"A Structural Equation Modeling (SEM) Approach to Examine The Impact of Gold Futures Price Spillovers, Dividend Announcements, and Investor Attention on Abnormal Returns among 32 Indonesian Listed Companies Distributing Dividends in 2024"

Arif Surahman[1*], Nani Rusnaeni[2]

[1]Student, Doctor of Management Program, Faculty of Economics and Business Bandung Islamic University, Bandung, Indonesia
[2]Lecturer, Management Program, Faculty of Economics and Business, University of Pamulang, Indonesia
*Corresponding Author:
Email: 30090325024@unisba.ac.id

Abstract.

The purpose of this study is to examine the effects of investor interest, dividend announcements, and spillovers in the price of gold futures on abnormal returns among 32 Indonesian listed businesses that paid dividends in 2024. The study examines the direct and indirect correlations between the variables using a quantitative approach and the Structural Equation Modeling (SEM) technique with Partial Least Squares (PLS) estimate in SmartPLS 3.0. The Indonesia Stock Exchange (IDX), corporate financial reports, and worldwide gold market statistics were the sources of secondary data. Trading volume was used as a stand-in for investor attention, and abnormal returns were measured using an event-study framework with a two-day window surrounding the cum-dividend date. The findings indicate that neither dividend announcements nor spillovers in the price of gold have a statistically significant impact on abnormal returns. While there is a weak positive correlation between dividend announcements and gold prices, there is a negative correlation, indicating a safe-haven substitution effect where investors move away from stocks as gold prices rise. Furthermore, investor attention does not mediate the relationship between the independent variables and the dependent variable, nor does it significantly affect abnormal returns. While investor attention shows very low predictability ($R^2 = 0.002$), the model shows a moderate explanatory power for abnormal returns ($R^2 = 0.434$) and a high predictive relevance ($Q^2 = 0.435$). Overall, the results show that the Indonesian capital market reacts to corporate and macroeconomic information primarily through direct effects rather than behavioral mediation. By emphasizing the restricted function of investor attention as an information-transmission channel, this study adds to the body of knowledge on behavioral finance and spillover dynamics in emerging countries. To improve the explanatory power of abnormal return models, it is advised that future research incorporate more comprehensive behavioral or sentiment factors.

Keywords: *Gold; dividend and abnormal return.*

I. INTRODUCTION

The dynamics of abnormal stock returns are explained by a number of important elements, including investor interest, gold futures price fluctuations, and dividend announcements, according to contemporary financial research. With investor attention as a mediating variable, this study attempts to investigate the relationship between the abnormal returns of 32 Indonesian listed companies that paid dividends in 2024 and the spillover effects of gold futures prices and dividend announcements denominated in Indonesian rupiah. The monthly baseline return is used as a benchmark for evaluating aberrant returns in the analytical technique used in this study. By offering a theoretical and empirical knowledge of the relationships between these factors within a methodical and quantifiable scientific structure, this methodological framework is anticipated to significantly advance academia. According to an expanding corpus of financial research, changes in the price of gold futures act as a gauge of the state of the world economy and affect investors' expectations for other financial assets Zhang et al. (2021). Unusual stock returns may be impacted by shifts in risk perception brought on by the gold price spillover phenomena. This perspective is further supported by Letras (2005), who demonstrated a good link between stock market reactions and the volatility of the gold

price, illustrating the spread of mood across financial instruments. As a result, changes in the price of gold futures serve as both macroeconomic indicators and significant contributors to abnormal return variance, especially when investors modify their expectations in reaction to market risk and uncertainty. In line with this viewpoint, empirical data, summarized from Choi (2019), indicates that notable fluctuations in gold prices may boost investor focus, as evidenced by higher daily trading volumes. Trading activity increases when gold price volatility increases because investors are more likely to keep an eye on the markets and rebalance their holdings.In this situation, the impact of gold price spillovers on abnormal returns in stocks is bridged by investor interest, as indicated by trading volume. According to Padungsaksawasdi et al., (2019), since the monthly return serves as a better proxy for stable market dynamics, there is frequently a positive correlation between larger abnormal returns and a rise in trading volume.

