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THE EFFECT OF RETURN ON ASSETS AND PRICE BOOK VALUE ON INVESTMENT OPPORTUNITY SETS AND THEIR CONSEQUENCES ON LEVERAGE AND EQUITY (Study on Manufacturing Companies Listed on the IDX for the 2019-2021 Period)

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ABSTRACT

This study aims to analyze the effect of Return On Assets and Price Book Value on Investment Opportunity Set and the consequences for leverage and equity in manufacturing companies listed on the Indonesia Stock Exchange in 2019-2021. The study focused on manufacturing companies listed in Indonesia Stock Exchange during 2019-2021. The type of data used is secondary data. Sampling method used purposive sampling with 250 data from 86 manufacturing company listed in IDX. Data analysis using multiple Linear Regression with Descriptive Analysis, Classic Assumtion and Hipothesis Test. The result of the study show that Return On Assets has positive and significant effect on Investment Opportunity Set. Price Book Value has not significant effect on Investment Opportunity Set. Return On Assets has negative and significant effect on Leverage. Price Book Value has not significant effect on Leverage. Investment Opportunity Set has positive and significant effect on Leverage. Return On Assets has positive and significant effect on Equity. Price Book Value has negative and significant effect on Equity. Investment Opportunity Set has not significant effect on Equity.

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1. INTRODUCTION

At the moment the biggest challenge facing society and companies is the era of globalization and free trade. Increasing economic development requires company management to be able to work more effectively and efficiently in order to maintain the stability of the company and maintain its viability in increasingly fierce business competition.

The company must be able to improve its ability to manage capital and increase its profits in order to prosper owners and investors. Companies are required to find and use existing opportunities in accordance with the company's strategy in order to achieve company goals. The company's goals will help can even be the key to the company's success in obtaining a position in the future. In general, the company's goal is to maximize profits and maximize prosperity. The management of the company must strive to maximize the welfare of shareholders through the authority given in making decisions which include investment decisions and funding decisions.

Investment is one way for companies to get more sources of funding. Investments can be in the form of securities, fixed assets, or others that can provide benefits for the company in the future. A company's investment decisions can be influenced by available cash, sales levels, debt levels, and the size of the company. One of the investment options owned by the company is the *Investment Opportunity Set* (IOS). Companies with a high IOS level tend to have high company growth prospects in the future. This growth causes the company's profit to increase, so it will give a greater response to companies that have the opportunity to grow. Companies that are not right in making decisions on investment opportunities also have a negative impact, namely giving rise to excessive investment (*Over* Investment) or less investment (*Under Investment*).

Investment decisions also affect the capital structure. Decisions regarding the capital structure are very important because they affect the profit of shares or the wealth of shareholders. In research conducted by Thippayana (2014) that capital structure is one of the important factors in companies to produce assets, carry out operational activities, and also increase company growth. In carrying out business activities, the

capital structure is the company's source of funding, with internal funding coming from shareholders and external funding coming from debt.

2. LITERATURE REVIEW

Pecking Order Theory

The pecking order theory was introduced by Donaldson in 1961. The naming of the pecking order theory was done by Stewart C. Myers and Majluf in 1984 in the Journal of Finance Volume 39: The Capital Structure Puzzle. The pecking order hypothesis describes a hierarchy in the use of company funds where the company prefers internal funds first to pay dividends and investments then implement them as growth opportunities where possible. If external funds are needed, the company prefers debt over other external sources of funds.

Market Timing Theory

The capital structure is the cumulative result of efforts to conduct equity market timing in the past (Baker and Wurgler, 2002). According to this theory, the company issuing equity will depend on relative costs. Equity market timing theory states that companies will issue equity when the stock price is high and will repurchase shares when the stock price is low. The company's purpose in conducting equity market timing is to take advantage of temporary fluctuations in stock costs against the costs of other capital components.

Signalling Theory

According to Brigham and Houston (2014: 184) signalling theory is a behavior of company management in providing investors with advice regarding management's views on the company's future prospects. Signal theory reveals that investors can distinguish companies that have high value from companies that have low value.

