

Asian Journal of Economics, Business and Accounting

Volume 25, Issue 10, Page 318-330, 2025; Article no.AJEBA.145208 ISSN: 2456-639X

Dividend Policy, Profitability and ERP Implementation as Determinants of Stock Price Volatility: Evidence from Indonesia

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: https://doi.org/10.9734/ajeba/2025/v25i102017

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here:

https://pr.sdiarticle5.com/review-history/145208

Original Research Article

Received: 29/07/2025 Published: 09/10/2025

ABSTRACT

Aims: This study examines the effect of Dividend Payout Ratio (DPR), Enterprise Resource Planning (ERP) implementation, and profitability measured by Return on Assets (ROA) on stock price volatility in companies listed on the Indonesia Stock Exchange (IDX).

Study Design: A quantitative approach with panel data regression is applied to firms observed during 2022–2024.

Place and Duration of Study: Sample: The study was conducted on IDX-listed companies across all sectors during the 2022–2024 observation period.

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Cite as: Nur Asiyah Febriana, Anis Muviqotul Azizah, Dian Rahmawati, Indah Yuliana, and Mega Noerman Ningtyas. 2025. "Dividend Policy, Profitability and ERP Implementation As Determinants of Stock Price Volatility: Evidence from Indonesia". Asian Journal of Economics, Business and Accounting 25 (10):318–330. https://doi.org/10.9734/ajeba/2025/v25i102017.

Methodology: the sample consists of firms with available secondary data on ERP, ROA, DPR, and stock volatility. Data analysis was performed using descriptive statistics, classical assumption tests, and panel regression with E-views 12.

Results: The findings show that higher DPR is associated with lower stock volatility, supporting the dividend signaling theory that dividends convey stability and positive prospects to investors. ERP implementation has no significant effect, yet its role in enhancing transparency and operational efficiency highlights potential contributions to market efficiency. ROA also shows no significant impact, suggesting that profitability is not a primary driver of volatility.

Conclusion: Dividend policy emerges as the most relevant factor in reducing volatility, while ERP provides a non-financial perspective on risk through improved disclosure. These insights benefit both managers in strategy formulation and investors in assessing risk-return trade-offs.

Keywords: Enterprise resource planning; dividend payout ratio; profitability; return on assets; stock price volatility; Indonesia stock exchange.

1. INTRODUCTION

In the last three years, the Indonesian capital market has shown quite volatile dynamics. Based on data from Bloomberg and the Indonesia Stock Exchange (2024) the average annual volatility of the Jakarta Composite Index (JCI) was recorded at 23.65% in 2022, decreased to 20.8% in 2023, but increased again to the range of 21-22% until mid-2024. This condition reflects that the stability of the Indonesian stock market is still vulnerable to various changes, both economic and geopolitical in nature. High volatility not only reflects increased uncertainty among investors, but also increases the potential for systemic risk to listed companies. Volatile investor sentiment tends to exacerbate market stress, increasing likelihood of systemic disruptions, especially in the event of a crisis or external stress (Escobari & Jafarinejad, 2019). Although high volatility is often perceived as a signal of instability, some investors actually see it as an opportunity to achieve greater capital gains (Handayani et al., 2018)

One example of a sector on the Indonesian Stock Exchange that exhibits volatile stock price movements is IDXTECHNO. The IDXTECHNO Index Fact Sheet published by the Indonesia Stock Exchange in December 2024 shows that the technology sector continues to exhibit very high volatility. This is reflected in the 3-year annualized standard deviation value of 27.31%, as well as the spread of monthly performance between index constituents, which ranges from +166.23% to -258.92% in just one trading period. This finding confirms that the technology sector in Indonesia has a much greater degree of risk and price volatility compared to other sectors in the capital market (IDX, 2024).

Fig. 1 shows the movement of the IDXTECHNO index over the period 2018 to the end of 2024, displaying a much more extreme fluctuation pattern compared to other benchmark indices such as JCI and LQ45. A dramatic spike occurred in 2021, when IDXTECHNO recorded an annual increase of +707.6%, driven by the post-pandemic digitalization euphoria and the listing of several new technology companies.

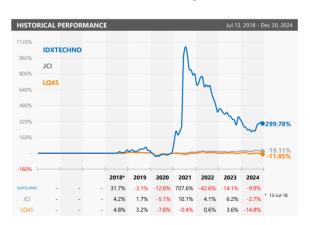


Fig. 1 Share price movement from 2018-2024

However, this rally was short-lived, as the index experienced a sharp correction in 2022 (-42.6%) and continued to decline in 2023 (-14.1%), reflecting profit-taking and waning investor interest in technology stocks. Entering 2024, the index moved into a stabilization phase with a relatively smaller decline (-9.9%), indicating that market participants began to reassess sector valuations more cautiously. Compared to the relatively stable JCI and LQ45 over the same period, these fluctuations confirm that the technology sector is highly sensitive to shifting sentiment and external shocks.

