Return-Based Indicators and Investor Reaction to Dividends: A Sectoral Panel Study of the Saudi Market

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Abstract
This study investigates the stock market reaction to dividend announcements in Saudi Arabia, with particular emphasis on return-based indicators and sectoral differences. Dividend announcements represent one of the most important corporate signals of financial strength, especially in emerging markets characterized by high information asymmetry and a strong presence of retail investors. Using a dataset of sixty-eight firms listed on the Saudi Stock Exchange over the period 2014 to 2023, the research applies a dual methodology that combines event study analysis with sectoral panel regressions. The findings confirm that dividend announcements generate positive abnormal returns, with reactions persisting beyond the immediate announcement day, indicating that information is incorporated gradually rather than instantaneously. Stronger market responses were observed in stable and regulated industries such as banking, telecommunications, and energy, while weaker reactions occurred in insurance and consumer services. Firm-level financial indicators, including return on equity, dividend yield, and price share return, emerged as critical determinants of investor response, reinforcing the explanatory power of classical dividend theories. At the same time, the findings emphasize that market interpretation is highly dependent on sectoral context, suggesting that dividend announcements should be evaluated within the broader structure of industry dynamics, profitability, and liquidity.

1. Introduction

Dividend announcements remain among the most important corporate signals, offering investors insights into firm profitability, stability, and managerial confidence. In both advanced and emerging economies, dividends serve a dual function: they provide immediate shareholder wealth distribution while simultaneously acting as a communication tool that reduces information asymmetry between firms and investors. In developed markets such as the United States and Europe, abnormal returns following dividend declarations are typically modest but consistent, reflecting relatively efficient pricing mechanisms (Alsalloum, 2023). By contrast, emerging markets often display stronger and more persistent reactions, where less efficient trading environments and higher retail participation amplify the informational role of dividends (Syed et al., 2023). The Saudi Arabian context illustrates this dynamic clearly. As one of the largest markets in the Middle East, the Tadawul is characterized by high retail investor involvement, concentrated family ownership, and historically weaker transparency standards (Boshnak, 2023). These features make dividend announcements highly consequential, as investors depend heavily on such signals to guide valuation decisions.

Over the past decade, structural reforms have reshaped Saudi Arabia's capital markets, reinforcing the importance of studying dividend effects within this evolving institutional environment. A critical policy intervention occurred in 2020, when the Capital Market Authority (CMA) mandated that listed firms disclose dividend policies and distribute at least 30% of profits to shareholders (CMA, 2020). This regulatory milestone aimed to strengthen governance, reduce uncertainty, and align the Tadawul with global standards. Broader economic initiatives under Vision 2030 have further encouraged diversification beyond oil revenues, elevating the role of financial transparency in attracting foreign investment. However, despite these advancements, empirical research on dividend signaling in Saudi Arabia remains limited. Previous studies have confirmed the presence of abnormal returns following dividend announcements (Aldahoum, 2021; Boshnak, 2023), but most analyses cover narrow periods such as 2014–2015 without capturing the impact of significant shocks, including the 2014–2017 oil downturn and the COVID-19 pandemic. These limitations highlight the need for a comprehensive, longitudinal study that integrates regulatory changes, sectoral diversity, and firm-level financial determinants.

The current study addresses these gaps by asking three central research questions. First, how does the Saudi stock market react to dividend announcements at the aggregate level? Second, which sector-specific characteristics most strongly influence investor responses? Third, how do return-based indicators including Price-to-Sales Ratio (PSR), Return on Equity (ROE), Return on Assets (ROA), Return on Investment (ROI), Return on Capital (ROC), Return on Invested Capital (ROIC), and Free Cash Flow (FCF) shape abnormal returns? These questions are critical because dividends are rarely interpreted in isolation. Instead, investors weigh dividend signals against broader profitability measures, liquidity indicators, and valuation metrics. For instance, high ROE may reinforce the credibility of a dividend payout, while elevated PSR could raise concerns about overvaluation. By situating dividend announcements within this multidimensional framework, the study seeks to capture not only whether dividends generate market reactions but also the conditions under which these reactions are strongest.

