Examining Dividend Policy as a Mediating Variable in Stock Price Trends: Evidence from the Indonesian Basic Materials

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Abstract:
This research investigates the impact of financial ratios, including profitability, liquidity and solvency, on stock prices, with dividend policy as a mediator, in the Indonesian raw materials sector. The analysis covers 100 samples from 25 of companies listed on the Indonesia Stock Exchange (BEI) from 2019 to 2022. The research aims to explore stock price fluctuation trends and examine the relationship between financial ratios and stock prices, as well as the role of dividends policy in mediating this relationship. The findings show that profitability and liquidity are important factors in determining stock prices, while solvency does not influence stock prices, nor does dividend policy play an important role in mediating the relationship between variables. It is hoped that these findings will provide insight for investors, policy makers and industry stakeholders in navigating Indonesia's dynamic construction materials market.

Keywords: financial ratios, stock price, dividend policy, raw materials sector

1. Introduction
Indonesia's 260 million people, large infrastructure investments, and urbanization have all contributed to the country's rapid development, which brings both benefits and challenges. To close the 20 million home gap in the nation, building supplies, equipment, and finishes are desperately needed. Local factories are rising to meet the increasing demand and logistical restrictions, but the transportation of materials is made more difficult by high inflation and inadequate infrastructure. By increasing local production capacity to close the demand-supply gap, the Jokowi administration hopes to improve logistics and open up new project prospects. This is especially important as currency volatility drives up import costs (Nalarreason et al., 2019).

Over the next four years, Indonesia expects a spike in large infrastructure projects, including ports, trains, highways, dams, and power plants with a 35,000 MW capacity. Cooperation with national construction businesses and prioritizing local labor and materials are key. Indonesia has the greatest potential for development in construction spending, which is expected to increase by 5.2% yearly between 2014 and 2019, according to Asia Construction Outlook.

Government deregulation has boosted Indonesia’s appeal as an investment destination, with the construction sector consistently contributing to national GDP growth despite challenges such as rising infrastructure costs and declining company liquidity (Ali et al., 2021).

The fluctuations in closing stock prices of Indonesian building materials companies from 2018 to 2023 indicate inconsistent performance increases (Sholichah et al., 2021). In order to evaluate performance, investors must examine all relevant aspects affecting a company's state, such as financial reports and ratios. Profitability, liquidity, and solvency are important financial indicators that have a big impact on stock prices.

(Admi, n.d.) analyzed 141 manufacturing companies from 2015 to 2019, discovering that profitability positively and significantly influenced stock returns, while leverage and liquidity had no such effect. Additionally, dividend policy did not mediate the impact of these variables on stock returns, indicating that investors place greater emphasis on profitability than on other financial metrics when making investment decisions. (Sholichah et al., 2021) examined 24 consumer goods companies from 2011 to 2018, finding that profitability, solvency, and dividend policy directly affected share prices. However, dividend policy did not
mediate the effects of profitability and solvency, suggesting that while direct financial performance is crucial, the role of dividend policy as an intervening variable might be limited.

Profitability, reflecting a company's ability to generate income (Yuniningsih, Pertwi, et al., 2019) directly impacts investor confidence and stock prices. Higher profitability typically signals stability and growth potential, attracting investors and boosting share prices, whereas declining profitability may indicate potential problems, deterring investment (Sholichah et al., 2021; Sitorus & Elinarty, 2017).

Liquidity, which indicates a company's capacity to meet short-term obligations, is another critical factor (Fitri & Wikartika, 2022). High liquidity reassures investors of financial health, potentially increasing share prices. However, excessive liquidity might suggest inefficient resource utilization, negatively affecting profitability and share value (Admi, n.d.; Hestiatay et al., 2023; Sitorus & Elinarty, 2017).

Solvency, the company's ability to meet long-term debt obligations, affects investor perceptions of financial stability. Effective debt and equity management can enhance solvency ratios, bolster investor confidence, and elevate share prices. Conversely, high debt levels may signal financial risk, deterring investment (Elizabeth Sugiarto Dermawan, 2019; Marsela & Yantri, 2021).

Dividend policy acts as a mediator between financial ratios and share prices, guiding profit allocation and signaling management effectiveness (Yuniningsih, Taufiq, et al., 2019). Consistent dividends often reflect strong financial health, positively influencing share prices by attracting investors seeking reliable returns. Conversely, an inconsistent dividend policy may indicate financial instability, negatively affecting share prices (Rahmawati & Amboningtyas, 2017).

