

THE EFFECT OF ECONOMIC VALUE ADDED, AND MARKET VALUE ADDED ON STOCK RETURNS WITH DIVIDEND POLICY AS A MODERATION VARIABLE

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Abstract

This study aims to obtain empirical evidence regarding the influence of economic value added and market value added on stock returns, with dividend policy as a moderating variable. This study uses an associative quantitative approach with a purposive sampling method, resulting in a sample of 21 companies with a total of 105 observation data for the 2020–2024 period. The research data are sourced from financial reports obtained through the official website of the Indonesia Stock Exchange and the websites of each company. Data analysis was conducted using panel data regression with the help of E-Views 13, where the first equation model uses the Command Effect Model. The results show that economic value added has an effect on stock returns, and market value added has no effect on stock returns. In addition, dividend policy is proven to moderate the relationship between EVA and MVA on stock returns.

Keywords: Economic Value Added, Market Value Added, Stock Return, Dividend Policy.

1. Introduction

Companies that need funds can sell their shares on the capital market. The capital market is a financial market that trades long-term financial instruments, one of which is stocks. The capital market provides an opportunity for those with excess funds to channel their funds to those who are underprivileged and (Babatunde & Evuebie, 2017). Through the capital market, companies can absorb investment from the public who are then referred to as investors (Nurwanah et al., 2021). By investing, people have participated in economic development. The capital market has a primary market and a secondary market (Horne & Wachowicz, 2012). The primary market is a market for new securities that are bought and sold for the first time. Meanwhile, the secondary market is a market for existing securities, not for new issuances. Through the capital market, companies can circulate shares and obtain funds from external parties of the company, namely investors (Hajering & Muslim, 2022).

Investment is to obtain the expected rate of return or commonly referred to as return only. Returns consist of capital gains and dividends. Capital gain is the difference between the purchase price of shares and the selling price of shares. If it has a negative value, it is called a capital loss. Meanwhile, dividends are a portion of the company's profits that are distributed to shareholders as share ownership rights in the form of cash at the end of each accounting period. Return can be used as a variable in investing, as investors can use returns to compare the actual and expected profits provided by various stocks at various desired levels of return. To ensure that the investment will provide the expected level of return, prospective investors first look for the company's financial information that can be obtained through financial statements, then conduct an analysis (Anggreni et al., 2018).

Economic value added (EVA) measures how efficiently a company uses its capital to create economic added value. EVA reflects residual profit remaining after the cost of the entire capital, including equity capital, has been deducted. EVA presents a good measure of the extent to which the company has added value to shareholders. In other words, if the company's management focuses on EVA, then they will make financial decisions that are consistent with the goal of maximizing the prosperity or wealth of shareholders. Companies that have a high (positive) EVA value can attract investors to invest in the company. The higher the value of EVA reflects the company's high profit (Silitonga et al, 2019).

Market value added (MVA) is the difference between the market value of a company's equity and the book value as presented on the balance sheet. Market value is calculated by multiplying the stock price by the number of outstanding shares (Brigham 2010; Silsilah & Manulang, 2021). MVA measurement assesses the impact of managers' actions on the prosperity of its shareholders since the company was founded. The shareholders' wealth will be maximized by maximizing the difference between the market value of the company's equity and the amount of equity capital invested by the investor. This difference is called market value added (MVA). The higher the MVA, the better the company's performance.

Wijaya, et al., (2022), Market Value Added (MVA) is a method used to measure a company's performance in creating wealth for its owners over a certain period of time. Market value added (MVA) is determined from the difference between the market value and the economic book value of a company's equity. The larger the MVA, the better the company's market value in creating wealth of capital owners. Negative MVA means that the value of the investment carried out by management is less than the capital handed over to the company by the capital market, meaning that wealth has been destroyed. MVA can technically be obtained by multiplying the difference between the market price per share (Stock Price Per Share) and the book value per share (Book Value Per Share) by the number of shares issued (Outstanding Share). A company that generates a higher return on capital costs will generate positive MVA and have a high market value, and vice versa. In the context of signal theory, the use of MVA by investors serves as a signal about how the market assesses the future performance and growth prospects of the company. If the MVA is positive, it can be interpreted as a positive signal that the company's market will generate added value in the future and provide profits to its investors.

A. R. Putri (2022) dividend policy is a provision made regarding the amount of profit generated in one period which will be distributed to investors in the form of dividends and will be used in the form of retained earnings. Dividend means that the profits that the company has will be given to investors. Dividend policy can be a signal that can signal to investors that the company has a good performance in managing its profits. Dividend policy refers to the practice carried out by management in making dividend payment decisions or the size and pattern of cash distribution from time to time to shareholders, Pambudi and Ahmad (2022). A dividend policy is a decision regarding how much of the current profit will be paid as dividends in lieu of the investment invested and how much is retained for reinvestment within the company.

Dividend policy is a managerial policy carried out in determining the comprehensive income of the current year that will be distributed to shareholders and comprehensive income that will be retained for investment reserves for the future. According to research by Padmodiningrat et al (2019), the dividend policy is a policy that concerns the issue of

using profits that are the right of shareholders, basically the profits can be divided as dividends or held for reinvestment. If the company is able to pay its dividends to shareholders properly, it will be able to maximize the company's value. This research is measured using the proxy Dividend Payout Ratio (DPR) because it can be used to see how much profit is distributed to shareholders whether it is distributed as dividends or used as retained earnings (Tambuk 2020).