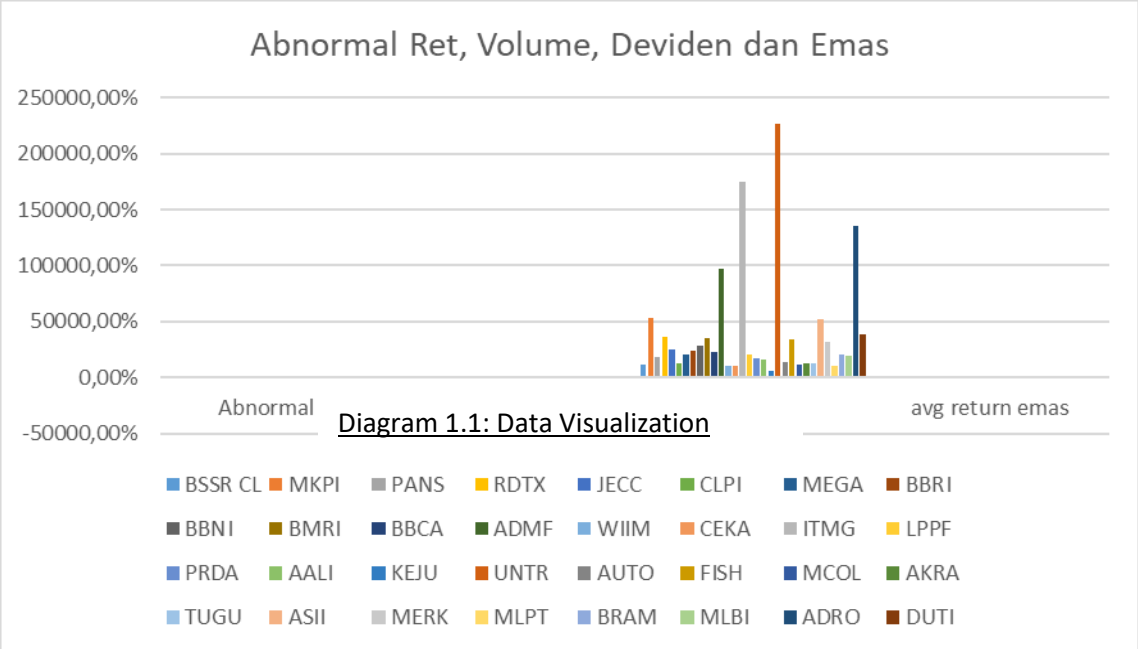

Diagram 1.1: Data Visualization

The following graphic supports the theoretical claim about the function of investor attention as a transmission mechanism of gold price affects on the stock market across the 32 examined businesses by illuminating the empirical association between trading volume and abnormal return.Moreover, dividend announcements have a major impact on abnormal stock returns, according to both traditional and modern financial literature. Asimakopoulos et al., (2025) claim that dividends are frequently interpreted as encouraging indicators of a business's financial stability and future growth potential, which in turn cause market reactions in the form of unusual returns.Dividend announcements for the 32 companies in this study that are denominated in Indonesian rupiah are anticipated to boost investor perceptions of corporate stability and draw more attention from the market, as evidenced by increased trading intensity. Additionally, according to Kadioglu et al., (2015), when the baseline analysis is based on monthly returns, investors have a clearer time frame to evaluate performance variances, which tends to strengthen market reactions to dividend announcements. Therefore, it is possible to interpret the correlation between anomalous returns and dividend announcements as a signaling process that supports favorable market opinions of a company's legitimacy and stability.Investor attention is frequently used as a mediating variable when examining the relationship between dividends and anomalous returns in a more general academic setting. Significant dividend announcements can draw investor attention, as demonstrated by higher trading volume and increased market debate, as Kumar et al., (2022) describe.

