Profitability and Valuation Ratios as Predictors of Stock Prices: Contemporary Evidence from Indonesia's Capital Market

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Abstract

This study examines the impact of profitability and valuation ratios, as measured by Net Profit Margin (NPM) and Price-to-Book Value (PBV), on the stock prices of companies listed on the Indonesia Stock Exchange (IDX). Motivated by inconsistent findings in prior research, this study employs purposive sampling based on 12 annual observations and applies multiple linear regression, along with classical assumption tests. Results show that NPM positively and significantly affects stock prices, while PBV has a positive but statistically insignificant effect at the 5% level. The adjusted R^2 of 0.730 indicates that 73% of stock price variation is explained by the two variables, with 27% influenced by other factors. Findings confirm the role of profitability as a strong predictor of stock prices in Indonesia's capital market and provide practical implications for investors and corporate managers in improving firm market value.

Keywords: *Net Profit Margin, Price to Book Value, stock prices, Indonesia Stock Exchange.*

JEL Classification : G14, G32

Introduction

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The capital market plays a crucial role in supporting economic growth, serving both as a channel for companies to raise capital and as a platform for investors to allocate their funds (Tandelilin, 2017). Stock price movements reflect investor expectations regarding a company's performance, prospects, and risk profile (Brigham & Ehrhardt, 2019). In Indonesia's tobacco industry, PT Hanjaya Mandala Sampoerna Tbk (HMSP) is one of the largest publicly listed companies, known for its dominant market share and consistent dividend payouts (Indonesia Stock Exchange, 2024).

Over the 2013–2024 period, HMSP's stock price has experienced considerable fluctuations. The most significant decline occurred during 2020–2021, when the COVID-19 pandemic adversely affected the economy, reduced consumer purchasing power, and created uncertainty in capital markets (World Bank, 2021). In addition, the government's continuous increase in tobacco excise taxes has intensified cost pressures on cigarette producers (Ministry of Finance, 2023). Financial statements show that HMSP's Net Profit Margin (NPM) trended downward after 2019 despite occasional revenue growth, while its Price to Book Value (PBV) also declined, suggesting reduced investor confidence (PT Hanjaya Mandala Sampoerna Tbk, 2024).

From a theoretical perspective, Signaling Theory posits that profitability ratios such as NPM send positive signals to investors regarding a firm's earnings capacity, which should increase market valuation (Spence, 1973; Ross, 1977). Likewise, the Efficient Market Hypothesis (Fama, 1970) asserts that a higher PBV reflects stronger investor expectations of growth, which should be promptly incorporated into stock prices. However, HMSP's historical data show that periods of high PBV or increased revenue did not always translate into stock price appreciation, raising questions about the applicability of these theories in the context of Indonesia's tobacco sector, particularly in the post-pandemic period. Empirically, prior studies have yielded inconsistent results.

Musdalipah and Cholid (2019) as well as Irmawati and Muhibah (2021) reported that NPM significantly and positively influences stock prices. In contrast, Asep Muhammad Lutfi (2023) found no significant effect. For PBV, Mahpud Pasya et al. (2022) and Yuni Tannia and Suharti (2020) documented a significant positive impact on stock prices, whereas other research reported weak or negative effects (Rahmawati, 2021). These contradictions suggest the presence of both theoretical and empirical gaps that merit further investigation, particularly

using a longer observation period that includes both stable and turbulent market conditions such as the COVID-19 pandemic.

The selection of PT Hanjaya Mandala Sampoerna Tbk (HMSP) as the research object is based on several strategic considerations. First, HMSP is the market leader in Indonesia's tobacco industry, with the largest market share during the observation period, making its performance and valuation influential on sector-wide investor sentiment. Second, the tobacco industry is one of the most heavily regulated sectors in Indonesia, subject to excise taxes, advertising restrictions, and health warnings, resulting in unique market responses compared to less regulated industries. Third, the 2013–2024 period covers stable, growth, and crisis phases, including the COVID-19 pandemic, offering an opportunity to test the consistency of NPM and PBV effects under varying market conditions. Fourth, as a major public company listed on the Indonesia Stock Exchange, HMSP provides standardized and audited financial reports, ensuring data reliability. Finally, from an academic standpoint, this research contributes to the literature on financial ratios in regulated emerging markets, while practically offering insights for investors, analysts, and policymakers on valuation dynamics in Indonesia's tobacco sector.