Signal theory posits that the actions taken by corporations convey vital information to investors, thereby shaping their perceptions of share prices (Nurkhasanah & Nur, 2022; Yuniningsih et al., 2018). By interpreting these signals, managers can ensure that market perceptions accurately reflect the company's health and future prospects, which is crucial for long-term success (Hertina & Hidayat, 2019). The trade-off theory suggests that firms weigh the advantages of debt financing against the risks associated with financial distress when making solvency decisions (Marsela & Yantri, 2021). This theory underscores the importance of strategically managing financial ratios to enhance shareholder value in fluctuating market environments (Wikartika & Fitriyah, 2018).

The purpose of this research is to look into the patterns in Indonesian basic materials company closing stock prices between 2019 and 2022. It will look at how financial ratios; profitability, liquidity, and solvency in particular, affect stock prices and how dividend policy plays a moderating role in these impacts. Through the analysis of these characteristics, the research hopes to provide investors, policymakers, and industry stakeholders with useful information for navigating the dynamic construction materials market in Indonesia.

2. Literature Review

The Relationship Between Profitability With Stock Price

Profitability measures a company's ability to generate profits using its resources and is a key indicator of industry performance (Nurai & Suwaidi, 2022). The profitability ratio, aimed at combining funding sources for operations, is crucial for investors seeking dividends or profits from shares (Nurron & Ichsanuddin Nur, 2022). Therefore, profitability's impact on stock prices is vital information for investors (Hestiatay et al., 2023). In this study, profitability is measured by the Net Profit Margin (NPM), which assesses a company's profit relative to its sales:

\[
RNPM = \frac{Earnings\ After\ Tax}{Total\ Sales} \times 100\%
\]

Sumber: (Sitorus & Elinarty, 2017)

A company's profitability has a big impact on how investors perceive its stock price, according to signaling theory. A steady stream of profits attracts investors and drives up stock values because it indicates stability, expansion, and competent management. On the other hand, decreasing or stagnating profits signal possible issues, which lowers stock prices and undermines investor confidence. Basically, because it shows the possible returns on an investor's investment, profitability is a critical consideration for investors when choosing whether to purchase a company's shares. (Siregar, 2021).

The Relationship Between Liquidity With Stock Price

Kashmir (2013) states that the liquidity ratio measures a company's ability to meet its short-term debts, indicating financial health. The Current Ratio, calculated by dividing current assets by current liabilities, is
used to assess this liquidity. Companies with high liquidity ratios often avoid debt, preferring to use their internal funds (Nuraini & Suwaidi, 2022; Nurkhasanah & Nur, 2022). The formula for the Current Ratio, according to (Sitorus & Elinarty, 2017), is:

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

Source: (Sitorus & Elinarty, 2017)

A company's liquidity, or its ability to manage short-term debt, affects stock prices & impacts income and investor returns. Optimal liquidity suggests a company can meet future obligations, positively signaling investors. However, excessively high liquidity can imply idle funds and lower profits, negatively impacting stock prices (Admi, n.d.). According to signaling theory, a company's cash position indicates its financial health and future prospects. While high liquidity reassures investors of the company's ability to pay short-term debts, it may also signal inefficiencies, potentially lowering share prices. Research by (Hestiatay et al., 2023) confirms that liquidity influences share prices, as investors favor companies that can meet their current obligations, thus driving up share prices in line with signaling theory.

The Relationship Between Solvability With Stock Price
Solvency, also known as leverage, refers to a company's capability to settle debts in full during liquidation (Sholichah et al., 2021). The Debt to Asset Ratio (DAR) calculates the relationship between total debt and total assets, reflecting how much of a company's assets are financed through borrowing (Yuniningsih et al., 2018). This ratio is crucial for assessing financial stability, as it shows the extent to which creditors fund the company. Essentially, Debt to Asset Ratio indicates the proportion of debt relative to assets, providing insight into the company's financial management. The formula for DAR, according to (Siagian et al., 2021) is:

\[
DAR = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100\%
\]

According to (Marsela & Yantri, 2021), solvency is a financial metric that shows how a business balances capital and debt in its expansion plans. A high solvency ratio indicates a significant reliance on debt funding, which could lower share values if profits put investor dividends behind debt service. On the other hand, a lower solvency ratio denotes less debt, which may raise share values since more earnings can be distributed as dividends. Trade-off theory, which looks at how businesses balance debt and equity, is frequently used to study the relationship between a company's solvency ratio and its share price. By controlling these variables well, the solvency ratio can rise, indicating sound financial standing.

