The Effect of Financial Ratios on Stock Returns: By Mediation of Price Earning Ratio

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Abstract

This study was conducted to analyze financial ratios effects towards Stock Returns in which the mediating variable is Price Earning Ratio (PER). The financial ratios are Debt to Equity Ratio (DER), Price to Book Value (PBV), and Return on Equity (ROE). This study uses a population of 65 real estate and property enterprises appeared in Indonesia Stock Exchange (IDX). This research's samples are 36 companies registered in 2018-2020 IDX list. The data analysis technique uses Partial Least Square. The results showed (1) ROE and DER did not directly affect Stock Returns, (2) PBV directly affected Stock Returns, (3) ROE had an effect on Stock Returns partially mediated by the PER, (4) PBV and PER had no effect on Stock Returns mediated by the PER. The implications of the research result in investors needing to know the right time to make profitable investment decisions by analyzing the company's financial ratios to Stock Returns, which are an indicator of the level of profit earned by investors.

Keywords: return on equity, price earning ratio, stock return, debt to equity ratio, price to book value

JEL : G32

DOI : 10.24002/kinerja.v28i1.7826

Received : 08/28/2023 Reviewed: 10/27/2023 Final Version: 01/24/2024

1. INTRODUCTION

In early 2020, the COVID-19 pandemic affected all sectors that drive the nation's economy, including the property and real estate sector listed on the capital market. In 2020, more than 60 companies were engaged in the property and real estate sector that had gone public and were listed on the Indonesia Stock Exchange (IDX) (www.idx.go.id). The sector of property and real estate in Indonesia is a resilient and increasingly competitive sector and is believed to be one of the promising investments because every year, property prices tend to rise along with the increasing need for housing, population, offices, and malls. In addition, in 2018-2022, this sector contributed to the national economy of IDR 2,300-Rp2,800 trillion per year (16% of economic GDP). This sector also involves a lot of labor in its economic turnover, reaching 13-19 million people, and this sector has a multiplier effect on 185 other industrial subsectors (Ministry of Communication and Information Technology, 2023). This attracts investors to invest in property and real estate companies. Investors who will invest can analyze the financial statements of property and real estate companies based on financial ratios to determine the company's current financial development and prospects for its financial performance in the future.

Three financial ratios are used in this study, specifically solvency, market ratio ratios, and profitability. Since these three ratios are often considered capable of being an attraction for investors to make investments, DER is used as a measure of the ratio of solvency, ROE is used to indicate profitability ratio, whereas PBV is used as an indicator of market ratio.

The profitability ratio assesses the ability of a business to turn a profit (Setiawan and Hutomo, 2023). Profitability ratios can be measured using ROE (Return on Equity). According to Chen and Chu (2022), ROE is a company's profit generation success for stakeholders calculation ratio. It is better if the ROE ratio owned by the company gets higher. Smith and Narayan (2018) emphasized that the market value ratio is market condition descriptor ratio. This study measures the market value ratio using PBV. PBV is the relationship between the book value per share and the stock market price. Besides that, it could be the alternative approach for share value determination (Ozturk and Karabulut, 2020). The value of a PBV ratio that is more than 1 indicates that the company's shares are classified as expensive or overvalued. The performance of companies with a PBV value of less than 1 indicates low performance and the quality of the company's fundamentals. The ratio used to assess how much of a company's assets are financed by debt is called the solvency ratio (Kasmir, 2016, p.113). DER (Debt to Equity Ratio) is used in this research to calculate the solvency ratio. DER reflects the ability of an issuer to fulfill its obligations. The lower the DER ratio, the better it is for the company to pay all its obligations, including dividend payments (Noviyanti, Rahayu and Rahmawati, 2021). This research implements the Price Earning Ratio (PER) to calculate the market value ratio to see the contrast of stock prices with net income per share. The PER ratio assesses how high and low the stock price is. As the stock PER is getting low, the stock price that can be invested is getting cheaper (Rahmawati and Hadian, 2022).

The researchers' motivations for conducting a study on this topic are: First, empirical research findings on this topic are still debated among academics because the research results are still controversial, namely, a) some researchers such as Lestari et al. (2016), Nestanti (2017), Fransiska (2018), Latifah and Pratiwi (2019), Nurhikmawaty et al. (2020), Puspitasari (2021), Yanto, Christy and Cakranegara (2021) and Saputra (2022), concluded that ROE has a significant effect on Stock Returns. However, from these findings, some researchers conclude that ROE has a negative effect, and some possessed a positive effect toward Stock Returns; b) The research findings of Nestanti (2017), Chiu, Chen and Che (2021), Sari (2021), Dewangga and Tundjung (2021), and Effendi et al. (2022) asserted that PBV brings some effects on Stock Returns and in contrary, Fransiska (2018), Hermawan and Musaroh (2016) provide findings that PBV does not affect Stock Returns; c)

Research by Hermawan and Musaroh (2016), Lestari et al. (2016), Latifah and Pratiwi (2019), Noviyanti et al. (2021), Puspitasari (2021), and Hartuti et al. (2022) asserted that DER possess a great effect towards Stock Returns, while the findings of Mende et al. (2017), Fransiska (2018), Hartanti et al (2019) infered that no effect of DER on Stock Returns is found.