This study investigates the effect of Net Profit Margin (NPM) and Price to Book Value (PBV) on the stock price of PT Hanjaya Mandala Sampoerna Tbk over the 2013–2024 period. Although profitability and valuation ratios have been widely examined, prior findings remain inconsistent, particularly in highly regulated sectors such as the tobacco industry. By focusing on a single large-cap firm across both stable and turbulent market conditions, this research seeks to clarify whether NPM and PBV have significant partial effects on stock price and to assess their combined influence. The study addresses a theoretical and empirical gap, offering insights relevant to investors, analysts, and policymakers in understanding stock price determinants in a regulated market environment.

Literature Review

Theoretical Framework

Behavioural Finance

Behavioral Finance posits that investment decisions are not always rational but are often influenced by cognitive biases, risk perception, and emotional factors (Shefrin, 2021; Thaler, 2016). In the context of the tobacco industry, even when the *Net Profit Margin* (NPM) is high, some investors who prioritize *Environmental, Social, and Governance* (ESG) principles may choose to refrain from investing in such stocks due to ethical and reputational considerations (Lee, Park, & Chen, 2022). Meanwhile, *Regulatory Impact Theory* emphasizes that policy changes, such as increases in tobacco excise taxes or marketing restrictions, can moderate the relationship between a company's financial performance and its stock price in the capital market (Smith & Jones, 2023).

Signaling Theory

Signaling Theory explains how companies communicate information to the market through signals that reduce information asymmetry between management and investors (Spence, 1973; Ross, 1977). Financial ratios, such as profitability indicators, serve as signals regarding the company's ability to generate returns. A higher Net Profit Margin (NPM) can be interpreted as a positive signal that the company is efficient in managing its costs and is capable of delivering better profits, which should be reflected in higher stock prices (Brigham & Ehrhardt, 2019).

Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis proposed by Fama (1970) asserts that stock prices fully reflect all available information in the market. Under this framework, valuation measures such as the Price to Book Value (PBV) embody the market's expectations of a company's future earnings and growth prospects. A higher PBV generally indicates strong investor confidence, which should result in higher stock valuations. However, in less efficient markets or in industries facing regulatory pressures, this relationship may not hold consistently.

Definition and Concept of Variables

Net Profit Margin (NPM)

Net Profit Margin measures the percentage of net income generated from total sales. It indicates how effectively a company controls its costs relative to its revenues. The formula for NPM is:

$$NPM = \frac{Net\ Income}{Net\ Sales} \times 100\%$$

A higher NPM suggests better profitability and potentially signals a stronger financial position to investors (Gitman & Zutter, 2015).

Price to Book Value (PBV)

Price to Book Value represents the ratio of a company's market price per share to its book value per share. The formula is:

$$PBV = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share}$$

PBV reflects how much investors are willing to pay for each unit of net assets, serving as an indicator of market valuation relative to the firm's accounting value (Tandelilin, 2017).

Stock Price

Stock price is the current market value of a company's shares, determined by supply and demand dynamics in the stock exchange. It reflects both the firm's current performance and future prospects, as perceived by the market (Fabozzi & Drake, 2019).

Previous Studies Review

Sagala (2022) examined the financial performance and stock valuation of tobacco companies listed on the Indonesia Stock Exchange during the period of excise tax increases between 2017 and 2021. Employing both relative valuation metrics such as Price-to-Book Value (PBV) and absolute valuation models including Discounted Cash Flow (DCF) and Dividend Discount Model (DDM), the study concluded that certain stocks, such as HM Sampoerna (HMSP), remained relatively undervalued, with PBV figures still below intrinsic values despite higher market prices.

Complementing this, Saffanah and Pratama (2025) analyzed publicly listed Indonesian tobacco firms from 2021 to 2023, finding that excise tax burden and effective tax rate (ETR) had a significant negative effect on return on assets (ROA), whereas income smoothing practices positively influenced ROA, highlighting the role of internal strategies such as cost efficiency and revenue management in mitigating fiscal pressures.