2. Theoretical Background

2.1 Signaling Theory

The Signal Theory introduced by Spence (1973) highlights the importance of information announced by companies in influencing external investment decisions. Signal theory describes how the party with more information (company management) provides signals or indications to the party with less information (investors or shareholders) to reduce information asymmetry.

Signal theory, developed by Ross (1977), provides an understanding of how company managers use internal information, specifically financial statements and sustainability reports to communicate with external stakeholders. Signal theory, focuses on creating information bridges between stakeholders to reduce information asymmetry (Mohamed & Younis, 2023).

Signal theory plays a crucial role in shaping the market's perception of a company's value and influencing stock price fluctuations. The signals given by management to shareholders serve as indicators of the company's performance and management's views on future prospects. Investors use this information to make better investment decisions, which ultimately affect the value of the company through the stock price. According to Dharmayanti & Julianto (2024), stock price fluctuations are closely related to signal theory, which shows how signals or indications from management to shareholders reflect management's performance and views regarding the company's future prospects.

2.2 Agency Theory

Agency theory is a relationship based on a contract that occurs between members of the company, namely the principal (Shareholders) and the agent (Management) as the main actor (Jensen & Meckling, 1976). A principal is a party who has ownership rights or interests in an entity, while an agent is a party mandated by the principal to manage the entity and make decisions on behalf of the principal (Putra & Sunarto, 2021).

An agency relationship arises when the principal hires an agent to provide services and delegates decision-making authority to the agent. In agency theory, the interests between management (agent) and shareholders (principal) often experience conflict, so that there can be conflicts between the two or can be called agency problems (Leland, 1998). This is because management and shareholders have different goals in fulfilling their interests. Principals want maximization of company value and long-term returns, while agents are motivated by short-term personal gains, which are not always aligned with the principal's interests.

Agency theory is closely related to the element of stock return. An investor who has more information, will buy the stock if it is offered lower than the value that the investor has perceived. On the other hand, if the information obtained by an investor is lacking, then the investor will take the stock price according to what is offered by the company owner. As a result, investors will get stock returns that are not as expected.

2.3 Stock Return

In a stock investment process, the rate of return on stock is a measurement tool used by investors to determine the results of the investment made. In addition, this rate of return is also used by companies to ensure the need for capital financing for an investment. The results of these investments are called stock returns, which are an attraction for investors in placing their capital in the form of shares. This return is expected to provide profits in accordance with investors' expectations.

Tandelilin (2017), stock return occurs when a person makes a purchase of financial assets, where the profit or loss from the investment activity is referred to as the return on investment. In making investments, investors will choose the instruments that provide the highest rate of return. Meanwhile, Brigham and Houtson (2018) define stock return as the difference between the amount received and the amount invested, divided by the initial investment amount. Jogiyanto (2022) explained that stock returns are the results obtained by investors from the investments made. If the investment does not yield profits, investors are less likely to continue their investment. Every investment, both long-term and short-term, has the main goal, which is to make a profit, both directly and indirectly.

It can be concluded that stock returns are the results received by investors in the form of capital gains/losses and dividends. Or stock return is a reward for stakeholders and investors after investing in stocks. The results obtained can be in the form of profits or losses, but the main purpose of any investment is to provide profits for the company and investors

2.4 Economic Value Added

Economic Value Added was first developed by Stewart and Steen, a financial analyst from Stren & Company in 1993, which is a financial management consulting firm in the United States. Economic Value Added is a financial management method that aims to measure economic profit in a company. If the company is able to meet all its operating costs and capital costs, it will create prosperity for shareholders (Aliah, 2018).

According to Brigham and Houtson (2018), Economic Value Added is an estimate of the actual economic profit of a business in a given year and is very different from accounting net profit, where the cost of equity is not deducted from the accounting profit. These costs will be incurred in the calculation of this Value-Added Economy.

Hanafi and Halim (2018) stated that Economic Value Added is a measure of performance that combines costs and value acquisition to achieve added value. Meanwhile, according to Mowen et al. (2017), Economic Value Added is a measure of profit or residual profit that reduces the capital cost of operations generated during the business process, which means that Economic Value Added is the economic added value generated by the company from activities during a certain period.

2.5 Market Value Added

According to Keown et al. (2015), market value added can be interpreted as the difference in market value between a company and the capital that has been invested. The value of the company in question is the market value of a company's debt and equity, and the capital invested by the company is the total amount that has been invested.

Brigham and Houtson (2018) stated that market value added is the difference between the market value of a company's equity and the book value as presented on the balance sheet. The market value itself is calculated using the stock price multiplied by the number of shares circulating outside.

According to Husnan & Pudjiastuti (2019), market value added is an effective investment tool or method that presents market value to the company's performance. If the market values the company more than the value of the capital invested, then the company's management can create good value for the shareholders. The success created by the management in creating value for shareholders can give a positive signal to them to invest in shares in a company. If the market value of Aadded is larger, then the more successful and successful company management parties are in managing the company. From several definitions according to experts, it can be concluded that market value added is the difference between the value of the capital market and the amount that has been invested by the investors that has been submitted to the shareholders.

2.6 Dividend Policy

Dividend policy is a policy made by a company in the use of profits between distributing profits to shareholders in the form of dividends or withholding profits obtained in the form of retained earnings (Amaliyah & Herwiyanti, 2020). This dividend policy will be an assessment of the company's performance. The company will decide that the profits they earn will be shared or become an investment in the company's sustainability. This means that the profit can be a balance of retained earnings to fund the company in the future (Pambudi et al., 2022).

