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The effect of economic value added, profitability, and leverage on stock returns with company value serving as an intervening variable

I Made Suidarma[1+]
Ida Bagus Raka Suardana[2]
Danang Fajar Utomo[3]

[1,2,3]*Faculty of Economics and Business, Universitas Pendidikan Nasional, Indonesia.*
[1]*Email: suidarma@undiknas.ac.id*
[2]*Email: ajikraka@undiknas.ac.id*
[3]*Email: danang342@gmail.com*

(+ Corresponding author)

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ABSTRACT

This study analyzes the influence of Economic Value Added (EVA), profitability, and leverage on stock returns in the property and real estate sectors, with company value as a mediating variable. Using a quantitative approach with a causal design, the research examined 50 companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2023, selected through purposive sampling. Data were sourced from annual reports and financial statements, then analyzed using multiple linear regression. The Sobel test was applied to assess the mediating effect of company value. The findings indicate that EVA, profitability, and leverage significantly affect stock returns. EVA positively influences investor interest by showing the company's ability to create value. Profitability enhances positive market perception and reflects financial stability. Leverage demonstrates a dual effect: moderate debt usage increases stock returns, while excessive debt raises bankruptcy risk, harming performance. Additionally, company value is found to mediate the relationship between EVA, profitability, leverage, and stock returns. The study suggests that companies in the property and real estate sectors should focus on improving EVA and profitability while managing leverage prudently. By doing so, they can attract investors, enhance stock performance, and support sustainable growth and competitiveness in the capital market.

Contribution/Originality: This research explores the influence of key financial metrics, including EVA, profitability, and leverage, on stock returns, as well as the mediating role of corporate value. The results provide valuable insights for investors and managers to optimize market performance and improve investment strategies.

1. INTRODUCTION

The COVID-19 pandemic is changing several areas of life, including the management of investments. The uncertain economic climate has driven people to explore new methods for securing and increasing financial assets. In this context, several people prefer the capital market due to the potential for high returns (Bellucci, Borisov, Gucciardi, & Zazzaro, 2023). Abid and Siddiqui (2020) found that stock investments were preferred to obtain better returns amid economic uncertainty. An important factor supporting the increase in investment interest is the policy-seeking ability of the government to recover the economy (Bailey et al., 2022). In addition, people are becoming more knowledgeable about finances in the capital market. Investors can make more informed decisions with a better understanding of investment instruments, such as stocks. Furthermore, factors affecting stock returns should be considered, such as economic value added (EVA), profitability, and company value (Anisa & Nurjanti, 2023).

EVA is an important metric in measuring the success of management in creating value for shareholders (Basana, Julio, & Soehono, 2020). According to Galvão, Teixeira, and Nunes (2020), the variable indicates the ability of a company to generate profits exceeding the cost of capital. Therefore, a deep understanding of EVA can assist investors in assessing investment opportunities in the capital market. Profitability is also another main indicator to evaluate the company's performance. Nizam, Ng, Dewandaru, Nagayev, and Nkoba (2019) explained that profitability indicates the success of management in running the company and contributes to sustainability and long-term growth. Investors observe profitability growth as a positive signal to evaluate the prospects of the company. Subsequently, profitability analysis is required to attract investors and ensure investment sustainability.

Leverage includes the use of debt to increase profits and impact stock returns (Hossain, 2020). According to Tikasari and Dwi (2020), the management of the balance between high returns and risks is important. Based on the description, this research analyzes the effects of EVA, profitability, and leverage on stock returns. The role of company value in explaining this relationship is also examined.

There are situations where high returns do not align with investment interests. High returns attract investors, creating uncertainty and reducing interest in investing. The company needs to establish a balanced rate of return to maintain its attractiveness in the capital market (Chairani & Siregar, 2021). Although theories such as EVA, profitability, and leverage explain performance, several companies cannot maximize these ideas. This occurs due to a lack of proper understanding of financial data (Dang, Nguyen, Le, Nguyen, & Pham, 2020; Saeed & Kersten, 2020).

Research is important because changing conditions in the capital market, especially after the COVID-19 impact, have increased public interest in investment. Investors need to understand the factors affecting stock returns amid changes in the capital market. People prefer alternative methods to protect assets and earn profits amid increased economic uncertainty. This research explains the effects of EVA, profitability, and leverage in the property and real estate markets. These variables offer insights to companies and investors regarding the improvement of strategies and performance in the capital market. Companies might attract more investors, improve their market position, and grow in the digital era with better knowledge.

Based on the description above, this research analyzes the effect of EVA, profitability, and leverage on stock returns in property and real estate companies. The correlation of the variables and their effect on investor attractiveness are considered due to the expansion of the digital economy. Therefore, the results should provide guidance to companies and investors in developing feasible investment strategies and maximizing performance in the capital market.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Signaling theory demonstrates the different levels of information that influence investment decisions. Independent companies send positive signals through the use of EVA, profitability, and leverage. These signals are important for creating a favorable outlook for investors, which can increase stock prices and returns (Rafaqat, Rafaqat, Rafaqat, & Rafaqat, 2021).

2.1. EVA and Stock Returns

EVA is used to measure the value a company makes for shareholders after including capital costs (Goel & Oswal, 2020). Shang (2018) stated that EVA checked the possibility of a company making profits more than the capital cost. According to Tikasari and Dwi (2020), companies with high EVA attract investors, leading to higher stock prices and returns. This aligns with signaling theory, as good financial performance sends positive signals to the market. Additionally, better investment decisions are made by trusting investors. Behera (2020) also showed that companies with positive EVA had high stock price changes. Investors prefer these companies in the creation of lasting value to increase attractiveness. Therefore, EVA has a significant effect on stock returns, and companies creating added value potentially attract more investors, improving stock performance in the capital market.

Hypothesis 1: EVA has a positive effect on stock returns.

2.2. Profitability and Stock Returns

Company profitability is a key indicator in assessing financial performance, and investors often use this concept to determine the value of shares. Furthermore, profitability is measured using ratios including ROA (return on assets), ROE (return on equity), and NPM (net profit margin). Research conducted by Sanusi (2023) reported that there was a positive connection between profitability and stock returns. However, profitability does not always guarantee higher stock returns. According to Lim, Sotes-Paladino, Wang, and Yao (2024), high profitability does not lead to better returns in the short term. This is attributed to external factors such as government policies, market conditions, or investors' perception of the risks of the company. Shahnia, Purnamasari, Hakim, and Endri (2020) examined the effect of other factors, such as company size and market value, on stock returns. These factors reduce profitability when compared to the variables.

Hypothesis 2: Profitability has a positive effect on stock returns.

2.3. Leverage and Stock Returns

Leverage is concerned with applying debt in capital structure and can have a significant effect on stock returns. Capital structure theory from Zia ul Haq, Shafiq, Kashif, and Ameer (2020) reported that leverage did not change the value in a perfect market. However, the concept can affect company performance and stock returns when factoring in taxes, bankruptcy costs, and uneven information. Villarón-Peramato, García-Sánchez, and Martínez-Ferrero (2018) used agency theory to explain that debt makes management work harder to use company resources, leading to higher profits and stock returns. High leverage increases bankruptcy and lowers the share value of the company. Doshi, Jacobs, Kumar, and Rabinovitch (2019) stated that a positive connection exists between leverage and stock returns. Meanwhile, Numanovich and Abbosxonovich (2020) showed that high leverage could affect the value because of higher financial risks. The effect of the variable on stock returns highly depends on risk management in the use of debt.

Hypothesis 3: Leverage negatively affects stock returns.

2.4. EVA and Corporate Values

Added value concerns the creation of value from resources. The concept measures company performance and the efficiency of operations. According to corporate value theory, company value reflects the future prospects of the market. Widyakto, Widyarti, and Suryawardana (2021) and Khan and Hidayat (2022) show that companies capable of generating high value-added perform better financially, as reflected in increased stock value and investor confidence. This is because value-added shows the efficiency of company assets and productivity. Value added is also closely related to other concepts, such as EVA, which emphasizes the creation of economic factors after considering the cost of capital. Kurznack, Schoenmaker, and Schramade (2021) showed that the ability to focus on the improvement of EVA increased company value since the variable measured the generation of profits above capital costs. In this context, stakeholders use value-added to assess the creation of sustainable value reflected in the capital market.

Hypothesis 4: Value added has a positive effect on company value.

2.5. Profitability and Company Value

Profitability is the most crucial metric in the analysis of financial performance and is directly connected to company value. The ratios of the variables including ROA and ROE, measure the capacity to earn profits from the assets and capital. According to the signal theory developed by Tende and Lawson (2021), the high profitability levels send a positive signal to the market regarding the prospects of increasing company value to investors. Shahnia et al.