Dividend Policy as Intervening Variable
Dividend policy directs how a company allocates profits to shareholders or reinvests in its growth (Deitiana, 2011) It defines the portion of profits designated for dividends, which serves as a critical signal for investors, reflecting management effectiveness and future prospects. Increased dividends, stemming from higher cash flows or a strategic shift from growth investments, often indicate strong company performance (Murhadi, n.d.). Assessing dividend policy involves metrics like the Dividend Payout Ratio (DPR), which shows the percentage of earnings distributed to shareholders. A higher DPR means less funds available for operations. Additionally, dividend policy, as described by (Putra & Rasyid, 2020), dividend payout ratio encompasses consistency in dividend payments over time, whether in cash, shares, or buybacks. Below is the dividend payout ratio formula used to formulate dividend policy:

\[
DPR = \frac{\text{Dividend per Share}}{\text{Earning per Share}}
\]

Sumber: (Sholichah et al., 2021)

Dividend Policy as Intervening Variable
Dividends play a crucial role in signaling a company's management effectiveness and future prospects to the capital markets (Deitiana, 2011). Increased dividends, driven by higher cash flows or strategic shifts away from intensive growth investments, often indicate strong company performance (Murhadi, n.d.). Profitability directly impacts share prices through dividend policy, as companies that consistently distribute dividends tend to attract investors seeking future returns (Sholichah et al., 2021). Higher share prices resulting from
increased dividends can provide capital for expanding production and enhancing profitability (Rahmawati & Amboningtyas, 2017). Conversely, reduced profitability can lower share prices, highlighting the link between dividend policy and share price impact.

Dividend policy acts as a mediator between liquidity and stock prices, reflecting signaling theory. Adjustments in dividend policy signal a company's financial health and future outlook, influencing investor demand and share prices. Increased dividends signal confidence in stable cash flows, attracting investors and impacting liquidity dynamics and share valuations. Conversely, reduced or eliminated dividends may signal financial challenges or growth investments, affecting risk perceptions and stock prices. Understanding actual liquidity positions through fund flow analysis is crucial before determining dividend policy (Block et al., 2011).

In the framework of trade-off theory, dividend policy mediates between solvency and share prices. Companies balancing dividend payments with investment opportunities signal financial stability and solvency to investors. Stable dividends reassure investors of sufficient earnings while maintaining solvency, potentially boosting share prices. Conversely, high dividend payout ratios may imply limited debt repayment capability or growth prospects, potentially lowering share prices. Thus, dividend policy influences perceptions of solvency and investment attractiveness, impacting stock prices within trade-off theory.

3. Research Method

The population in this study consisted of 106 raw materials sector companies listed on the Indonesia Stock Exchange (BEI), as defined by Sugiono (2016). Samples representing part of the population were selected using purposive sampling to meet certain criteria that were in line with the research objectives with the final result being 100 samples. This research uses secondary data in the form of annual financial reports including balance sheets, profit and loss reports, annual reports, and closing share prices for the 2019-2022 period sourced from www.idx.co.id and www.finance.yahoo.com. Data analysis used quantitative inferential methods with multiple linear regression using SPSS for Windows Ver.23, and the Sobel test to support the mediating variable hypothesis. Figure 1 below is the conceptual framework of this research.

Figure 1: Conceptual Framework

4. Result and Discussion

4.1 Result

Table 1: Classical Assumption Test Results, Coefficient of Determination and Simultaneous Test

<table>
<thead>
<tr>
<th>No</th>
<th>Model</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uji Kolmogorov-Smirnov (Normalitas)</td>
<td>0.122</td>
</tr>
<tr>
<td>2</td>
<td>Uji Multikolinearitas</td>
<td>VIF &lt; 10 ; Tolerance &gt; 10</td>
</tr>
<tr>
<td>3</td>
<td>Uji Glejser (Heterokedastisitas)</td>
<td>&gt;0,05</td>
</tr>
<tr>
<td>4</td>
<td>Uji Durbin-Watson (Autokorelasi)</td>
<td>0.974</td>
</tr>
</tbody>
</table>
Table 1 shows that the data is normally distributed with the normality test result being 0.122 which is greater than 0.05. Furthermore, the data in this study is free from multicollinearity because the Variance Inflation Factor (VIF) value of all independent variables is < 10 and the Tolerance value is > 0.10. Therefore, it can be concluded that there was no multicollinearity problem in this study. The significance value of the variables Profitability (X1), Liquidity (X2), Solvency (X3) and Dividend Policy (Z) each has a value of > 0.05, this shows that there is not a single independent variable that statistically influences the dependent variable in terms of residual absolute value so that the regression model does not show heteroscedasticity. The Durbin-Watson test was obtained with a value of 0.974. This value is in the range -2 to +2 which indicates there is no autocorrelation in the regression model.