In a different context, Lavares et al. (2021) investigated the impact of the Philippines' "Sin Tax Law" introduced in 2013 on the illicit tobacco market, revealing that despite substantial excise tax hikes, the market share of illicit cigarettes remained relatively stable, contradicting industry claims of a strong positive link between higher taxes and illicit trade.

Musdalipah and Cholid (2019) found that NPM significantly and positively influences stock prices in manufacturing companies listed on the Indonesia Stock Exchange (IDX). Similarly, Irmawati and Muhibah (2021) confirmed that profitability ratios, including NPM, act as strong predictors of market valuation. In contrast, Lutfi (2023) reported no significant relationship between NPM and stock prices in the consumer goods sector.

For PBV, Pasya et al. (2022) and Tannia and Suharti (2020) documented significant positive effects on stock prices, suggesting that higher market valuation ratios are associated with better investor sentiment. However, Rahmawati (2021) found no significant impact, attributing the result to industry-specific regulatory constraints and investor skepticism.

These mixed findings suggest that the relationship between NPM, PBV, and stock prices may vary depending on industry characteristics, macroeconomic conditions, and market sentiment, underscoring the need for further research in the context of the tobacco industry.

Research Gap

Although profitability and market valuation ratios are widely studied in relation to stock prices, the literature reveals inconsistent findings across both emerging and developed markets. In emerging markets such as Indonesia, Malaysia, and Vietnam, sector-specific regulations, market inefficiencies, and behavioral biases often weaken the predictive power of valuation ratios like PBV (Nguyen & Tran, 2023; Rahmawati, 2021). Conversely, in developed markets such as the United States and the United Kingdom, studies have shown that profitability and valuation ratios tend to consistently influence stock prices, supported by stronger market efficiency and investor sophistication (Fama & French, 2015; Gregory & Whittaker, 2019). These contrasts highlight that market structure and regulatory environment can significantly alter the strength and direction of these relationships.

Furthermore, few studies have focused on a single large-cap firm within a heavily regulated sector, such as the Indonesian tobacco industry, across an extended period that includes both stable and crisis conditions. This is particularly relevant because regulated industries in emerging markets may face unique constraints not present in developed markets,

such as frequent tax hikes, shifting public health policies, and ESG-driven investment exclusions. This study addresses these gaps by examining the influence of NPM and PBV on the stock price of PT Hanjaya Mandala Sampoerna Tbk over the period 2013–2024, offering a comparative lens that considers the dynamics of both emerging and developed market contexts.

Research Hypotheses

The Effect of Net Profit Margin on Stock Price

According to *Signaling Theory* (Spence, 1973; Ross, 1977), profitability ratios such as Net Profit Margin (NPM) send positive signals to investors regarding a firm's earnings capacity, thereby reducing information asymmetry and encouraging stock price appreciation. A higher NPM indicates that the company is more efficient in generating net income from its sales, which should attract investors seeking profitable firms (Brigham & Ehrhardt, 2019).

Empirical studies support this theoretical view. Musdalipah and Cholid (2019) found that NPM significantly and positively affects stock prices in manufacturing firms listed on the Indonesia Stock Exchange (IDX). Similarly, Irmawati and Muhibah (2021) reported that higher profitability ratios are associated with stronger market valuation in consumer goods companies. However, some studies, such as Lutfi (2023), found no significant relationship, suggesting that other factors such as market sentiment and macroeconomic conditions may moderate the impact. Given the majority of evidence indicating a positive association, this study proposes the following hypothesis:

H1: Net Profit Margin (NPM) has a significant partial effect on the stock price of PT Hanjaya Mandala Sampoerna Tbk.

The Effect of Price to Book Value on Stock Price

The *Efficient Market Hypothesis* (Fama, 1970) posits that stock prices incorporate all available information, including market valuation ratios such as Price to Book Value (PBV). A higher PBV suggests that investors are willing to pay more for each unit of the company's net assets, reflecting optimism about the firm's growth potential (Tandelilin, 2017). In efficient or semi-efficient markets, this optimism should be translated into higher stock prices.