Agency Theory

Agency theory describes the relationship between shareholders as principals and management as agents. Horne and Wachowicz (2013:185) state that management is an agent of shareholders, namely as owners of the company. The shareholders expect the agent to act in their interests thus delegating authority to the agent.

Charter Value

According to Anderson and Fraser (2000) charter value is synonymous with the health of a company or profit prospects as a consequence of a company's ability to maintain market share, reputation, economies of scale, information excellence and efficiency. The charter value theory developed by Marcus (1984) explains that companies withhold extra capital in order to secure against deterioration in stability and deal with the risk of failure. According to Taswan (2012) explained that high risk-taking due to charter value incentives is an indication of the owner's moral hazard towards other parties. Companies that have a high charter value, then moral hazard becomes lower. This is because the interests of owners and managers are aligned because they view high costs associated with financial distress.

Return On Assets

Profitability is the end result of a series of policies and decisions of company management (Brigham et al., 2001). The profitability ratio measures the effectiveness of overall management which is indicated by the amount of profit obtained in sales and investments. According to Hardiyanti et. al. (2022) that profitability is used to measure effectiveness in making a profit with the assets owned by the company.

Price Book Value

According to Brigham and Daves (2004: 242) the value of the company is very important because with a high company value, it will be followed by the high welfare of shareholders. High corporate value is the desire of company owners, because with high company value, it will show the high welfare of shareholders.

Investment Opportunity Set

According to Myers (1997) the Investment Opportunity Set (IOS) is an investment decision in the form of a combination of assets owned by the company and future investment options. In general, IOS describes the breadth of investment opportunities or opportunities for companies, but it really depends on the company's expenditure for future interests.

Capital Structure

According to Surento and Fitriati (2020), it is explained that companies need to have a funding policy to minimize capital costs so that they can maximize the company's market value. The company's funding decisions consist of internal funding and external funding. Internal funding is a source of funding that comes from within thecompany's environment, namely own capital. Own capital comes from the company's profit and the owner's capital. Meanwhile, external funding is a source of funding that comes from outside the company's environment or can be called foreign capital. Foreign capital is a source of company funding that must be repaid within a certain period of time accompanied by interest. According to Solichah and Sudarsi (2022) that the use of high debt rather than equity will increase the company's fixed expenses, which in turn will reduce profitability.

3. METHOD

This research method uses quantitative research methods with secondary data sources taken from annual *financial reports*. This research sample used a *purposive sampling* method with a total data of 250 samples from 86 manufacturing companies listed on the Indonesia Stock Exchange. Data analysis using Multiple Linear Regression by going through *Descriptive Statistical* Test, Classification Assumption Test and Hypothesis Test. Data processing using SPSS test equipment. Here is this research model :

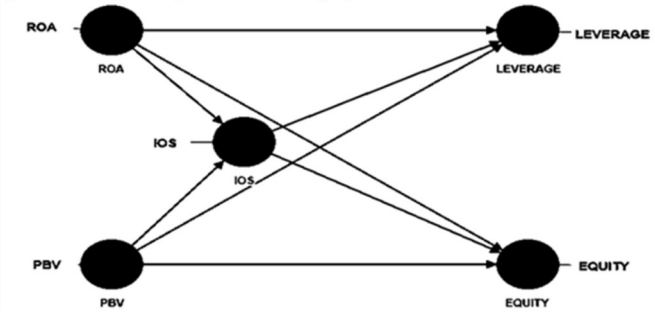

Figure 1. Research Models

4. RESULT AND DISCUSSION

Descriptive Statistics

Table 1. *DescriptiveStatistics*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	250	.000	1.288	.08527	.129434
PBV	250	.048	36.342	2.41590	3.576915
IOS	250	.000	13.113	.09739	.831057
LEV	250	.003	8.058	.42640	.521978
EQU	250	.003	6.057	.89769	.879681
Valid N (listwise)	250				

From the table above shows that:

1. The average value of the variable ROA is 0.08527 (below 1), which means that the profitability of manufacturing companies in Indonesia is very small.
2. The average value of the PBV variable is 2.41590 (more than 1) which indicates that the available price paid by the market is higher than the company's book value so that the value of manufacturing companies in Indonesia is relatively good and has good prospects in the future.