Second, studies with this topic have novelty, namely using the mediating variable PER and the data analysis method, Partial Least Square (PLS). This PLS method is used to test PER as a mediating variable, which is still relatively little used by some researchers in the Indonesian capital market. The research results of Ariyanti et al. (2017), Devi and Artini (2019), Sari et al. (2021), and Effendi et al. (2022), which use ROE and DER as variables that affect PER as mediating variables, show inconsistent results. PER is a market confidence indicator towards the company’s growth prospects, so many capital market players pay attention to the PER approach. PER can help investors analyze stock valuation and assist investors in making investment decisions because the current price of the stock reflects the company’s future prospects with the Stock Returns expected by investors.

Third, this study is very important for rational investors to analyze before making investment decisions. To conduct the analysis, investors need information in the form of financial performance derived from the enterprise's current financial ratios and its’ prospects. Generally, several studies on financial ratios’ effects towards Stock Returns in the Indonesian capital market using PER as the mediating variable are still controversial.

2. LITERATURE REVIEW

2.1. Stock

Banerjee (2019) defines shares as securities in the form of instrument of ownership proof or individuals or institutions participation in an enterprise. Takamatsu and Lopes-Fávero (2019) state that the capital market supply and demand mechanism formed stock prices. Stock prices fluctuate because they are influenced by the company's external and internal factors.

2.2. Financial Ratio Analysis

Chen and Chu (2022) define financial report analysis as a breaking down process of financial reports into their elements and through examination of each element separate reports would be comprehended well and properly. Comparing the figures in the financial accounts is what financial ratios are all about. (Kasmir, 2016: 104). This financial ratio is very important to analyze the company's financial condition.

2.3. Return on Equity to Stock Returns

According to Rostami et al. (2016), ROE is a ratio that measures how much profit belongs to the owner of his share capital. A substantial return rate will allow the income expected by investors to increase as well, which will have an impact on increasing stock prices (Lestari et al., 2016). This ROE ratio is a ratio that is often considered and becomes an attraction for investors to invest. This is due to the ROE analysis, knowing the investments' obtainable benefits. Investors expect a return on their money invested, and this ratio helps show the size of the return. As the ROE value gets higher, so does the Stock Return value of the company. Former study by Nestanti (2017) concluded that ROE possesses a great effect towards Stock Returns. This research results show similarities with research done by Fransiska (2018), Latifah and Pratiwi (2019), Alduais (2020), Nurhikmawaty et al. (2020), Yanto, Christy and Cakranegara (2021), Puspitasari (2021), Loya and Rahmawati (2022) and Saputra (2022) infered that the ROE variable has a significant influence towards Stock Returns. From this description, researchers can formulate the following hypothesis:

H1: Return on Equity affects Stock Return.

2.4. Price to Book Value on Stock Return

PBV is defined as the difference between a share's book value and market price, according to Rostami et al. (2016). An overview of the stock's possible price changes based on this description is given by this ratio. According to Sari (2021), the higher the PBV ratio, it can be interpreted that the company is successful in providing more value to investors due to the greater returns investors get. Based on research conducted by Nestanti (2017), Chiu, Chen and Che (2021), Dewangga and Tundjung (2021), and Effendi et al. (2022) state that PBV influences Stock Returns. This description allows the following formulation of the hypothesis:

H2: Price to Book Value affects Stock Returns.

2.5. Debt to Equity Ratio to Stock Return

The employed ratio to calculate the debt to capital percentage is called the Debt to Equity Ratio (DER) (Chen and Chu, 2022). Kasmir (2016: 157) states that the debt to equity ratio is evaluated using the DER ratio. This ratio can help you determine how much money the borrower contributed in the form of firm property. The higher the DER indicates the composition of total debt with its capital, the greater the effect on external parties' (creditors') burden on the business. Investors' interest in funding the company is lowered by the increased load on creditors because Stock Returns are declining, which demonstrates how reliant on outside funding the company's capital sources are. Based on research conducted by Hermawan and Musaroh (2016), Lestari et al. (2016), Latifah and Pratiwi (2019), Noviyanti et al. (2021), Puspitasari (2021), and Hartuti, Rahmawati and Ernawati (2022) stated that the debt to equity ratio possess a significant effects towards Stock Returns. This explanation allows the following hypothesis formulation:

H3: Debt to Equity Ratio affects Stock Returns.

