**ARTICLE INFO**

**ABSTRACT**

**Keywords:** ROA (Return On Assets), DER (Debt to Equity Ratio), IOS (Investment Opportunity Set), RS (Return Stock)

This study aims to test and analyze: first the effect of ROA on RS, second the effect of DER on RS, third the influence of IOS on RS, fourth IOS moderating the effect of ROA on RS, fifth IOS moderating the effect of DER on RS. This research was conducted in property and real estate companies listed on the Indonesia Stock Exchange in 2020-2022, using an explanatory research approach, with purposive sampling techniques obtained by 63 companies. Secondary data in the form of research variables are collected by documentation methods in the form of financial statements via access to idx.CoiId, furthermore, were analyzed using moderation double linear regression. The results prove that: first, ROA has a significant positive effect on RS, second DER has a significant negative effect on RS, third IOS has a significant positive effect on RS, fourth IOS strengthens the influence of ROA on RS, fifth IOS strengthens the influence of DER on RS.

**INTRODUCTION**

Investors in investing hope to get a return from the shares purchased. Stock return is closely related to stock price. Stock prices experience movements from time to time during trading hours on the Indonesia Stock Exchange (IDX). The condition of each company has a relationship with the movement of its stock price, therefore each stock has a different price. The closing price of company shares listed on the IDX fluctuates in reality, as a result the return also fluctuates, including companies in the property and real estate sectors. Here are some data on the closing price of company shares in the property and real estate sector for 2020-2022.

**Table 1. Stock Closing Price Data Partial Research Sample**

<table>
<thead>
<tr>
<th>Code Perush.</th>
<th>Closing Price (Rp)</th>
<th>Year 2020</th>
<th>Year 2021</th>
<th>Year 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>APLN</td>
<td>152</td>
<td>178</td>
<td>206</td>
<td></td>
</tr>
<tr>
<td>FATHER</td>
<td>103</td>
<td>69</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>BKSL</td>
<td>111</td>
<td>83</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>LPCK</td>
<td>1.520</td>
<td>1.005</td>
<td>1.470</td>
<td></td>
</tr>
<tr>
<td>OMRE</td>
<td>1.780</td>
<td>980</td>
<td>324</td>
<td></td>
</tr>
<tr>
<td>NESP</td>
<td>715</td>
<td>332</td>
<td>1.070</td>
<td></td>
</tr>
<tr>
<td>PUDP</td>
<td>470</td>
<td>302</td>
<td>242</td>
<td></td>
</tr>
</tbody>
</table>

Looking at table 1, it appears that the closing price data of several sample companies fluctuates (up and down). As a result, Stock Return (RS) also fluctuates. This is influenced by several variables, including: Return On Assets (ROA), Debt to Equity Ratio (DER) and Investment Opportunity Set (IOS). These variables have been examined by (Saraswati et al., 2019), prove that ROA has no effect on RS. Research (Susanti et al., 2018) prove that DER has no effect on RS. On the other hand, (Istiqlamah & Nurfadillah, 2021) prove that ROA has an effect on RS. Research (Parawansa et al., 2020) prove that DER has an effect on hospitals, the existence of conflicting or inconsistent research results or the existence of gaps in the results of these studies, this study needs to be done to close the gap (gap) of the results of previous studies. In addition, according to Jogiyyanto (2018), if the results of
This study uses IOS variables as moderation with the consideration that IOS is a choice of future investment opportunities that affect the growth of company assets that have a positive Net Present Value. So that IOS has a very important role for companies, because IOS is an investment decision in the form of a combination of assets owned (assets in place) and investment options in the future, where IOS will affect the value of a company, which has an impact on increasing stock prices (Jao & Pagalung, 2011). In addition, that growth opportunity will be seen in investment opportunities that are proxied with various combinations of IOS values. Companies that make various investment choices signal that the company is in a period of growth which has an impact on increasing stock prices (Handriani & Tjiptowati, 2015). Investment opportunities provide positive signals for the company's growth in the future. The essence of growth is that there are investment opportunities in the future that can increase the value of the company, because when the company's management determines various investment expenditures, the goal is to get a return in the future, and when the return on investment has a high enough value, the value of the company will increase which is indicated by an increased stock price as well (Gaver & Gaver, 1993). Next, (Eka, 2015) states that the value of IOS implies the value of assets owned (assets in place) in the form of book value of assets and equity and the value of opportunities to grow for a company in the future. This is because the IOS of a company affects the way managers, owners, investors and creditors view the company. In addition to the above, the results of the research (Yusma, n.d.) and (Isnania & Wahidahwati, 2018) prove that IOS has an effect on RS.

