + \mu_{it} \dots \dots \dots (13)$$

RESULTS

This study used 71 companies as research samples in a period of 3 years, so the number of observations amounted to 213.

Multicollinearity Test Results. In the analysis of panel data, the classical assumption test that is carried out is only the multicollinearity test. Multicollinearity indicates a perfect or definite linear relationship between some or all of the variables that explain the regression model. If the correlation coefficient between each independent variable is less than 0.800, it means that multicollinearity does not occur.

Table 1. Multicollinearity Test Results

	EVA	DAR	CR
EVA	1.000	0.142	0.204
DAR	0.142	1.000	0.012
CR	0.204	0.012	1.000

Source: Data processed by the author

Based on the results of the multicollinearity test in **Table 1**, it shows that the independent variables do not have a correlation of more than 0.800, so it can be concluded that there is no multicollinearity problem between the independent variables EVA, DAR, and CR.

The Selection of the Best Model. In estimating panel data regression, three models can be used to approach the research data model, namely the fixed effect, the common effect, and the random-effect model.

The results of the data approach with the three regression models are shown as follows.

Common Effect Model (CEM). CEM is known as the simplest panel data model because the model approach is free from dimensions of time and space in the panel data. The regression result with the CEM approach is shown in **Table 2**.



Table 2. Regression result using CEM of Stock Price

Variable	Coefficient	t-Statistic	Prob.
C	305	2.094	0.033
EVA	3.390	-0.384	0.734
DAR	1.510	33.124	0.000
CR	0.140	23.454	0.000

Source: Data processing by author

Fixed Effect Model (FEM). FEM is a model in panel data analysis in which the individuality condition of each company is considered in the model through its intercept, but the gradient of each individual remains the same. The results of regression modelling using the FEM model are displayed in **Table 3**.

Table 3. The result of regression using FEM of Stock Price

Variable	Coefficient	t-Statistic	Prob.
C	353	3.569	0.001
EVA	-3.830	-0.220	0.826
DAR	1.770	25.257	0.000
CR	0.110	10.764	0.000

Source: Data processing by author

Random Effect Model (REM). The Random Effects Model is a panel data approach that estimates the disturbance of variables that may be interrelated between individuals and time, as displayed in **Table 4**.

Table 4. The output of regression using REM of Stock Price

Variables	Coefficient	t-Statistic	Prob.
C	455	2.311	0.020
EVA	-5.870	-0.048	0.783
DAR	1.490	25.842	0.000
CR	0.120	15.453	0.000

Source: Data processing by author

The decision in choosing which of the three models above is the most suitable for the data being researched is carried out by the following tests:

Chow Test. The Chow test is a test carried out to select a more suitable estimate for the panel data model between 2 models, namely the CEM and FEM. In **Table 5**, the Likelihood test (Chow test) is displayed as follows:

Table 5. The output of the Chow Test

Effects -Test	Statistics	Probability.
Cross-section F	13.555	0.000
Chi-square cross-section	414.235	0.000

Source: Data processing by author

The hypothesis used in the Chow test is as follows:

H_0 : The Model used is CEM

H_a : The Model used is FEM

In case the cross-section probability F value is less than α , then H_0 is rejected, meaning that the fixed-effect model is better used in estimating panel data. If the probability of cross-section F is more than (α is 5 per cent), the decision H_0 is not rejected, which means the common effect model method is better used in estimating panel data. If a fixed effect is chosen, the researcher will conduct the second stage of testing, the Hausman test to determine whether the researcher uses a fixed-effect model compared to using a random-effect model.

Based on the test results, as shown in **Table 5**, the Chow test produces a probability of cross-sectional F is 0.000, and the probability of Chi-square is 0.000. Both of these probability values are lower than 0.050. So, for the time being, it is concluded that the fixed effect is more suitable than the common effect. For the next stage, the Hausman test is needed to compare the most suitable model between the fixed-effect or the random-effect approach.

Hausman Test. The next step is to perform the Hausman test to select a more suitable model whether the effect is fixed or random.