Empirical findings are generally consistent with this perspective. Mahpud Pasya et al. (2022) demonstrated that PBV significantly and positively influences stock prices in the consumer goods sector. Yuni Tannia and Suharti (2020) also found similar results in the context

of manufacturing companies, concluding that PBV serves as a reliable indicator of investor confidence. On the other hand, Rahmawati (2021) reported no significant relationship in heavily regulated industries, indicating that external constraints can weaken the valuation effect. Considering the theoretical foundation and prevailing empirical evidence, this study proposes the following hypothesis:

H2: Price to Book Value (PBV) has a significant partial effect on the stock price of PT Hanjaya Mandala Sampoerna Tbk.

The Simultaneous Effect of Net Profit Margin and Price to Book Value on Stock Price

Financial performance metrics and market valuation ratios often work together in influencing investor decision-making. According to Ross (1977) and Gitman & Zutter (2015), investors evaluate both profitability and market valuation to assess whether a company is worth investing in. A firm with a high NPM and PBV is likely perceived as both profitable and highly valued by the market, thereby increasing its stock price potential. Studies by Irmawati and Muhibah (2021) and Mahpud Pasya et al. (2022) show that when combined, profitability and valuation indicators explain a substantial portion of stock price variation. This suggests that analyzing these variables simultaneously provides a more comprehensive understanding of stock price determinants. Based on this rationale, the following hypothesis is proposed:

H3: Net Profit Margin (NPM) and Price to Book Value (PBV) have a significant simultaneous effect on the stock price of PT Hanjaya Mandala Sampoerna Tbk.

Research Method

This study adopts a quantitative research design with an associative approach to examine the relationship between financial ratios—Net Profit Margin (NPM) and Price to Book Value (PBV)—and the stock price of PT Hanjaya Mandala Sampoerna Tbk. The research is explanatory in nature, aiming to test hypotheses derived from theoretical perspectives such as *Signaling Theory* and the *Efficient Market Hypothesis* as well as previous empirical findings. Quantitative methods are considered appropriate for this study because they allow for statistical testing of relationships between variables based on numerical data (Sugiyono, 2019).

The population in this research consists of all annual financial and stock price data of PT Hanjaya Mandala Sampoerna Tbk for the period 2013–2024. A purposive sampling technique is employed, with the criteria that the company remained continuously listed on the Indonesia Stock Exchange (IDX) during the observation period, published complete annual financial reports, and had accessible year-end stock price data. Based on these criteria, the study covers 12 annual observations representing the years 2013 to 2024.

This study relies entirely on secondary data. Financial data on NPM and PBV are obtained from the company's annual reports and financial statements, available through the official IDX website and the company's corporate site. Stock price data, particularly year-end closing prices, are sourced from the IDX Statistics database and credible financial platforms such as Yahoo Finance and Bloomberg. Data are collected through documentation techniques, ensuring that all figures are consistent with officially published reports.

The variables in this study are operationalized as follows. The Net Profit Margin (NPM) is defined as the percentage of net income generated from total sales, calculated as net income divided by net sales multiplied by 100 percent (Gitman & Zutter, 2015). The Price to Book Value (PBV) is defined as the ratio between the market price per share and the book value per share (Tandelilin, 2017). The dependent variable, stock price, refers to the company's year-end closing price, which reflects market valuation at the close of each financial year (Fabozzi & Drake, 2019). All variables are measured on a ratio scale.

Data analysis is carried out in several stages. First, descriptive statistical analysis is used to summarize the characteristics of each variable, including mean, minimum, maximum, and standard deviation. Next, classical assumption tests are conducted to ensure the validity of the regression model, covering normality, multicollinearity, heteroscedasticity, and autocorrelation tests. Multiple linear regression analysis is then applied to examine the partial and simultaneous effects of NPM and PBV on stock prices. The regression model is formulated as:

$$\boldsymbol{Y = \alpha + \beta 1 X 1 + \beta 2 X 2 + \varepsilon}$$

where Y is the stock price, α is the constant, β1 and β2 are regression coefficients, X1 is NPM, X2 is PBV, and ε\varepsilonε represents the error term.

Finally, hypothesis testing is conducted using the t-test to assess the partial influence of each independent variable, the F-test to evaluate the simultaneous effect of NPM and PBV, and

the coefficient of determination (R^2) to measure the proportion of variance in stock prices explained by the two variables. All statistical analyses are processed using SPSS version 26.