This study uses the DER variable with the consideration that DER is a leverage or solvency ratio that is often associated with RS. DER is also a method used to show whether or not a company is able to measure the ratio to maintain a balance of debt and equity (Brewer et al., 2021). (Mende et al., 2017) proves that the high DER describes the level of dependence from the company to external parties for capital which results in a heavy burden on the company. This condition can later reduce investor rights and affect investor interest in investing.

DER indicates the company's ability to meet obligations indicated on how much part of its own capital is used to repay debts. A DER level of less than 50% is a safe level. The lower the value of the DER, the better or safer the obligations that must be fulfilled by own capital (Astohar et al., 2021). Investors will be more interested if a company has a small DER value, which has an impact on stock prices that will increase. This study uses ROA variables with the consideration that ROA measures the ability to generate profits from the total assets used (Almira & Wiagustini, 2020). Every company strives for the value of their ROA to be high. The greater the value of ROA it means that the better the company uses its assets to make a profit, with increasing ROA value profitability of the company increasing (Astohar et al., 2021). This makes investors interested in buying company shares and has an impact on stock prices that are increasing and followed by high stock returns.

Based on the explanation above, the novelty of this study lies in the existence of IOS variables as moderating the influence of ROA and DER on RS with a moderation linear regression analysis tool. The purpose of this study is to test and explain: (1) the effect of ROA on RS, (2) the effect of DER on RS, (3) the effect of IOS on RS, (4) IOS moderates the effect of ROA on RS, (5) IOS moderates the effect of DER on RS. The first hypothesis: ROA has a significant positive effect on RS. This hypothesis is built from the results of his research: Setiawan & Sumantri, 2020), (Pardosi & Hutabarat, 2020), (Sausan et al., 2020), (Parawansa et al., 2020), (Suarniti et al., 2021) which proves that ROA has a significant positive effect on RS. The second hypothesis: DER has a significant negative effect on RS. This hypothesis is built from the results of his research: Setiawan & Sumantri, 2020), (Pardosi & Hutabarat, 2020), (Sausan et al., 2020), (Parawansa et al., 2020), (Suarniti et al., 2021) which proves that DER has a significant negative effect on RS. Third hypothesis: IOS has a significant positive effect on RS. This hypothesis is built from his research: (Isnania & Wahidahwati, 2018), (Yusma, n.d.), (Ahl & Roisman, 2018) which proves that IOS has a significant positive effect on hospitals. Fourth hypothesis: IOS amplifies the effect of ROA on RS. This hypothesis is explained that his research: Setiawan and Sumantri (2020), Sabatamia and Hutabarat (2020), Sausan (2020), Parawansa (2021), (Suarniti et al., 2021) which proves that IOS has a significant positive effect on RS. Next, the research: (Isnania & Wahidahwati, 2018), Yusma and Holiawati (2019), and (Ahl & Roisman, 2018) which proves that IOS has a significant positive effect on hospitals. So, if IOS is interacted with ROA, then IOS will amplify the influence of ROA on RS. That is, the higher IOS will further strengthen the influence of ROA on hospitals. Fifth hypothesis: IOS amplifies the effect of ROA on RS. This hypothesis is explained that his research: Setiawan and Sumantri (2020), Sabatamia and Hutabarat (2020), Sausan (2020), Parawansa (2021), Suarniti (2021) proves that ROA has a significant positive effect on hospitals. Furthermore, his research: Setiawan and Sumantri (2020), Sabatamia and Hutabarat (2020), Sausan (2020), Parawansa (2021), Suarniti (2021) and Kurniawan (2021)
proved that DER had a significant negative effect on hospitals. So, if IOS is interacted with DER, then IOS will amplify the influence of DER on RS. That is, the higher IOS will further strengthen the influence of DER on hospitals.