(2020) showed that a highly profitable company had superior markets because investors value good and sustainable performance. Profitability is closely related to growth theory, where more profitable companies tend to have more resources to reinvest in operations or projects. Nguyen and Nguyen (2020) reported that consistent profitability allowed company to finance expansion or innovation without deeply relying on debt. Therefore, this variable reflects the current performance of company and affects the perception of long-term growth potential.

Hypothesis 5: Profitability has a positive effect on company value.

2.6. Leverage and Company Value

Leverage is the application of debt in the capital structure and is often considered a factor affecting company value. According to Hussain, Quddus, Pham, Rafiq, and Pavelková (2020), this variable does not impact company value in perfect market conditions without taxes. In the reality of the business world fraught with friction, leverage can impact company value through tax savings and the potential risk of bankruptcy. Different research showed that optimal leverage increased company value due to tax savings from debt interest. However, an increase in the rate of the indicator enhances bankruptcy risk, lowering company value. Leverage also affects management behavior and investment decision-making. For example, managers working in high-leverage company are cautious in making investment decisions due to the obligation to pay debts (Hang, Geyer-Klingeberg, Rathgeber, & Stöckl, 2021). Excessive leverage leads to underinvestment, where company does not make profitable investments due to concerns over debt obligations (Royer & McKee, 2021). Therefore, the hypothesis states that leverage has a non-linear relationship with company value. Moderate leverage increases company value, while excessive leverage decreases it.

Hypothesis 6: Leverage erodes company value.

2.7. Company Value as EVA Mediation and Share Returns

EVA is a financial performance measure that shows economic profit after considering capital costs. This variable is considered a more reliable indicator compared to net income, reflecting company value to shareholders after accounting for all costs, including equity costs (Ramana, 2005). According to Galvão et al. (2020), EVA has a positive effect on stock returns. This variable reflects the ability to generate profits above the cost of capital and enhances investor confidence. However, the correlation between EVA and stock returns is often indirect and mediated by other factors. Company value is estimated through stock prices or market ratios, such as the price-to-book ratio, which is used as a key indicator in measuring company value (Behera, 2020). Therefore, "company value mediates the relationship between EVA and stock returns." An increase in EVA tends to increase company value and returns on shares.

Hypothesis 7: Company value mediates the effect of EVA on stock returns.

2.8. Company Value as a Mediation of Profitability and Stock Returns

Profitability is essential for checking company performance using financial ratios such as ROA and ROE. Sanusi (2023) and Berggrun, Cardona, and Lizarzaburu (2020) reported that profitable companies provide better returns to shareholders. Profitability indicates a company's ability to generate profits from assets or equity. However, this variable and stock returns are not directly related. Other factors, including company value, can influence the market's perception of profitability. Company value, measured by Tobin's Q or the price-to-book ratio, is important in understanding the relationship between profitability and stock returns. Furthermore, high profitability can enhance the market's perception of growth potential. An increase in company value is expected to be followed by improved stock returns (Berggrun et al., 2020; Wulandari, br Bukit, Manik, Napitupulu, & Tambunan, 2022). In this context, the hypothesis proposes that the value of a company mediates the correlation between profitability and stock returns. An increase in profitability tends to raise the company's value, thereby enhancing the returns on shares.

Hypothesis 8: Company value mediates the influence of profitability and stock returns.

2.9. Company Value as a Leverage Mediation to Stock Returns

Leverage measures the debt proportion to equity in a company's capital structure. This variable is often among the main factors affecting performance, including stock returns. In theory, leverage can increase equity returns by borrowing capital to generate higher profits than debt costs (Donangelo, 2021; Xu, Hu, & Das, 2019). However, leverage increases financial risk, leading to performance instability and potential bankruptcy when not managed properly. Gomes and Schmid (2010) stated that the factor had a complex relationship with stock returns. Moderate and excessive leverage increases returns, and reduces stock performance due to the risk of bankruptcy. Company value reflects the perception of the market, mediating the correlation between leverage and stock returns (Resendes, Obrycki, Bergen, & Holt, 2020). Optimal leverage increases company value through tax savings from debt, raises investor confidence, and attracts market interest. Conversely, excessive leverage lowers company value due to increased bankruptcy risk and the financial burden of reducing investor interest (Numanovich & Abbosxonovich, 2020). The hypothesis proposes that company value mediates the correlation between leverage and stock returns. Optimal and excessive leverage increase and decrease company value and stock returns, respectively.

Hypothesis 9: Company value mediates the influence of leverage and stock returns.

2.10. Company Value and Returns on Shares

Company value is an indicator reflecting the total assets and the growth potential of the market. Generally, this variable is measured through Tobin's Q, or price-to-book ratio, which describes the comparison between market and company book value (Lai, 2020). Investors possess increased confidence in high company value, accompanied by expectations of improved financial performance and profitability (Anah, Fikra, & Widayati, 2022; Khan & Hidayat, 2022). In financial literature, company value is considered an important factor affecting stock returns. This is because company value tends to attract investors, impacting the increase in stock prices (Handayani & Karnawati, 2021). The correlation between company value and stock returns can be explained by the reflection of market optimism regarding the ability to achieve higher profits. Investors respond to the increase in company value by increasing demand for shares, which drives up the stock price and results in higher returns (Chen, Li, & Tang, 2021; Prastuti & Setianingrum, 2019). Therefore, the hypothesis proposes that company value has a positive effect on stock returns.

Hypothesis 10: Company value has a positive effect on stock returns.

3. METHODOLOGY

The selected samples were listed on the IDX (Indonesia Stock Exchange) and consisted of companies operating in the property and real estate sectors from 2018 through 2023. This research focused on companies meeting specific criteria, namely being listed on the IDX, having complete financial reports available for the period, and possessing data relevant to EVA, profitability, leverage, stock returns, and company value. Purposive sampling was used by applying these criteria to select samples. After setting the criteria, eligible companies were chosen to ensure sufficient representation for valid analysis. The main subjects were companies in the real estate and property sectors listed on the IDX. A total of 50 companies meeting the criteria were selected from the population. The analysis was conducted over six years, from 2018 to 2023, using data obtained from annual reports, sustainability reports, and financial statements. This research also examines the effect of EVA, profitability, and leverage on stock returns in the property and real estate sectors. Market dynamics were analyzed, including changes caused by COVID-19 on investment behavior and investor risk.

EVA, profitability, and leverage were investigated to determine their effect on stock returns. Company value was considered an intervening variable. These three factors were selected to assess the financial performance and investment attractiveness of the capital market. EVA is used as a performance measure to reflect company value for shareholders after accounting for capital costs.

Multiple linear regression was selected to measure the relationships between several variables. This regression shows the effect of an independent variable (EVA or profitability) on a dependent variable (stock returns). The Sobel test was also used to examine the mediating role of company value between independent variables and stock returns. The combination of these methods provided deeper insights into variable interactions and the role of company value.

Causality design and quantitative methods were used to analyze leverage, profitability, and EVA, with company value as the mediator. Quantitative methods were employed to obtain numerical data from financial reports, and statistical techniques such as multiple regression analysis were utilized. Morri and Jostov (2018) reported that quantitative methods helped understand leverage, profitability, and company value in property sectors. The design showed valid results, providing useful insights for investors and managers about financial decisions in the property and real estate industries.

Based on the results, this research adopted a quantitative method using IBM SPSS (Statistical Package for the Social Sciences) version 27 software for data analysis. Some of the methods demonstrated validity and reliability as follows.

3.1. Descriptive Analysis

Descriptive statistics, such as the mean, median, and data visualization through diagrams, are used to describe the characteristics of the sample data. Hansen, Pomp, Erki, and Meisen (2019) stated that the analysis presented data in a simpler and clearer form to generalize the population.

3.2. Multiple Linear Regression Analysis

The impact of independent factors on stock returns is measured, such as EVA, ROE, and DER, as well as company value. Ma, Gao, and Zhao (2020) stated that this analysis enabled the assessment of each independent variable contributing to the variation of the dependent variable. The mathematical formula of multiple regression is applied as follows:

$$Model\ 1: Z = b1X1 + b2\,X2 + b3X3 + e$$
$$Model\ 2: Y = b4X1 + b5X2 + b6X3 + b7Z + e$$

3.3. Hypothesis Testing

3.3.1. F-Test

The overall impact of the independent variable on the dependent variable was evaluated using the F test. Munson, Young, and O'Leary (2020) explained that the test ascertained the statistical significance of the combined effect of independent variables on the dependent variable. The formula for Test F is as follows:

$$F = \frac{S_1^2}{S_2^2}$$

3.3.2. T-Test

The significance of the impact of each independent variable on the dependent variable was tested separately using a t-test. Guo et al. (2023) emphasized that the following test was important to assess the significant influence of each variable separately. The t-test formula is as follows:

$$t = (X - \mu_0) / (s / \sqrt{n})$$

3.4. Sobel Test

The Sobel test examines the significant effect of the mediator on the correlation between the independent and dependent variables. According to Jiang et al. (2023), this test is applied to validate the important role of mediating variables with the formula as follows:

$$Z = (a \times b) / \sqrt{(b^2 \times SE\_a^2 + a^2 \times SE\_b^2)}$$

Table 1 presents descriptive statistics of key financial performance variables.