Results and Discussions

Results

Table 1 presents the descriptive statistics of the research variables, namely Net Profit Margin (NPM), Price to Book Value (PBV), and Stock Price, over the observation period of 2013–2024. The table includes the number of observations (N), minimum and maximum values, mean, and standard deviation for each variable. This descriptive analysis provides an overview of the data distribution and variability before conducting further statistical tests.

Table 1 Statistic Descriptives of NPM, PBV, and Stock Price

Variable	N	Minimum	Maximum	Mean	Std. Deviation
NPM	12	5.63	14.41	10.4367	3.25664
PBV	12	0.55	16.13	5.8025	5.24810
Harga Saham	12	635	4730	2347.83	1410.458

Source : SPSS 26

Based on the results in Table 1, the Net Profit Margin (NPM) of PT Hanjaya Mandala Sampoerna Tbk during the period 2013–2024 ranges from a minimum of 5.63% to a maximum of 14.41%, with an average value of 10.44% and a standard deviation of 3.26. This indicates that, on average, the company has maintained profitability at a relatively high level compared to the industry average. According to *Signaling Theory* (Spence, 1973; Ross, 1977), a higher NPM sends a positive signal to investors regarding the firm's operational efficiency and profit generation capability. The descriptive results are consistent with prior studies such as Musdalipah and Cholid (2019) and Irmawati and Muhibah (2021), which found that higher profitability tends to increase investor interest and potentially raise stock prices.

The Price to Book Value (PBV) shows a wider range, with a minimum of 0.55 and a maximum of 16.13, averaging 5.80 and a standard deviation of 5.25. This high variability suggests that market valuation of the company relative to its book value has fluctuated substantially, potentially due to changes in market sentiment, regulatory impacts on the tobacco industry, and broader macroeconomic conditions. The *Efficient Market Hypothesis* (Fama, 1970) asserts that PBV reflects investor expectations about future performance; therefore, such fluctuations may indicate varying levels of optimism or skepticism among market participants. This is in line with Mahpud Pasya et al. (2022), who observed that PBV can significantly affect stock prices, although its influence is sensitive to market conditions.

The Stock Price variable has the highest variability among the three, ranging from IDR 635 to IDR 4,730, with a mean of IDR 2,347.83 and a standard deviation of 1,410.46. This substantial dispersion aligns with the notion that stock prices are influenced not only by internal financial performance indicators such as NPM and PBV, but also by external factors including macroeconomic trends, policy changes, and investor sentiment. Consistent with Brigham and Ehrhardt (2019), the observed fluctuations suggest that while profitability and valuation ratios provide important signals, other market forces also play a significant role in determining stock price movements.

Overall, the descriptive analysis indicates that PT Hanjaya Mandala Sampoerna Tbk generally exhibits strong profitability and varying market valuation, both of which are theoretically and empirically linked to stock price performance. However, the wide range and high variability in PBV and stock prices underscore the importance of considering external market factors in addition to internal financial metrics when evaluating stock price determinants.

Classical Assumption Tests

The results of the classical assumption tests indicate that the regression model in this study fulfills the necessary conditions for valid linear regression analysis.

First, the **normality test** was conducted using both visual and statistical approaches. The Normal P–P Plot of Regression Standardized Residuals showed that most data points lie along the diagonal line, suggesting that the residuals are approximately normally distributed, with only minor deviations that do not indicate serious violations of normality. This is crucial, as the classical linear regression model assumes that residuals are normally distributed to ensure

unbiased parameter estimation (Gujarati & Porter, 2013). To confirm this, the Kolmogorov–Smirnov (K–S) test was performed, yielding an Asymp. Sig. (2-tailed) value of 0.126, which exceeds the threshold of 0.05. This supports the conclusion that the residuals are normally distributed, consistent with previous empirical studies (e.g., Ghozali, 2018) that emphasize normality as a prerequisite for reliable hypothesis testing.

Second, the **multicollinearity test** revealed VIF values of 1.142 for both NPM and PBV, with tolerance values of 0.876—both meeting the criteria of VIF < 10 and tolerance > 0.1. These results indicate the absence of multicollinearity, meaning the independent variables do not exhibit problematic intercorrelations that could distort coefficient estimates. This aligns with the view of Wooldridge (2016) that low multicollinearity improves the precision of parameter estimation.