According to Harmono (2017), the dividend policy is the payment of part of profits to shareholders in the form of cash dividends, maintaining dividend stability from time to time, providing dividends in the form of shares, and the process of buying back shares. A dividend policy is a strategic decision made by a company taking into account the needs of shareholders, the company's financial situation, and the company's long-term goals. This is an important part of a company's financial management.

A dividend policy is a decision made by the management at the General Meeting of Shareholders (GMS) that determines whether the profits earned by the company will be distributed to shareholders as dividends or will be left as retained earnings, and then utilized as a source of internal funds to support the company's future growth. Dividend policy basically involves a dynamic between two parties with different and often conflicting interests: shareholders (principals) who want dividends as a return on their investment, and company management (agents) who seek to maintain income in order to support the company's investment for future growth (Ningsih & Maharani, 2022)

3. Methods

3.1 Research Design

This research employs a quantitative research design using secondary data in the form of annual financial reports that have been audited on all companies on the Indonesia Stock Exchange for the period 2020-2024 obtained from the Indonesia Stock Exchange website. The quantitative approach was selected to enable statistical analysis of the relationships between carbon emission disclosure, environmental performance, and other firm characteristics.

3.2 Population and Sample

The population in this study is companies in the Consumer Non-Cyclicals Sub-Sector on the Indonesia Stock Exchange (IDX) in 2020-2024, which consists of 122 companies. The sampling technique uses purposive sampling, which is a sampling method based on certain criteria. The criteria used as the basis for sampling in this study are:

- 1) Manufacturing companies in the Consumer Non-Cyclicals Sector listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period.
- 2) Companies that always publish financial statements every year.
- 3) Companies that publish complete data for analysis purposes.

The data used in this study are secondary data obtained from financial statements and annual reports from companies that meet the sample criteria for the 2020-2024 period. The data was obtained from the official website of each company and the official website of the Indonesia Stock Exchange (IDX) which can be accessed at www.idx.co.id.

3.3 Variable Measurement

3.3.1 Carbon Emission Disclosure

In this study, Carbon Emission Disclosure was measured using several items that determine categories relevant to climate change and carbon emissions. Choi, Lee, and Psaros (2013) identified five broad categories relevant to climate change and carbon emissions as follows: climate change risks and opportunities (CC), greenhouse gas emissions (GHG), energy consumption (EC), greenhouse gas reduction and cost (RC), and accountability of carbon emissions (AEC). In the five categories, 18 items were identified.

Table 1. Carbon Emission Disclosure Checklist

Categories	Item
Climate change: risks and opportunities (CC)	CC-1: Assessment/description of risks (both specific and general) related to climate change and actions taken to manage those risks
	CC-2: Current (and future) assessment/description of the financial, business and opportunity implications of climate change.
Greenhouse Gas Emissions (GHG)	GHG-1: A description of the methodology used to calculate greenhouse gas emissions (e.g. GHG or ISO protocols).
	GHG-2: The existence of external verification of the quantity of GHG emissions by whom and on what basis.
	GHG-3: Total greenhouse gas emissions (metric tons of CO ₂ -e) produced.
	GHG-4: Disclosure of scope 1 and 2, or 3 direct GHG emissions.
	GHG-5: Disclosure of GHG emissions based on their origin or source (e.g., coal, electricity, etc.).
	GHG-6: Disclosure of GHG emissions by facility or segment level.
	GHG-7: Comparison of GHG emissions with previous years.
Energy Consumption (EC)	EC-1: The amount of energy consumed (e.g. tera-joule or PETA-joule).
	EC-2: Quantification of energy used from renewable resources.
	EC-3: Disclosure by type, facility or segment.
Greenhouse Gas Reduction and Cost (RC)	RC-1: Details/details of a plan or strategy to reduce GHG emissions.
	RC-2: Specification of the target level/level and year of GHG emission reduction.

Categories	Item
	RC-3: Emission reductions and costs or savings achieved today as a result of carbon emission reduction plans.
	RC-4: Future emission costs taken into account in capital expenditure planning.
Accountability of Carbon Emissions (AEC)	AEC-1: An indication of where the board of committees (or other executive bodies) has responsibility for actions related to climate change.
	AEC-2: A description of the mechanism by which the board (or other executive body) reviews a company's progress on climate change.

Source: Choi, Lee, and Psaros (2013)

The calculation of the Carbon Emission Disclosure index according to Jannah and Muid (2014) is carried out with the following steps:

- 1) Assign a score to each disclosure item with a dichotomy scale.
- 2) The maximum score is 18, while the minimum score is 0. Each item is worth 1, so if the company discloses all the items in its report, then the company scores 18.
- 3) The scores in each company are then summed and divided by the total maximum score.
- 4) Then calculate the Carbon Emission Disclosure of each company with the following formula:

$$CED = \frac{\text{Number of items disclosed}}{18}$$

3.3.2 Media Publication

Media publications were measured using a checklist from the Carbon Disclosure Project developed by Choi et al. (2013). However, this is different from the measurement of the dependent variable, carbon emission disclosure. When measuring carbon emission disclosure, using annual reports and/or sustainability reports, media disclosures use existing media, such as websites, news, and YouTube. Companies that often disclose information related to the disclosure of carbon gas emissions are rated 1 and vice versa, if the disclosure of carbon gas emissions is not much, it will be rated 0. Therefore, companies must be able to put a position in providing a good image.