The sharp movements that occur in the technology sector reflect the high level of volatility that is strongly influenced by external factors such as global macroeconomic dynamics, regulations, and rapidly changing market expectations. The high volatility that occurs in the technology sector indicates that investors' perceptions of the value of technology companies tend to be unstable and vulnerable to temporary changes in information. The high volatility of stock prices also reflects the nonoptimal internal information and financial management system of the company, therefore increasing uncertainty for investors in decision making(Shaker et al., 2023). Therefore, it is important to analyze the factors that influence corporate policies, such as dividend policy, profitability, and the implementation of the latest systems, to understand their influence on market perceptions and stock price stability (Josua Sirait et al., 2021). The relevance of this study is even stronger considering that the technology sector has a strategic role as the main driver of Indonesia's digital economic growth in the postpandemic era (Purba et al., 2025).

In line with these developments, advances in information technology play an important role in improving the effectiveness of fund management and company operational activities. One of the main innovations is the implementation of Enterprise Resource Planning (ERP), which is a software-based integrated management system that covers various core business functions, ranging from finance, production, marketing, to supporting functions such as procurement, distribution, cash flow management, human resources, quality control, and electronic services (Abdelall & Wu, 2023; Roup & Purwanto, 2022). ERP implementation has the potential to reduce stock price volatility because it can improve the quality, transparency, and speed of providing financial information, thereby reducing information asymmetry and uncertainty in the

market (Cao et al., 2024). With more reliable and transparent financial reports, investor confidence will be stronger, which in turn suppresses the risk of excessive speculation and market reactions to unclear rumors and promotes stock price stability. Abdelall & Wu, (2023) research in Egypt also proves that ERP adoption significantly lowers stock price volatility through improved information quality, transparency, and operational efficiency that reduces uncertainty in the eyes of investors.

The company's financial performance represented through Return on Assets (ROA) plays an important role in shaping investors' perceptions of the company's risk and stability (Sukmawati & Garsela, 2016). A high ROA indicates management's ability to optimize assets to generate profits, so the company is considered healthy and has a positive outlook. which in turn increases investor confidence and suppresses stock price volatility (Baillie & DeGennaro, 1990; Kasmir, 2012). Conversely, a decline in ROA raises concerns over the effectiveness of asset management and triggers market uncertainty (Garg & Gupta, 2024). However, the relationship between ROA and volatility is not always consistent as it is influenced by external factors and investor sentiment (Balcilar et al., 2019). Meanwhile, dividend policy also serves as an important signal to investors (Bhatta & Duwal, 2021). Dividend Payout Ratio (DPR) is often used to assess the stability of the company; the higher the DPR, the lower the stock volatility because dividends provide certainty and reduce investor uncertainty (Angelina et al., 2023; Azhariyah et al., 2021; Hussainey et al., 2011).

Although the effect of ERP, ROA, and DPR on stock price volatility has been widely studied, there is still a research gap in the Indonesian capital market. Most previous studies focus on developed countries or specific sectors, so the results cannot be generalized to all sectors on the IDX. In addition, studies that integrate information technology factors (ERP) financial indicators (ROA and DPR) are still rare, even though the combination has the potential to provide a more comprehensive understanding of the dynamics of stock volatility. The lack of studies in the post-pandemic period of COVID-19 with a high level of market fluctuations also strengthens the urgency of this research. Therefore, this study aims to analyze the effect of ERP, ROA, and DPR on stock price volatility in all sectors on the IDX, with the hope of making a theoretical contribution to emerging market literature as well as practical implications for company management and investors.

2. REVIEW OF LITERATURE

2.1 Agency Theory

Agency theory explains the contractual relationship between shareholders as principals and management as agents, where management is authorized to make decisions in the interests of shareholders (Eisenhardt, 1989; Jensen Meckling, 1976). Agency conflicts arise when the principal has difficulty ensuring that the agent acts to maximize his welfare, resulting in asymmetry that information provides opportunities for managers behave to opportunistically, for example through earnings manipulation (Oriekhoe et al., 2024; Zhou, 2023). In this context, Enterprise Resource Planning (ERP) systems play an important role because they improve internal control, data integration. and transparency so as to reduce agency costs and potential report manipulation (Devi & Aryani, 2024). Opportunistic managerial practices and low information quality can increase stock price volatility and market risk, while implementation of ERP and consistent dividend policies, such as Dividend Payout Ratio (DPR), are believed to reduce uncertainty and align the interests of agents and principals (Eka et al., 2021).

2.2 Signaling Theory

Correspondingly, signaling theory (Spence, 1973) states that companies disclose information as a signal to investors regarding the company's performance and condition, where financial statements serve as a signal that can affect the value of shares and assist investors in making decisions (Marundha et al., 2022). In the context of dividend policy, signaling theory explains that a company's prospects are reflected through dividend announcements. Ross, (1977) asserts that an increase in dividend payments will increase investor valuations, while a cessation or cut in dividends will decrease these valuations. Therefore, the market responds to dividend announcements as financial signals, where the dividend payout ratio represents managers' predictions of the firm's future cash flows.