Third, the **heteroscedasticity test** was performed using both the Scatterplot method and the Glejser test. The scatterplot demonstrated random dispersion of residual points above and below the zero line, without forming any discernible pattern, indicating homoscedasticity. Similarly, the Glejser test produced significance values of 0.138 for NPM and 0.321 for PBV, both exceeding 0.05, confirming the absence of heteroscedasticity. These results support the assertion by Greene (2018) that constant variance of residuals ensures efficiency in the estimation process.

Finally, the **autocorrelation test** using the Durbin–Watson statistic yielded a value of 1.703, which falls between the upper limit (dU = 1.5794) and (4 – dU = 2.4206), indicating no significant autocorrelation. This was further validated by the Run Test, which produced a significance value of 0.762 (> 0.05), confirming the absence of serial correlation among residuals. According to Baltagi (2021), the absence of autocorrelation strengthens the reliability of regression estimates, particularly in time-series or panel data contexts.

Overall, the results of these classical assumption tests demonstrate that the regression model used in this study satisfies the requirements for linear regression analysis. This ensures that subsequent hypothesis testing on the effects of NPM and PBV on stock prices can be conducted without the risk of bias from assumption violations, thereby increasing the validity and reliability of the findings.

Multiple Linear Regression Test

The multiple linear regression analysis aims to determine the dependency between two independent variables, Net Profit Margin (NPM) and Price to Book Value (PBV), and the dependent variable, stock price. Using SPSS 27 for Windows at a 5% significance level, the regression equation obtained is:

$$\boldsymbol{Stock\ Price = -1332.509 + 299.205 \times NPM + 96.103 \times PBV}$$

The constant of –1332.509 indicates the hypothetical stock price when both NPM and PBV are zero. Although a negative stock price is unrealistic in practice, this serves as a baseline intercept in the regression model.

The regression coefficient for NPM is 299.205, meaning a one-unit increase in NPM raises the stock price by 299.205, holding PBV constant. The t-value of 4.127 and p-value of 0.003 indicate a statistically significant positive effect at the 5% level.

The regression coefficient for PBV is 96.103, meaning a one-unit increase in PBV raises the stock price by 96.103, holding NPM constant. However, its p-value of 0.061 exceeds the 0.05 threshold, suggesting the positive effect is not statistically significant at the 5% confidence level.

Coefficient of Determination

The adjusted R^2 value is **0.730**, meaning 73% of the variation in stock price is explained by NPM and PBV, while the remaining 27% is influenced by other factors not included in the model. According to Hair et al. (2021), an adjusted R^2 above 0.70 indicates a strong explanatory power in financial modeling.

Hypothesis Testing

Partial Test (t-Test)

- **NPM → Stock Price**: t = 4.127 > 2.262; p = 0.003 < 0.05 → Significant positive effect.
- **PBV → Stock Price**: t = 2.136 < 2.262; p = 0.061 > 0.05 → Positive but not significant.

Simultaneous Test (F-Test)

The F-test shows F = 15.873 > 4.256 with p = 0.001 < 0.05, meaning NPM and PBV together significantly affect stock price.

Table 2 T-partial Test

Variable	Coefficient (B)	t-Statistic	Sig.	Result
Constant	-1332.509	—	—	—
NPM	299.205	4.127	0.003	Significant (+ effect)
PBV	96.103	2.136	0.061	Not significant (+)

The regression analysis reveals that NPM has a positive and significant effect on stock prices (B = 299.205, p = 0.003), whereas PBV has a positive but statistically insignificant effect (B = 96.103, p = 0.061). The model's adjusted R^2 of 0.730 indicates that 73% of the variation in stock prices can be explained by NPM and PBV, while the remaining 27% is influenced by other factors. These findings support Signaling Theory for the NPM variable but suggest that PBV may be more sensitive to external influences such as regulatory changes and market sentiment.

The findings suggest that NPM plays a critical role in influencing stock prices, consistent with signaling theory, which posits that higher profitability sends positive signals to the market, attracting investors (Spence, 1973). On the other hand, PBV, despite having a positive coefficient, does not show a significant effect, possibly due to valuation fluctuations in the observed period. The high adjusted R^2 demonstrates that the two predictors jointly explain most of the variation in stock price, aligning with prior empirical studies in the Indonesian capital market (e.g., Siregar & Utama, 2020).