3. The average value of the IOS variable is 0.09739 which indicates that the greater the *value* of the company's investment opportunity set indicates that manufacturing companies in Indonesia have a high investment opportunity.
4. The variable average value of leverage is 0.42640 (less than 1) which indicates that in this study the level of *leverage* in manufacturing companies has a low level of debt.
5. The average value *of the equity* variable is 0.89769 (less than 1) which indicates that in this study the *equity* level in manufacturing companies has a low level of debt.

Normality Test

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual	Unstandardized Residual	Unstandardized Residual
N		250	250	250
Normal Parameters[a,b]	Mean	.0000000	.0000000	.0000000
	Std. Deviation	1.53868294	.72687496	1.00125840
Most Extreme Differences	Absolute	.059	.096	.049
	Positive	.039	.075	.032
	Negative	-.059	-.096	-.049
Kolmogorov-Smirnov Z		.929	1.513	.780
Asymp. Sig. (2-tailed)		.353	.205	.576

a. Test distribution is Normal.
b. Calculated from data.

In the normality test table of model 1, model 2, and model 3 above, it shows that the *asymp sig* values are 0.353, 0.205, and 0.576. The value is greater than the critical value of 0.05. This means that the data is normally distributed.

Test Classical Assumptions

The classical assumption test is a test used to test whether the regression model used in this study is worth testing or not. This test ensures that multicholinearity, autocorrelation, and heteroskedasticity are not present in the model used and that the resulting data is normallyattributed. In this study, the analysis model has been worth using.

Multiple Regression Analysis

Table 3. Model 1 Regression Test Results

Coefficients[a]

Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.305	.132		-32.738	.000
	ROA	1.610	.786	.129	2.050	.041
	PBV	.034	.028	.078	1.237	.217

a. Dependent Variable: Ln_Ios

From the table of regression test results of model 1 above shows that:

a. The results of the t test for the *Return On Asset* (ROA) variable, obtained a calculated t value = 2.050 and a coefficient B of 1.610. The significance value of the ROA variable is 0.041 < 0.05. Based on these results, the variable *Return On Asset* has a significant positive effect on the *Investment Opportunity Set*. A positive relationship suggests that the rising profitability of a manufacturing company will increase the company's investment. This is in accordance with *pecking order theory* which explains that companies prefer to use internal funds for investment. Companies that are able to increase profits will have a smooth cash flow so it is likely that the company can increase its investment.

b. The results of the t test for the *Price Book Value* (PBV) variable, obtained a calculated t value = 1.237 and a coefficient B of 0.034. The significance value of the PBV variable is 0.217 < 0.05. Based on these results, the *Price Book Value* variable has an insignificant effect on the *Investment Opportunity Set*. In this study, the company made investment decisions by looking at the level of profitability. This is inconsistent with *charter* value theory which shows that companies will be cautious in risk-taking as a high company value by implying that *price book value* will influence investment decision choices.

Table 4. Model 2 Regression Test Results

Coefficients[a]

Type		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.691	.144		-4.805	.000
	ROA	-.120	.375	-.020	-.320	.015
	PBV	.017	.013	.080	1.278	.202
	Ln_Ios	.106	.030	.220	3.504	.001

a. Dependent Variable: Ln_Lev

From the table of regression test results of model 2 above shows that:

