

The Influence Of Return On Investment (ROI) To Price To Book Value (PBV)

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Abstract

This study aims to analyze the effect of profitability proxied by Return on Investment (ROI) on firm value, proxied by Price to Book Value (PBV). The study was conducted on companies from five ASEAN countries, with a sample size of 149 companies. Purposive sampling was employed as the sampling technique. Simple linear regression was used as the analysis method, using SPSS software. The results indicate that Return on Investment (ROI) has a significant effect on Price to Book Value (PBV), evidenced by a significant value of 0.002. These findings suggest that a higher ROI corresponds to a higher Price to Book Value (PBV) for the company.

Keywords : Price to Book Value (PBV), Return on Investment (ROI), ASEAN

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh profitabilitas yang diproksikan dengan Return on Investment (ROI) terhadap nilai perusahaan yang diproksikan dengan Price to Book Value (PBV). Penelitian ini dilakukan pada perusahaan-perusahaan dari lima negara ASEAN dengan jumlah sampel sebanyak 149 perusahaan. Teknik pengambilan sampel yang digunakan adalah purposive sampling. Metode analisis yang digunakan adalah regresi linear sederhana dengan bantuan perangkat lunak SPSS. Hasil penelitian menunjukkan bahwa Return on Investment (ROI) berpengaruh signifikan terhadap Price to Book Value (PBV), yang dibuktikan dengan nilai signifikansi sebesar 0,002. Temuan ini mengindikasikan bahwa ROI yang lebih tinggi berkaitan dengan Price to Book Value (PBV) yang lebih tinggi bagi perusahaan.

Kata kunci: Price to Book Value (PBV), Return on Investment (ROI), ASEAN

INTRODUCTION

Increasing competition in the era of globalization is driving companies to take strategic steps to strengthen their competitiveness and ensure business sustainability. One strategy often adopted is going public, the process of offering company shares to the

public through the capital markets. This step allows companies to gain broader access to external funding sources, thereby supporting business development and increasing their capacity for future growth. (Tjio et al., 2023) . Companies with public status not only obtain alternative funding sources but are also required to consistently apply the principles of good corporate governance. This status encourages increased transparency in company management and strengthens investor and stakeholder confidence in the company's performance and credibility (Buallay, 2019) . Therefore, companies that *go public* are not only oriented towards financial growth but also oriented towards managerial transformation towards a more professional, accountable, and long-term company.

Increasing access to capital is often considered a primary goal of *going public* , as investors tend to be more attracted to companies with high corporate value. Generally, corporate value is seen as a reflection of management's performance in meeting shareholder expectations. (Albanbeava et al., 2024) . Increasing company value not only reflects the success of the company's internal performance but also serves as a positive signal for investors in assessing the prospects and potential returns of their investments (Munir et al., 2024) . One indicator that can be used to measure company value, particularly in the stock market, is Price Book Value (P/B/V) (Passos & Campos-Rasera, 2022) .

Price to Book Value (PBV) is a financial ratio that compares a company's Market Price per Share to its Book Value per Share (Badruzaman et al., 2022) . Book value is derived from the difference between a company's total assets and total liabilities, reflecting the shareholders' equity portion of its financial statements. PBV is used to

assess whether a company's stock is considered by the market to be *overvalued* (the market price significantly exceeds its book value) or *undervalued* (the market price is lower than its book value) (Bustani et al., 2021) .

$$price\ book\ value = \frac{Harga\ Saham\ per\ lembar}{Nilai\ buku\ per\ saham}$$

One of the ratios that influences a company's value is the profitability ratio. Profitability is an indicator reflected in stock prices and illustrates a company's financial performance, particularly its ability to manage its assets to generate optimal profits. A high rate of return *indicates* good company performance, indirectly reflecting its value. The higher a company's profit-generating ability, the greater the chance of an increase in its stock price (Dwiputra & Viriany, 2020) .