Table 1. Descriptive statistics.

Variable	N	Minimum	Maximum	Mean	Std. deviation
EVA	300	17.558	3.502	1.925	4.679
Returns on equity ratio	300	0.000	8.252	1.199	1.834
Ratio leverage	300	0.010	5.179	0.756	0.749
Ratio price book value	300	0.010	25.370	1.398	2.982
Returns on shares	300	0.000	15.470	1.269	1.407
Valid N (Listwise)	300				

4. RESULTS

The variables show differences from the descriptive analysis results. EVA varies between companies due to high or low economic value. Al-Busaidi and Al-Muharrami (2021) reported that EVA was better than net profit because the variable included capital costs. Profitability (ROE) also indicates differences in profit generation through equity. Some companies demonstrate strong returns, while others are less optimal. Ratnasari and Ramadhani (2022) emphasized the importance of leverage management to maximize ROE and maintain risk balance. In contrast, leverage variables show variations in corporate financing strategies. This report emphasizes the importance of careful leverage management, as explained by Ratnasari and Ramadhani (2022). There is a significant variation in market valuation when analyzing company value determined by PBV (price-to-book value). Donangelo (2021) reported that a high PBV showed optimistic market expectations. Stock returns are stable but show higher-than-average results. According to Wang, Brabenec, Gao, and Tang (2021) company performance is reflected in high stock returns relating to investment risk. This analysis shows the variation in financial performance, emphasizing the importance of appropriate capital and management strategies to support growth.

Table 2 presents linear regression results showing the impact of EVA, equity returns, and leverage on the PBV ratio.

Table 2. Model I linear regression analysis.

Coefficients a						
Unstandardized coefficients				Standardized coefficients beta	t	Sig.
Model		B	Std. error			
1	(Constant)	-1.707	0.798		-2.140	0.033
	EVA	0.092	0.030	0.171	3.026	0.003
	Return on equity ratio	0.089	0.033	0.152	2.674	0.008
	Rasio leverage	0.129	0.049	0.149	2.635	0.009
1.	Dependent variable: PBV ratio					

Note: a. Dependent variable: PBV ratio.

Model I linear regression analysis reveals a positive relationship between three independent variables, including EVA, ROE, leverage ratio, and PBV ratio. The coefficient of EVA is 0.092 with a significance of 0.003, indicating it increases company value. ROE has a coefficient of 0.089 with a significance of 0.008, suggesting that profitability enhances market value. The leverage ratio has a coefficient of 0.129 with a significance of 0.009, as the variable increases company value. According to Setianingrum and Prastuti (2020) the management of the three variables is important for performance and valuation. These variables can affect PBV ratio as an important indicator in financial analysis.

Table 3 presents regression results showing that EVA and the price-to-book value significantly influence PBV, while other variables are not significant.

Table 3. Linear regression analysis model II.

Coefficients [a]						
Unstandardized coefficients				Standardized coefficients beta	t	Sig.
Model		B	Std. error			
	(Constant)	-0.677	1.269		-0.534	0.594
	EVA	0.100	0.049	0.119	2.059	0.040
	Returns on equity ratio	-0.025	0.053	-0.028	-0.475	0.635
	Rasio leverage	-0.115	0.078	1	-1.469	0.143
	Ratio price to book value	0.284	0.092	0.181	3.092	0.002

Note: a. Dependent variable: PBV ratio.

Model II linear regression results report the correlation between independent variables such as EVA, ROE, leverage ratio, PBV ratio, and stock returns. This analysis shows that stock yields are significantly influenced by the PBV ratio and EVA, with significance values of 0.002 and 0.040, respectively. Therefore, there is a positive relationship between these two factors and stock returns. The regression coefficient of EVA was 0.100, suggesting that each increase in EVA improved stock returns by 0.100. Furthermore, Fan (2020) reported the importance of EVA in creating company value. PBV ratio has a coefficient of 0.284, showing that the variable often reflects optimism about the prospects of the company and contributes to an increase in stock returns (Khan & Hidayat, 2022). ROE and leverage ratio do not affect stock returns with a significance level of 0.143 and 0.635, respectively. This shows that the increase in the variables has no visible effect on stock returns.

Table 4 presents a significant overall model fit for PBV regression.

Table 4. Simultaneous F tests model I.

Anova[a]						
Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	18.906	3	6.302	7.425	<0.001[b]
	Residual	251.229	296	0.849		
	Total	270.135	299			

Note: a. Dependent variable: PBV ratio.
b. Predictors: (Constant), ratio leverage, EVA, returns on equity ratio.

4.1. Hypothesis Testing

Leverage ratio influences PBV, EVA, and ROE, following the simultaneous F test for model I. This hypothesis is accepted because (Sig.) is less than 0.05 or < 0.001. In addition, the projected F-number of the table is about 2.60, smaller than the calculated value of 7.425, indicating an impact on PBV. Tikasari and Dwi (2020) confirmed that the three variables significantly enhance the market performance, specifically in the context of PBV. Well-managed leverage could lead to positive perceptions by investors. EVA shows the added value created by the company, and ROE reflects efficiency when producing profits from equity. Chen (2022) showed that PBV in the industrial sector was significantly impacted by the three variables. The results also emphasize the importance of managing leverage ratios and optimizing EVA to build investors' confidence. Galvão et al. (2020) explained EVA as an indicator for checking financial performance. A positive EVA shows the creation of company value more than the cost of capital. Resendes et al. (2020) also shared the impression of high ROE with investors. This demonstrates the effectiveness of management in utilizing capital to generate profits, contributing to PBV. Leverage ratio, EVA, and ROE significantly influence PBV in this regression model.

Table 5 presents a significant F-test result, indicating Model II predictors collectively influence returns on shares meaningfully.

Table 5. Model II simultaneous F tests.

Anova[a]						
Model		**Sum of squares**	**df**	**Mean square**	**F**	**Sig.**
1	Regression	38.383	4	9.596	4.539	<0.001[b]
	Residual	623.653	295	2.114		
	Total	662.036	299			

Note: a. Dependent variable: stock returns.
b. Predictors: (Constant), ratio price book value, EVA, ratio leverage, returns on equity ratio.

The PBV ratio, EVA, leverage ratio, and ROE significantly influence stock returns, according to the simultaneous F test on Model II. This hypothesis is supported by a significance value (Sig.) of 0.001, which is less than 0.05. Additionally, the calculated F value of 4.539 exceeds the F table value of 2.39, confirming that the independent variables have a simultaneous impact on stock returns. Shahnia et al. (2020) showed the importance of leverage management and strong ROE in attracting investors, specifically in the financial sector. According to Kane, Ashutosh, and Anup (2016), EVA positively enhanced company attractiveness to investors. Pratama and Jahja (2021) also reported that high ROE reflected management efficiency, contributing to increased returns on shares. This test confirmed that PBV, EVA, leverage, and ROE ratios significantly impacted stock returns in the regression model analyzed.

Table 6 presents partial T-test results, showing that EVA, equity, and leverage ratios significantly affect the PBV ratio.

Table 6. Model I partial T-test.

Coefficients [a]						
Unstandardized coefficients				**Standardized coefficients beta**	**t**	**Sig.**
Model		**B**	**Std. error**			
1	(Constant)	-1.707	0.798		-2.140	0.033
	EVA	0.092	0.030	0.171	3.026	0.003
	Return on equity ratio	0.089	0.033	0.152	2.674	0.008
	Rasio leverage	0.129	0.049	0.149	2.635	0.009

Note: a. Dependent variable: PBV ratio.

4.1.1. Partial Regression Coefficient Test/ (T-Test)

PBV ratio is significantly influenced by leverage, EVA, and ROE, according to the partial t-test results in Model I. The significance values for leverage ratio (0.009), ROE (0.008), and EVA (0.003) indicate an influence on PBV. Additionally, the calculated values for these three variables exceed the t-table value, reinforcing the conclusion that they affect PBV. Fan (2020) explained that EVA was important in increasing investors' confidence by creating added value. Zhang, Cui, and Xie (2020) also asserted that high ROE signified efficient equity utilization, attracting investors. Malina, Arimbawa, and Wulandari (2020) added that EVA and ROE increased the attractiveness of company to investors, positively impacting PBV.