The hypothesis of the Hausman test is:

H_0 : random_effect_model is better

H_a : fixed_effect-model is better

If the chi-square probability value is less than α , then H_0 is rejected, which means that the fixed-effect model is better used in estimating panel data. If the chi-square probability value more than α , then H_0 is not rejected, meaning that the random-effect method will be better used in estimating panel data.

Table 6 is the output from the Hausman test as the following results:

Table 6. Hausman Test

Test_Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random_cross-section	23.667	3	0.000

Source: Data processing by the author.

From **Table 6**, it can be seen that the prob value of the random cross-section value is 0.000. This result is less than 0.050. Therefore, hypothesis H_0 is rejected, and H_a is accepted, so the most appropriate decision to model the research data is to use a fixed-effect regression model. Based on a series of model selection tests that have been carried out, here the fixed effects model is the most suitable model for data analysis.

RESULTS

Based on the test results and fixed-effect multiple linear regression analysis, as shown in Table 4, the regression equation which represents panel data in this research is as follows:

$$\text{STOCK PRICE} = 353 - 3.830 \text{ EVA} + 1.770 \text{ DAR} + 0.110 \text{ CR} \dots\dots\dots (14)$$

Based on the model equation above, it shows a constant coefficient value of 353 means when the value of economic value-added, leverage and liquidity is zero, then the value of the stock price is 353

The coefficient of economic value-added has a value of -3.830. It means in case the value-added economic increases by one unit, the stock price will decrease by 3.830 units by assuming that variables leverage and liquidity are constant. Conversely, if the value-added economic decreases by one unit, the stock price will increase by 3.830, assuming that the other independent variables, namely leverage and liquidity, are constant.

The value of the variable coefficient of leverage has a value of 1.77,0 which means when leverage is increased by one unit, and then the stock price will go down by 1.770, assuming that the other independent variable is economic value-added and liquidity is constant. Conversely, if the leverage decreases by one unit, the stock price will increase by 1.770, assuming that the other independent variables, namely economic value-added and liquidity, are constant.

The variable value coefficient of liquidity has a value of 0.110, which means when liquidity is increased by one unit, then the stock price will rise by 0.110 units assuming that the other independent variable is economic value-added and leverage is constant. Conversely, if liquidity decreases by one unit, the stock price will decrease by 0.110 with the assumption that other independent variables, namely economic value-added and leverage, are constant.

Coefficient of Determination Regression Test (R^2). The determination coefficient (R^2) test is used to quantify the ability of the model to explain the dependent variable in a study. This test is performed to determine how much the variable ability of economic value-added, leverage, and liquidity is to explain the dependent variable stock price. Results from testing of multiple determination coefficient (R^2) are as follows:

Table 7. Coefficient of Determination Regression Test (R^2)

R^2	0.682
Adjusted R^2	0.670

Source: obtained from data processing

Table 7 shows the results of the multiple coefficients of determination (R^2) test, by looking at the Adjusted R-squared of 0.670. It means there is around 67.00 per cent of the contribution of the independent variable, namely economic value-added, leverage, and liquidity, in predicting the dependent variable, namely stock price. At the same time, the rest of 33.000 or around 33 per cent, can be predicted by other exogenous variables that were not included in this study.

Table 8 shows the value of the Adjusted R-squared in this study is close to one. So it can be said that the ability of the independent variables, namely economic value-added, leverage, and liquidity, is very good for explaining the dependent variable, namely the stock price.

T-test Result. The statical t-test is used to test how the independent variable can affect the dependent variable partially at α is 5 per cent. If the independent variable individually shows a probability value less than α , it can be concluded that the independent variable can



affect the independent variable. Conversely, if the probability value is greater than 0.05, the conclusion is independent variable cannot significantly influence the dependent variable.