2.3 Perception of Dividend Payout Ratio

Dividend Payout Ratio (DPR) is the ratio of net income distributed as cash dividends and

according to signaling theory Spence, (1973) serves as a signal of the company's financial stability (Dwi Tamam & Nahda, 2024). A high DPR reflects stable performance and cash flow so that it can reduce market uncertainty and reduce stock volatility (Heliani et al., 2021). Empirical research supports this, such as Angelina et al (2023); Hashemijoo et al (2012); Siti Maysaroh & Handayani (2025) who found a significant negative relationship between DPR and volatility, while Trihadiyanti et al., (2023) showed that low DPR actually increases volatility. Therefore, a high DPR gives a positive signal, lowers risk, and suppresses stock price volatility (Naz & Siddiqui, 2020). Based on these arguments, the hypothesis is formulated as follows:

H₁: Dividend payout ratio affects stock price volatility.

2.4 Perception of Return on Assets

According to Signaling Theory Spence, (1973) Return on Assets (ROA) signals profitability which reflects the efficiency of the company in generating profits. High ROA provides a positive signal to investors about the company's prospects and stability, which can affect stock price volatility. Empirical findings are mixed, with some studies showing a significant effect and others not (Subadriyah et al., 2022). In the context of this study, ROA is expected to influence investor perceptions and impact stock price volatility (Putri & Syaichu, 2023; Rompas, 2022). Based on these arguments, the hypothesis is formulated as follows:

H₂: Profitability as measured by return on assets affects stock price volatility.

2.5 Perception of Enterprise Resource Planning

According to Jensen & Meckling, (1976) agency explains the relationship between theory shareholders (principal) and management which (agent) often creates information asymmetry, because management has more control over internal information shareholders. This condition can lead to agency problems and supervisory costs (agency costs). The implementation of enterprise resource planning (ERP) is an important instrument to reduce information asymmetry by presenting integrated, accurate, and timely financial and operational data (Sri et al., 2024; Yoro, 2024).

More transparent and reliable information will reduce investor uncertainty, thereby reducing the potential for overreaction to new information that often triggers stock price volatility (Caporale & Plastun, 2019). This is reinforced by research by Abdelall & Wu, (2023) which shows that ERP adoption in Egypt significantly reduces stock price volatility, especially in companies with weak governance and high levels of information asymmetry. Therefore, ERP implementation plays a role in improving information quality and suppressing market uncertainty, which in turn can reduce stock price volatility. Based on these arguments, the hypothesis is formulated as follows:

H₃: Enterprise resource planning affects stock price volatility.

3. RESEARCH METHODOLOGY

This study employs a population consisting of all companies listed on the Indonesia Stock Exchange (IDX) during the period 2022–2024. The selected timeframe is considered relevant as

it represents a phase of heightened market volatility following the substantial index surge in 2021, the subsequent correction in 2022-2023, and the stabilization period in 2024. Thus, it provides an appropriate context for examining the role of firm-specific internal factors in mitigating stock price fluctuations. The sample was determined using a purposive sampling technique based on the availability of data on Dividend Payout Ratio (DPR), Return on Assets (ROA), Enterprise Resource Planning (ERP) implementation, and stock price volatility, resulting in 166 eligible firms or 498 firm-year observations (Sugiyono, 2018). Secondary data were collected through documentation of annual reports and IDX publications. The analysis was conducted using panel data regression with the assistance of EViews software. Model selection was performed through the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test, while classical assumption tests such multicollinearity and heteroskedasticity applied to ensure the validity and reliability of the estimated model.

Table 1. Operational definitions and measurements

| Variable | Description |
|---------------------------------------|--|
| Dividend Payout Ratio (DPR) | Percentage of net income distributed to shareholders in the form of cash dividends (Ajao & Robinson, 2022; Husna & Satria, 2019; Smith, 1992) |
| Return On Assets (ROA) | A ratio that shows the company's ability to generate net income based on its total assets (Hanafi, 2008; Hery, 2014; Trihadiyanti et al., 2023). |
| Enterprise Resource Planning (ERP) | An integrated information system used by a company to manage and coordinate all resources, information, and business functions (Abdelall & Wu, 2023) |
| Stock Price Volatility (PV) | The level of stock price fluctuation, calculated by the standard deviation of daily stock price returns (Hull, J. C. 2018). |

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The descriptive statistics of the variables indicate that stock price volatility has an average of 0.245, suggesting a relatively low fluctuation in the sample firms (Ghozali, 2018). The dividend payout ratio averages 0.445 with a wide dispersion, reflecting that while most firms distribute moderate dividends, a few distribute exceptionally high or even negative payouts (Khan, 2020). Around 34.6% of the firms have implemented ERP systems, while the rest have not. Return on assets shows a relatively low mean (0.077), indicating modest profitability. The high skewness and kurtosis values in stock price volatility and dividend payout ratio suggest the presence of outliers, implying heterogeneous firm characteristics.

4.2 Model Selection and Assumption Tests

4.2.1 Model Selection

In this study, to determine the best panel regression model, three tests were used, namely the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test.