Table 7 presents partial T-test results showing only PBV and EVA significantly influence the dependent variable in Model II

Table 7. Model II partial T-test.

Coefficients [a]						
Unstandardized coefficients				Standardized coefficients beta	t	Sig.
Model		B	Std. error			
1	(Constant)	-0.677	1.269		-0.534	0.594
	EVA	0.100	0.049	0.119	2.059	0.040
	Returns on equity ratio	-0.025	0.053	-0.028	-0.475	0.635
	Ratio leverage	-0.115	0.078	-0.085	-1.469	0.143
	Ratio price book value	0.284	0.092	0.181	3.092	0.002

Note: a. Dependent variable: Stock Returns

Based on the partial T-test on Model II, EVA, and PBV, they are proven to have a significant influence on stock returns. EVA has a significance value of 0.040, which is smaller than the threshold of 0.05, with a t-value of 2.059, higher than the t-table value of 1.968, indicating a significant influence. The PBV ratio also shows a significance value of 0.002 and a t-value of 3.092. In contrast, ROE and leverage do not affect stock returns because their significance values are above 0.05, and their t-values are lower than the t-table value. Fan (2020) reported that EVA played an important role in increasing returns on shares reflecting company ability to create economic value exceeding capital cost. Khan and Hidayat (2022) emphasized that PBV was the main benchmark for investors because the excess showed optimism about growth prospects and positively impacted stock returns. According to Adamo, Federico, and Notte (2023) high EVA and PBV strengthen market confidence, contributing to increased stock returns.

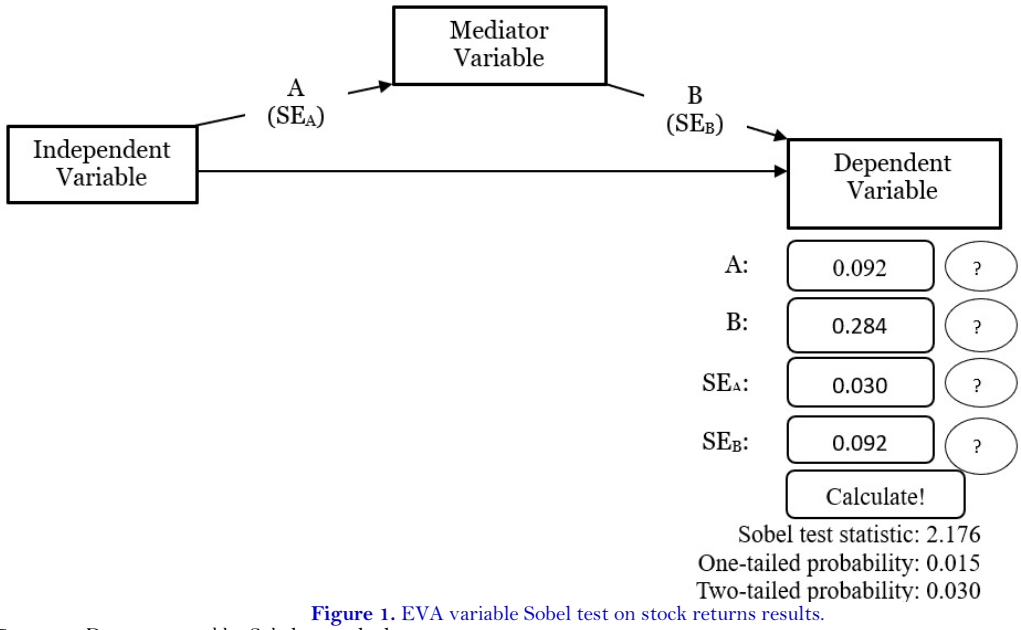

Figure 1. EVA variable Sobel test on stock returns results.

Source: Data processed by Sobel test calculator.

4.2. Sobel Test

Sobel test in Figure 1 shows a value of 2.175, with one-tailed and two-tailed p-values of 0.0147 and 0.0296, respectively. Since the Sobel value exceeds 1.96 at a significance level of 5%, the mediation effect is significant. Additionally, one-tailed and two-tailed p-values less than 0.05 support the conclusion that the mediator significantly influences the relationship between the independent and dependent variables. In the regression tables for Models I and II, the beta values for EVA and PBV are 0.092 and 0.284, with a standard error of 0.030 and 0.092, respectively. These values were used to calculate the mediation effect, which was found to be significant. According to Baum et al. (2017) Sobel test is used because of the efficient ability to measure indirect influence in mediation models. Alfons, Ateş, and Groenen (2022) also added that Sobel test was relevant in social research.

Figure 2 illustrates the Sobel test results, showing that profitability significantly mediates the relationship between financial variables and stock returns.

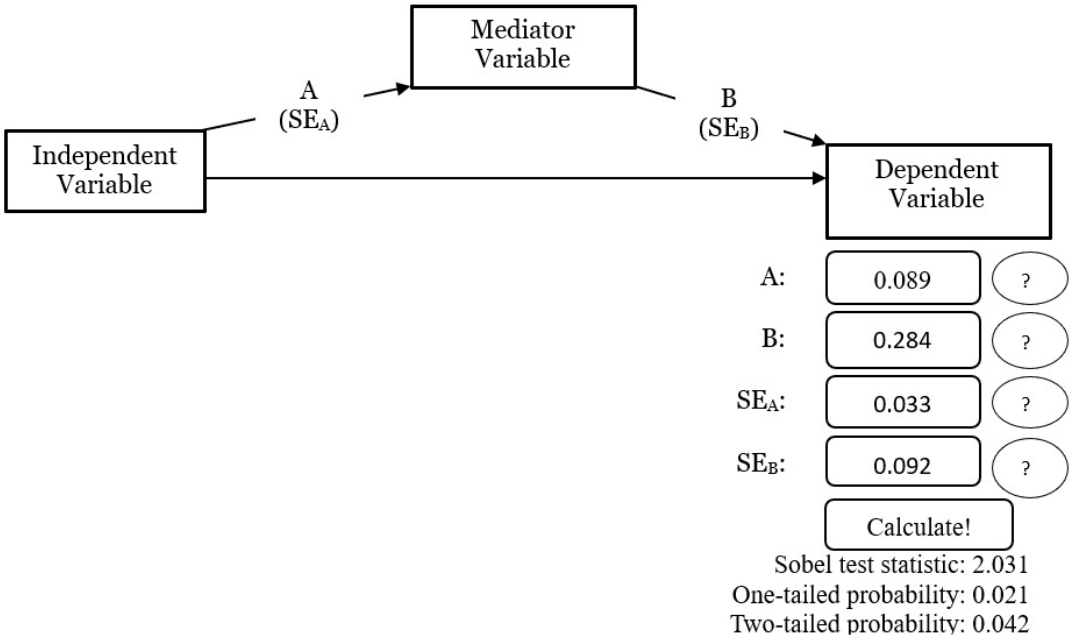

Figure 2. Sobel test of profitability variables on stock returns results.
Source: Data processed by Sobel test calculator.

The Sobel test results showed a statistical value of 2.031, with probabilities for one-way and two-way being 0.0211 and 0.0423, respectively. The Sobel value is above 1.96, and the p-value is below 0.05, indicating that the mediator variable plays a significant role in the connection between the independent and dependent variables. Holzer et al. (2021) discussed the utility of Sobel test in identifying indirect effects in mediation models. Parlina and Nuswantoro (2020) also reported the usefulness of Sobel test in financial research, where indirect effects had a significant impact. The beta values for EVA and PBV are 0.089 and 0.284, with standard errors of 0.033 and 0.092, respectively.

Figure 3 illustrates a significant mediation effect, confirmed by the Sobel test, between independent and dependent variables through a mediator.