2.6. Return on Equity to Stock Return through Price Earning Ratio

According to Ozturk and Karabulut (2020), dividing the net profit of the enterprise by the equity held by common shareholders using performance measures is the measurement for the ROE. ROE as stated by Kasmir (2016: 204) is the ratio for measuring net profit after tax with own capital. To measure the rate of return on shareholder investment, this ratio is utilized. The income expected by investors will increase as the result of high return rate, and stock prices will rise as a result of this

(Loya and Rahmawati, 2022). According to Susanti and Laras (2021), shareholders expect to get a return on their money, and this ratio shows the amount of return or return. The value of the ratio of ROE affects stock prices because both the return on and the risk of the investment increase with stock price. Therefore, a high ROE value can be the company's attraction for investors, which could directly raise the company's price-earning ratio value. Research conducted by Chabachib et al. (2020) and Kwasi and Bardai (2022) states that PER mediates the effect of ROE on Stock Returns. This explanation allows the following hypothesis formulation:

H4: Price Earning Ratio mediates the effect of Return on Equity to Stock Returns.

2.7. Price to Book Value on Stock Return through Price Earning Ratio

According to Rostami et al. (2016), a comparison of the market price and book value of shares is known as Price to Book Value (PBV). In general, this ratio rises above one for profitable businesses. It demonstrates that the stock's market value is higher than its book value. Investors value the company more highly the greater the PBV ratio is in relation to the capital that has been put in it. It can be inferred that the PBV ratio indirectly affects stock prices since an overview of the stock's possible price changes of the stock is provided by this ratio. A higher PBV ratio can mean that the company is successful in providing more value to investors due to the greater returns investors get (Sari, 2021). If the PBV has a low value, it could be inferred that the price of the stock is cheap or undervalued. Therefore, the influence of the PBV ratio can affect the company's stock prices fluctuation, which have an effect on its PER value. A higher PER ratio will reduce Stock Returns because investors buy stocks whose prices are already relatively high (Ronoowah and Seetanah, 2023). Research conducted by Amare (2021) and Dewangga and Tundjung (2021) asserts that the PER mediates the price to book value's effects on Stock Returns. This explanation allows the following hypothesis formulation:

H5: Price Earning Ratio mediates the effect of Price to Book Value on Stock Return.

2.8. Debt to Equity Ratio on Stock Return through Price Earning Ratio

DER is employed to evaluate the debt to equity. To find this ratio, compare the whole amount of equity to the total amount of debt, including current debt (Kasmir, 2016: 157). Hartuti, Rahmawati, and Ernawati (2022) state that the ratio of total debt to total equity increases with DER. When a firm's debt-to-equity ratio is higher than its capital, it shows that its overall debt load is higher. This might lower the stock price of the enterprise and potentially decrease Stock Returns. The value of a high DER illustrates the enterprise's high risk and tends to give the investors a bad picture because this affects the value of the price-earning ratio, which decreases and has an impact on the rate of return received. Hesitant Investors' decisions about their money in the company are influenced by this. According to studies by Tut (2022) and Perri and Cela (2022), PER mediates the impact of DER on Stock Returns. This explanation allows the following hypothesis formulation:

H6: Price Earning Ratio mediates the effect of Debt to Equity on Stock Returns.

Figure 1 below describes the conceptual framework used in this study.