A. Chow Test

The Chow test is used to select between the common effects and fixed effects models. The test results show:

Table 2. Chow Test Results

| Redundant Fixed Effects Tests | | | | | |
|-------------------------------|----------------------------------|-----------|--------|--|--|
| Equation: Untitled | Equation: Untitled | | | | |
| Test cross-section fi | Test cross-section fixed effects | | | | |
| Effects Test | Statistic | d.f. | Prob. | | |
| Cross-section F | 0.938833 | (165,327) | 0.6738 | | |
| Cross-section Chi- | 192.344754 | 165 | 0.0714 | | |
| square | | | | | |

The Chow test results show a cross-section F-probability value of 0.6738, which is greater than 0.05. Therefore, the fixed effect model is not superior to the common effect model. This indicates that differences in characteristics between companies are not significant enough to influence the relationship between the independent and dependent variables. Therefore, the common effect model is more appropriate than the fixed effect model.

B. Hausman Test

The Hausman test is used to select between the fixed effect and random effect models. The test results show:

Table 3. Hausman Test Results

| Correlated Random Effects - Hausman Test Equation: Untitled | | | | |
|---|-------------------|--------------|--------|--|
| Test cross-section random effects | | | | |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. | |
| Cross-section random | 0.577108 | 3 | 0.9017 | |
| ** WARNING: estimated cross-section random effects variance is zero | | | | |

The Hausman test results show a probability value of 0.9017 (>0.05), indicating that the random effects model is more appropriate than the fixed effects model. However, the final decision is not based solely on the Hausman test but also takes into account the results of the Chow and LM tests.

C. Lagrange Multiplier (LM) Test

The LM test is used to compare common effects and random effects. The test results show:

Table 4. Lagrange Multiplier (LM) Test Results

| Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives | | | | | | |
|--|-----------------|----------|----------|--|--|--|
| Test Hypothesis | Test Hypothesis | | | | | |
| | Cross-section | Time | Both | | | |
| Breusch-Pagan | 0.247847 | 0.069693 | 0.317540 | | | |
| | (0.6186) | (0.7918) | (0.5731) | | | |

The LM test yielded a Breusch-Pagan probability value of 0.6186 (>0.05), indicating that the Random Effects model was no better than the Common Effects model.

Based on the three tests above, both the Chow Test and the LM Test indicated the Common Effects Model as the best model for this study. Therefore, subsequent regression estimation was performed using Panel Least Squares (PLS) on the Common Effects model.

4.2.2 Classical Assumption Test Results

A. Multicollinearity Test

One of the assumptions of classical linear regression is the absence of multicollinearity, indicating that there is no relationship between variables in a regression model. A good regression model should be free of multicollinearity, as indicated by a correlation coefficient value of <0.8, indicating no symptoms of multicollinearity. However, a correlation coefficient value of >0.8 indicates the presence of multicollinearity.

Table 5. Multicollinearity Test Results

| | DPR | ERP | ROA |
|-----|---------------------|---------------------|---------------------|
| DPR | 1 | 0.02736898999429406 | 0.1530494972697536 |
| ERP | 0.02736898999429406 | 1 | 0.07027532077037049 |
| ROA | 0.1530494972697536 | 0.07027532077037049 | 1 |

Based on Table 5 above, it shows that all variables have coefficient values <0.8, which can be concluded that the model does not experience symptoms of multicollinearity.

B. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether the residuals from the model have constant variance. A good model is one in which the variance of each disturbance or residual is constant. The required result in this test is that the independent variable has a probability value (p-v-value) above the 0.05 or 5% significance level.

Table 6. Method of Heteroscedasticity Test

Dependent Variable: ABS(RESID) Method: Panel Least Squares Date: 08/09/25 Time: 10:39

Sample: 2022 2024 Periods included: 3

Cross-sections included: 166

Total panel (unbalanced) observations: 496

| Variable | Coefficient | Std. Error | t-Statistic | Prob. | |
|----------|-------------|------------|-------------|--------|--|
| С | 0.057518 | 0.009266 | 6.207679 | 0.0000 | |
| DPR | 0.005343 | 0.011295 | 0.473079 | 0.6364 | |
| ERP | 0.003034 | 0.010979 | 0.276351 | 0.7824 | |
| ROA | -0.110999 | 0.072035 | -1.540915 | 0.1240 | |

Based on the heteroscedasticity test results using the Panel Least Squares method on the absolute residual variable (ABS(RESID)), it can be interpreted that all independent variables have probability values (p-values) above the 0.05 significance level. Specifically, the Dividend Payout Ratio (DPR) has a p-value of 0.6364, Enterprise Resource Planning (ERP) has a p-value of 0.7824, and Return on Assets (ROA) has a p-value of 0.1240. A p-value greater than 0.05 indicates that each independent variable has no significant effect on the absolute residual value.

Therefore, it can be concluded that the panel regression model used does not experience

heteroscedasticity, or in other words, the error variance the model is relatively in (homoscedastic). condition constant This indicates that the model meets one of the classical assumptions, the making resulting coefficient estimates more reliable because they are not biased by variance inhomogeneity.