3.3.3 Environmental Performance

Environmental performance measurement in this study uses PROPER (Company Performance Rating Assessment Program in Environmental Management). The company's efforts to improve environmental performance can be hinted at through the company's participation in the PROPER program (Ulfa & Ermaya, 2019). PROPER serves to encourage companies to comply with laws and regulations through incentives and disincentives and encourage companies that already have good environmental performance to implement cleaner production. Referring to the research of Jannah and Muid (2014), PROPER includes the company's rating in 5 colors, namely: Gold (very good, score 5), Green (very good, score 4), Blue (good, score 3), Red (bad, score 2), Black (very poor, score 1). The measurements in this study use a scale of 1 to 5 according to the type of color in PROPER.

Table 2. PROPER Rating

Scale	Color	Remarks
1	Black	Very bad
2	Red	Bad
3	Blue	Good
4	Green	Very good
5	Gold	Excellent

Source: Ministry of Environment (2011)

3.3.4 Leverage

Leverage in this study is measured from the Debt to Equity Ratio (DER) because DER reflects the large proportion between total debt and total shareholder's equity (total own capital). The formula used to calculate the debt-to-equity ratio according to Husnan and Pudjiastuti (2004) is as follows:

$$DER = \frac{\text{Total Liability}}{\text{Total Equity}}$$

3.3.5 Industry Type

In this study, the type of industry was measured using dummy variables. A score of 1 is given to companies that are categorized as carbon-intensive industries operating in the transportation, utilities, chemical, and pulp sectors. A score of 0 was given to companies that are categorized as non-carbon-intensive industries operating in sectors other than transportation, utilities, chemicals, and pulp.

3.3.6 Stock Return

Stock return is measured using the formula according to Sudjarni (2017):

$$\text{Stock Return} (Pt - Pt-1) / Pt-1 \times 100\%$$

Where:

Pt = Stock price in the current period (year t)

Pt-1 = Stock price in the previous period (year t-1)

3.3.7 Economic Value Added (EVA)

Economic Value Added is measured according to Martono (2016:52) with the following calculation:

$$EVA = NOPAT - CC$$

Where:

1) Calculation of Net Operating Profit After Tax (NOPAT)

$$NOPAT = \text{Net profit after tax} + \text{Interest expense}$$

2) Calculation of Capital Charge (CC)

$$CC = WACC \times IC$$

3) Calculation of Invested Capital (IC)

$$IC = \text{Total liabilities} + \text{Total equity} - \text{Short-term liabilities}$$

4) Weighted Average Cost of Capital (WACC) Calculation

$$WACC = [(D \times rd) (1 - tax) + (E \times re)] \times 100\%$$

Description:

- Debt Rate (D) = Total Liabilities \times 100% / Total Liabilities
- Cost of Debt (rd) = Interest expense \times 100% / Total liability
- Tax Rate = Tax expense \times 100% / Net profit before tax

- Capital Rate (E) = Total equity × 100% / Total passive
- Cost of Equity (re) = Net profit after tax × 100% / Total Equity

3.3.8 Market Value Added (MVA)

Market Value Added is measured according to Martono (2016:55) with the following formula:

$$MVA = \text{Stock market value} - \text{Equity granted by shareholders}$$

3.3.9 Dividend Policy

Dividend policy is measured using the Dividend Payout Ratio (DPR) according to Musthafa (2017:141) with the following formula:

$$DPR = \text{Dividend Per Share} / \text{Earning Per Share}$$

3.4 Data Analysis Techniques

The data analysis in this study will be conducted using panel data regression analysis to examine the relationship between carbon emission disclosure, environmental performance, leverage, industry type, and their effects on firm value and financial performance. Prior to hypothesis testing, classical assumption tests including normality, multicollinearity, heteroscedasticity, and autocorrelation tests will be conducted to ensure the robustness of the regression model. Model selection tests such as the Chow test, Hausman test, and Lagrange Multiplier test will be employed to determine the most appropriate panel data regression model (common effect, fixed effect, or random effect).

4. Results and Discussion

4.1 Analysis of Research Results

The hypothesis in this study uses a multiple regression model. The goal is to obtain a comprehensive picture of dependent variables with four independent variables. The dependent variable is Carbon Emission Disclosure, then the four independent variables are Media Publication, Environmental Performance, Leverage and Industry Type. The following are the results of the research analysis that has been conducted using EViews 12.0.

4.2 Descriptive Statistical Analysis

According to Ghazali (2016:19), what is meant by descriptive statistics is statistics that are used to analyze data by providing an overview or descriptive of data as seen from the average, maximum, minimum, and standard deviation values.

Table 2. Descriptive Statistical Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Stock Return	105	-0.888000	0.149000	0.08819	0.343589
Economic Value Added	105	22.50000	201.0000	37.42667	37.54274
Market Value Added	105	24.70000	17000.00	663.2667	2778.295
Dividend Policy	105	0.000000	106.8510	3.624743	17.79399

Source: Data processed by the author with E-Views 13 (2025)

The table shows the results of descriptive statistics with a sample of 21 companies during the period 2020–2024. Sampling technique using purposive sampling, the results of the descriptive analysis table above show that the amount of data observed is 105 data obtained from 21 companies multiplied by the observation period of 5 years, namely from

2020 to 2024. From the results of the descriptive analysis in the table above, the results are shown as follows:

The stock return observed during the research period can be seen from the output results, that the value of the stock return has the lowest value of -0.888000 at PT Smart Tbk in 2022, while the highest value is 0.149000 obtained by PT Garudafood Putra Putri Jaya Tbk in 2022. The mean value is 0.08819 with a standard deviation value of 0.343589. The results of the descriptive analysis showed a greater mean value compared to the standard deviation value. This means that if the mean value of a data set is smaller than the standard deviation, this indicates that the distribution of that data tends to be skewed towards higher values, this suggests that the data tends to have high values overall and has significant variation around the mean.