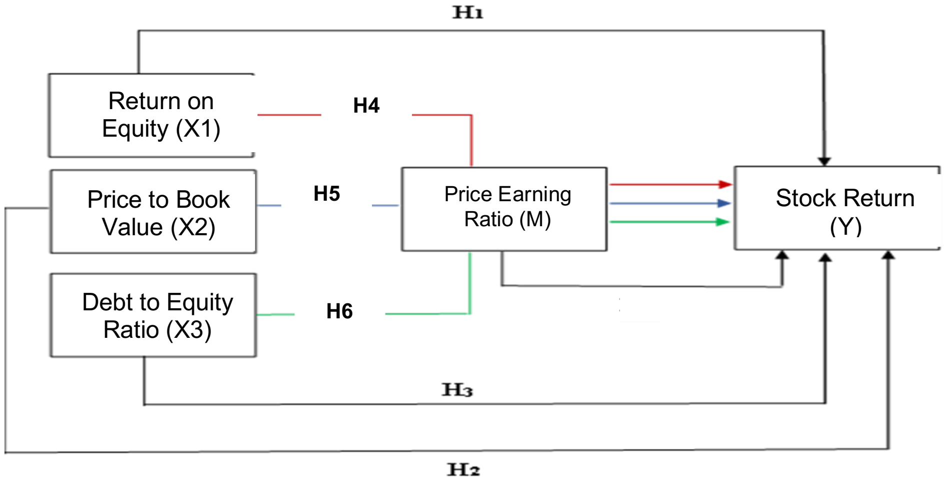

Figure 1. The Research Conceptual Framework

3. METHODOLOGY

This research uses quantitative descriptive analysis. There are 65 property and real estate enterprises overall that are appeared on the IDX for the 2018–2020 timeframe, making up this research population. The sampling technique uses a purposive sampling method that meets the subsequent requirements: (1) The companies listed on the IDX for the 2018–2020 term in the property and real estate sub-sector comprise the sample. (2) The stock prices of these sub-sector companies are actively traded at this period, (3) this sub-sector companies consistently publish annual financial reports for this period, and (4) this sub-sector companies have data regarding financial reports that contain ROE, PBV, DER, PER continuously (uninterruptedly) during this period. Table 1 below shows the 36 companies that became the sample of this study.

Table 1. List of Research Samples

No	Stock Code	Name of Issuer/Company
1.	APLN	Agung Podomoro Land Tbk
2.	ASRI	Alam Sutera Realty Tbk
3.	BCIP	Bumi Citra Permai Tbk
4.	BEST	Bekasi Fajar Industrial Estate Tbk
5.	BIKA	Bina Karya Jaya Abadi Tbk
6.	BIPP	Bhuawanatala Indah Permai Tbk
7.	BKSL	Sentul City Tbk
8.	CITY	Natura City Development Tbk
9.	BSDE	Bumi Serpong Damai Tbk
10.	CTRA	Ciputra Development Tbk
11.	DART	Duta Anggada Realty Tbk
12.	DILD	Intiland Development Tbk
13.	DMAS	Puradelta Lestari Tbk
14.	DUTI	Duta Pertiwi Tbk
15.	EMDE	Megapolitan Development Tbk
16.	FMII	Fortune Mate Indonesia Tbk

No	Stock Code	Name of Issuer/Company
17.	GAMA	Gading Development Tbk
18.	GPRA	Perdana Gapura Prima Tbk
19.	GWSA	Greenwood Sejahtera Tbk
20.	JRPT	Jaya Real Property Tbk
21.	KIJA	Kawasan Industri Jababeka Tbk
22.	LPCK	Lippo Cikarang Tbk
23.	LPKR	Lippo Karawaci Tbk
24.	MDLN	Modernland Realty Tbk
25.	MKPI	Metropolitan Kentjana Tbk
26.	MTLA	Metropolitan Land Tbk
27.	OMRE	Indonesia Prime Property Tbk
28.	PLIN	Plaza Indonesia Realty Tbk
29.	PPRO	PP Properti Tbk
30.	PUDP	Pudjiati Prestige Tbk
31.	PWON	Pakuwon Jati Tbk
32.	RBMS	Rista Bintang Mahkota Sejati Tbk
33.	RODA	Pikko Land Development Tbk
34.	SMDM	Suryamas Dutamakmur Tbk
35.	SMRA	Summarecon Agung Tbk
36.	URBN	Urban Jakarta Propertindo Tbk

Source: www.idx.co.id, accessed 29 October 2021

Dependent variable (Stock Return) is used in this research. Independent variables consist of PBV, ROE, and DER, as well as a mediating variable, PER (Table 2). This research implemented the Partial Least Square Method as the analysis technique of the data with assistance of the SmartPLS program application.

Table 2. Definition of Research Variables

Variable	Indicator	Formula
Return on Equity	A ratio used to calculate a company's profitability in relation to a given share capital (Hanafi and Halim, 2016:82) The ratio calculates the comparison of the market price to the book value of shares (Rostami et al., 2016).	Return on Equity $=\frac{Net\ Profit}{Total\ Equities}$
Price to Book Value		Price to Book Value$=\frac{Stock\ price\ per-share}{Book\ Value\ per-share}$
Debt to Equity Ratio	Debt to equity measured by the ratio (Kasmir, 2016: 157).	Debt to Equity Ratio $=\frac{Total\ Debt}{Total\ Equities}$
Price Earning Ratio	The share price that investors are ready to pay for each rupiah of profit made by the enterprise is reflected in the ratio, which gauges how investors view the company's potential for future growth. (Sudana, 2015: 23)	Price Earning Ratio $=\frac{Stock\ price\ per-share}{Earning\ per-share}$

Variable	Indicator	Formula
Stock Return	Realized returns, namely returns that have occurred and are calculated based on historical data, and expected returns, namely returns that are expected to occur in the future and are still uncertain (Takamatsu and Lopes-Fávero, 2019)	Stock Return = $\frac{D_t + P_t - P_{t-1}}{P_{t-1}}$

Source: Author (2023).