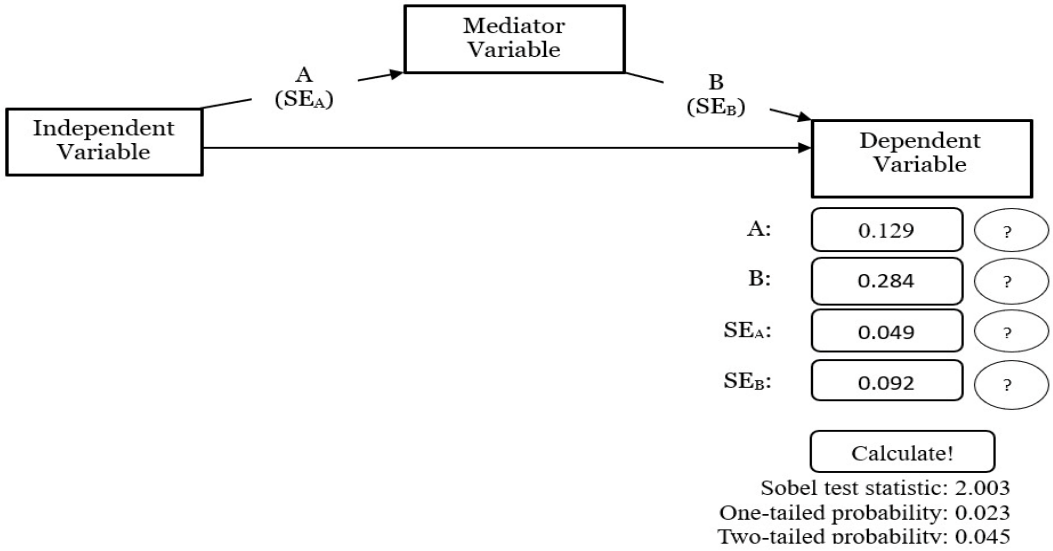

Figure 3. Results of leverage variable Sobel test on stock returns.
Source: Data processed by Sobel test calculator.

Sobel test results showed a value of 2.003 with p-values of 0.0226 and 0.0452 for one-way and two-way tests, respectively. Since the Sobel value exceeds 1.96 and the p-values are below 0.05, the mediator plays a significant role in the correlation between leverage (independent variable) and PBV (dependent variable). A p-value less than 0.05 further supports the conclusion that leverage influences PBV through mediation. Alfons et al. (2022) emphasized that Sobel test was useful for detecting mediation effects in social and economic research. Parlina and Nuswantoro (2020) also underlined the importance of tests in financial research to understand the interaction between variables. In the coefficients table, the beta values for leverage and mediator were 0.129 and 0.284, with standard errors of 0.049 and 0.092, indicating significant mediation.

5. DISCUSSION

5.1. EVA Effect on Stock Returns

This research shows that EVA has a positive effect on stock returns, providing a better understanding of financial performance in the market. EVA subtracts costs from net profit and explains company value beyond the use of capital. Magni (2021) stated company making more value than capital costs could attract investors. Positive EVA shows the company might be making profits, matching the desire of shareholders. Therefore, increased EVA is often connected to stock prices and higher returns (Tikasari & Dwi, 2020).

Li, Wang, Ahmad, Huang, and Khan (2023) explained that EVA was useful for measuring company performance and predicting stock returns better than net income. Furthermore, Behera (2020) mentioned that focusing on EVA growth often improves stock value. In this context, long-term value should be created by managing resources and investing in projects with high profits for better stock returns. The results showed that companies should focus on short-term profits and use EVA to assess performance.

Empirical support is provided for integrating company value theory and financial management practices. Companies consistently striving to improve EVA can enhance financial performance, market perception, and returns generated for shareholders. Therefore, sustainable value creation must be the main focus for management when formulating investment strategies and decisions (Ghosh & Basu, 2019).

5.2. Profitability Effect on Stock Returns

The analysis indicates that profitability positively influences stock returns, underscoring the significance of financial performance in attracting investors. Profitability is commonly assessed through ratios such as ROA and ROE, which reflect the ability to generate profit from assets and equity holdings (Hermawan, Ishak, & Budiantoro, 2023). High profitability indicates effective resource management, which increases investor confidence (Sanusi, 2023). Theories in financial economics explain that investors analyze a company's ability to generate profits and higher returns (Lim et al., 2024).

Some research showed that there was a link between profitability and stock returns. Berggrun et al. (2020) stated that profitability had an impact on stock market performance. The results showed that companies with higher profitability had better stock returns. Additionally, profitability affected stock prices and expected returns. This indicates that the market reacts positively when company profits grow (Berggrun et al., 2020).

The link between profitability and stock returns can be explained through signal theory. Investors' expectations change after obtaining information about a company's financial capacity. Good profitability elicits a positive market reaction, increasing demand for shares. Therefore, company management should focus on increasing profits and effectively communicating performance to stakeholders. This research supports profitability as a key factor influencing stock returns. Additionally, management should work on improving financial performance and building a good reputation with investors (Parlina & Nuswantoro, 2020).

5.3. Leverage Effect on Stock Returns

Leverage affects stock returns and provides important insights into the correlation between capital structure and market performance. The application of debt in a company's financial structure can be a double-edged sword (Asraf & Mia, 2020). The optimal use of debt tends to increase returns for shareholders because external funds are used to finance projects with higher rates of return than the cost of capital (Guo, Legesse, Tang, & Wu, 2020). Traditional capital structure theory states that moderate leverage increases company value and stock returns through tax savings from debt interest (tax shield). Meanwhile, excessive leverage increases the risk of bankruptcy, which raises concerns among investors and potentially lowers stock returns (Khaki & Akin, 2020).

Hang et al. (2021) stated that leverage did not affect company value when the market was perfect. However, optimal leverage enhanced company value when taxes and bankruptcy costs were included. According to Zhang, Hu, and Luo (2020), debt could control company management. Managers act carefully with investment decisions when leverage is high to increase company efficiency and stock returns. Graham, Kim, Li, and Qiu (2023) reported that the possession of excessive leverage could affect company value. The concept leads to increased bankruptcy costs and a reduction in stock returns.

This research shows that leverage has a complicated relationship with stock returns. The concept provides profits to shareholders when used in the right proportion. Excessive leverage decreases stock returns because of the higher financial risks. In this context, the trade-off theory allows companies to balance the benefits of tax savings from debt with the risks of bankruptcy due to excessive leverage. Managers must decide carefully on the amount to be used to maximize stock returns without incurring excessive risks from debt (Dangl & Zechner, 2021).

5.4. EVA Effect on Company Value

EVA has a positive effect on company value, offering important ideas as a performance measure for shareholders. EVA analyzes net profit after subtracting capital costs. Agency and signal theories are supportive, as a positive EVA signals to the market, allowing the company to make a profit and create value above the expectations of shareholders. According to Murni (2019), company value is often measured through ratios such as Tobin's Q or price-to-book ratio.

Based on the results of Goel and Oswal (2020) EVA is a stronger indicator than net income in describing the ability to make shareholder value. Arry Hutomo, Theresia Marditama, NANDAN LIMAKRISNA, Ilham Sentosa, and John Lee Kean Yew (2020) stated that company focused on improving EVA increased market value because investors viewed EVA as a reliable tool for predicting future performance. The results are consistent with stakeholder theory, where an increase in company value can occur when the expectations of various creditors are successfully managed. Therefore, a company with improved EVA increases in value following the ability to properly manage capital and generate consistent profits (Shang, 2018).

5.5. Profitability Effect on Company Value

Profitability has a positive effect on company value, demonstrating the importance of the ability to generate profits through increased market perception. This variable reflects the effectiveness of a company in leveraging assets and equity to generate profits. Signal theory supports this outcome, where high profitability sends positive signals to investors regarding performance and prospects. Increased profitability is considered an indicator of financial stability and the ability to survive and grow, thereby increasing company value.

Bandara and Weerasooriya (2021) showed that profitability was an important factor affecting company value. This is appropriate to the agency theory that high profitability decreases agency problems between management and shareholders. Based on the result, efficient management and consistent generation of profits are more appreciated by investors. Minanari and Rahayu (2020) found that profitable company possessed better governance structures. Therefore, strong profitability shows operational success and positively increases company value.

5.6. Leverage Effect on Company Value

Leverage impacts company value and provides important insights into the influence of capital structure on market perception. This variable is measured through the debt-to-equity ratio and describes the application of debt to finance activities. According to trade-off theory, optimal leverage increases company value because debt offers benefits in the form of tax savings from interest. In this context, using leverage can increase profits for shareholders without excessive financial risk. Increased controlled leverage tends to enhance company value and generate higher profits than the cost of debt.

Previous research supported the influence of leverage on company value. Chen, Kemsley, and Sivadasan (2021) stated that leverage could increase company value due to the tax savings benefitted from debt with the existence of taxes. However, the pecking order theory of Grundy and Verwijmeren (2020) argued that internal funding was preferred before taking external debt since the risk reduced company value. According to Muhammad, Abubakar, Kakanda, and Abubakar (2020) high leverage company without the ability to gain adequate profits experiences a decline due to the increased risk of bankruptcy. Therefore, the correlation between leverage and company value is non-linear. Moderate and excessive leverage can increase and decrease company value due to greater financial risk, respectively.