According to Sugiono and Untung (2016), profitability aims to measure management effectiveness in generating returns on investment through a company's operational activities. Furthermore, profitability is used as a tool to assess a company's overall performance and its efficiency in managing its liabilities and capital to support maximum profit achievement (Dwiputra & Viriany, 2020) .

This ratio measures a company's ability to generate profits. One way to measure profitability is ROI (Return on Investment). *Return on Investment* (ROI) is a profitability ratio used to measure a company's ability to generate profits from all invested assets or funds. This ratio indicates the level of management effectiveness and efficiency in utilizing its resources to generate profits. The higher the ROI, the better the company's ability to manage its investments, thus reflecting improved financial performance.

ROI is a crucial indicator for investors, creditors, and company management because it provides a snapshot of the level of return on investments. For investors, ROI

can be used as a basis for assessing a company's prospects before making investment decisions. Meanwhile, for management, ROI serves as an evaluation tool to gauge the success of a company's operational strategies and asset management. This study seeks to assess the extent to which ROI can influence a company's value. The companies sampled come from five ASEAN countries: Indonesia, Malaysia, Singapore, Thailand, and the Philippines.

Formulation of the problem

The formulation of the problem to be studied is: Is there an influence of *Return on Investment* (ROI) on *Price Book Value* (PBV)?

Research purposes

This research aims to

- a. knowing the effect of ROI on PBV
- b. Knowing the influence of profitability levels on company value

LITERATURE REVIEW

Previous Research

Research conducted by Mahmut Aydoğmuş, Güzhan Gülay, and Korkmaz Ergun (2022) in Turkey shows that there is a relationship between ROA and Tobin's Q, where companies with better profitability tend to obtain higher market valuations due to investors (Aydoğmuş et al., 2022) .

Research conducted by Aouadi and Marsat (2018) used *Return on Assets* (ROA) as a control variable in analyzing factors influencing *Market to Book Value* (MBV) as a

proxy for firm value. The results of this study indicate that ROA remains an important indicator in explaining changes in firm value. Companies that are able to generate a high rate of return on assets indicate that their assets have been managed efficiently to generate profits. This condition provides a positive signal to investors regarding the company's operational performance, thereby increasing market confidence. This confidence drives increased demand for shares, which ultimately impacts the increase in *Market to Book Value* (MBV) (Aouadi & Marsat, 2018) .

Research (Awn & Azam, 2020) shows that a company's profit is one of the main factors contributing to increased company value. A company's ability to generate profits indicates that its operations are running effectively and delivering optimal results. This is a crucial consideration for investors when assessing a company's investment viability. The higher a company's profit margin, the greater investor confidence in its future prospects. Increased investor interest in a company's shares can ultimately drive up share prices, thereby increasing the company's value in the capital market.

This research aligns with research conducted by Hoi et al. (2020) , which showed that consistently growing profitability reflects a company's ability to efficiently manage its resources and maintain sustainable business prospects. Stable financial performance provides a positive signal to investors regarding the company's ability to create economic value in the future. Therefore, companies with high and consistent profitability tend to receive better market valuations, thereby increasing their value .

ROI (Profitability Ratio/ Return On Investment (ROI))

Profitability ratios are used to measure a company's ability to generate profits. Some *proxies* used to measure profitability ratios include ROA, ROE, ROI, and *Net Profit Margin* (Akhmadi et al., 2023) . In this study, the profitability ratio is *proxied* by ROI.

Researchers use ROI as *a proxy* for profitability because it reflects a company's net profit relative to its total investment. Furthermore, researchers have found that companies with high ROIs tend to have high *Price Book Values (PBVs)* . The formula for calculating ROI is:

$$ROI = \frac{\text{Laba bersih}}{\text{Total investasi}}$$

Return on Investment (ROI) is a key indicator in financial analysis used to measure the efficiency or profitability of an investment. ROI indicates the extent of profit earned relative to the amount of investment (Wasiuzzaman et al., 2023) .