Table 8. T-test of Stock Price

Variable	Coefficient	t-Statistic	Prob.
C	353	3.569	0.001
EVA	-3.830	-0.220	0.826
DAR	1.770	25.256	0.000
CR	0.110	10.765	0.000

Source: Results of data processing with E-views 10

The results of the t-test shown in table 8 showed that the independent EVA shows a probability value of 0.826. The t-statistic of EVA has a negative sign, and the value of Prob is 0.826, where this result is bigger exceed 0.050. It means that the effect of EVA on stock price is not significant. Therefore EVA does not affect changes in stock prices. The findings in this study support research by (Rosmawati, 2018), and (Khan et al., 2018) who show about the economic value-added formulated by EVA does not affect the stock price. On the other hand, the findings of this study are different from the findings of research by (Pasha and Ramzan, 2019) and (Nugroho, 2018), who found value-added economic effects on the stock price significantly.

From the t-test shown in Table 8 above, the coefficient of leverage which is proxied by DAR has a positive sign and the prob value is 0.000 which is smaller than 0.050. It means that there is a positive and unidirectional effect of DAR on stock prices. Therefore, leverage has a significant impact positively on the stock price. This study had similar results to the research finding of (Supriyadi and Sunarmi, 2018), who stated that leverage has a significant and positive impact on the stock price. However, this study does not support research carried out by (Angeline et al., 2020) found that leverage does not affect the stock price. The research result by (Bagus Yoga Saputra et al., 2022) and (Iqbal et al., 2016) found that leverage affects the stock price in a negative direction.

Liquidity shows a probability value of 0.000, which is less than 0.050, and a positive t-Statistic value of 10.765. Thus, liquidity has a significant and positive effect on stock prices. This finding follows the research of (Angeline et al., 2020), which claims that liquidity has a significant positive effect on stock prices. However, this study differs from the findings of (Putri, 2020), where liquidity does not affect stock prices.

DISCUSSION

The objective of this study was to investigate the effect of economic value-added, leverage, and liquidity on the stock price. The research subjects include all companies listed in the manufacturing group on the Indonesia Stock Exchange in 2018-2020.

The Effect of Economic Value-Added on The Stock Price. Economic value-added, which is represented by EVA, has a regression coefficient value of -3.830; the regression coefficient value has a negative sign. The probability value in this study has a value of 0.8261, while the level of significance used to see whether it has a significant effect is 0.050. The result is 0.8261, which is greater than 0.050, which means economic value-added does not have a significant effect on the stock price of manufacturing companies listed on the

Indonesia Stock Exchange in 2018-2020. The insignificant results indicate that H_1 in the research hypothesis which states that economic value-added has a significant positive effect on stock price in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020 is rejected.

This insignificant negative result shows that an increase in EVA will be in line with a decrease in stock price. This indicates that, first, stock performance will not always be in line with company fundamentals. When the EVA obtained by a company is positive, which is a fundamental indicator of the company, it is not accompanied by the performance of the shares on the stock exchange. In other words, if the performance of its shares in the capital market is not good enough, then the stock price will also decline. Second, if examined more deeply, the calculation of Economic Value-added (EVA) includes all costs, including the cost of capital, consisting of debt costs and equity costs. A higher cost of equity is determined by the cost of debt because equity requires a higher premium to anticipate the risk and liquidity of investors. Creditors always ask for guarantees that are greater than debt, whereas equity is unsecured. Besides, debt has the right to claim prepayment, while equity does not. So the concept of EVA recommends "permanent debt financing" because the tax savings obtained from spending with debt is cheaper than equity, so WACC becomes cheaper. This will result in a high EVA or high firm value. This result states that economic value-added does not have a significant effect on the stock price. This may be because EVA has not been used by investors in the Indonesian capital market to assess a company's financial performance. The results of this study also indicate that EVA cannot be used as a new performance measurement tool. Thus the expected advantages of EVA cannot be realized.

This study supports the results of previous research developed by (Khan et al., 2018), where these researchers found that economic value-added did not significantly affect stock prices. But the findings in this study are not in line with the findings of (Pasha and Ramzan, 2019) and (Nugroho, 2018) they found the effect of economic value-added on stock prices.