5.7. Company Value as an EVA Mediation to Stock Returns

Corporate value mediates the relationship between EVA and stock returns, demonstrating how internal value creation translates into stock market performance. EVA measures net profit after accounting for capital costs and reflects the ability to generate added value for shareholders. A positive EVA indicates profit generation on capital expenditure, which tends to enhance investor perception. Company value, measured through Tobin's Q or the price-to-book ratio, acts as a mediator because an increase in EVA improves market perception, stock prices, and share returns. In this context, signal theory suggests that a positive EVA signals to the market, increasing investor confidence. Previous research also supports the role of company value as a mediator in the correlation between EVA and stock returns. Tikasari and Dwi (2020) stated that EVA was a good indicator for checking company performance and analyzing economic value creation. Kaczmarek (2024) explained that company with high EVA possessed market value following efficient use of capital. Kurniati (2019) reported that high company value increased EVA effect on stock returns. Companies with high value are more stable and possess better chances for growth. Therefore, a direct relationship exists between EVA and stock returns due to company value.

5.8. Company Value as a Profitability Mediator to Stock Returns

Company value connects profitability and stock returns. This variable is important for translating operational performance into market results. Profitability, measured using ROA or ROE, indicates the ability to generate profits from assets or equity. Additionally, high profitability demonstrates that the company operates efficiently. Company value, measured by Tobin's Q or the price-to-book ratio, links profitability to stock returns. Higher profitability signals to investors the long-term potential of the company, leading to higher stock prices and returns. According to signal theory, high profitability sends positive signals to investors regarding stability and growth potential.

Jansen (2021) showed that more profitable company possessed higher market values, contributing to better stock returns. Sanusi (2023) also reported that high profitability positively impacted company value, serving as a key indicator for investors in assessing long-term investment prospects. Cheng and Wang (2021) emphasized that good corporate governance could enhance profitability, increasing company value and positively impacting stock returns. Therefore, this research confirms that high profitability creates direct profits and indirectly increases stock returns through company value.

5.9. Company Value as a Leverage Mediation Against Stock Returns

Company value mediates the correlation between profitability and stock returns. Profitability is often measured through ROA and ROE, reflecting the company's ability to generate profits from assets and equity. High profitability indicates operational efficiency and increases investor perception. Company value acts as a mediator in this relationship because increased profitability improves the market perception of long-term prospects, thereby raising stock prices and returns. In signal theory, high profitability sends positive signals to investors regarding stability and growth. Donangelo showed that profitable company had higher market value, contributing to better stock returns. Sanusi (2023) also found that high profitability served as a key indicator for investors in assessing long-term investment prospects. Cheng and Wang (2021) emphasized that good corporate governance could raise profitability, increasing company value and positively impacting stock returns. Therefore, high profitability creates direct profits and indirectly increases stock returns.

5.10. Company Value Effect on Stock Returns

Company value has a positive effect on stock returns, emphasizing the importance of market perception in determining investment results. This variable is measured through Tobin's Q or the price-to-book ratio, reflecting the value of company assets. Investors have a positive outlook on the growth prospects and financial stability of companies with high value. In signal theory, a company has a solid long-term outlook and good management. This increases demand for shares and potentially drives up stock prices and returns.

Some research showed a connection between company value and stock returns. For example, Baird, Dodd, and Middleton (2020) reported that company values provided better stock returns due to increased chances of stability and profitability. Dong, Hirshleifer, and Teoh (2021) stated that company with high market capitalization possessed better access to money and investment chances. This could increase financial performance and lead to higher stock returns. Therefore, the increase in company value is an indicator of good operational performance and contributes to investor confidence, which affects stock returns.

6. CONCLUSION AND SUGGESTIONS

In conclusion, EVA, profitability, and leverage affected stock returns in property and real estate companies listed on the IDX from 2018 to 2023. Company value acted as an intervening variable connecting the three factors with stock returns. A positive EVA indicated high company performance and profitability, as measured by ROE. Leverage contributed to higher returns but involved inherent risks requiring careful management. Therefore, this research was conducted concerning good management strategies to attract investors. Company management enhanced EVA and profitability to maintain financial stability. Different opportunities are available for future analysis to explore factors influencing stock returns and to conduct analyses in different sectors to broaden the understanding of capital market dynamics. Future research could expand the scope by including other industry sectors to provide a comprehensive comparison. Additional variables, such as market volatility or investor sentiment, might also be considered for their effects on stock returns.

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REFERENCES

Abid, M., & Siddiqui, D. A. (2020). Impact of financial market uncertainty on market returns: A global analysis. *Business and Economic Research, 10*(3), 216-244. https://doi.org/10.5296/ber.v10i3.17276

Adamo, R., Federico, D., & Notte, A. (2023). Equity mutual funds in healthcare sector: A comparison of performance and risk through an age-cohort analysis. *American Journal of Economics and Business Administration, 14*(1), 44-54. https://doi.org/10.3844/ajebasp.2022.44.54

Al-Busaidi, K. A., & Al-Muharrami, S. (2021). Beyond profitability: ICT investments and financial institutions performance measures in developing economies. *Journal of Enterprise Information Management, 34*(3), 900-921. https://doi.org/10.1108/JEIM-09-2019-0250

Alfons, A., Ateş, N. Y., & Groenen, P. J. F. (2022). A robust bootstrap test for mediation analysis. *Organizational Research Methods, 25*(3), 591-617. https://doi.org/10.1177/1094428121999096

Anah, S., Fikra, M., & Widayati, C. C. (2022). *The effect of profitability, dividend policy and debt policy on company value.* Paper presented at the In D. Ahamadi et al. (Eds.), Proceedings of the 4th Social and Humanities Research Symposium (SoRes 2021) (Advances in Social Science, Education and Humanities Research, Vol. 658). Atlantis Press.

Anisa, R. R., & Nurjanti, T. (2023). Fundamental analysis of stock prices in mining sector listed on The IDX (Indonesia Stock Exchange). *International Journal For Multidisciplinary Research, 5*(5), 1–8. https://doi.org/10.36948/ijfmr.2023.v05i05.5929

Arry Hutomo, A., Theresia Marditama, T., Nandan Limakrisna, N., Ilham Sentosa, I., & John Lee Kean Yew, J. (2020). Green human resource management, customer environmental collaboration and the enablers of green employee empowerment: Enhanching an environmental performance. *Dinasti International Journal of Economics, Finance & Accounting, 1*(2), 358–372.

Asraf, A., & Mia, M. D. (2020). Analysis of the effect of operating leverage and financial leverage on company profitability listed on Indonesia stock exchange. *Ilomata International Journal of Management, 1*(2), 45–50. https://doi.org/10.52728/ijjm.v1i2.65

Bailey, A. J., Cesa-Bianchi, A., Garofalo, M., Harrison, R., McLaren, N., Piton, S., & Sajedi, R. (2022). Structural change, global R* and the missing-investment puzzle. *Available at SSRN 4180693*. https://doi.org/10.2139/ssrn.4180693

Baird, G., Dodd, J., & Middleton, L. (2020). A growth adjusted price-earnings ratio. *arXiv preprint arXiv:2001.08240*.

Bandara, K. G. A. G., & Weerasooriya, W. M. R. B. (2021). A study between the Taxpayers' perception toward the tax policy changes and the tax compliance in Sri Lanka: A tax relief in response to the impact of COVID-19 Epidemic, and its implications. *Business, Management and Economics Research, 7*(2), 52-64. https://doi.org/10.32861/bmer.72.52.64

Basana, S. R., Julio, R., & Soehono, C. (2020). Economic value added and profitability on created shareholders value in manufacturing sectors. *SHS Web of Conferences, 76*, 01051. https://doi.org/10.1051/shsconf/20207601051

Baum, G. L., Ciric, R., Roalf, D. R., Betzel, R. F., Moore, T. M., Shinohara, R. T., . . . Satterthwaite, T. D. (2017). Modular segregation of structural brain networks supports the development of executive function in youth. *Current Biology, 27*(11), 1561-1572. e1568. https://doi.org/10.1016/j.cub.2017.04.051

Behera, S. (2020). Does the EVA valuation model explain the market value of equity better under changing required return than constant required return? *Financial Innovation, 6*(1), 9. https://doi.org/10.1186/s40854-019-0167-8

Bellucci, A., Borisov, A., Gucciardi, G., & Zazzaro, A. (2023). The reallocation effects of COVID-19: Evidence from venture capital investments around the world. *Journal of Banking & Finance, 147*, 106443. https://doi.org/10.1016/j.jbankfin.2022.106443

Berggrun, L., Cardona, E., & Lizarzaburu, E. (2020). Firm profitability and expected stock returns: Evidence from Latin America. *Research in International Business and Finance, 51*, 101119. https://doi.org/10.1016/j.ribaf.2019.101119

Chairani, & Siregar, S. V. (2021). *Disclosure of enterprise risk management in ASEAN 5: Sustainable development for green economy.* Paper presented at the IOP Conference Series: Earth and Environmental Science.