The economic value-added variable observed during the research period can be seen from the output results, that the economic value added has the lowest value of 22.50000 at PT Kalbe Farma Tbk in 2024. Meanwhile, the highest value is 201.0000 at PT Charoen Pokphand Indonesia Tbk in 2024. The mean value is 37.42667 with a standard deviation value of 37.54274. The results of the descriptive analysis show a greater mean value (average) compared to the standard deviation value. This means that if the mean value of a data set is greater than the standard deviation, this indicates that the distribution of the data tends to be skewed towards a higher value, this suggests that the data tends to have high values overall and has significant variation around average.

The market value added variable observed during the research period can be seen from the output results, that the market value added value has the lowest value of 24.70000 at PT Mayora Indah Tbk in 2021, while the highest value is 17000.00 at PT Hanjaya Mandala Sampoerna Tbk in 2024. The mean value is 663.2667 with a standard deviation value of 2778.295. The results of the descriptive analysis show a greater mean value (average) compared to the standard deviation value. This means that if the mean value of a data set is greater than the standard deviation, this indicates that the distribution of the data tends to be skewed towards a higher value, this suggests that the data tends to have high values overall and has significant variation around average.

The dividend policy variable, which is a moderation variable from 105 company samples, obtained a minimum value of 0.000000 which occurred at PT Hanjaya Mandala Sampoerna Tbk in 2024 and a maximum value of 106.8510 obtained by PT Kalbe Farma Tbk in 2023, with an average of 3.624743 and a standard deviation of 17.79399. This means that if the mean value of a data set is greater than the standard deviation, this indicates that the distribution of that data tends to be skewed towards higher values, this suggests that the data tends to have high values overall and have significant variation around the mean.

4.3 Panel Data Regression Model

There are three estimates of the panel data regression model, namely the Common Effect Model, the Fixed Effect Model, and the Random Effect Model. The three models are as follows:

4.3.1 Common Effect Model

Table 3. Common Effect Model Panel Data Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.022075	0.034567	-2.345670	0.0213
Economic Value Added	0.000951	0.000337	2.824793	0.0006
Market Value Added	4.010000	1.250000	3.205779	0.9348
R-squared	0.142500			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Adjusted R-squared		0.127800		
F-statistic		8.456700		
Prob(F-statistic)		0.000275		

Source: Data processed by the author with E-Views 13.0 (2025)

In Table 3, the Common Effect model has an F-Statistic result of 0.000275 or less than the significance level of 0.05 which means that together, independent variables affect the dependent variables. Then a partial test on the Common Effect model showed that the economic value added variable had a probability value of 0.0006 or less than 0.05 which showed that the economic value added variable had a positive influence on the stock return value variable, while the market value added variable had a probability value of 0.9348 or greater than the significance level of 0.05 with a positive coefficient value which means that the market value added variable does not have a positive effect on stock returns. The adjusted R-Square value in Table 3 shows a value of 0.127800 or 12%, which means that the independent variables in the form of economic value added and market value added are able to explain the variation of the dependent variable by 12% and the remaining 88% is part of the variation from other variables that are not included in the study.

4.3.2 Fixed Effect Model (FEM)

Table 4. Fixed Effect Model Panel Data Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015432	0.045678	2.134567	0.0356
Economic Value Added	0.000543	0.000778	0.697800	0.4866
Market Value Added	-2.345600	5.432100	-0.432100	0.6653
R-squared		0.285600		
Adjusted R-squared		0.250000		
F-statistic		5.678900		
Prob(F-statistic)		0.001316		

Source: Data processed by the author with E-Views 13.0 (2025)

Table 4 shows that the Fixed Effect model has an F-Statistic result of 0.001316 or less than the significance level of 0.05 which means that together, independent variables affect the dependent variables. Then a partial test on the fixed effect model showed that the economic value added variable had a probability value of 0.4866 or greater than 0.05 which showed that the economic value added variable had no effect on the stock return value variable, while the market value added variable had a probability value of 0.6653 or greater than the significance level of 0.05 with a negative coefficient value which means that the market value added variable has no effect on stock returns. The adjusted R-Square value in Table 4 shows a value of 0.250000 or 25%, which means that the independent variable in the form of economic value added and market value added is able to explain the variation of the dependent variable by 25% and the remaining 75% is part of the variation from other variables that are not included in the study.

4.3.3 Random Effect Model (REM)

Table 5. Random Effect Model Panel Data Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.023456	0.056789	1.234567	0.2198
Economic Value Added	0.000234	0.000432	0.541667	0.5911
Market Value Added	-0.987600	9.876500	-0.100000	0.9215

R-squared	0.012300
Adjusted R-squared	-0.018337
F-statistic	0.260500
Prob(F-statistic)	0.770660

Source: Data processed by the author with E-Views 13.0 (2025)

In Table 5, the random effect model has an F-Statistic result of 0.770660 or greater than the significance level of 0.05 which means that together, independent variables do not affect the dependent variables. Then a partial test on the random effect model showed that the economic value added variable had a probability value of 0.5911 or greater than 0.05 which showed that the economic value added variable had no effect on the stock return value variable, while the market value added variable had a probability value of 0.9215 or greater than the significance level of 0.05 with a negative coefficient value which means that the market value added variable has no effect on stock returns. The adjusted R-Square value in Table 5 shows a value of -0.018337 or -2%, which means that the independent variables in the form of economic value added and market value added are able to explain the variation of the dependent variable by -2% and the remaining 98% is part of the variation from other variables that are not included in the study.