4.3 Regression Results

4.3.1 The panel regression results

The panel regression results are presented in Table 7. The coefficient of DPR is negative (-0.0239) and close to statistical significance (p =

0.055), indicating that higher dividend payouts may reduce stock volatility, although the evidence is not strong. ERP implementation shows a positive but insignificant effect (p = 0.324), suggesting that ERP adoption is not directly associated with market stability. ROA also has a negative but insignificant effect (p = 0.692), implying that profitability alone does not reduce stock price volatility. The model's explanatory power is low ($R^2 = 0.01$), meaning that most variations in volatility are driven by other factors outside the model.

4.4 Discussion

4.4.1 The Effect of Dividend Payout Ratio (DPR) on Stock Price Volatility

Based on the results of statistical testing, the dividend payout ratio (DPR) has a negative influence on stock price volatility, although the effect is relatively weak. DPR describes the company's policy of distributing profits to shareholders and is an indicator of financial stability (Husna & Satria, 2019). In line with signal theory, dividend payments are seen as a form of management communication to investors regarding the prospect of stable cash flow and healthy performance (Farida et al., 2024). The greater the proportion of profit distributed, the

more positive the market perception of the company's prospects, so that stock price volatility tends to decrease. This finding is consistent with the research of Allen & Rachim (1996); Devi & Aryani (2024); Eka et al (2021); Hashemijoo et al (2012) & Hussainey et al (2011). However, this result is different from (Naz & Siddiqui, 2020) who found a positive relationship between DPR and stock price volatility.

4.4.2 The Influence of Enterprise Resource Planning on Stock Price Volatility

The test results show that ERP implementation does not have a significant effect on stock price volatility. Theoretically, according to agency theory, ERP should be able to increase transparency and reduce information asymmetry between management and shareholders, thereby potentially reducing volatility (Boshkoska, 2015). However, these empirical findings indicate that investors have not fully taken into account the benefits of ERP. Limited public disclosure regarding the success of ERP implementation and the dominance of external factors such as macroeconomic conditions and market sentiment are likely the main causes. Thus, although ERP expected to reduce uncertainty, effectiveness in reducing volatility in Indonesian capital market is still unclear.

Table 7. The panel regression results

Dependent Variable: PV Method: Panel Least Squares Date: 08/09/25 Time: 10:14

Sample: 2022 2024 Periods included: 3

Cross-sections included: 166

Total panel (unbalanced) observations: 496

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|--------------|----------------------|-----------|
| С | 0.254178 | 0.010194 | 24.93429 | 0.0000 |
| DPR | -0.023905 | 0.012426 | -1.923703 | 0.0550 |
| ERP | 0.011924 | 0.012078 | 0.987205 | 0.3240 |
| ROA | -0.031456 | 0.079251 | -0.396913 | 0.6916 |
| R-squared | 0.010082 | Mean depen | dent var | 0.245246 |
| Adjusted R-squared | 0.004045 | S.D. depend | lent var | 0.127953 |
| S.E. of regression | 0.127694 | Akaike info | criterion | -1.270332 |
| Sum squared resid | 8.022399 | Schwarz crit | erion | -1.236408 |
| Log likelihood | 319.0424 | Hannan-Qui | Hannan-Quinn criter. | |
| F-statistic | 1.670207 | Durbin-Wats | Durbin-Watson stat | |
| Prob(F-statistic) | 0.172506 | | | |

4.4.3 The Effect of Profitability (ROA) on Stock Price Volatility

Based on statistical testing results, it is stated that Return on Assets has no effect on stock price volatility. Return on Assets (ROA) is a profitability ratio that measures a company's ability to utilize all of its assets to generate net income. In the framework of signal theory, ROA represents management efficiency in utilizing assets to generate profits (Jonnius & Marsudi, 2021). In theory, a high ROA should send a positive signal to the market that the company is managed efficiently, so that the risk is considered lower (Dina Sentika et al., 2024). However, these results show that the market does not respond significantly to changes in ROA. This can occur when investors view ROA information as a historical indicator that is less relevant for predicting future performance, or when this information is already reflected in the stock price prior to the observation period.

This study is in line with research conducted by Assous (2022) & Crisanti et al (2024) which states that ROA values can be a positive signal, but the study shows that investors do not really use it as a benchmark or main determinant in investment decisions. Thus, in this context, ROA loses its signaling function because it is considered less relevant and less influential on market expectations.

5. CONCLUSION

The results show that the Dividend Payout Ratio (DPR) has a negative effect on stock price volatility, although the effect is relatively weak. This suggests that higher dividend distribution reduces uncertainty in stock prices, consistent with signaling theory which posits that dividends provide positive signals about a firm's stability and future prospects. In contrast, ERP implementation does not significantly affect stock price volatility, indicating that investors may not yet fully consider ERP adoption in their decisionmaking due to limited transparency and disclosure of its outcomes. Furthermore, Return on Assets (ROA) also shows no significant influence, implying that profitability information may already be reflected in stock prices.

These findings highlight the role of dividend policy as a more relevant factor for investors in mitigating volatility in the Indonesian technology sector. Companies are encouraged to maintain a consistent and transparent dividend payout to strengthen investor confidence. In addition, firms

should improve disclosure related to ERP implementation, for example through annual reports or public exposures, so that its potential benefits are more visible to the market. Investors, on the other hand, should prioritize DPR in investment analysis while also considering broader fundamental and external factors implementation, for example through annual reports or public exposures, so that its potential benefits are more visible to the market. Investors, on the other hand, should prioritize DPR in investment analysis while also considering broader fundamental and external factors.