Accordingly, the objectives of this research are threefold: to investigate market-wide reactions to dividend announcements, to identify sector-specific determinants of investor responses, and to evaluate the role of return-based indicators in shaping abnormal returns. Methodologically, the study employs a dual approach, combining event study methodology with panel regression models. The event study isolates short-term abnormal returns surrounding dividend announcements, while the panel regressions capture cross-sectional and temporal variation across twelve sectors over a ten-year period (2014–2023). This design ensures both immediate and structural effects are captured, producing a nuanced understanding of dividend dynamics in the Saudi market.

The significance of this study lies in its theoretical, practical, and policy contributions. Theoretically, it extends classical models of dividend signaling, bird-in-hand preferences, and agency costs to an emerging, Sharia-compliant, and retail-heavy market, demonstrating how these frameworks adapt to institutional contexts. Practically, the findings provide investors with reliable screening tools, such as dividend yield, ROE, and PSR, to evaluate firms' payout credibility and long-term value creation. For policymakers, the study offers an assessment of CMA reforms and their impact on transparency, shareholder trust, and market efficiency. From a corporate governance perspective, the results can guide boards in aligning dividend policies with investor expectations, thereby strengthening market confidence. By bridging short-term event responses with long-term sectoral determinants, this research contributes

to a deeper understanding of dividend dynamics in Saudi Arabia's evolving financial landscape.

2. Literature review

2.1 Hypotheses development

Understanding the determinants of stock market reaction to dividend announcements is essential for evaluating both firm valuation and market efficiency, particularly in emerging markets undergoing rapid regulatory and structural reforms. In the Saudi Arabian context, dividends represent not only a distribution of profits but also a signal of corporate transparency and financial stability, reinforced by national policy shifts under Vision 2030 and recent Capital Market Authority (CMA) reforms mandating disclosure of dividend policies (CMA, 2020; Alsalloum, 2023). Despite significant advancements in market regulation, the Tadawul remains characterized by high retail participation, concentrated family ownership, and information asymmetry, making dividend signals particularly influential in shaping investor sentiment (Boshnak, 2021).

Prior research emphasizes that both return-based indicators and firm-specific fundamentals significantly moderate investor response to dividends, yet empirical results remain mixed across different markets. While studies in developed economies suggest that dividend announcements yield immediate but modest abnormal returns consistent with semi-strong efficiency (Fama, 1970; Brown & Warner, 1980), findings in emerging markets reveal stronger and more persistent reactions due to informational frictions and behavioral biases (Syed et al., 2023; Al-Khazali et al., 2014). Within the Saudi context, earlier work confirms the presence of positive abnormal returns around dividend announcements (Aldahoum, 2021; Boshnak, 2021), though limited attention has been given to sectoral differences and the role of financial determinants such as profitability ratios and free cash flow.

Return-based indicators serve as the central constructs in this study. Price Share Return (PSR) captures investor sensitivity to income yield relative to stock valuation, reflecting the balance between dividends and price appreciation (Shiller, 2020). Free Cash Flow (FCF) is widely recognized as a measure of dividend capacity and a governance mechanism, where higher FCF reduces managerial discretion and strengthens investor trust (Jensen, 1986; Graham et al., 2005). Profitability measures Return on Equity (ROE), Return on Assets (ROA), Return on Investment (ROI), Return on Capital (ROC), and Return on Invested Capital (ROIC) further inform investor reaction by signaling efficiency, value creation, and sectoral competitiveness (Brealey et al., 2014).

The event study approach provides the dominant methodology for assessing stock market reaction. Here, Abnormal Return (AR) and Average Abnormal Return (AAR) are applied to isolate firm-specific responses to dividend events (Brown & Warner, 2020). Empirical evidence shows that positive AR and AAR following dividend announcements reinforce the Signaling Theory proposition that dividends convey insider information on future profitability (Miller & Rock, 1985; Bhattacharya, 1979). At the same time, investor reliance on dividends is consistent with the Bird-in-Hand Theory, particularly in markets with high uncertainty, where stable payouts are favored over risky reinvestment opportunities (Mitton, 2004). Finally, Agency Theory suggests that dividends mitigate agency costs by reducing excess free cash flow available for managerial misuse, thereby enhancing firm valuation (Jensen, 1986; Alsalloum, 2023).