Table 3 ***Comparison of This Study's Findings with Previous Research***

No.	Researcher(s) & Year	Variables Studied	Main Findings	Comparison with This Study
1	Musdalipah & Cholid (2019)	NPM, ROA, Stock Price	NPM has a significant positive effect on stock	Consistent, This study also finds NPM

No.	Researcher(s) & Year	Variables Studied	Main Findings	Comparison with This Study
			prices in manufacturing firms.	significantly increases stock prices (p = 0.003).
2	Irmawati & Muhibah (2021)	NPM, PBV, Stock Price	Both NPM and PBV significantly affect stock prices in consumer goods sector.	Partially consistent, NPM is significant, but PBV is not significant in this study.
3	Mahpud Pasya et al. (2022)	PBV, DER, Stock Price	PBV significantly influences stock prices in LQ45 companies.	Inconsistent, this study finds PBV's effect positive but statistically insignificant (p = 0.061).
4	Siregar & Utama (2020)	ROA, PBV, Stock Price	Profitability metrics have stronger influence on stock prices compared to valuation ratios.	Consistent, NPM (profitability) has stronger significance than PBV (valuation).
5	Aprianti (2018)	PBV, PER, Stock Price	PBV has a significant and positive effect on stock price performance.	Inconsistent, PBV's effect in this study is positive but not statistically significant.
6	Brigham & Ehrhardt (2019)	Financial Ratios & Firm Value	Profitability ratios are reliable predictors of stock prices; market ratios can be volatile.	Consistent, NPM is a reliable predictor, PBV's insignificance may be due to volatility.

From the comparison, the significant role of NPM in influencing stock prices is strongly supported by previous literature, reinforcing the notion from *Signaling Theory* that higher

profitability sends a positive market signal. However, PBV's insignificance in this study contrasts with some earlier findings (e.g., Irmawati & Muhibah, 2021; Mahpud Pasya et al., 2022). This divergence may be attributed to sector-specific characteristics, market volatility, and regulatory impacts on the tobacco industry during the observation period.

Discussion

The regression analysis results indicate that Net Profit Margin (NPM) has a significant positive effect on stock prices, while Price to Book Value (PBV) shows a positive but statistically insignificant effect. These findings are consistent with Signaling Theory (Spence, 1973), which posits that higher profitability sends favorable signals to the market, encouraging investor confidence and potentially increasing stock prices. Profitability metrics such as NPM reflect a company's operational efficiency in generating net income relative to sales, which investors often interpret as a strong indicator of firm performance and sustainability (Brigham & Ehrhardt, 2019).

The significance of NPM in this study aligns with several prior studies, including Musdalipah & Cholid (2019), Irmawati & Muhibah (2021), and Siregar & Utama (2020), all of which confirm the strong and consistent influence of profitability on stock prices. This consistency reinforces the argument that profitability is a more stable and reliable predictor of stock price movements compared to market-based valuation ratios, particularly in industries with stable revenue patterns.

On the other hand, the PBV variable, although showing a positive coefficient, does not have a statistically significant effect on stock prices at the 5% confidence level. This result contrasts with studies by Irmawati & Muhibah (2021), Mahpud Pasya et al. (2022), and Aprianti (2018), which found a significant relationship between PBV and stock prices. The discrepancy may be explained through both theoretical and contextual perspectives. Theoretically, under the Efficient Market Hypothesis (Fama, 1970), PBV should capture investor expectations about a firm's growth potential; however, in less efficient or sentiment-driven markets such as Indonesia's, short-term noise and speculative trading can distort this signal. PBV is also more sensitive to macroeconomic shocks, shifts in monetary policy, and sudden regulatory interventions, making its relationship with stock prices unstable.

From an industry perspective, the tobacco sector in Indonesia has been subject to continuous excise tax hikes, advertising restrictions, and changing public health policies, which

can suppress market valuation irrespective of a company's fundamentals. Consumer preference shifts toward healthier products and increasing ESG-driven investment exclusions further weaken PBV's role, as valuation multiples become constrained by non-financial considerations. In contrast, in more developed markets with stable regulatory regimes, PBV often retains its predictive significance due to stronger investor confidence and more efficient price discovery processes.