This study uses secondary data in the form of Stock Returns, ROE, PBV, DER, and PER for the 2018-2020 period. Secondary research data were sourced from IDN Financials (www.idnfinancials.com) and the official websites of the Indonesia Stock Exchange (www.idx.co.id). Panel data, a combination of cross-sectional and time series data, is used in this study. Then, the partial least square (PLS) data analysis method is used in this investigation.

4. RESULT AND DISCUSSION

4.1. Data Description

4.1.1. Return on Equity (ROE)

Table 3. ROE Ratio in Companies of Property and Real Estate Sector Year 2018-2020

No	Company Code	Year			Mean
		2018	2019	2020	
1.	DMAS	6,905	20,558	24,395	17,286
2.	BIKA	-6,935	-13,442	-30,247	-16,875

Source: Secondary data processed by researchers (2022).

Table 3 above shows the average ROE of 36 property and real estate companies in 2018-2020. PT Pura Delta Lestari (DMAS) is a company that has the highest average ROE, namely 17.286, in 2018-2020. Meanwhile, PT Bina Karya Jaya Abadi (BIKA) had the lowest average ROE in 2018-2020, namely -16.875.

4.1.2. Price to Book Value (PBV)

Table 4. PBV Ratio in Companies of Property and Real Estate Sector Year 2018-2020

No	Company Code	Year			Mean
		2018	2019	2020	
1.	RODA	5,690	6,203	0,998	4,297
2.	KIJA	0,077	0,069	0,028	0,058

Source: Secondary data processed by researchers (2022).

Table 4 above shows the average PBV of 36 property and real estate companies from 2018-2020. The data shows that PT Pikko Land Development (RODA) has the highest average PBV from 2018-2020, 4,297.

4.1.3. Debt to Equity Ratio (DER)

Table 5. DER in Companies of Property and Real Estate Sector Year 2018-2020

No	Company Code	Year			Mean
		2018	2019	2020	
1.	BEST	2,543	2,841	10,256	5,213
2.	FMII	0,087	0,083	0,083	0,084

Source: Secondary data processed by researchers (2022)

Table 5 above presents the average DER of 36 property and real estate companies from 2018-2020. From the table data, PT Bekasi Fajar Industrial Estate (BEST) has the highest average DER during 2018-2020 of 5.21.

4.1.4. Price Earning Ratio (PER)

Table 6. PER in Companies of Property and Real Estate Sector Year 2018-2020

No	Company Code	Year			Mean
		2018	2019	2020	
1.	PUDP	3618,182	-4,401	-5,449	1202,777
2.	PWON	19,574	22,581	-605,882	-187,909

Source: Secondary data processed by researchers (2022).

Table 6 above presents the average PER of 36 property and real estate companies in 2018-2020. Based on data from the table, PT Pudjiati Prestige (PUDP) had the highest average PER from 2018-2020, 1,202.77.

4.1.5. Stock Returns

Table 7. Stock *Return* in Companies of Property and Real Estate Sector Year 2018-2020

No	Company Code	Year			Mean
		2018	2019	2020	
1.	DART	-7,018	86,164	-16,892	20,751
2.	SMRA	-13,100	-71,106	-24,348	-36,185

Source: Secondary data processed by researchers (2022)

Table 7 above displays the average Stock Returns of 36 property and real estate companies in 2018-2020. Based on the data in the table, PT Duta Anggada Realty (DART) has the highest average Stock Return of 20.75. Meanwhile, PT Summarecon Agung (SMRA) had the lowest average Stock Return during 2018-2020 of -36.18.

4.2. Data Test Results

4.2.1. Convergent Validity Test

Table 8. Loading Factor

No	Variable	Loading Factor Value	Status
1	ROE	1.000	Valid
2	PBV	1.000	Valid
3	DER	1.000	Valid
4	PER	1.000	Valid
5	RS	1.000	Valid

Source: Data Processed with WarpPLS 7.0 (2022)

According to Ghozali (2018: 25), to fulfill convergent validity, the variables in this study must have a loading factor value greater than 0.5. Table 8 shows that all research variables have a loading factor value of > 0.5, so this research variable can be declared valid.

4.2.2. Average Variance Extracted (AVE)

According to Sarwono and Narimawati (2015: 19), discriminant validity can be said to meet the requirements if the AVE value is greater than 0.5. Based on Table 9 below, the variables ROE, PBV, DER, PER, and RS have a value of 1, so it can be concluded that this research variable is valid.