**METHOD**

This research uses explanatory research, the population of all Property and Real Estate sector companies on the IDX amounts to 120 issuers in 2020-2022. The sample was determined using purposive sampling with the criteria of loss-making companies not included, so that the data analyzed for 3 years was as many as 63 companies. This research data includes: 1) total assets, 2) comprehensive profit, 3) number of shares outstanding, 4) liabilities, 5) equity, 6) closing price of shares, for the 3 years, sourced from secondary data in the form of financial statements published by Property and Real Estate sector companies on the IDX for the 3 years, accessed via www.idx.co.id. After the data is collected, it is then analyzed with moderation double linear regression (Jogiyanto, 2018). Before analysis were tested classical assumptions: multicollinearity, heteroscedasticity, autocorrelation and normality. His hypothesis was tested with a t-test. Provided that if the sign $p$ value is below 5%, then the proposed hypothesis is accepted. Conversely, if the sign $p$ value is above 5%, then the proposed hypothesis is rejected. Furthermore, to find out whether IOS variables are able to moderate the influence of ROA or DER on RS, it can be seen at the probability value or sig value. If the probability value or sig value. smaller than 5%, then it is said that IOS is able to moderate ROA or DER against RS. Conversely, if the probability value or sig value. greater alpha 5%, then it is said that IOS is unable to moderate ROA or DER against RS (Ghozali & Dan, 2017). Meanwhile, if the regression coefficient is marked positive, it means that IOS strengthens the effect of ROA or DER on RS. Conversely, if the regression coefficient is marked negative, it means that IOS weakens the effect of ROA or DER on RS (Ghozali & Dan, 2017).

**RESULTS AND DISCUSSION**

The test results of the assumptions of multicollinearity, heteroscedasticity, autocorrelation and normality are summarized in table 2 below.

Table 2. Summary of Classical Assumption Test Results

<table>
<thead>
<tr>
<th>Classical Assumption Test</th>
<th>Test Equipment</th>
<th>Result</th>
<th>Knob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multikolinieritas</td>
<td>VIF</td>
<td>Rated $&lt; 10$</td>
<td>Multicollinearity does not occur</td>
</tr>
<tr>
<td>Heteroscedasticity</td>
<td>Scatter Plot</td>
<td>Irregular drawing</td>
<td>No heteroscedasticity occurs</td>
</tr>
<tr>
<td>Autokorelass</td>
<td>Durbin Watson Kolmogorof-Smirnov</td>
<td>Value 1,856</td>
<td>Sig value. $&gt; 5%$</td>
</tr>
<tr>
<td>Normalitas</td>
<td></td>
<td></td>
<td>No Autocorrelation occurs Datanya Normal</td>
</tr>
</tbody>
</table>

Furthermore, the results of moderation multiple linear regression analysis are summarized in the following table 3:

Table 3. Moderation Double Linear Regression Analysis Summary

<table>
<thead>
<tr>
<th>Information</th>
<th>Regression coefficient</th>
<th>$p$-value ($Sig$ value)</th>
<th>Simpulan hipotesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: effect of x1 on y1</td>
<td>0.621</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: effect of x2 on y1</td>
<td>-0.206</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3: effect of x3 on y1</td>
<td>0.421</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4: interaction relationship x1 with x3 against y1</td>
<td>0.233</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5: interaction relationship x2 with x3 against y1</td>
<td>0.156</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
ROA Has a Significant Positive Effect on RS

The results of this study support the research findings: Setiawan and Sumantri (2020), Sabatamia and Hutabarat (2020), Sausan (2020), Parawansa (2021), Suarniti (2021) prove that ROA has a positive effect on hospitals. It is known that the ROA formula is net profit after tax divided by total assets. Efforts to manage ROA to increase so that stock prices also increase which have an impact on RS is by managing net income after tax and total company assets. Net profit is increased by increasing sales and lowering variable costs. Meanwhile, asset management is carried out by increasing asset turnover, for example increasing cash turnover, receivables turnover, and inventory turnover.

DER Has a Significant Negative Effect on RS

The results of this study support the findings of his research: Setiawan and Sumantri (2020), Sabatamia and Hutabarat (2020), Sausan (2020), Parawansa (2021), Suarniti (2021) which prove that DER has a negative effect on hospitals. It is known that the formula DER is total debt divided by total equity and its negative effect on RS. This means that DER must be lowered to have a positive impact on hospitals, by reducing the amount of debt. The higher the company's DER, it will have a negative impact on RS and the greater the level of dependence of the company on external parties (creditors) and the greater the burden of debt costs (interest costs) that must be borne by the company. Higher debt indicates that the capital structure owned by a company comes more from debt than its own capital. This shows the greater dependence of the company on outside parties (creditors). So that the company's risk level is even greater. When the risk of a company is high, it will cause investors to avoid investing in companies with high debt values and subsequently result in a decrease in the company's stock price.