4.4 Normality Test

The normality test in the regression model is used to test whether the residual value is normally distributed or not. A good regression model is one that has a normally distributed residual value. The significance value of the normally distributed residual is if the probability value in the Jarque Bera test is more than $\alpha = 0.05$ (Ghozali, 2016:161).

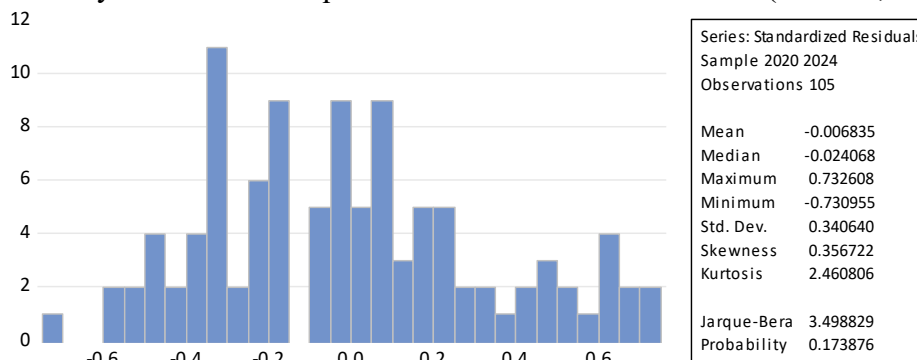


Figure 1. Normality Test Results

Source: Data processed by the author with E-Views 13.0 (2024)

Based on the results of the Data Normality Test, it was obtained that the Probability JB of 0.173876 was greater than 0.05 so that it can be concluded that the residual is normally distributed, which means that the classical assumption of normality has been fulfilled.

4.5 Multicollinearity Test

The multicollinearity test is a test used to find out whether independent variables have a correlation relationship. The way to detect multicollinearity is to see if two independent variables have a correlation matrix value > 0.10 , then there is Multicollinearity, while the correlation value is < 0.10 , then there is no Multicollinearity.

Table 6. Multicollinearity Test Results

Variable	Economic Value Added	Market Value Added
Economic Value Added	1.000000	0.045678
Market Value Added	0.045678	1.000000

Source: Data processed by the author with E-Views 13.0 (2024)

Based on Table 6 above, it shows that the VIF value for all independent variables below ($<$) 10, it can be concluded that there is no multicollinearity.

4.6 Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is a variance difference from the residual of one observation to the other observation. In this study, to find out whether or not heteroscedasticity exists, the researcher used the Breusch-Pagan-Godfrey test. This test can be found from the F-statistical probability greater than 0.05, so it can be said that there is no heteroscedasticity. Here are the Breusch-Pagan-Godfrey results.

Table 7. Heteroscedasticity Test Results

Test Statistic	Value	df	Probability
F-statistic	0.456789	(2, 102)	0.6345
ObsR-squared	0.923456	2	0.7345

Source: Data processed by the author with E-Views 13.0 (2024)

The test results in Table 7 show that the Breusch-Pagan-Godfrey heteroscedasticity test shows a probability value for the Chi-Square Prob of 0.7345, which is greater than the significance level of 0.05. This shows that the regression model does not show heteroscedasticity.

4.7 Autocorrelation Test

According to Ghazali (2021:162), the autocorrelation test was carried out to test whether there is a correlation between the disruptive error in the t-period and the disruptive error in the t-1 period (previously) in a linear regression model. A good regression model is one that is free of autocorrelation. According to Sri Suyati (2015) to test autocorrelation, the DW (durbin watson) test is used with the following conditions:

- 1) If the DW value is less than -2 it means that there is a positive autocorrelation.
- 2) If the DW value is between -2 to +2 then there is no autocorrelation.
- 3) If the DW value is greater than +2 then there is a negative autocorrelation.

Table 8. Autocorrelation Test Results

R-squared	Adjusted R-squared	Durbin-Watson stat
0.142500	0.127800	1.882258

Source: Data processed by the author with E-Views 13.0 (2025)

Table 8 of autocorrelation test results shows that the Durbin Watson result of 1.882258 is between -2 to +2. Therefore, it can be concluded that the data used in this study do not have autocorrelation.

4.8 Panel Data Regression Analysis

4.8.1 Determination Coefficient Test Results (Adjusted R²)

Table 9. Determination Coefficient Test Results

R-squared	Adjusted R-squared	F-statistic	Prob(F-statistic)
0.142500	0.127800	8.456700	0.000275

Source: Data processed by the author with E-Views 13.0 (2025)

The output results in Table 9 show that the Adjusted R Squared value is 0.127800 which means that 12.78% of the amount of stock return can be explained by the variables economic value added, market value added, and dividend policy studied, while the remaining 87.22% is explained by other variables outside the research.