Chen, K., Li, M., & Tang, Z. (2021). *Analysis of firms' share repurchases 'causation: A case study of starbucks.* Paper presented at the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021).

Chen, Q. (2022). Relationship between financial asset allocation, leverage ratio, and risk-taking of small-and medium-sized enterprises in China: Taking environment-related industries as an example. *Journal of Environmental and Public Health, 2022*(1), 2431428. https://doi.org/10.1155/2022/2431428

Chen, Z., Kemsley, D., & Sivadasan, P. (2021). The comprehensive tax gain from leverage. *European Accounting Review, 30*(2), 381-403. https://doi.org/10.1080/09638180.2020.1761851

Cheng, L. T. W., & Wang, J. W. (2021). Equity ownership and corporate transparency: International evidence. *International Review of Economics & Finance, 76*, 143-165. https://doi.org/10.1016/j.iref.2021.03.005

Dang, T., Nguyen, T., Le, K., Nguyen, T., & Pham, T. (2020). The information gap in corporate annual reports: Evidence from Vietnam. *Accounting, 6*(5), 899-912. https://doi.org/10.5267/j.ac.2020.5.004

Dangl, T., & Zechner, J. (2021). Debt maturity and the dynamics of leverage. *The Review of Financial Studies, 34*(12), 5796-5840. https://doi.org/10.1093/rfs/hhaa148

Donangelo, A. (2021). Untangling the value premium with labor shares. *The Review of Financial Studies, 34*(1), 451-508. https://doi.org/10.1093/rfs/hhaa022

Dong, M., Hirshleifer, D., & Teoh, S. H. (2021). Misvaluation and corporate inventiveness. *Journal of Financial and Quantitative Analysis, 56*(8), 2605-2633. https://doi.org/10.1017/S0022109020000666

Doshi, H., Jacobs, K., Kumar, P., & Rabinovitch, R. (2019). Leverage and the cross-section of equity returns. *The Journal of Finance, 74*(3), 1431-1471. https://doi.org/10.1111/jofi.12758

Fan, W. (2020). *Introduction to eva method and corporate valuation-taking Tsingtao brewery as an example.* Paper presented at the IOP Conference Series: Materials Science and Engineering.

Galvão, R. M. M., Teixeira, A. B. d. S. D., & Nunes, S. C. D. (2020). Value Creation: EVA® Value Drivers-The Case of Euronext Lisbon. *International Journal of Accounting, Finance and Risk Management, 5*(1), 26-39. https://doi.org/10.11648/j.ijafrm.20200501.13

Ghosh, A., & Basu, A. (2019). Robust and efficient estimation in the parametric proportional hazards model under random censoring. *Statistics in Medicine, 38*(27), 5283-5299. https://doi.org/10.1002/sim.8377

Goel, K., & Oswal, S. (2020). EVA based financial performance measurement: An evidential study of selected emerging country companies. *Corporate Ownership and Control, 18*(1), 179-195. https://doi.org/10.22495/cocv18i1art14

Gomes, J. F., & Schmid, L. (2010). Levered returns. *The Journal of Finance, 65*(2), 467-494. https://doi.org/10.1111/j.1540-6261.2009.01541.x

Graham, J. R., Kim, H., Li, S., & Qiu, J. (2023). Employee costs of corporate bankruptcy. *The Journal of Finance, 78*(4), 2087-2137. https://doi.org/10.1111/jofi.13251

Grundy, B. D., & Verwijmeren, P. (2020). The external financing of investment. *Journal of Corporate Finance, 65*, 101745. https://doi.org/10.1016/j.jcorpfin.2020.101745

Guo, H., Legesse, T. S., Tang, J., & Wu, Z. (2020). Financial leverage and firm efficiency: The mediating role of cash holding. *Applied Economics, 53*(18), 2108-2124. https://doi.org/10.1080/00036846.2020.1855317

Guo, H., Zhou, X., Tao, Y., Yin, J., Zhang, L., Guo, X., . . . Zhang, Y. (2023). Precipitation preferences alter the relative importance of herbaceous plant diversity for multifunctionality in the drylands of China. *Frontiers in Ecology and Evolution, 11*, 1084949. https://doi.org/10.3389/fevo.2023.1084949

Handayani, S., & Karnawati, Y. (2021). *The Role of Intellectual Capital and Competitive Advantage in Increasing Market Stock Price.* Paper presented at the Ninth International Conference on Entrepreneurship and Business Management (ICEBM 2020).

Hang, M., Geyer-Klingeberg, J., Rathgeber, A. W., & Stöckl, S. (2021). Rather complements than substitutes: Firm value effects of capital structure and financial hedging decisions. *International Journal of Finance & Economics, 26*(4), 4895-4917. https://doi.org/10.1002/ijfe.2045

Hansen, M., Pomp, A., Erki, K., & Meisen, T. (2019). Data-driven recognition and extraction of PDF document elements. *Technologies*, *7*(3), 65. https://doi.org/10.3390/technologies7030065

Hermawan, W. D., Ishak, G., & Budiantoro, A. (2023). The impact of financial ratios on return on asset, moderated by total assets: A study on pharmaceutical companies in Indonesia. *European Journal of Business and Management Research*, *8*(4), 40-45. https://doi.org/10.24018/ejbmr.2023.8.4.2003

Holzer, J., Korlat, S., Haider, C., Mayerhofer, M., Pelikan, E., Schober, B., . . . Käser, U. (2021). Adolescent well-being and learning in times of COVID-19—A multi-country study of basic psychological need satisfaction, learning behavior, and the mediating roles of positive emotion and intrinsic motivation. *PLoS One*, *16*(5), e0251352. https://doi.org/10.1371/journal.pone.0251352

Hossain, T. (2020). Determinants of profitability: A study on manufacturing companies listed on the Dhaka Stock Exchange. *Asian Economic and Financial Review*, *10*(12), 1496-1508. https://doi.org/10.18488/JOURNAL.AEFR.2020.1012.1496.1508

Hussain, S., Quddus, A., Pham, P. T., Rafiq, M., & Pavelková, D. (2020). The moderating role of firm size and interest rate in capital structure of the firms: Selected sample from sugar sector of Pakistan. *Investment Management and Financial Innovations*, *17*(4), 341-355. https://doi.org/10.21511/imfi.17(4).2020.29

Jansen, B. A. (2021). Cash flow growth and stock returns. *The Journal of Financial Research*, *44*(2), 371-402. https://doi.org/10.1111/jfir.12244

Jiang, Z., Liu, Y., Klein, M. H., Aloui, A., Ren, Y., Li, K., . . . Carlson, D. (2023). Causal mediation analysis with multi-dimensional and indirectly observed mediators. *arXiv preprint arXiv:2306.07918*. http://arxiv.org/abs/2306.07918

Kaczmarek, J. (2024). Effectiveness of company value creation based on excess market value-added assessment. *Sustainability*, *16*(9), 3711. https://doi.org/10.3390/su16093711

Kane, S. N., Ashutosh, M., & Anup, K. D. (2016). Preface: International conference on recent trends in physics (ICRTP 2016). *Journal of Physics: Conference Series 755*(1), 011001.

Khaki, A. R., & Akin, A. (2020). Factors affecting the capital structure: New evidence from GCC countries. *Journal of International Studies*, *13*(1), 9-27. https://doi.org/10.14254/2071-8330.2020/13-1/1

Khan, H. A. U., & Hidayat, R. (2022). The effect of dividend policy, debt policy, and profitability on the value of automotive companies listed on the Indonesia Stock Exchange 2017-2021. *SHS Web of Conferences*, *149*, 03030. https://doi.org/10.1051/shsconf/202214903030

Kurniati, S. (2019). Stock returns and financial performance as mediation variables in the influence of good corporate governance on corporate value. *Corporate Governance: The International Journal of Business in Society*, *19*(6), 1289-1309. https://doi.org/10.1108/CG-10-2018-0308

Kurznack, L., Schoenmaker, D., & Schramade, W. (2021). A model of long-term value creation. *Journal of Sustainable Finance & Investment*, 1-19. https://doi.org/10.1080/20430795.2021.1920231

Lai, C. (2020). A note on a framework for valuation ratios based on fundamentals. *Contemporary Accounting Research*, *37*(4), 2213-2223. https://doi.org/10.1111/1911-3846.12596

Li, J., Wang, X., Ahmad, S., Huang, X., & Khan, Y. A. (2023). Optimization of investment strategies through machine learning. *Heliyon*, *9*(5), e16155. https://doi.org/10.1016/j.heliyon.2023.e16155

Lim, B., Sotes-Paladino, J., Wang, G. J., & Yao, Y. (2024). The value of growth: Changes in profitability and future stock returns. *Journal of Banking & Finance*, *158*, 107036. https://doi.org/10.1016/j.jbankfin.2023.107036

Ma, L., Gao, Y., & Zhao, C. (2020). *Research on machine learning prediction of air quality index based on spss.* Paper presented at the 2020 international conference on computer network, electronic and automation (ICCNEA).