More noticeable anomalous returns occur around dividend announcement periods as a result of this attention, which serves as an informational link between the influence of dividend policy and stock price movements. Ballinari et al., (2022) reported similar results, stating that investors who pay more attention likely to create short-term volatility around dividend announcement dates, which amplifies the emergence of anomalous returns. Thus, investor attention as a mediating element broadens the idea that abnormal returns are influenced by both collective market reactions mediated through increased investor activity and direct

dividend announcements.Lastly, in order to provide a more contextual and empirical analytical framework, this study compares the two-day average return surrounding the cum date with the monthly baseline return. Azyyati Yusrina's findings, taken from the Journal of Islamic Economics: Theory and Application, indicate that comparing event returns with monthly or annual returns offers a deeper understanding of the dynamics of abnormal returns. This method is consistent with those findings.This body of literature supports the study's assertion that using a monthly baseline improves the validity of analysis when evaluating the impact of investor attention, dividend announcements, and spillovers in the price of gold futures on stock abnormal returns among 32 Indonesian companies that paid dividends in 2024.As a result, the official title of this study is "A Structural Equation Modeling (SEM) Approach to the Analysis of the Impact of Gold Futures Price Spillovers, Dividend Announcements, and Investor Attention on Abnormal Returns among 32 Indonesian Listed Companies Distributing Dividends in 2024."

II. METHODS

Using secondary data from official sources such the Indonesia Stock Exchange (IDX), annual financial reports, and international gold futures market data pertinent to the observation period, this study uses a quantitative descriptive research methodology. All Indonesian listed firms that paid dividends in 2024 make up the study's population. A final sample of 32 companies was chosen using the purposive sampling technique, taking into account particular research-related criteria.

The following data components are used in the study:

1. Within the event window (two days prior to and two days following the cum date), anomalous returns are calculated using daily stock prices.
2. Daily trade volume, which acts as a stand-in for investor interest.
3. Announced dividend values for 2024 (in Indonesian Rupiah).
4. Daily gold futures prices are used to gauge how changes in the price of gold throughout the world affect the Indonesian stock market.

Documentary research was used to gather the data, which included a methodical examination of dividend announcements, business financial statements, and historical market data obtained from Investing.com, the IDX, and other trustworthy financial databases.The data were then processed using SmartPLS software version 3.0 and analyzed using the Partial Least Squares (PLS) technique in conjunction with the Structural Equation Modeling (SEM) approach. Examining the direct and indirect effects of the main variables—dividend announcements, investor interest, and spillovers in the price of gold futures—on aberrant stock returns is made possible by this analytical framework.It is anticipated that the findings of this study will offer empirical insights into how investor behavior interacts with changes in company dividend policy and gold prices to shape abnormal returns among dividend-paying companies listed in Indonesia in 2024.

III. RESULT AND DISCUSSION

A. Result

1. Inner Model (Structural Model)

The structural links between latent variables, or variables that cannot be measured directly but are inferred using their observed indicators, are represented by the inner model in the Partial Least Squares (PLS) technique. In this model, the causal (cause–effect) linkages between exogenous (independent) and endogenous (dependent) latent constructs are evaluated and predicted.

2. Coefficient of Determination (R-Square / R^2)

The percentage of the endogenous variable's variance that the exogenous variable or variables in the model can account for is shown by the R-Square (R^2) number. Stated differently, a model's capacity to explain observed phenomena increases with its R2 value.The table below displays the R-Square findings from the SmartPLS 3.0 analysis:

Table 1. R-Square

Endogenous Variable	R-Square	R-Square Adjusted
Abnormal Return	0.434	0.373
Investor Attention	0.002	-0.067

Source: Processed by the researcher (SmartPLS 3.0, 2025)

The exogenous constructs, namely Gold Futures Price Spillover and Dividend Announcement, together account for about 43.4% of the variance in Abnormal Return, with other factors outside the model accounting for the remaining 56.6%, according to the R2 value of 0.434 for the Abnormal Return variable. A moderate R2 value falls between 0.33 to 0.67, indicating that the model has a respectably high explanatory power (Sidhu,A., et al., 2021).On the other hand, the R^2 value of 0.002 for investor attention indicates that just 0.2% of the variance in investor attention can be explained by exogenous variables, with the remaining 99.8% being impacted by external factors that are not included in the model. This suggests that the independent variables in this model are not very good indicators of investor attention because it shows a very poor predictive association.