Table 9. Average Variance Extracted (AVE)

No	Variable	Average Variance Extracted (AVE)	Status
1	ROE	1.000	Valid
2	PBV	1.000	Valid
3	DER	1.000	Valid
4	PER	1.000	Valid
5	SR	1.000	Valid

Source: Data Processed with WarpPLS 7.0 (2022)

4.2.3. Reliability Test

According to Sarwono and Narimawati (2015: 18), latent variables are considered reliable if their composite reliability and Cronbach's alpha values are both higher than 0.7. Based on Table 10 below, Cronchbach's alpha value of the ROE, PBV, DER, PER, and RS variables is 1. The Composite Reliability value for the ROE, PBV, DER, PER, and RS variables is 1. From the results of the reliability test, it can be inferred that the research variable is reliable.

Table 10. Cronchbach's Alpha and Composite Reliability

Variable	Cronbach's Alpha	Composite Reliability	Status
ROE	1.000	1.000	Reliable
PBV	1.000	1.000	Reliable
DER	1.000	1.000	Reliable
PER	1.000	1.000	Reliable
RS	1.000	1.000	Reliable

4.3. R-Square Testing

Table 11 below shows that the R-Square value for the PER variable is 0.09. One interpretation of it is that the PER variable of 9% can be explained by the ROE, PBV, DER, and Stock Return variables, while 91% can be accounted for by other variables outside this research. Then, the R-Square value on Stock Returns is 26%, which can be explained by ROE, PBV, DER, and PER, while 74% can be accounted for by other variables outside the research.

Table 11. R-Square Value

No	Variable	R-Square
1	PER	0.09
2	SR	0.26

Source: Data Processed with WarpPLS 7.0 (2022)

4.4. Hypothesis Testing

Figure 2 below shows the direct effect of the variable's Return on Equity (ROE), Price to Book Value (PBV), and Debt to Equity Ratio (DER) on Stock Returns (SR).

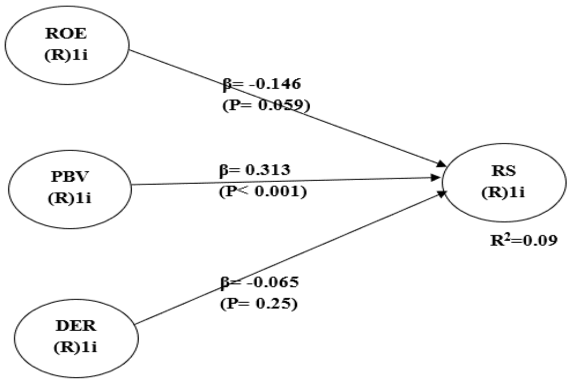

Figure 2. Direct Effect of ROE, PBV, and DER on SR
Source: Figure Processed with WarpPLS 7.0 (2022).

Table 12. Estimation Results of the Path Coefficient of the Direct Effect

No	Variable	*Path Coefficient*	*P-Value*	Status
1	ROE → SR	-0.146	0.059	not significant
2	PBV → SR	0.313	<0.001	significant
3	DER → SR	-0.065	0.248	not significant

Source: Data Processed with WarpPLS 7.0 (2022)

The Price to Book Value (PBV), Return on Equity (ROE), and Debt to Equity Ratio (DER) effects on Stock Returns (RS) mediated by the Price Earning Ratio (PER) is shown in Figure 3 below.

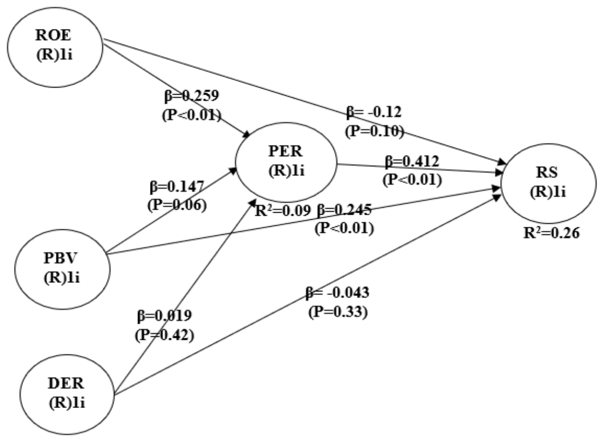

Figure 3. Model Testing of Indirect Effect Using WarpPLS 7.0
Source: Figure Processed with WarpPLS 7.0 (2022)