Effect of Leverage on The Stock Price. Leverage affects stock prices in a positive direction. This is indicated by a positive regression coefficient of 1.77. In the prob column on leverage, there is a probability of 0.000, where the value is below the significance value of 0.050, so it can be interpreted that leverage significantly affects the stock price of manufacturing companies throughout 2018-2020. These results prove that the H_2 hypothesis in this study which states that leverage has a positive effect on stock prices, is accepted.

The findings of this study indicate that some investors consider Leverage (DAR). It can be said that some investors can understand that a growing company will try to meet funding for the company's operations from debt sources. Every company will try to meet its operational funds with internal funds. However, internal costs are often insufficient, so external funding sources are the solution chosen. Sufficient funding will encourage the company to develop so that the share price will also be pushed up.

This research supports the findings of past studies, where (Supriyadi and Sunarmi, 2018) found that leverage affects stock price significantly and positively. But on the other hand, this study has different findings from the research result by (Angeline et al., 2020), who found that leverage does not affect the stock price. The research findings by (Bagus Yoga Saputra et al., 2022) and (Iqbal et al., 2016) showed that leverage has a significant and negative effect on the stock price.



The finding of this study declares that leverage affects the stock price in a significant and positive direction. This is because high leverage will facilitate operational activities, and with the efficiency of the company's performance, capital will be managed optimally to guarantee all debts, and increase sales so that profits will increase. Thus, investors will be interested in investing, and this will have an impact on increasing stock prices.

Effect Of Liquidity on The Stock Price. Liquidity has a regression coefficient value of 0.110. The regression coefficient value has a positive sign, which means that liquidity has a positive effect on the stock price. The probability value in this study is 0.000, while the significance level used to see whether it has a significant effect is 0.050. The result is 0.000 less than 0.050, which means that the probability value has a significant result which shows that liquidity has a significant effect on the stock price of manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. The significant results indicate that H_3 in the research hypothesis, which states that liquidity has a significant positive effect on the stock price of manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020, is accepted.

These results indicate that liquidity has a significant positive effect on stock price, this is because the stock price will be high as expected if the value of the liquidity ratio, asset management, debt management, and profitability ratios looks good and the condition continues stably. The Current Ratio is a liquidity ratio that compares current assets to current debt. If the Current Ratio is good, then the company's ability will be better to meet its short-term debt and avoid liquidity problems. That is what ultimately attracts investors and results in an increase in stock price.

The results of this study are in line with the results of research conducted by (Angeline et al., 2020) which found the fact that liquidity affects stock prices in a significantly positive manner. However, this study provides different findings from the results of (Putri, 2020), which proves that liquidity has no significant effect on stock prices.

CONCLUSIONS

This study intends to find empirical evidence academically about the influence of the independent variables of economic value-added, leverage, and liquidity on stock prices of manufacturing companies group listed on the Indonesia Stock Exchange during the year 2018-2020.

The research is conducted by taking 71 samples using a purposive sampling method. The t-test results showed that leverage (DAR) and liquidity (CR) have a significant positive effect on stock price, while economic value-added (EVA) has no significant effect on the stock price.

The limitations contained in this study are: (1) The independent variables involved in testing stock prices are limited to only three variables, namely economic value-added, leverage, and liquidity. There are still several other factors that contribute to explaining stock prices that are not included in this study. (2) The sample size is limited to 71 manufacturing companies and industries listed on the Indonesia Stock Exchange. There are still many other leading sectors that are very influential on the Indonesian economy that has not been included in this study. (3) This research period is limited to only three years, namely from 2018-2020, with research samples that match the specified criteria. This limitation certainly cannot fully describe the role of the variables used on stock prices



Due to the many limitations of this study, the researcher would like to provide some suggestions for future research, namely: (1) The next researchers should be able to involve other factors that affected the stock price of manufacturing industries, such as company size, company age, asset growth, sales growth, and so on. (2) Future researchers can expand this research by examining sectors that make a major contribution to the Indonesian economy so that the results can be used to develop these economic sectors. (3) For further research, it is expected to use data from manufacturing companies that have published audited financial reports on the Indonesia Stock Exchange for a longer period so that it is expected to produce more accurate research.

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