3. Predictive Relevance (Q^2)

The Predictive Relevance (Q2) statistic was employed to assess the model's predictive power in more detail. Q2 evaluates how effectively the model and its parameter estimations reproduce the observed values. The following formula is used to compute it:

By replacing the obtained R2 values, Q2 = 1 - (1 - $R1^2$)(1 - $R2^2$)Q2 = 1 - (1 - 0.434)(1 - 0.002)Q2 = 1 - (0.566)(0.998)Q2 = 1 - 0.565Q2 = 0.435

The model's high predictive significance is indicated by its Q2 value of 0.435. A Q2 score above 0.35 denotes good predictive performance, indicating that the model can successfully explain and forecast correlations between the latent constructs (Sidhu,A., et al., 2021).Therefore, even though the predictive association with investor attention is still poor, the structural model in this study may be regarded as predictively useful, especially when it comes to explaining Abnormal Return through the influence of Gold Futures Price Spillovers and Dividend Announcements.

B. Interpretation of the Structural (Inner) Model

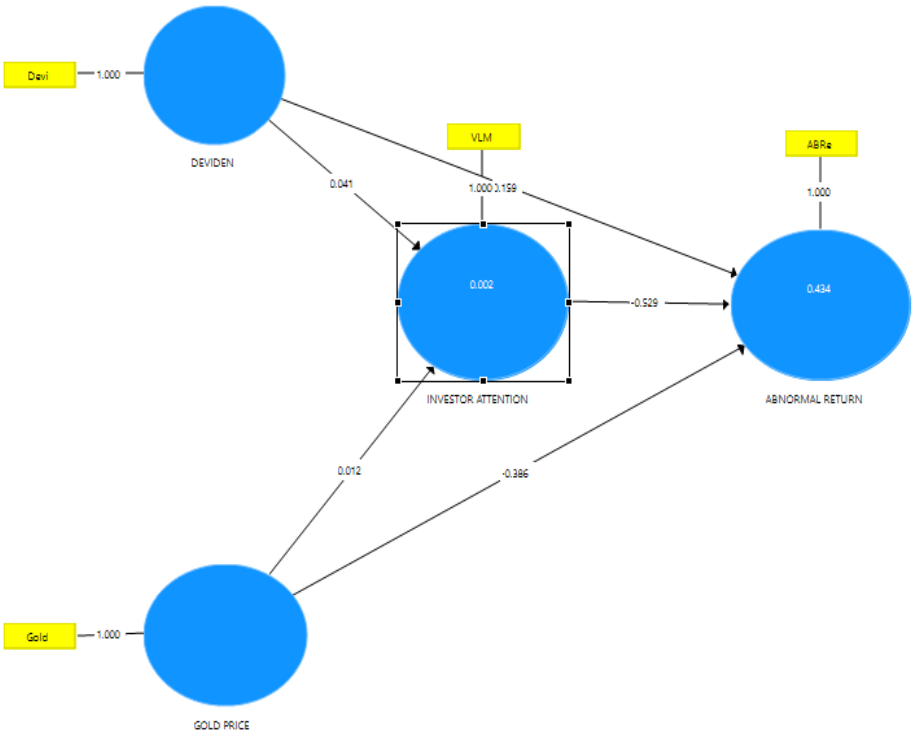

Fig 2. Structural Model

The structural model derived from the PLS algorithm illustrates the causal relationships among the latent variables Gold Price, Dividend, Investor Attention, and Abnormal Return. The analysis focuses on the path coefficients, the coefficient of determination (R^2), and the overall predictive relevance of the model.