Table 13. The Estimation Value of *Indirect Effect*

No	Variable	*Path Coefficient*	*P Value*	Status
1	ROE →PER	0.259	0.002	significant
2	PBV →PER	0.147	0.058	not significant
3	DER →PER	0.019	0.420	not significant
4	PER → RS	0.412	<0.001	significant
5	ROE → RS	-0.120	0.101	not significant
6	PBV → RS	0.245	0.004	significant
7	DER → RS	-0.043	0.325	not significant

Source: Data Processed with WarpPLS 7.0 (2022)

After testing the estimation of the direct effect and indirect effect, then the following hypothesis testing is carried out:

4.4.1. Hypothesis Testing 1

The result of testing the first hypothesis is that ROE does not directly affect Stock Returns. Based on Table 13, it can be seen that the ROE path coefficient on Stock Returns is -0.120 with a p-value of 0.101 > 0.05. Therefore, H_{01} is supported, and H_{A1} is not supported, thus it could be derived that ROE holds no direct effect on the movement of Stock Returns with the confidence level equals 95% (an error rate of 5%).

4.4.2. Hypothesis Testing 2

The result of testing the second hypothesis is that PBV directly affects Stock Returns. Referring to Table 13, it is acquired that the path coefficient of PBV to Stock Return is 0.245 with a p-value of 0.004 < 0.05. Therefore, H_{02} is not supported, and H_{A2} is supported, thus it could be derived that PBV directly affects the movement of Stock Returns with a confidence level of 95% (error 5%).

4.4.3. Hypothesis Testing 3

The result of testing the third hypothesis is that DER does not directly affect Stock Returns. From Table 13, it could be asserted that the DER path coefficient is -0.043 with a p-value of 0.325 > 0.05. Therefore, H_{03} is supported, and H_{A3} is not supported, thus DER holds no direct effect towards the movement of Stock Returns with a confidence level of 95% (error 5%).

4.4.4. Hypothesis Testing 4

Based on Table 13, the mediation of the PER to the ROE's effect towards Stock Returns could be seen from the ROE's effect on PER and the PER's effect on Stock Returns. ROE has an influence on Stock Returns mediated by PER if both have an effect; if one or the other has no effect, then ROE holds no PER mediated effect towards Stock Return. From the calculation results in Table 13, the effect of ROE on PER with a path coefficient of 0.259 (signed positive) at a p-value of 0.002 <0.05 and the effect of PER on Stock Returns with a path coefficient of 0.412 (signed positive) at a p-value <0.001 <0.05. While the path coefficient of the effect of the independent variable on the dependent variable from the direct effect to the indirect effect whose value is from significant to still significant, then H_{O4} is not supported, and H_{A4} is supported, which means that Return on Equity affects Stock Returns partially mediated by the Price Earning Ratio.

4.4.5. Hypothesis Testing 5

Based on Table 13, the PBV effect on Stock Returns mediated by PER, can be seen from the PBV's effect on PER, and the PER's effect on Stock Returns. If one or both have no effect, then PBV does not affect Stock Returns mediated by PER, but if both have an effect, then PBV possesses an effect on Stock Returns mediated by PER. From Table 13's calculation results, the PBV's effect on Stock Returns with a path coefficient of 0.147 (signed positive) at a p-value of 0.058 > 0.05 and the PER's effect on Stock Returns with a path coefficient of 0.412 (signed positive) at a p-value <0.001 <0.05. While there has been no change in the path coefficient of the independent variable's effect on the dependent from the direct effect to the indirect effect and still shows significant results, then H_{O5} is supported, and H_{A5} is not supported, which means that PBV has no effect on Stock Returns mediated by PER.

4.4.6. Hypothesis 6

Based on Table 13, the DER's effect on Stock Returns mediated by PER could be seen from the DER's effect on PER, and the PER's effect on Stock Returns. If one or both have no effect, then DER does not affect Stock Returns mediated by PER, but if both have an effect, then DER affects Stock Returns mediated by PER. Based on Table 13's calculation results, the DER's effect towards Stock Returns has a path coefficient of 0.019 (signed positive) at a p-value of 0.420 > 0.05 and the effect of PER on Stock Returns with a path coefficient of 0.412 (signed positive) at a p-value < 0.001 <0.05. While the path coefficient of the independent variable's effect on the dependent from the direct effect to the indirect effect has not changed and still shows insignificant results, then H_{O6} is supported, and H_{A6} is not supported, which means that Stock Returns does not get affected by DER mediated by PER.

4.5. Discussion

The research results of hypothesis 1 show that ROE does not directly influence Stock Returns. This can be seen in PT. Alam Sutera Realty had a negative ROE of (-0.11%) in 2020 but can provide a positive Stock Return of (1,681). The pandemic of COVID-19 existence in early 2020 also gave negative sentiment to the country's economy, one of which was in the property and real estate sector. This affects the enterprise's profits and harms the company's ROE value. This demonstrates that Stock Returns are not always immediately impacted by a company's ROE value. The findings of this research support a study by Irawan (2021) that found no direct effect of Return on Equity to Stock Returns.