The use of debt does not always have a negative impact, funding policies of companies that have the potential to grow high have a high level of debt, because companies that have the potential for high growth have high investment opportunities. So it requires high funds which are not enough if only funded from internal companies (Purwitajati & Putra, 2016).

Financing with debt, has 3 important implications, namely: (1) obtaining funds through debt allows shareholders to maintain control over the company with limited investment, (2) creditors look at equity, or funds deposited by owners, to provide a safety margin, so that if shareholders only provide a small part of the total financing, then the company's risk is mostly on creditors; (3) If the company earns a greater return on investments financed with borrowed funds than interest payments, then the return on owner's capital will be greater. However, if the return obtained on investments financed with borrowed funds is compared to interest, then the return on the owner's capital is smaller (Amalya, 2018). (Brigham & Houston, 2016) states that companies with relatively stable sales can more securely obtain more loans and bear higher fixed expenses compared to companies whose sales are unstable. Therefore, the company’s DER may exceed one as long as the company's sales are relatively stable so that it will be able to bear a fixed burden in the form of loan interest.

IOS Has a Significant Positive Effect on RS

The results of the study support the research findings: Isnania and Wahidahwati (2018), Yusma and Holiawati (2019), and (Ahl & Roisman, 2018) which proves that IOS has a positive effect on hospitals. Therefore, IOS needs to be improved to have an impact on increasing hospitals. The greater IOS the possibility of the company to continue to grow and develop, this triggers an increase in the company's stock price and is the hope of investors, with an increase in stock price, it will increase the selling price per share so that the return obtained by investors will increase as well.

IOS, which is proxied with MBVA, shows that the higher the MBVA, the greater the assets used by the company in its business, the more likely the company is to grow, so that its stock price will increase, and in the end the return on shares obtained by shareholders will increase (Isnania and Wahidahwati, 2018). IOS describes the breadth of investment opportunities or opportunities for a company. IOS demonstrates a company's ability to benefit from growth prospects. Company growth is an important expectation desired by internal parties, namely management and external companies such as investors and creditors. Growth is expected to provide positive aspects for the company so as to increase the opportunity to invest in the company. For investors, the company's growth is a profitable prospect, because the investment invested is expected to provide high returns in the future. Companies that grow will be responded to by the market and growth opportunities are seen in the value of IOS (Jogiyanto Hartono, 2018).

Every company must have the concept of going concern in carrying out its business activities which is shown by the company’s growth and the increase in the value of the company's assets in accordance with the expectations of the company itself. The growth of the company can be proxied with the value of IOS. This concept leads the company to carry out its business activities in a sustainable manner. The company’s growth is highly...
expected, both by internal circles and from external circles of the company. Companies with high growth need more funds because many investment opportunities will be made. The increased investment will attract investors so that it has an impact on increasing stock prices (Isnania and Wahidawati, 2018). The same thing is also said by Homeurs (2018) that the growth prospect is an expectation desired by management (internal parties) and investors and creditors (external parties). This growth is expected to provide positive prospects for the company such as there are opportunities to invest in the company. The prospect of a growing company for investors is a profitable prospect, because the investment invested is expected to provide high returns. Brigham & Gapensi (2018). It is also suggested that IOS is an important component of market value. This is because the IOS of a company affects the way managers, owners, investors, and creditors view the company. Companies with high IOS levels tend to have high company growth prospects in the future. The existence of IOS causes the company’s profit in the future to increase. So that the market will give a greater response to companies that have the opportunity to grow (IOS). The high market response to profits will cause a greater reaction to the market price of a security.

**IOS Strengthens the Influence of ROA on RS**

The company’s growth prospects are performance indicators that are easily known by investors. Investors can assess the company’s growth prospects through information that is easily found in financial statements such as the company's total assets, the company’s total equity, the number of shares outstanding, and the company's closing stock price each period. Investors can easily read information related to their investment decisions about a company by paying attention to the MBVA ratio. The company's growth prospects are an indicator of an increase in stock prices which ultimately causes an increase in stock returns. This is in line with the opinion of Isnania and Wahidawati (2018) that the use of large amounts of assets in company activities can provide positive signals that investors can capture as good news, because the greater the assets used by the company, the greater the possibility of the company to develop. This has an impact on rising stock prices followed by rising stock returns.