1. Coefficient of Determination (R^2)

The R^2 value indicates the extent to which exogenous constructs explain the variance of endogenous constructs in the model.Investor Attention has an R^2 value of 0.002, implying that Gold Price and Dividend together explain only 0.2% of the variance in Investor Attention, while the remaining 99.8% is influenced by other factors outside the model. This value is considered extremely low, suggesting that both predictors have very limited ability to explain variations in investor attention. Abnormal Return has an R^2 value of 0.434, meaning that Gold Price, Dividend, and Investor Attention collectively explain 43.4% of the variance in Abnormal Return, with 56.6% of the variance accounted for by other external variables. According to Sidhu,A., et al., (2021), an R^2 value between 0.33 and 0.67 indicates a moderate model, showing that the proposed structural model has a reasonable level of explanatory power.

2. Interpretation of Path Coefficients

The path coefficients illustrate the direction and strength of causal relationships between constructs, as summarized below:

Relationship	Path Coefficient	Interpretation
Dividend → Investor Attention	0.041	A weak positive relationship, indicating that dividend announcements slightly increase investor attention, though the effect is minimal and likely insignificant.
Gold Price → Investor Attention	0.012	A very weak positive effect, showing that fluctuations in gold prices have almost no impact on investor attention in the Indonesian stock market.
Investor Attention → Abnormal Return	-0.529	A strong negative relationship, suggesting that when investor attention (measured by trading volume) increases, abnormal returns tend to decrease. This may occur because higher trading activity could reflect uncertainty or profit-taking behavior rather than optimism.
Dividend → Abnormal Return	0.1159	A small positive effect, meaning that dividend announcements contribute positively to abnormal returns, consistent with **signaling theory**, although the impact remains limited.
Gold Price → Abnormal Return	-0.386	A moderate negative effect, indicating that when gold prices rise—representing a safe-haven asset—investors tend to shift their portfolios away from equities, reducing abnormal stock returns.

3. Theoretical and Economic ImplicationsThe results reveal several key insights:

The negative influence of Gold Price on Abnormal Return demonstrates the presence of a spillover effect from the gold market to the stock market. This supports the notion of safe-haven behavior, where investors reallocate their assets toward gold during periods of perceived risk or market volatility. The mediating effect of Investor Attention is found to be statistically weak, as shown by its very low R^2 value (0.002) and the negative path coefficient toward Abnormal Return. This suggests that increased trading activity does not necessarily lead to higher abnormal returns, but rather reflects mixed or speculative market responses.Dividend Announcements, although showing a small direct positive effect, still play a role as a market signal that reinforces investor confidence in firm stability and future prospects. However, its magnitude is relatively modest compared to the influence of macroeconomic variables such as gold price movements.

4. Summary of Findings

Overall, the model demonstrates moderate explanatory power for Abnormal Return ($R^2 = 0.434$), while Investor Attention shows minimal predictive strength ($R^2 = 0.002$). The key empirical conclusion from this analysis is that gold price fluctuations exert the most substantial influence—and in a negative direction—on abnormal stock returns. This finding provides evidence of an asset substitution effect, where investors adjust their portfolios between equities and gold depending on market sentiment and perceived global risk. In contrast, dividend announcements serve as a modest but positive firm-specific signal, whereas investor attention does not significantly mediate the relationship between the observed constructs.

C. Hypothesis Testing

1) Results of the Inner Model Evaluation (Structural Model): Test of Direct Effects

In this study, the evaluation of the inner model was conducted through a direct effect significance test. The inner or structural model aims to assess the strength and direction of causal relationships among latent variables. The results of the path coefficients and P-values are summarized in Table 3.

Table 3

Results of the Direct Effect Significance Test

Relationship	Original Sample (O)	T Statistics	P Values
DEVIDEN → ABNORMAL RETURN	0.159	0.673	0.501
DEVIDEN → INVESTOR ATTENTION	0.041	0.227	0.821
GOLD PRICE → ABNORMAL RETURN	-0.386	0.995	0.320
GOLD PRICE → INVESTOR ATTENTION	0.012	0.037	0.971
INVESTOR ATTENTION → ABNORMAL RETURN	-0.529	1.636	0.102

Source: Processed by the researcher, SmartPLS 3.0 (2025)