The R square value of this research is 0.375 or 37.5%. So it can be said that 37.5% of share prices are influenced by Profitability, Liquidity, Solvency and Dividend Policy in the sample used in this research. The remaining 62.5% is influenced by other variables not examined in this research. The F test via ANOVA shows a significant result of 0.000 which is <0.05. This shows that all independent variables jointly influence the dependent variable in the research.

Furthermore, for direct and indirect influences between variables, testing was carried out using direct and indirect methods. The direct method is carried out via the multiple linear regression t test.

From direct testing in table 2, the multiple linear regression equation is obtained as follows:

\[ Y = 74,314 + 231,389 \text{NPM} - 35,480 \text{CR} - 65,781 \text{DAR} + e \]

The constant value of 74.314 indicates that if all variables X have a value of zero (0), then the share price is 74.314. The regression coefficient for the NPM variable is 231.389, indicating that an increase in profitability of one unit results in an increase in share prices of 231.389, assuming the other variables are zero. On the other hand, the liquidity variable has a regression coefficient of -35,480, which shows that an increase in liquidity of one unit causes a decrease in share prices of 35,480 under similar conditions. Finally, the regression coefficient for the solvency variable is -65,781, which means that an increase in solvency by one unit results in a decrease in share prices of 65,781 assuming all other variables are zero.

Testing the significance of the mediation effect was carried out using the sobel test method. Decision making is based on significance value (two tailed probability). If the two tailed probability (p-value) value is <0.05, it can be concluded that there is a mediation effect. The results of the sobel test can be seen in table 3.
The analysis results show that Dividend Policy does not significantly mediate the relationship between Profitability and Share Prices, as indicated by the two-sided probability value of 0.153 > 0.05. Likewise for Liquidity, the probability value of 0.807 > 0.05 indicates that there is no significant mediating influence on Share Prices through Dividend Policy. In addition, the Solvency probability value of 0.462 > 0.05 indicates that Dividend Policy does not significantly mediate the effect of Solvency on Share Prices.

4.2 Discussion

Profitability Effects Price Stock Positively
Profitability, as gauged by the Net Profit Margin, plays a pivotal role in driving share prices, establishing a clear correlation where higher profitability correlates with elevated share values. The Net Profit Margin, derived by dividing net profit by total revenue, illuminates a company's efficiency in translating sales into profits, serving as a critical gauge of financial robustness and market competitiveness. Research on 25 companies on the Indonesia Stock Exchange shows Net Profit Margin ranging from 0.6% to 40.5%, with higher margins generally associated with stronger profitability and higher share prices. Research by recent studies from (Sholichah et al., 2021) and (Kusnandar & Sari, 2020) which underscore profitability's positive impact on share prices. This underscores the pivotal role of profitability metrics in guiding investor expectations regarding future earnings and operational performance (Kusnandar & Sari, 2020; Sholichah et al., 2021).

Liquidity Effects Stock Price Negatively
Based on the results of hypothesis testing, the Current Ratio, a measure of liquidity indicating a company's ability to meet short-term obligations with current assets, exhibited a significant negative impact on share prices. This suggests that as liquidity increases, share prices tend to decline. Across the sample of 25 companies, the average Current Ratio stood at 1.44, reflecting moderate liquidity. The negative p-value from the t-test affirms this inverse relationship between liquidity and stock prices, aligning with signaling theory. Investors often perceive high liquidity as indicative of potential inefficiencies or missed growth opportunities, which can diminish the valuation of these companies. This conclusion is supported by studies conducted by (Anggadini et al., 2022), underscoring the importance of evaluating liquidity alongside growth strategies when making investment decisions.