This study is limited by its focus on a narrow set of variables and a relatively short observation period. Future research could extend the analysis by incorporating macroeconomic variables such as interest rates, exchange rates, and market sentiment, as well as applying longer observation periods to capture long-term dynamics. Comparative studies across different industrial sectors would also be valuable in assessing the generalizability of the results within the Indonesian capital market.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that generative Al technologies such as Large Language Models, etc have been used during writing or editing of this manuscript. This explanation will include the name, version, model, and source of the generative Al technology and as well as all input prompts provided to the generative Al technology.

Details of the Al usage are given below:

- ChatGPT (GPT-5, OpenAI, 2025) was used for paraphrasing and improving sentence clarity.
- Consensus AI was employed to assist in identifying and verifying prior research articles.
- 3. DeepL Translator was used to support translation and language polishing.

These tools were applied only to enhance readability and efficiency in literature search and translation. All research ideas, data analysis, theoretical frameworks, and conclusions are entirely the responsibility of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

- Abdelall, M. A. A., & Wu, D. (2023). Does ERP Adoption Affect Stock Price Volatility? Evidence from Egypt. *International Journal of Economics, Business and Management Research*, 07(11), 104–124.
 - https://doi.org/10.51505/ijebmr.2023.71108
- Ajao, M. G., & Robinson, F. E. (2022). Dividend Policy Determinants and Stock Price Volatility in Selected African Stock Markets. *International Journal of Finance Research*, 3(1), 27–48
 - https://doi.org/10.47747/ijfr.v3i1.659
- Allen, D. E., & Rachim, V. S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175–188.
 - https://doi.org/10.1080/096031096334402
- Angelina, C., Eriandani, R., & Rudiawarni, F. A. (2023). Kebijakan Dividen Dan Volatilitas Harga Saham: Periode Sebelum Dan Selama Pandemi Covid-19. *Media Riset Akuntansi, Auditing & Informasi, 23*(1), 151–168.
 - https://doi.org/10.25105/mraai.v23i1.15498
- Assous, H. F. (2022). Saudi Green Banks and Stock Return Volatility: GLE Algorithm and Neural Network Models. *Economies*, 10(10).
 - https://doi.org/10.3390/economies1010024 2
- Azhariyah, A., Witjaksono, A. D., & Hartono, U. (2021). The Effect of Profitability, Leverage, Liquidity, Size, and Company Growth on the Dividend Payout Ratio in the Indonesian Capital Market 2013-2018. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4(1), 1351–1360.
 - https://doi.org/10.33258/birci.v4i1.1761
- Baillie, R. T., & DeGennaro, R. P. (1990). Stock Returns and Volatility Author (s): Business Administration. *The Journal of Financial and Quantitative Analysis*, *25*(2), 203–214.
 - https://doi.org/10.2307/2330824
- Balcilar, M., Gupta, R., Kim, W. J., & Kyei, C. (2019). The role of economic policy uncertainties in predicting stock returns

- and their volatility for Hong Kong, Malaysia and South Korea. *International Review of Economics and Finance*, *59*, 150–163. https://doi.org/10.1016/j.iref.2018.08.016
- Bhatta, S., & Duwal, B. R. (2021). A systematic review of dividend policy in relation to stock price volatility. *International Research Journal of Management Science*, 6(1), 92–104.
 - https://doi.org/10.3126/irjms.v6i1.42342
- Boshkoska, M. (2015). The Agency Problem: Measures for Its Overcoming. *International Journal of Business and Management*, 10(1), 204–209.
 - https://doi.org/10.5539/ijbm.v10n1p204
- Cao, F., Sun, J., Yuan, R., & Zou, H. (2024).

 Enterprise Resource Planning System
 Usage and Stock Price Crash Risk.

 European Accounting Review, 33(3), 929–963.

 https://doi.org/10.1080/09638180.2022.213
 0954
- Caporale, G. M., & Plastun, A. (2019). On stock price overreactions: frequency, seasonality and information content. *Journal of Applied Economics*, 22(1), 602–621. https://doi.org/10.1080/15140326.2019.169 2509
- Crisanti, S., Cahyani Nuswandari, & Sunarto. (2024). The Effect of Financial Ratio on Stock Price Volatility. *Jurnal Wacana Ekonomi*, 23(3), 072–083.
 - https://doi.org/10.52434/jwe.v23i3.3506
- Devi, S. P., & Aryani, Y. A. (2024). ERP Implementation and Earnings Management: The Moderating Effect of an Independent Board of Commissioners. *Jurnal Ekonomi Dan Bisnis*, 27(1), 163–182.
 - https://doi.org/10.24914/jeb.v27i1.8759
- Dwi Tamam, M. R., & Nahda, K. (2024). Pengaruh Kebijakan Dividen terhadap Volatilitas Harga Saham Emiten Bank yang Terdaftar di Bursa Efek Indonesia Tahun 2020-2022. Selekta Manajemen: Jurnal Mahasiswa Bisnis & Manajemen, 02(06), 213–223.
- Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review Linked references are available on JSTOR. Academy of Management, 14(1)(1), 57–74.