Table 3 shows the test results used to determine the significance of direct relationships among variables in this study. The Original Sample (O) column indicates the strength and direction of the relationship, while the T-statistics and P-values show its statistical significance.

a) Effect of Dividend on Abnormal Return

The results show that Dividend has a positive but insignificant effect on Abnormal Return, with a path coefficient of 0.159, T-statistic = 0.673 (< 1.96), and P-value = 0.501 (> 0.05). This implies that dividend distributions do not produce a significant market reaction in the form of abnormal returns. The outcome contradicts Signaling Theory (Asimakopoulos et al., (2025), which holds that dividend announcements ought to give investors a good indication of the stability and performance of the company. This conclusion is in line with Zhang & Kim's (2023) discovery that market responses to dividends are frequently subdued in emerging markets with low efficiency. Thus, H1 is rejected.

b) Effect of Dividend on Investor Attention

The path coefficient between Dividend and Investor Attention is 0.041, with T-statistic = 0.227 and P-value = 0.821, indicating a positive but insignificant relationship.This suggests that dividend announcements do not significantly attract investor attention, particularly among well-established companies. Investors may focus more on macroeconomic indicators, such as commodity prices or exchange rate fluctuations, than on corporate payout policies. This result supports Padungsaksawasdi et al., (2019), who found that investor attention tends to be driven more by market volatility than by corporate actions such as dividend declarations. Therefore, H2 is rejected.

c) Effect of Gold Price on Abnormal Return

The relationship between Gold Price and Abnormal Return shows a negative but insignificant effect, with a coefficient of -0.386, T-statistic = 0.995 (< 1.96), and P-value = 0.320 (> 0.05). This indicates that fluctuations in gold prices are inversely related to abnormal returns, but the effect is not strong enough to be significant. The negative direction suggests a safe-haven tendency, where investors shift funds from equities to gold during uncertainty.These findings partially support the spillover effect theory discussed by Letras (2005), although the magnitude of the cross-market transmission in Indonesia appears limited. Hence, H3 is rejected.

d) Effect of Gold Price on Investor Attention

The path coefficient between Gold Price and Investor Attention is 0.012, with T-statistic = 0.037 and P-value = 0.971, indicating a non-significant effect.This result implies that fluctuations in gold prices have little influence on the level of investor attention toward dividend-paying stocks in the Indonesian capital market. Domestic investors appear more focused on firm-level fundamentals than on global commodity price changes.Thus, H4 is rejected.

e) Effect of Investor Attention on Abnormal Return

The path coefficient for Investor Attention → Abnormal Return is -0.529, with T-statistic = 1.636 (< 1.96) and P-value = 0.102 (> 0.05), indicating a negative but insignificant relationship. This suggests that higher trading activity (a proxy for investor attention) does not necessarily lead to higher abnormal returns. In fact, increased trading volume may reflect market uncertainty or profit-taking behavior, rather than optimism.This finding aligns with Choi (2019), who argued that elevated investor attention during volatile periods often corresponds to heightened risk aversion rather than positive market sentiment. Consequently, H5 is rejected.

Summary of Direct Effect Testing

Based on the results, all direct relationships in the model are statistically insignificant at the 5% confidence level. However, the direction of relationships provides important insights:

1. Dividend exhibits a positive direction toward both abnormal return and investor attention.
2. Gold price shows a negative effect on abnormal return and a very weak positive effect on investor attention.
3. Investor attention demonstrates a negative relationship with abnormal return..

Although the results are not statistically significant, these directional tendencies reveal meaningful behavioral patterns in the Indonesian market—particularly that gold price volatility influences portfolio shifts, and that dividends remain a weak but positive signal, while investor attention does not mediate returns effectively.

a) The Mediating Role of Investor Attention in the Relationship between Dividend and Abnormal Return