Several previous researchers used ROE (*return on equity*) as *a proxy* for profitability, such as Quintiliani (2022) and Andreas et al. (2021) . Yu & Xiao (2022) and Gunawan et al. (2022) used ROA (*return on assets*) as *a proxy* for profitability ratios . Mohammad & Wasiuzzaman (2021) used ROI as *a proxy* . In this study, the profitability ratio used is ROI.

PBV

Price to Book Value (PBV) is a financial ratio used to compare the market price per share with the book value per share of a company (Badruzaman et al., 2022). Book value is obtained from the difference between a company's total assets and total liabilities,

reflecting the amount of equity entitled to shareholders based on financial statements (Bustani et al., 2021) .

The PBV ratio is used to assess how the market values a company. This ratio allows investors to determine whether a stock is overvalued, when the market price is above its book value, or undervalued, when the market price is lower than its book value. Therefore, PBV is often used as an indicator to assess a company's value and aid investment decision-making.

$$\text{price book value} = \frac{\text{Harga Saham per lembar}}{\text{Nilai buku per saham}}$$

If $PBV > 1$, it means the market is valuing the company's assets higher than their book value. This leads investors to expect growth and good performance. This leads to the company having high-value *intangible assets* . If $PBV < 1$, it means the stock may be *undervalued* or the company is experiencing issues that are making the market doubt the quality of its assets or prospects, making investors reluctant to invest their money in the company (Serafeim, 2020) .

Several previous studies have examined the relationship between financial performance and firm value and consistently demonstrated that financial performance influences *Price to Book Value* (PBV), a proxy for firm value. These findings are supported by research conducted by Akbar (2021), Badruzaman et al. (2022), Serafeim (2020), and Passos and Campos-Rasera (2022). In addition to proving the influence of financial performance on PBV, Passos and Campos-Rasera's (2022) study also found that the ESG Score influences Price to Book Value (PBV).

A company's profits play a crucial role in increasing its value. The greater the profit, the greater its attractiveness to investors, potentially increasing its value in the

capital market (Awn & Azam, 2020) . Furthermore, consistent and increasing profitability reflects a company's strong financial performance and sustainable business prospects (Hoi et al., 2020).

The relationship between Return on Investment (ROI) and firm value, as measured by Price to Book Value (PBV) , indicates a causal relationship. In other words, an increase in ROI can impact firm value because it reflects the company's ability to effectively manage assets to generate profits. This relationship is also supported by previous research, including that conducted by Wong et al. (2021) , which found that ROI influences firm value.

Framework

The conceptual framework was designed to provide a clear picture of the flow and relationships between the variables that form the basis of this research. Through this framework, the research direction can be understood more systematically, making it easier to explain the analysis process. The conceptual framework used in this research is presented as follows:



Figure 1: Framework of Thought

Research Hypothesis

Ahmad et al., in their study entitled "Several Factors Affecting Firm Value Manufacturing in Indonesia," demonstrated that company profitability influences market value (Ahmad et al., 2022) . High profitability , coupled with substantial revenue, can increase a company's market capitalization, Tobin's q, and PBV. Therefore, the following hypothesis of this study is :

H 1 : ROI has an effect on Price Book Value

RESEARCH METHODS

Population and Sample

The population in this study is all companies in ASEAN countries that have complete reports on ROI and Price Book Value (PBV). Furthermore, the data used is non-outlier. The distribution of the data used is as follows.