Furthermore, IOS demonstrates a company’s ability to profit from growth prospects. Growth prospects are an expectation desired by management (internal parties) and investors and creditors (external parties). This growth is expected to provide positive aspects for the company such as opportunities to invest in the company. The prospect of a growing company for investors is a profitable prospect, because the investment invested is expected to provide high returns indicating that the growing company will be responded by the market (Kusumawati & Safiq, 2019). Meanwhile, ROA shows management’s effectiveness in managing its assets to generate profits. The higher the ROA, investors will assess that the company is more effective in utilizing assets to get net income after tax. The company’s ability to manage assets will be an attraction and able to influence investors to buy shares and cause stock prices to increase which has an impact on RS. Through this ROA ratio, investors will assess whether the company is profitable or not.

**IOS Strengthens the Influence of DER on RS**

(Hartono, 2016) states that IOS describes the breadth of investment opportunities or opportunities for a company. IOS demonstrates a company’s ability to benefit from growth prospects. Company growth is an important expectation desired by internal parties, namely management and external companies such as investors and creditors. Growth is expected to provide positive aspects for the company so as to increase the opportunity to invest in the company. For investors, the company’s growth is a profitable prospect, because the investment invested is expected to provide high returns in the future. Companies that grow will be responded by the market and growth opportunities are seen in the investment opportunities proxied by IOS.

In an effort to increase company growth, the capital aspect is something that needs to be considered. The determination of the proportion of DER in its use as a source of company funds is closely related to the term capital structure. An inefficient capital structure will incur fixed costs in the form of high capital costs, which can further have an impact on the loss of opportunities for companies to utilize profits in the interest of company growth (Kusumawati & Safiq, 2019). Higher debt indicates that the capital structure owned by a company comes more from debt than its own capital. This shows the greater dependence of the company on outside parties (creditors) so that the company’s risk level is even greater. When the risk of a company is high, it will cause investors to avoid investing in companies with high debt values and subsequently result in a decrease in the value (return) of company shares (Purwitajati and Putra, 2016). However, the use of debt does not always have a negative impact, the funding policy of companies that have the potential to grow high has a high level of debt, because companies that have the potential for high growth have high investment opportunities so that they require high funds which are not enough if only funded from internal companies.

Future investment options are related to the company’s growth rate. The company’s growth is expected to provide positive aspects for the company such as an investment opportunity in the future. The growth
opportunity will be seen in the investment opportunity that is proxied with various combinations of investment opportunity set values. Companies that make various investment choices signal that the company is in a period of growth (Handriani & Irianti, 2018). Investment opportunities provide positive signals for the company’s growth in the future. The essence of growth is the existence of investment opportunities in the future that can increase the value of the company. The prospect of a growing company for investors is a profitable prospect, because the investment invested is expected to provide high returns.

Large companies are considered able to increase company investment opportunities with adequate assets and funding, this makes investors more confident in large-sized companies to invest their excess funds, because it is very unlikely that bankruptcy will occur than investing in small companies. This shows that the more investors who intend to buy shares of large-sized companies, the company's stock price rises and the rate of stock return also increases. This is in line with the statement (Adiwibowo, 2018), The larger the size of the company will also reflect the greater the company’s ability to be able to finance its future fund needs (investment opportunities).

CONCLUSION

The conclusion of this study is as follows: first, ROA affects RS, second DER affects RS, third IOS affects RS, fourth IOS strengthens ROA influence on RS, fifth, IOS strengthens the influence of DER on hospitals. In increasing ROA so that it has a positive impact on RS, companies are advised to manage net profit after tax and total company assets. Net profit is increased by increasing sales and lowering variable costs. Meanwhile, asset management is carried out by increasing asset turnover, for example increasing cash turnover, receivables turnover, and inventory turnover. In addition, it can also use the Du Pont System approach, where the profit must be increased or the turnover assets increased. Furthermore, to increase profit margin, earning after tax must be increased. To increase asset turnover, sales must be increased.

In reducing DER so that it has a positive impact on hospitals, companies are advised to reduce the amount of debt. However, companies are still allowed to have a DER ratio exceeding one as long as the company’s sales are relatively stable so that they will be able to bear a fixed burden in the form of loan interest. In improving IOS so that it has a positive impact on hospitals and strengthens the influence of ROA and DER on hospitals, companies are advised to increase company growth by investing, because the company’s growth prospects are an expectation desired by management (internal parties) and investors and creditors (external parties). This growth is expected to have a positive impact on the company such as there are opportunities to invest in the company. The prospect of a growing company for investors is a profitable prospect, because the investment invested is expected to provide high returns indicating that the growing company will be responded by the market. In addition, the next researcher is advised to add another independent variable and replace the moderation variable, so that the results can enrich science.

REFERENCES