Magni, C. A. (2021). Internal rates of return and shareholder value creation. *The Engineering Economist*, *66*(4), 279-302. https://doi.org/10.1080/0013791X.2020.1867679

Malina, S., Arimbawa, I. G., & Wulandari, A. (2020). The effect of return on assets and return on equity to earning per share and price book value in sub-sectors of construction companies listed in Indonesia stock exchange in 2015-2018. *Quantitative Economics and Management Studies*, *1*(3), 204-218. https://doi.org/10.35877/454ri.qems1387

Minanari, M., & Rahayu, A. (2020). *The effect of profit management, good corporate governance mechanism, and investment decisions on firm value*. Paper presented at the 4th International Conference on Management, Economics and Business (ICMEB 2019).

Morri, G., & Jostov, K. (2018). The effect of leverage on the performance of real estate companies: A pan-European post-crisis perspective of EPRA/NAREIT index. *Journal of European Real Estate Research, 11*(3), 284-318. https://doi.org/10.1108/JERER-01-2018-0004

Muhammad, M. I., Abubakar, M., Kakanda, M. M., & Abubakar, M. A. (2020). The dynamics of capital structure and firm value of listed industrial goods in Nigeria. *Asian Journal of Empirical Research, 10*(7), 184-193. https://doi.org/10.18488/journal.1007/2020.10.7/1007.7.184.193

Munson, R., Young, J., & O'Leary, P. (2020). *Statistical methods for business and economics* (9th ed.). New York: McGraw-Hill Education.

Murni, S. (2019). The role of EVA in determining company's value through the ownership structure and internal factors. *European Research Studies Journal, 22*(3), 231-245. https://doi.org/10.35808/ersj/1474

Nguyen, T. N. L., & Nguyen, V. C. (2020). The determinants of profitability in listed enterprises: A study from Vietnamese stock exchange. *The Journal of Asian Finance, Economics and Business, 7*(1), 47-58. https://doi.org/10.13106/jafeb.2020.vol7.no1.47

Nizam, E., Ng, A., Dewandaru, G., Nagayev, R., & Nkoba, M. A. (2019). The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. *Journal of Multinational Financial Management, 49*, 35-53. https://doi.org/10.1016/j.mulfin.2019.01.002

Numanovich, A. I., & Abbosxonovich, M. A. (2020). The analysis of lands in security zones of highvoltage power lines (power line) on the example of the fergana region. *EPRA International Journal of Multidisciplinary Research (IJMR), 6*(2), 312-321.

Parlina, N. D., & Nuswantoro, D. (2020). *Indicator stock of return from side probability*. Paper presented at the 1st International Conference on Accounting, Management and Entrepreneurship (ICAMER 2019).

Prastuti, D., & Setianingrum, P. H. (2019). *Company performance and macroeconomics variables influence on stock price*. Paper presented at the 5th Annual International Conference on Management Research (AICMaR 2018).

Pratama, P., & Jahja, J. (2021). *2. Literature review 2.1. Efficient market hypothesis (EMH)*. Paper presented at the The 6th Indonesia Finance Association International Conference 2020 (pp. 176–183).

Rafaqat, S., Rafaqat, S., Rafaqat, S., & Rafaqat, D. (2021). The impact of fundamental factors on the share price of micro-sized Nasdaq listed technology companies. *The Economics and Finance Letters, 8*(2), 142-153. https://doi.org/10.18488/journal.29.2021.82.142.153

Ramana, D. V. (2005). *Market value added and economic value added: Some empirical evidences*. Paper presented at the 8th Capital Markets Conference, Indian Institute of Capital Markets.

Ratnasari, I., & Ramadhani, I. (2022). The effect of return on assets (ROA) and debt to equity ratio (DER) on stock prices on insurance sub sector companies listed on the Indonesia stock exchange (IDX) period 2014-2018. *Management Research and Behavior Journal, 2*(1), 37-43.

Resendes, R., Obrycki, D., Bergen, D., & Holt, J. (2020). Valuation beta: Addressing inadequacies of book to price with intrinsic value, stewardship and leverage. *Available at SSRN 3713457*. https://doi.org/10.2139/ssrn.3713457

Royer, J., & McKee, G. (2021). Optimal capital structure in agricultural cooperatives and implications for equity retirement. *Agricultural Finance Review, 81*(2), 277-291. https://doi.org/10.1108/AFR-03-2020-0044

Saeed, M. A., & Kersten, W. (2020). Sustainability performance assessment framework: A cross-industry multiple case study. *International Journal of Sustainable Development & World Ecology, 27*(6), 496-514. https://doi.org/10.1080/13504509.2020.1764407

Sanusi, F. (2023). Profitability and stock return: Does capital structure mediating this association? *Journal of Applied Business, Taxation and Economics Research, 2*(5), 500-511. https://doi.org/10.54408/jabter.v2i5.189

Setianingrum, P. H., & Prastuti, D. (2020). *Companies financial performance as a signal for investor in predicting stock price, with macroeconomics variable as control variable*. Paper presented at the 6th Annual International Conference on Management Research (AICMaR 2019).

Shahnia, C., Purnamasari, E. D., Hakim, L., & Endri, E. (2020). Determinant of profitability: Evidence from trading, service and investment companies in Indonesia. *Accounting*, *6*(5), 787-794. https://doi.org/10.5267/j.ac.2020.6.004

Shang, Y. (2018). An empirical study of EVA on capital structure-based on new energy shipping companies data. *Journal of Coastal Research*, *83*(sp1), 828-832. https://doi.org/10.2112/SI83-136.1

Tende, F. B., & Lawson, A. O. (2021). Developing critical resilient Leadership Behavior through collaborative management: A logical perspective. *Business, Management and Economics Research*, *7*(2), 65-69. https://doi.org/10.32861/bmer.72.65.69

Tikasari, N., & Dwi, A. S. (2020). The effect of economic value added and financial performance on stock returns. *Saudi Journal of Business and Management Studies*, *5*(6), 343–352. https://doi.org/10.36348/sjbms.2020.v05i06.005

Villarón-Peramato, O., García-Sánchez, I.-M., & Martínez-Ferrero, J. (2018). Capital structure as a control mechanism of a CSR entrenchment strategy. *European Business Review*, *30*(3), 340-371. https://doi.org/10.1108/EBR-03-2017-0056

Wang, C., Brabenec, T., Gao, P., & Tang, Z. (2021). The business strategy, competitive advantage and financial strategy: A perspective from corporate maturity mismatched investment. *Journal of Competitiveness*, *13*(1), 164-181. https://doi.org/10.7441/joc.2021.01.10

Widyakto, A., Widyarti, E. T., & Suryawardana, E. (2021). Increasing company value through financial policies and performance of manufacturing companies listed on the Indonesia Stock Exchange. *At-Taqaddum*, *13*(1), 39-56. https://doi.org/10.21580/at.v13i1.8281

Wulandari, B., br Bukit, V. T. A., Manik, D. O., Napitupulu, C. H. G., & Tambunan, E. (2022). The influence of ROE, intelectual capital, leverage, ROA, liquidity, dividend policy on financial performance in the food and beverage sub sector manufacturing companies on IDX for the 2018–2020 period. *Devotion: Journal of Research and Community Service*, *3*(5), 452-461. https://doi.org/10.36418/dev.v3i5.140

Xu, M. T., Hu, K., & Das, M. U. S. (2019). *Bank profitability and financial stability*. Washington, DC: International Monetary Fund.

Zhang, J., Hu, J., & Luo, Q. (2020). *Debt effects on profitability*. Paper presented at the 2020 2nd International Conference on Economic Management and Cultural Industry (ICEMCI 2020).

Zhang, X., Cui, C., & Xie, D. (2020). Are dividends all for rewarding investors? Evidence from payouts induced by return on equity targets. *China Journal of Accounting Studies*, *8*(3), 470-494. https://doi.org/10.1080/21697213.2021.1926412

Zia ul haq, H. M., Shafiq, M. S., Kashif, M., & Ameer, S. (2020). Determining force behind value premium: The case of financial leverage and operating leverage. *Journal of Risk and Financial Management*, *13*(9), 196. https://doi.org/10.3390/jrfm13090196