- https://www.jstor.org/stable/258191
- Eka, P., Widiantari, P., & Sukartha, I. M. (2021). The Effect of Dividend Payout Ratio, Leverage and Assets Growth on Stock Price Volatility (Empirical Study on LQ45 Company on the Indonesia Stock Exchange 2016-2019). American Journal of Humanities and Social Sciences Research, 5, 180–186. www.ajhssr.com
- Escobari, D., & Jafarinejad, M. (2019). Investors' Uncertainty and Stock Market Risk. *Journal of Behavioral Finance*, *20*(3), 304–315. https://doi.org/10.1080/15427560.2018.150
 - https://doi.org/10.1080/15427560.2018.150 6787
- Farida, F., Wahyuni, N., Firdaus, V. F., Wanialisa, M., Suryani, R. E., & Nursina, N. (2024). Does Dividend Payment Generate a Market Signal to Investors? Proceeding of the International Conference on Multidisciplinary Research for Sustainable Innovation, 1(1), 295–299.
 - https://doi.org/10.31098/icmrsi.v1i.810
- Garg, D. R., & Gupta, D. P. (2024). Review on return and volatility of the stock market concerning foreign institutional investors. *International Journal of Research in Finance and Management*, 7(1), 276–282.
 - https://doi.org/10.33545/26175754.2024.v7 .i1c.310
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate* dengan Program IBM SPSS 25. Semarang: Badan Penerbit Universitas Diponegoro.
- Hanafi, M. (2008). *Manajemen Keuangan Edisi Satu*. BPFE. Yogyakarta.
- Handayani, H., Muharam, H., Mawardi, W., & Robiyanto, R. (2018). Determinants of the Stock Price Volatility in the Indonesian Manufacturing Sector. *International Research Journal of Business Studies*, 11(3), 179–193.
 - https://doi.org/10.21632/irjbs.11.3.179-193
- Hashemijoo, M., Mahdavi Ardekani, A., & Younesi, N. (2012). The Impact of Dividend Policy on Share Price Volatility in the Malaysian Stock Market. *Journal of Business Studies Quarterly*, *4*(38), 111–129.
 - http://ezproxy.lib.monash.edu.au/login?url= http://search.ebscohost.com/login.aspx?dir

- ect=true&db=bth&AN=91711854&site=eho st-live&scope=site
- Heliani, H., Mareta, F., Rina, E., Rahayu, M. S., & Ramdaniansyah, M. R. (2021). Liquidity, Profitability and Asset Growth towards the Dividend Payout Ratio. *AFRE (Accounting and Financial Review)*, *4*(2), 225–232.
 - https://doi.org/10.26905/afr.v4i2.6324
- Hery. (2014). *Akuntansi Dasar 1 dan 2*. Jakarta: PT Gramedia Widiasarana Indonesia.
- Hull, John C. 2018. Options, Future, and Other Derivatives. Pearson Education.New York.
- Husna, A., & Satria, I. (2019). Effects of Return on Asset, Debt To Asset Ratio, Current Ratio, Firm Size, and Dividend Payout Ratio on Firm Value. *International Journal of Economics and Financial Issues*, *9*(5), 50–54.
 - https://doi.org/10.32479/ijefi.8595
- Hussainey, K., Oscar Mgbame, C., & Chijoke-Mgbame, A. M. (2011). Dividend policy and share price volatility: UK evidence. *Journal of Risk Finance*, *12*(1), 57–68. https://doi.org/10.1108/1526594111110007
- IDX. (2024). IDX Index Fact Sheet ISSI.
 Indonesia Stock Exchange, 1–3.
 https://idx.co.id/Media/20221003/fs-idxg30-2022-08.pdf
- Indonesia Stock Exchange. (2024). Indonesia Stock Exchange. https://www.idx.co.id/id
- Jensen, M. C., & Meckling, W. H. (1976). Theory Of The Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economic*, *3*, 305–360.
 - https://doi.org/10.1057/9781137341280.00
- Jonnius Jonnius, & Marsudi Almatius. (2021). Profitability and the Firm's Value. *Dinasti International Journal of Management Science*, *3*(1), 23–47.
 - https://doi.org/10.31933/dijms.v3i1
- Josua Sirait, Unggul Purwohedi, & Diena Noviarini. (2021). Pengaruh Volatilitas Laba, Leverage Keuangan, Kebijakan Dividen, dan Price to Book Value Terhadap Volatilitas Harga Saham. *Jurnal Akuntansi, Perpajakan Dan Auditing*, 2(2), 397–415.
 - https://doi.org/10.21009/japa.0202.12

- Kasmir. (2012). Analisis Laporan Keuangan, edisi ketujuh. PT. Raja Grafindo Persada, Jakarta.
- Khan, F. (2020). Does dividend policy determine stock price volatility? (a case study of Malaysian manufacturing sector). *Journal Global Policy and Governance*, *9*(1), 67–78.
 - https://doi.org/10.14666/2194-7759-9-1-005
- Marundha, A., Suryani, A., & Herianti, E. (n.d.).