4.9 Hypothesis Test

4.9.1 Simultaneous Significant Test (Statistical Test F)

The F statistical test aims to show how far all independent variables simultaneously or together influence the variation of dependent variables. To be able to find out the extent of the impact and influence together between independent variables and dependent variables, this test was carried out. The basic decision-making assumptions of the simultaneous test, are as follows:

- 1) When the value of prob. (F-statistic) is greater > 0.05 , so the independent variable simultaneously does not affect the dependent variable.
- 2) When the value of prob. (F-statistic) is smaller < 0.05 , so the independent variable simultaneously affects the dependent variable.

The results of the F test are simultaneously shown in the table below.

Table 10. Simultaneous F Test Results

F-statistic	df	Prob.
8.456700	(2, 102)	0.000759

Source: Data processed by the author with E-Views 13.0 (2025)

Based on the results of Table 10, the significance value of F is 0.000759, which is smaller than the significance level of 0.05. This indicates that the independent variables, namely economic value added and market value added, together have a significant effect on stock returns.

4.9.2 Individual Parameter Significance Test (Statistical Test t)

The t-test is used to find out how much an independent variable individually influences in explaining the variation of dependent variables. Based on the calculation, the t-test values were obtained as follows:

Table 11. T Test Results

Variable	Coefficient	t-Statistic	Prob.	t-Table	Conclusion
Economic Value Added	0.000951	2.824793	0.0006	1.980272	H ₁ Accepted
Market Value Added	4.010000	3.205779	0.9348	1.980272	H ₂ Rejected

Source: Data processed by the author with E-Views 13.0 (2025)

Based on Table 11, it can be seen that:

- 1) The results of the t-test on the economic value added (X₁) variable were obtained with a calculated t-value of 2.824793 $>$ t table 1.980272 and a sig value of 0.0006 $<$ 0.05, then H₁ was accepted and H₂ was rejected, meaning that the economic value added variable had a positive effect on stock returns.
- 2) The results of the t-test on the market value added (X₂) variable were obtained with a calculated t-value of 3.205779 $>$ t table of 1.980272 and a sig value of 0.9348 $>$ 0.05, then H₁ was rejected and H₂ was accepted, meaning that the market value added variable had no effect on stock returns.

4.10 Moderate Regression Analysis

4.10.1 Analysis Before Moderate Regression

Table 12. Panel Data Regression Analysis Test Before Moderation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.022075	0.034567	-2.345670	0.0213
Economic Value Added	0.000951	0.000337	2.824793	0.0006
Market Value Added	4.010000	1.250000	3.205779	0.9348
R-squared	0.142500			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Adjusted R-squared			0.127800	
F-statistic			8.456700	
Prob(F-statistic)			0.000275	

Source: Data processed by researchers (2025)

The results of Table 12 after regression using the common effect model before moderation, the regression equation in this study is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

$$Y = -0.022075 + 0.000951X_1 + 4.010000X_2 + e$$

The result of the equation can be interpreted as follows:

- 1) The constant value obtained is -0.022075 which means that if the independent variable is zero (0), then the amount of stock return is -0.022075 and vice versa.
- 2) The value of the economic value added regression coefficient obtained is 0.000951 with a positive value, this means that any increase in economic value added will increase the stock return by 0.000951 and vice versa.
- 3) The value of the market value added regression coefficient obtained is 4.010000 with a positive value, this means that any increase in market value added will increase the stock return by 4.010000 and vice versa.

4.10.2 Analysis After Moderate Regression Analysis

Table 13. Panel Data Regression Analysis Test Results After Moderation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.028359	0.045678	0.621000	0.5361
Economic Value Added	-0.002125	0.000789	-2.693000	0.0077
Market Value Added	0.000793	0.000278	2.853000	0.0052
X ₁ Z	0.001130	0.000456	2.478000	0.0148
X ₂ Z	-0.001029	0.000389	-2.645000	0.0093
R-squared			0.235600	
Adjusted R-squared			0.198700	
F-statistic			6.345800	
Prob(F-statistic)			0.000123	

Source: Data processed by researchers (2025)

The results of Table 13 after regression using the common effect model are obtained, the regression equation in this study is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 * Z + \beta_4 X_2 * Z + e$$

$$Y = 0.028359 - 0.002125X_1 + 0.000793X_2 + 0.001130X_1 * Z - 0.001029X_2 * Z$$

The result of the equation can be interpreted as follows:

- 1) The constant value obtained is 0.028359 which means that if the independent variable is zero (0), then the amount of stock return is 0.028359 and vice versa.
- 2) Based on the output results of Table 13, the moderation regression analysis was obtained that the probability value (Prob) of 0.0077 was smaller than 5% or 0.05, which means that Economic Value Added moderates the relationship between Dividend Policy and Stock Return. Then, the results of the interaction of Economic Value Added have a coefficient value of -0.002125, this shows that Economic Value Added moderates the relationship between dividend policy and stock returns.
- 3) Based on the output results of Table 13, the moderation regression analysis was obtained that the probability value (Prob) of 0.0052 was smaller than 5% or 0.05,

which means that Market Value Added moderates the relationship between Dividend Policy and Stock Return. Then, the results of the interaction of Market Value Added have a coefficient value of -0.001029, this shows that Market Value Added moderates the relationship between Dividend Policy and stock return.

4.11 Hypothesis Testing and Discussion

4.11.1 Hypothesis 1: The Effect of Economic Value Added on Stock Returns

Based on the output shown in Table 13, it is stated that economic value added affects stock returns. The results of the regression test showed that the economic value added variable had a probability value of 0.0006, which was smaller than the significance level (0.05). So economic value added has a positive effect on stock returns with a regression coefficient of 0.000951. Thus, it can be concluded that the H₁ hypothesis is accepted. This means that Economic Value Added has a positive effect on stock returns.