Table 1
Sampling

1	Companies in ASEAN whose data researchers obtained in ASEAN through Refinitif	216
2	A company that consistently has reports for 3 years	205
3	Companies whose reported data is not an outlier	149

Data Analysis Techniques

The data analysis technique used in this study is simple linear regression. This analysis uses one independent variable, ROI, and one dependent variable, Price Book Value . Testing was conducted using SPSS statistical tools. The equation is as follows:

$$Y = \alpha + bx$$

Y = Price Book Value

X = Return on Investment

α = Constant

RESULTS AND DISCUSSION

Descriptive Analysis

Before conducting a more in-depth analysis and removing outliers, we conducted a descriptive statistical analysis . The results are shown in the figure below :

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Standard Deviation
ROI	149	.0010	.6890	.080235	.1005787
PBV	149	.1800	16.2500	1.525570E 0	1.8850745
Valid N (listwise)	149				

Figure 3
Descriptive Analysis

In Figure 1 above, we can see that the number of companies studied in this study was 149 companies. The minimum value shows 0.0010, which means the smallest ROI (*return on investment*) is 0.1%. The maximum value is 0.6890 or approximately 68.9%, indicating the highest profit obtained from the investment is 68.9%. The average ROI is 0.08 or 8%, this means that the average ROI is 8%. The standard deviation or level of deviation of the ROI is 0.10057.

Based on the results of descriptive statistical analysis, the Price Book Value (PBV) variable has a minimum value of 0.180 . This value indicates that the lowest observation on the PBV variable during the study period was 0.180 . Meanwhile, the maximum PBV value was recorded at 16.2500 , which indicates that the highest value obtained in the study sample reached 16.2500 .

In addition, the average (mean) value of the Price Book Value (PBV) variable is 1.52557000 . This average value illustrates that in general, the companies in the research sample had a Price Book Value (PBV) level of 1.52557000 during the observation period.

Normality Test

After conducting the descriptive analysis, another step is to conduct a normality test to ensure that the data used in this study is normally distributed and usable. Researchers conducted a normality test using the One Sample Kolmogorov-Smirnov test . The results are as follows :

Table 1.
One Sample Kolmogorov Smirnov

One-Sample Kolmogorov-Smirnov Test		Ln_PBV	Ln_ROI
N		149	149
Normal Parameters ^a	Mean	.0597	-2.9550
	Standard Deviation	.77534	.93490
Most Extreme Differences	Absolute	.097	.095
	Positive	.097	.095
	Negative	-.047	-.064
Kolmogorov-Smirnov Z		1,179	1,159
Asymp. Sig. (2-tailed)		.124	.136
a. Test distribution is Normal.			

In Table 1 above, we can see that the significance value (Asymp. Sig. (2-tailed)) is 0.124. This value is greater than 0.05, this shows that the PBV (*price book value*) is normally distributed. As for *Return on Investment* (ROI), it can be seen that the ROI value is 0.136, this value is greater than 0.05, which shows that the ROI data is normally distributed. In addition, to ensure that the data used in the study is normal, the researcher

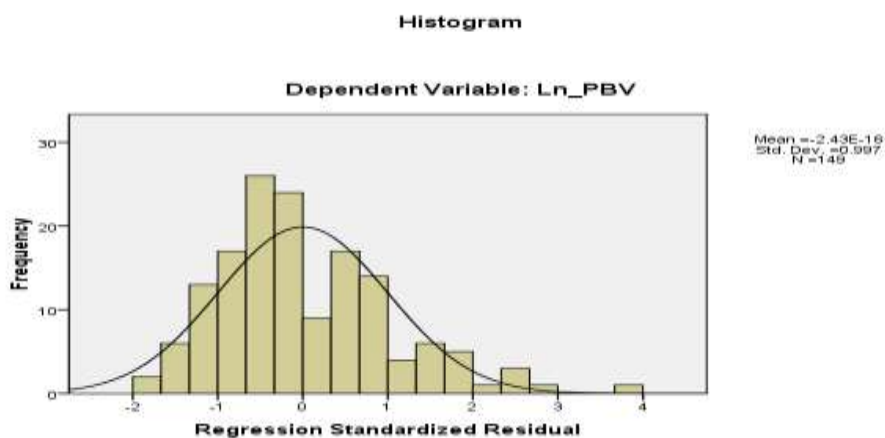


Figure 4
Histogram

Based on the results of the normality test using a histogram, it can be seen that the distribution of **the Regression Standardized Residuals** in the regression model with the dependent variable **Ln_PBV** forms a pattern resembling a bell *-shaped curve* . Most of the residual data is concentrated around the zero value and follows the normal curve line shown, although there are several observations that are on the right side of the distribution. Visually, the distribution of the residuals does not show significant deviations from the normal distribution.