a. The result of the t test for the *Return On Asset* (ROA) variable, obtained a $_{calculated}$ t value = -0.320 and a B coefficient of -0.120. The significance value of the ROA variable is 0.015 < 0.05. Based on these results, the variable *return on assets* has a significant negative effect on *leverage*. This is supported by *pecking order theory* which shows that company funding decisions prefer to use internal funds first. Funding generated from profits can be used to cover liabilities so that it can have an impact on reducing the level of use of the company's debt.
b. The results of the t test for the *Price Book Value* (PBV) variable, obtained a calculated t value = 1.278 and a coefficient B of 0.017. The significance value of the PBV variable is 0.202 > 0.05. Based on these results, the variable *price book value* has an insignificant effect on *leverage*. This is inconsistent with *charter value* theory which shows that companies with good prospects will be cautious in taking risks including debt. In this study, external funding (debt) was influenced by the company's profitability and investment opportunities.
c. The results of the t test for the *Investment Opportunity Set* (IOS) variable, obtained a calculated t value = 3.504 and a coefficient B of 0.106. The significance value of the IOS variable is 0.001 < 0.05. Based on these results, the *investment opportunity set* variable has a significant positive effect on *leverage*. This is supported by *pecking order theory* which shows that companies with high investment opportunities tend to need larger funds that cannot be met from internal sources alone. This condition will encourage companies to use more debt. The higher the investment opportunity owned by the company, the greater the external funds, especially debt, used by the company.

Table 5. Model 3 Regression Test Results

Coefficients[a]

Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.057	.198		-.287	.774
	ROA	1.017	.517	-.124	1.969	.015
	PBV	.030	.018	.105	1.669	.010
	Ln_Ios	.114	.041	.173	2.748	.064

a. Dependent Variable: Ln_Equ

From the table of regression test results of model 3 above shows that:

a. The results of the t test for the *Return On Asset* (ROA) variable, obtained a calculated t value = 1.969 and a coefficient B of 1.017. The significance value of the variable *return on assets* is 0.015 < 0.05. Based on these results, the variable *return on assets* has a significant positive effect on *equity*. Companies that are able to increase profits, the company's equity will increase. A high level of profit allows the company to obtain most of the funding from internal (retained earnings). This is in accordance with

pecking order theory which means that in the funding structure the company prioritizes using its own capital and retained earnings rather than debt.

b. The results of the t test for the *Price Book Value* (PBV) variable, obtained the calculated t value = 1.669 and the B coefficient of 0.030. The significance value of the PBV variable is 0.010 < 0.05. Based on these results, the price *book value* variable has a significant positive effect on *equity*. The results of this study are in accordance with the market *timing theory* which shows that the company will optimize the capital structure when the stock market price is high. Companies with a high market value will issue equity when the stock price is high and will buy back shares when the stock price is low.

c. The results of the t test for the *Investment Opportunity Set* (IOS) variable, obtained a calculated t value = 2.748 and a coefficient B of 0.114. The significance value of the IOS variable is 0.064 > 0.05. Based on these results, the *investment opportunity set* variable has an insignificant effect on *equity*. This is not in accordance with the *pecking order theory* that companies like internal funding first, if it needs external funding then the company prefers debt. The size of the company's equity is not affected by *the investment opportunity set*. Whether there is an investment opportunity or company growth does not affect the company's funding structure.

5. CONLUSION

The variable return on asset (ROA) has a significant positive effect on the investment opportunity set (IOS) which is proven to be positive in the statistical results of the t test = 2,050 and a significance of 0.041. The price book value (PBV) variable has an insignificant effect on the investment opportunity set (IOS) as evidenced in the statistical results of the t test = 1.237 and a significance of 0.217. The variable return on asset (ROA) has a significant negative effect on leverage which is proven to be negative in the statistical results of the t test = -0.320 and a significance of 0.015. The variable price book value (PBV) has an insignificant effect on leverage as evidenced in the statistical results of the t test = -0.320 and significance of 0.203. The investment opportunity set (IOS) variable has a significant positive effect on leverage which is proven to be positive in the statistical results of the t test = 3.504 and a significance of 0.001. The variable return on assets (ROA) has a significant negative effect on equity which is proven to be negative in the statistical results of the t test = 1.969 and a significance of 0.015. The price book value (PBV) variable has a significant positive effect on equity which is proven to be positive in the statistical results of the t test = 1.1669 and a significance of 0.046. The investment opportunity set (IOS) variable has an insignificant effect on equity as evidenced in the statistical results of the t test = 2.748 and a significance of 0.064.

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