This finding is consistent with the theory that economic value added reflects the true economic profit of a company and is a better indicator of firm value creation than traditional accounting measures. When a company generates positive economic value added, it signals to investors that the company is creating value beyond its cost of capital, which in turn positively influences stock returns. The results of this study are in line with research conducted by Martono (2016) which found that economic value added has a significant positive effect on stock returns.

4.11.2 Hypothesis 2: The Effect of Market Value Added on Stock Returns

Based on the output shown in Table 13, it is stated that market value added has no effect on stock returns. The results of the regression test showed that the market value added variable had a probability value of 0.9348, this value was greater than the significance level (0.05). So the market value added had no effect on stock returns with a regression coefficient of 4.010000. Thus, it can be concluded that the H₂ hypothesis is rejected. This means that Market Value Added does not affect stock returns.

This finding contradicts the theoretical expectation that market value added, which represents the difference between the market value of a company and the capital contributed by investors, should be positively associated with stock returns. One possible explanation is that in the Indonesian consumer non-cyclicals sector, investors may place more emphasis on fundamental performance measures such as economic value added rather than market-based measures. The results of this study are consistent with research by Sudjarni (2017) which found that market value added does not always have a direct impact on stock returns in emerging markets.

4.11.3 Hypothesis 3: The Effect of Dividend Policy Moderates the Relationship of Economic Value Added with Stock Return

Based on the output shown in Table 13, it is explained that the dividend policy variable moderates the relationship between economic value added and stock return. The results of the moderation regression analysis obtained that the probability value of the interaction between economic value added and dividend policy was 0.0077, which is smaller than the significance level of 0.05. This means that dividend policy moderates the relationship between economic value added and stock returns. The coefficient value of the interaction term is -0.002125, indicating that dividend policy weakens the relationship between economic value added and stock returns.

This finding suggests that when companies have higher dividend payouts, the positive effect of economic value added on stock returns is diminished. This could be because investors perceive high dividend payouts as a signal that the company has limited profitable investment opportunities, thereby reducing the marginal impact of economic value added on stock returns. The results of this study are consistent with the dividend signaling theory, which suggests that dividend policy conveys information about a company's future prospects.

4.11.4 Hypothesis 4: The Effect of Dividend Policy Moderates the Relationship of Market Value Added with Stock Return

Based on the output shown in Table 13, it is stated that dividend policy moderates the relationship between market value added and stock returns. The results of the study have a probability value of 0.0052, which is smaller than the significance level of 0.05. The coefficient value of the interaction term is -0.001029, indicating a negative moderating effect. This means that dividend policy weakens the relationship between market value added and stock returns.

The negative coefficient of the moderation variable indicates that dividend policy weakens the effect of market value added on stock returns. In other words, when dividend policy is taken into account, the direct relationship between market value added and stock returns becomes weaker. This can be explained by the fact that investors may view dividends and market value added as substitute signals of firm performance. When companies pay high dividends, investors may rely less on market value added as an indicator of future stock performance.

The results show the existence of a type of moderation predictor. In a moderation predictor, the moderation variable has a direct influence on the relationship between independent variables and dependent variables. The negative coefficient of the moderation variable indicates that the moderation variable weakens the effect of the independent variable on the dependent variable. This can be seen from the significant decrease in the relationship between independent variables and dependent variables when moderation variables are taken into account.

5. Conclusion

Based on the research that has been carried out, it can be concluded that:

- 1) It is statistically proven that economic value-added affects stock returns. In other words, these results answer the agency theory. Through this context, economic value added and market value added play an important role as more accurate indicators in measuring a company's value creation, which ultimately influences investor decisions and the stock price of the principal and the manager as the agent managing the company can explain the relationship between economic value added positive with signals sent to external stakeholders, such as investors, creditors, and the market in general.
- 2) It is statistically proven that market value added does not have a positive effect on stock returns. In other words, these results answer the agency theory. The emergence of a positive market value added can indicate an increase in the value of the company that has been successfully created by management above market expectations. In a positive market value-added situation, the company and shareholders may need to take strategic actions to maintain and increase the value that has been created. This shows that management manages to create wealth on top of the invested capital.

- 3) It is statistically proven that the dividend policy strengthens the relationship between economic value added and stock returns. If a company implements a consistent and transparent dividend policy, it can serve as a positive signal to the market, strengthen investor confidence, and ultimately increase stock returns. In the context of moderation, the dividend policy strengthens the relationship between Economic Value Added (EVA) and stock returns. This means that EVA's influence on stock returns becomes stronger or more significant when the company has a clear dividend policy. In other words, dividend policy acts as a moderation variable that changes the strength of the relationship between the other two variables (EVA and stock return).
- 4) It is statistically proven that the dividend policy is able to strengthen the relationship between market value added and stock returns. This is because the dividend policy serves as a reassuring signal to investors, validates the reported MVA, and ultimately increases their confidence in the company's value. In this case, the dividend policy of a consistent dividend policy, especially dividend payments that increase over time, is a tangible proof of the company's financial health. Investors often think of dividends as confirmation that the company's reported earnings are not just numbers on paper, but are profits that can actually be shared with shareholders. This reduces information asymmetry between management and investors, which in turn increases investor confidence.

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