In addition, the **mean value** The residual is **-2.43E -16** or close to **0** , with a **standard deviation of 0.997** which is very close to **1** , and the number of samples (**N**) is **149**. **These** results indicate that the residuals have been well standardized and generally meet the assumption of normality. Thus, it can be concluded that the regression model has met the assumption of normality and is therefore suitable for use in further regression analysis.

R² Test

The R2 test is used to determine the extent to which the independent variable can explain the dependent variable. For more details , see Table 3 below.

Table 3 R ² Test	
Results	R ² Test
Mark	0.253

Table 3 above shows an R2 value ^{of} 0.253, or 25.3%, meaning ROI can explain 25.3% of the company's value, while the remaining 74.7% is explained by factors other than ROI. This figure indicates that the company's level of profitability derived from investments is able to explain the company's value.

t-test

The results of the hypothesis test indicate that the profitability variable, proxied by *Return on Investment* (ROI), has a significance value of 0.002, which is lower than the 0.05 level. Furthermore, the regression coefficient obtained is 3.170, indicating a positive relationship. This can be seen in Table 4 below.

Table 4
t-test

Results	sig	t value
Test	0.002	3,170

These findings indicate that profitability has a positive and significant influence on firm value. Therefore, the hypothesis that profitability influences firm value is accepted. The higher a company's profitability, the greater its ability to create value for shareholders. This indicates that the company is effectively managing its assets, generating optimal profits. Profitability is a key indicator investors consider when assessing a company's future prospects.

This positive relationship also explains that any increase in **Return on Investment (ROI)** will be followed by an increase in company value, as proxied by **Price to Book Value (PBV)**. This indicates that companies with high profitability tend to receive better market valuations. Investors generally view companies with high profitability as having good growth prospects and relatively lower investment risk. Consequently, demand for the company's shares will increase, impacting share prices and company value. Therefore, profitability is a crucial factor that can increase investor confidence and strengthen a company's value in the capital market.

Discussion

Signaling Theory explains that information provided by a company regarding its financial condition can serve as a signal to investors when making investment decisions. Companies that demonstrate good financial performance are perceived as having promising business prospects and a strong ability to generate profits. This positive signal will increase investor confidence in the company, encouraging them to maintain or even increase their investments. The greater investor interest in a company's shares, the greater the chance of the company's value increasing in the market.

The results of this study align with the concept of Signaling Theory, which states that increased profitability sends a positive signal to the market. When a company successfully records high profits, investors will perceive the company as having good performance and promising growth potential. This assessment drives increased demand for the company's shares, which ultimately impacts share prices and company value.

Thus, profitability not only reflects a company's operational success but also acts as a factor in increasing investor confidence.

This finding is also supported by research conducted by Ahmad et al. in an article entitled " *Several Factors Affecting Firm Value Manufacturing in Indonesia .*" The study proves that profitability has a positive influence on company value in the market. High profit levels, accompanied by increased company revenue, can drive up company value indicators such as *market capitalization* , *Tobin's Q* , and *Price to Book Value (PBV)* . Therefore, the higher the profitability achieved by a company, the greater the company's opportunity to obtain a better assessment from investors and increase the company's overall value.

CONCLUSION

This study attempts to examine the effect of profitability, which in this study is *proxied* by ROI (*Return on Investment*), on company value, which is *proxied* by *Price Book Value* . This study was conducted in 5 (five) *ASEAN countries*. The number of companies studied was 149 companies. The results of the study indicate that ROI (*Return on Investment*) influences *Price Book Value* . This is because the significance value is 0.002. This indicates that if ROI increases, *Price Book Value will increase*.

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