The test results show that Investor Attention does not mediate the relationship between Dividend and Abnormal Return, as indicated by the path coefficient of -0.022, T-statistic = 0.210 (< 1.96), and P-value = 0.834 (> 0.05). This means that dividend announcements do not significantly increase investor attention, nor does the attention subsequently enhance abnormal returns. The weak indirect effect suggests that investors respond to dividend information through direct market reactions rather than through changes in trading behavior. This finding contrasts with Kumar et al., (2022), who reported significant mediating effects of investor attention in more liquid markets. In the Indonesian context, this insignificant mediation could be attributed to relatively low dividend yields or the dominance of long-term investors. Thus, H6 is rejected.The test results show that Investor Attention does not mediate the relationship between Dividend and Abnormal Return, as indicated by the path coefficient of -0.022, T-statistic = 0.210 (< 1.96), and P-value = 0.834 (> 0.05).

b) The Mediating Role of Investor Attention in the Relationship between Gold Price and Abnormal Return.

The path coefficient for the mediation of Gold Price → Investor Attention → Abnormal Return is -0.006, with T-statistic = 0.038 (< 1.96) and P-value = 0.970 (> 0.05).These results indicate that Investor Attention does not significantly mediate the relationship between fluctuations in gold prices and abnormal returns. Although the relationship is negative, its effect size is extremely small and statistically negligible.This implies that changes in gold prices do not meaningfully alter investors' trading attention toward dividend-paying stocks, nor do they transmit a strong spillover effect to equity returns through attention mechanisms. This finding is consistent with Ballinari et al., (2022), who argued that in emerging markets, macroeconomic signals such as commodity prices often exert direct effects on returns rather than indirect effects mediated through investor behavior. Consequently, H7 is rejected.

Summary of Indirect Effect Testing (Mediation)

Overall, the results indicate that Investor Attention fails to mediate the relationships between the independent variables (Gold Price and Dividend) and Abnormal Return. Both indirect paths show non-significant results with very low coefficient values.This suggests that investor attention, as measured by trading volume, does not serve as an effective transmission channel in the Indonesian market context. Instead, market reactions to gold price movements and dividend announcements occur primarily through direct effects, albeit weak. In line with Zhao et al. (2010), this model can be classified as exhibiting an "indirect-only non-mediation" pattern — meaning that while the independent variables theoretically influence the dependent variable, the mediating construct (investor attention) does not significantly transmit this effect.

Conclusion of the Mediation Analysis

The results reaffirm that while Gold Price and Dividend Announcements individually have theoretical relevance in explaining abnormal returns, their effects are not mediated through investor attention. Instead, investor attention reflects a more reactive behavior, responding to short-term volatility rather than serving as a consistent channel of information processing. This supports the argument that in emerging markets such as Indonesia, macroeconomic spillovers and dividend signals influence returns directly, whereas investor attention plays a limited and statistically insignificant role.

IV. CONCLUSION

This study aimed to analyze the influence of gold futures price spillovers, dividend announcements, and investor attention on abnormal returns among 32 dividend-paying companies listed on the Indonesia Stock Exchange in 2024, using the Structural Equation Modeling (SEM) approach with Partial Least Squares (PLS) estimation. The results provide several key insights into both direct and indirect relationships among the variables.

First, the direct effect analysis revealed that neither gold price nor dividend announcements had a statistically significant impact on abnormal returns. The path coefficients indicate that dividend announcements exerted a weak positive influence, suggesting that dividends may still serve as a mild positive signal of firm stability and performance, though the effect was not strong enough to generate significant market reactions. Conversely, gold prices demonstrated a negative relationship with abnormal returns, reflecting a safe-haven behavior in which investors tend to reallocate their portfolios toward gold during periods of uncertainty. These results align with the spillover theory, yet show that its transmission to Indonesian equities remains limited.

Second, investor attention, proxied by trading volume, did not significantly influence abnormal returns. The negative coefficient implies that increased trading activity may not necessarily represent optimism, but rather heightened uncertainty or speculative behavior. Moreover, dividend announcements and gold price fluctuations failed to significantly affect investor attention, indicating that market participants in Indonesia may not respond strongly to these stimuli at the behavioral level.