 Determinan Sensitivitas Laba dan Implikasinya terhadap Nilai Perusahaan (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia).
- Naz, M., & Siddiqui, D. A. (2020). The Effect of Dividend Policy on Share Price Volatility in Pakistan. SSRN Electronic Journal.
 - https://doi.org/10.2139/ssrn.3681292
- Oriekhoe, O. I., Addy, W. A., Okoye, C. C., Oyewole, A. T., Ofodile, O. C., & Ugochukwu, C. E. (2024). The role of accounting in mitigating food supply chain risks and food price volatility. *International Journal of Science and Research Archive*, 11(1), 2557–2565.
 - https://doi.org/10.30574/ijsra.2024.11.1.034 0
- Purba, D. S., Dwi Permatasari, P., Tanjung, N., Rahayu, P., Fitriani, R., Wulandari, S., Universitas,), Negeri, I., Utara, S., Muslim, U., & Al Washliyah, N. (2025). Analisis Perkembangan Ekonomi Digital Dalam Meningkatkan Pertumbuhan Ekonomi Di Indonesia. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, 10(1), 126–139.
 - https://doi.org/10.30651/jms.v10i1. 25367
- Putri, C. O. B., & Syaichu, M. (2023). Pengaruh Return On Asset , Risiko Sistematik , Volume Perdagangan Saham , Bid-Ask Spread , Dan Volatilitas Saham Terhadap Return Saham (Studi Kasus Pada Perusahaan Jakarta Islamic Index Tahun 2015-2020). Diponegoro Journal Of Management, 12(1), 1–15.
- Rompas, R. R. (2022). Pengaruh Return On Asset dan Return On Equity terhadap Harga Saham.

- Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling AppROAch. *The Bell Journal of Economics*, 8(1), 23.
 - https://doi.org/10.2307/3003485
- Roup, A., & Purwanto, E. (2022). Dampak Implementasi Enterprise Resource Planning Terhadap Kualitas Informasi Keuangan, Manajemen Laba, Dan Return Of Equity. *Jurnal Ilmiah Akuntansi Kesatuan*, 10(3), 533–540. https://doi.org/10.37641/jiakes.v10i3.1464
- Sentika, D., Sujadi, E., & Sramigi, E. (2024). Analysis of the impact of BOPO, FDR, NOM and NPF on ROA of Indonesian Sharia commercial banks registered with the OJK. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam, 5*(4), 3230–3249.
 - https://doi.org/10.47467/elmal.v5i4.1915
- Shaker, A. S., Al-Shiblawi, G. A. K., Union, A. H., & Hameed, K. S. (2023). The role of information technology governance on enhancing cybersecurity and its reflection on investor confidence Article history: Keywords: Cyber Security; IT Governance; Executive Education; Shaker, A. S., Al-Shiblawi, G. A. K., Union, A. International Journal of Professional Busniess Review, 1–23.
- Siti Maysaroh, & Handayani, A. (2025). Leverage, Dividend Policy, and Profitability Effects on IDX30 Stock Price Volatility During 2019–2023. *Jurnal Ilmiah Manajemen Kesatuan*, 13(2), 1051– 1060.
 - https://doi.org/10.37641/jimkes.v13i2.3159
- Smith, J. (1992). Taxation Reform and The Dividend Policyof Australian Banks. In Victoria Unnivesity of Technology. https://vuir.vu.edu.au/40742/1/SMITH Julie-thesis.pdf
- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355. https://doi.org/10.2307/1882010
- Subadriyah, Lu'luatuwwafiroh, & Aliyah, S. (2022). Analisis Pengaruh Leverage, Profitabilitas Dan Dividen Terhadap Volatilitas Harga Saham. *Indonesian Accounting Literacy Journal*, *3*(01), 798–809.
 - https://doi.org/10.35313/ialj.v2i04.4633
- Sugiyono. (2018). *Motode Penelitian Kuantitatif, Kualitatif & R&D.* Bandung: Alfabeta.

Sukmawati, F., & Garsela, I. (2016). The Effect of Return on Assets and Return on Equity to the Stock Price. Advances in Economics, Business and Management Research, 15, 53–57.

https://doi.org/10.2991/gcbme-16.2016. 8

Trihadiyanti, R. A., Nurhayati, I., & Aminda, R. S. (2023). Pengaruh DPR, ROA Dan Inflasi Terhadap Volatilitas Harga Saham. *Jurnal Akuntansi Keuangan Dan Bisnis*, 1(2), 44–49.

Yoro, M. (2024). Impact of Financial Reporting Transparency on Investor Decision-Making. *American Journal of Accounting*, 6(1), 25–36. https://doi.org/10.47672/ajacc. 1785

Zhou, X. (2023). Principal-agent Relationship and Agency Problem. Advances in Economics, Management and Political Sciences, 34(1), 74–82. https://doi.org/10.54254/2754-1169/34/20231678

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Peer-review history:
The peer review history for this paper can be accessed here:
https://pr.sdiarticle5.com/review-history/145208