According to hypothesis 2's research findings, PBV directly affects Stock Returns. This is demonstrated by the fact that in 2020, PT. Duta Pertiwi saw a growth in PBV value, followed by a rise in Stock Returns. A high PBV number indicates strong corporate prospects which raises the company's worth and may immediately raise stock prices, increasing Stock Returns. This demonstrates that a significant PBV ratio value describes a high Stock Return. The results of this study align with studies carried out by Sari (2021), Chiu, Chen, and Che (2021), and Dewangga and Tundjung (2021), which state that Price-to-Book Value directly affects Stock Returns.

The results of hypothesis 3 research show that the debt-to-equity ratio does not directly affect Stock Returns. Although PT. Metropolitan Land's DER value increased in 2020, it could still offer a rise in Stock Returns.. The COVID-19 pandemic has made companies very dependent on debt due to decreased income, so debt is needed to pay company expenses and activities. This can be seen by increasing the value of the DER ratio in 2020. Investors do not need to look at the high and low DER ratios in a company to make investment decisions, so investors have no worries about the risks that occur in the company. Stock Returns are not always affected by a company's debt-to-equity ratio, regardless of how high or low it is. The findings of this study align with research conducted by Ika and Suryani (2021) and Kurniawan (2021), which state that DER does not directly affect Stock Returns.

The research findings of hypothesis 4 indicate that the Price Earning Ratio partially mediates (partial mediation) the Return on Equity’s effect on Stock Returns. As the company's ROE value gets higher, the PER value also does. This can be seen in PT Bumi Serpong Damai, which experienced an increase in ROE value followed by an increase in PER value in 2019. The greater the company's profits, the greater the impact on increasing the company's PER value. The company's stock price will undoubtedly rise in response to a high PER number, increasing Stock Returns. The research's findings align with research carried out by Chabachib et al. (2020) and Kwasi and Bardai (2022), which states that the Price Earning Ratio is able to mediate Return on Equity to Stock Returns.

The research results of hypothesis 5 show that the Price to Book Value has no effect on Stock Returns mediated by the Price Earning Ratio. The higher the PBV value in a company is not followed by the higher the PER value in the company, such as PT. Duta Anggada Realty which experienced an increase in PBV value but was not followed by an increase in the company's PER value in 2019. A high PBV value indicates that the company has good prospect value and trust from investors, so that Stock Returns are also expected to increase. However, this cannot be used as a reference that a high PBV value of a company can increase its PER value. Property and real estate companies take longer to grow and develop, so this cannot directly increase stock prices as well as Stock Returns. The results of this study are not in line with research conducted by Amare (2021) and Dewangga and Tundjung (2021) which state that the Price Earning Ratio mediates the effect of Price to Book Value on Stock Returns.

The research results of hypothesis 6 show that the Debt to Equity Ratio has no effect on Stock Returns mediated by the Price Earning Ratio. The higher the company's DER value affects, the lower the company's PER value. This can be seen from the company PT. Metropolitan Land has experienced an increase in the DER value but has not decreased the PER value in 2020. This is due to the company's high growth needing to increase debt in the capital structure so that it has an impact on increasing the DER value. Property and real estate companies require large funding so that it does not affect investors' perceptions of Stock Return investment due to an increase in the DER value so that it does not affect the company's PER value. These research findings do not align with research conducted by Ika and Suryani (2021) which states that the Debt to Equity Ratio does not affect Stock Returns mediated by the Price Earning Ratio.

5. CONCLUSION

From the results of this study, it could be inferred that (1) ROE does not directly affect Stock Returns; 2) PBV directly affects Stock Returns; (3) the DEO does not directly affect Stock Returns; (4) the PER mediates partially (partial mediation) the effect of ROE on Stock Returns; (5) PBV does not affect Stock Returns mediated by the PER; and (6) the DER holds no effect towards Stock Returns mediated by the Price Earning Ratio.

5.1. Investor Implication

Based on the research results, investors are advised to pay more attention to price to book value which can affect Stock Returns. In addition, investors are also advised to pay attention to the high price earning ratio value in the company. Then, investors should also consider enterprises with a high DER value in order to avoid bankruptcy risk.

5.2. Managerial Implication

Based on the research results, company management suggested to pay attention to company performance in order to increase company value because these indicators can affect Stock Returns. In addition, the company is also advised to increase its profit growth every year so that it can be an attraction for investors.

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