Solvability Doesn’t Effect Stock Price
Based on the findings from hypothesis testing, the Debt to Asset Ratio, as a measure of solvency, does not indicate a significant impact on stock prices. The t-test results confirm the lack of statistical significance in the relationship between debt to asset ratio and share price, stemming from higher leverage being associated with a higher debt-to-asset ratio, which has the potential to negatively impact solvency and share price. Companies with large debts relative to their assets face higher financial risks, affecting their ability to meet obligations and maintain financial stability. This implies that changes in solvency levels alone do not noticeably affect stock prices, suggesting that investors base their investment decisions on factors beyond solvency metrics alone. Companies with higher debt to asset ratios typically face greater financial risks, potentially impacting their ability to meet financial obligations and maintain stability. Studies by (Hestiatay et al., 2023) corroborate these findings, highlighting that solvency metrics are not pivotal in influencing stock prices, as investors prioritize other critical factors in their investment assessments.

Dividend Policy Can’t Mediate The Effect of Profitability to Stock Price
Dividend policy does not act as a significant mediator in the relationship between profitability and share prices. This indicates that while profitability increases and influences dividend payouts, it does not necessarily lead to changes in share prices. Profitability, measured through net profit margin, directly impacts share prices by indicating strong financial performance and future potential, independent of dividend policy (Sholichah et al., 2021). (Bangun & Natsir, 2021) support this perspective, noting that higher net profit margins generally correlate with higher share prices, irrespective of dividend distributions. This finding aligns with (Akhmadi et al., 2021), who argue that companies may not consistently adjust dividend ratios in response to improved profitability, reflecting varying corporate strategies and investment priorities.
Therefore, while dividends provide insights into company health for investors, they do not serve to mediate the influence of profitability on share prices. This underscores investors' emphasis on financial performance metrics over dividend policy decisions (Admi, n.d.; Al-Malkawi et al., n.d.).

**Dividend Policy Can’t Mediate The Effect of Liquidity to Stock Price**

Dividend policy does not serve as a significant mediator in the relationship between liquidity (measured by the Current Ratio) and share prices. This indicates that higher liquidity levels, as influenced by the Dividend Payout Ratio, do not lead to fluctuations in share prices. The dividend policy, measured by actual dividend payments, does not moderate the impact of liquidity, particularly the current ratio, on share prices. According to (Stereńczak & Kubiak, 2022), high liquidity, characterized by a substantial current ratio and large current liabilities, can negatively impact stock prices due to heightened financial risks. Dividend distributions are not contingent upon liquidity management decisions. This underscores that while dividends can signal future profitability to investors, they do not counteract the adverse effect of high liquidity on share prices (Bustami & Haikal, 2019). This perspective supports the notion that dividend decisions are driven more by profitability considerations than by liquidity constraints, reinforcing investor perceptions of the company's financial health and prospects.

**Dividend Policy Can’t Mediate The Effect of Solvability to Stock Price**

Dividend policy does not act as a mediator in the relationship between solvency (measured by the Debt-to-Asset Ratio) and share prices. This indicates that higher levels of solvency, reflected in the Dividend Payout Ratio, do not significantly affect fluctuations in share prices. The lack of a substantial mediating role for dividend policy suggests that solvency itself does not exert a significant influence on share prices, as evidenced by research highlighting investors' limited consideration of the company's debt-to-asset ratio in market valuation (Riyanti & Hanifah, 2021). Furthermore, dividend payments do not mitigate the impact of high debt and assets on stock prices (Hestiatay et al., 2023) (Hestiatay, Machmuddah, and Tah, 2023). Studies (Admi, n.d.; Sholichah et al., 2021) reinforce this finding, emphasizing that dividend distribution primarily hinges on profitability rather than the company's management of debt, underscoring the pivotal role of profit generation in determining dividend levels.

5. **Conclusion**

The research findings indicate that profitability significantly boosts share prices, whereas liquidity exerts a notable negative impact. However, solvency does not emerge as a decisive factor affecting share prices. Moreover, the study concludes that dividend policy does not play a mediating role between profitability, leverage, liquidity, and share prices. Companies are advised to concentrate on enhancing profitability and effectively managing liquidity, as these factors directly influence share prices. Investors are encouraged to prioritize evaluating a company's profitability and liquidity when making investment choices, given that higher profitability tends to correlate with superior investment returns. The study's limitations include the insufficient sample size of raw materials companies meeting specific criteria, highlighting the necessity for an extended research period to gather broader data for analysis. Additionally, several hypotheses tested did not find support, suggesting that alternative ratios for assessing leverage and liquidity might yield different research outcomes.

**References**