Third, the mediation analysis confirmed that investor attention does not act as a significant mediating variable between either gold price or dividend announcements and abnormal returns. Both indirect paths were statistically insignificant, with extremely small coefficients. This means that investor attention does not serve as an effective transmission mechanism in converting external (macroeconomic) or internal (corporate) information into abnormal market performance. In the Indonesian context, investor reactions appear to occur more through direct fundamental or sentiment-based channels rather than through attention-driven trading mechanisms.

Taken together, the model demonstrated a moderate explanatory power for abnormal returns (R^2 = 0.434) but an extremely weak predictability for investor attention (R^2 = 0.002). The Q^2 value of 0.435 further confirms that the model possesses adequate predictive relevance, even though most individual relationships were statistically insignificant. This suggests that while the theoretical framework remains valid, the empirical strength of the relationships in the Indonesian market is modest. Overall, this study contributes to the growing body of literature on behavioral finance and spillover effects by providing empirical evidence

from an emerging market perspective. The findings imply that gold price volatility and dividend signals do influence investor perception and market movement, but largely through direct and macro-driven pathways, not through behavioral attention mechanisms. Future research may extend this model by incorporating variables such as market sentiment indices, exchange rate volatility, or firm-specific fundamentals to improve the explanatory power and capture broader behavioral dynamics in Indonesia's capital market.

REFERENCES

[1] Asimakopoulos, S., Malley, J., & Philippopoulos, A. (2025). The firm-level and aggregate effects of corporate payout policy. *Journal of International Money and Finance*, *157*(June), 103373. https://doi.org/10.1016/j.jimonfin.2025.103373

[2] Brigham, E. F. (2013). **Fundamentals of financial management* (14th ed.).* Cengage Learning.

[3] Ballinari, D., Audrino, F., & Sigrist, F. (2022). When does attention matter? The effect of investor attention on stock market volatility around news releases. International Review of Financial Analysis, 82(April), 102185. https://doi.org/10.1016/j.irfa.2022.102185.

[4] Choi, H. M. (2019). Market uncertainty and trading volume around earnings announcements. Finance Research Letters, 30(December 2018), 14–22. https://doi.org/10.1016/j.frl.2019.03.002Miller, M. H. (2023). Dividend policy, growth, and the valuation of shares. ***The Journal of Business*****,** 34(4), 411–433.

[5] Kadioglu, E., Telceken, N., & Ocal, N. (2015). Market Reaction to Dividend Announcement: Evidence from Turkish Stock Market. International Business Research, 8(9), 83–94. https://doi.org/10.5539/ibr.v8n9p83

[6] Kumar, A., Lei, Z., & Zhang, C. (2022). Dividend sentiment, catering incentives, and return predictability. Journal of Corporate Finance, 72(September 2021), 102128. https://doi.org/10.1016/j.jcorpfin.2021.102128.

[7] Letras, S. R. De. (2005). *Author (s): Massimo Cacciari*. *45*(1), 13–22.

[8] Padungsaksawasdi, C., Treepongkaruna, S., & Brooks, R. (2019). Investor attention and stock market activities: New evidence from panel data. International Journal of Financial Studies, 7(2). https://doi.org/10.3390/ijfs7020030 .

[9] Sidhu, A., Bhalla, P., & Zafar, S. (2021). Mediating effect and review of its statistical measures. *Empirical Economics Letters*, 20(Special Issue 4), 30–40. ISSN 1681-8997.

[10] Yusrina, A. (2023). Event study analysis of abnormal returns in Islamic capital markets. . ***Jurnal Ekonomi Syariah Teori dan Terapan*****,** 10(4), 822–835.

[11] Zhang, X. &. (2023). Dividend policy and investor reaction in emerging markets: Testing the signaling hypothesis. *Emerging Markets Review*, 57, 100949.

[12] Zhang, Y., Wang, M., Xiong, X., & Zou, G. (2021). Volatility spillovers between stock, bond, oil, and gold with portfolio implications: Evidence from China. Finance Research Letters, 40(October 2019), 101786. https://doi.org/10.1016/j.frl.2020.101786.

[13] Zhao, X. L. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. ***Journal of Consumer Research*****,** 37(2), 197–206. .