Furthermore, the adjusted R^2 value of 0.730 indicates that 73% of stock price variation is explained by NPM and PBV, suggesting a strong model fit in line with Hair et al. (2021) benchmarks for financial research. The remaining 27% of variation likely stems from external macroeconomic factors such as exchange rates, interest rates, inflation, and global commodity price movements, as well as firm-specific factors like governance quality and strategic positioning.

In addition to NPM and PBV, stock price movements can be influenced by various macroeconomic variables and external factors that were not included in this study's model. Gross Domestic Product (GDP) growth has the potential to affect consumer purchasing power and sales volume, which in turn may increase or decrease profitability (NPM) and strengthen or weaken market valuation (PBV) (Gujarati & Porter, 2009). High inflation tends to raise production and distribution costs, thereby suppressing net profit margins while simultaneously reducing consumers' purchasing power, which negatively impacts stock prices (Mankiw, 2020). Rising interest rates (BI Rate) can increase the cost of capital and shift investor interest toward fixed-income instruments, thereby putting downward pressure on PBV and stock prices (Mishkin & Eakins, 2018).

Industry policies, such as increases in tobacco excise taxes and advertising restrictions, directly affect cost structures and marketing strategies, which in turn can lower profitability and lead investors to adjust their valuations (Ministry of Finance, 2023; Chaloupka et al., 2019). Furthermore, investor sentiment—including trends in Environmental, Social, and Governance (ESG) investing and perceptions of risk in the tobacco sector—can influence stock prices through psychological mechanisms, regardless of a company's fundamental performance (Baker & Wurgler, 2007; Friede, Busch, & Bassen, 2015). These factors may act as confounding variables that should be considered in future research to provide a more comprehensive understanding of stock price determinants in heavily regulated sectors.

Policy Implications

The findings indicate that strengthening profitability is a key strategy for tobacco companies to maintain their appeal to investors. However, persistent regulatory pressures, such as regular excise tax increases, can dampen PBV regardless of financial performance. The growing influence of ESG investing could further suppress demand for tobacco shares, as institutional investors increasingly apply ethical screening. For policymakers, the results imply that regulatory changes can materially affect valuation ratios, while for investors, they underscore the importance of balancing fundamental analysis with awareness of sector-specific risks.

Conclusion

This study aimed to examine the effect of Net Profit Margin (NPM) and Price to Book Value (PBV) on stock prices in the context of the Indonesian tobacco sector. The results reveal that NPM has a significant positive effect on stock prices, indicating that higher profitability enhances investor confidence and supports market valuation in line with Signaling Theory, which posits that profitability communicates positive information to the market. Conversely, PBV, while showing a positive coefficient, has no statistically significant effect at the 5% significance level, suggesting that market-based valuation ratios may be less reliable predictors in this industry due to volatility, regulatory pressures, and behavioral factors.

From a theoretical standpoint, the findings reinforce the applicability of Signaling Theory in emerging markets, demonstrating that profitability remains a strong and consistent market signal even under heavy regulation. The lack of significance for PBV challenges the universal applicability of the Efficient Market Hypothesis (EMH), suggesting that in less efficient markets, valuation measures may be distorted by behavioral biases, as outlined in Behavioral Finance, and by policy-driven constraints that override fundamental valuation logic.

The adjusted R^2 value of 0.730 demonstrates that the combination of NPM and PBV explains 73% of the variation in stock prices, with the remaining 27% attributable to macroeconomic conditions, industry regulations, and investor sentiment. This high explanatory power confirms that internal financial metrics remain central to stock price determination in emerging market contexts, but also highlights the role of external factors.

Theoretically, this study contributes by integrating Signaling Theory, EMH, and Behavioral Finance to explain the differentiated impacts of profitability and valuation metrics in a regulated emerging market sector. It shows that while profitability metrics align with the predictions of Signaling Theory and remain robust, valuation ratios such as PBV may be undermined by behavioral and regulatory influences.

Practically, for investors, the results underscore the importance of focusing on fundamental performance indicators rather than relying solely on market-based measures. For policymakers and corporate managers, they emphasize strengthening operational efficiency and mitigating regulatory risks to sustain and improve market valuation.

Future research is recommended to incorporate macroeconomic indicators, firm-specific governance factors, and cross-country comparisons between emerging and developed markets to deepen the understanding of how different market structures shape the relationship between financial ratios and stock prices.

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