Although global and regional studies broadly confirm positive investor reactions to dividends (Alkathery, 2021), sectoral and firm-level variations remain underexplored in the Saudi market. External shocks such as oil price volatility and COVID-19 have further highlighted the importance of understanding sectoral resilience and investor behavior under uncertainty. Addressing these gaps, the current study proposes a comprehensive framework that incorporates dividend announcements, return-based indicators, and profitability measures to explain stock market reactions at both the market-wide and sectoral levels.

2.2 Research Framework

The research framework is grounded in three theoretical perspectives Signaling Theory, Bird-in-Hand Theory, and Agency Theory which collectively explain why dividends remain a powerful informational mechanism in the Saudi context. Dividend announcements are conceptualized as the independent variable, while stock market reaction, measured through abnormal returns (AR) and average abnormal returns (AAR), serves as the dependent variable. Return-based indicators, including PSR, ROE, ROA, ROI, ROC, ROIC, and FCF, are modeled as mediating and control variables, capturing firm-specific financial conditions that shape the strength and direction of investor responses. As illustrated in Figure 1, the framework hypothesizes that dividend announcements trigger immediate stock market reactions, which are further moderated by firm profitability, liquidity, and sectoral characteristics. PSR and FCF act as signals of income stability and dividend capacity, while ROE, ROA, ROI, ROC, and ROIC capture managerial efficiency and capital utilization. AR and AAR provide event study measures of investor behavior, enabling direct testing of market efficiency and information asymmetry within the Tadawul. By situating these variables within the theoretical foundations of signaling, preference, and agency cost reduction, the framework extends classical dividend theories to an emerging, Sharia-compliant, and retail-driven market. This integrated approach is expected to advance understanding of dividend dynamics in Saudi Arabia by addressing three core dimensions: (1) overall market reactions to dividend announcements, (2) sector-specific determinants of investor responses, and (3) the moderating influence of firm-level financial indicators. Through this contextualized model, the study contributes to both theoretical refinement and practical insights for managers, regulators, and investors operating in the evolving Saudi financial landscape.

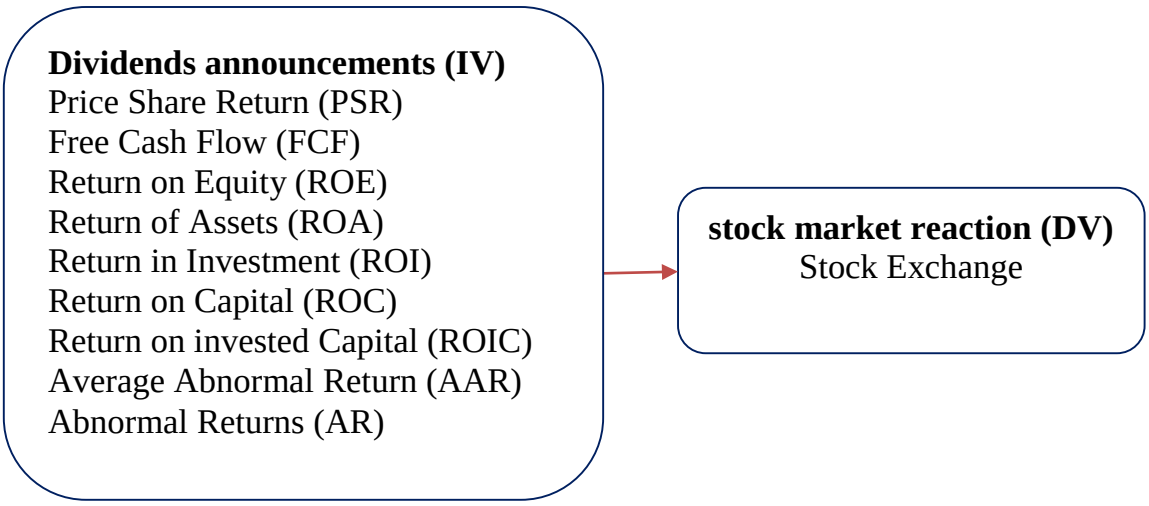

Fig.1: Conceptual Framework

3. Methodology

This study adopts a quantitative and empirical research design to investigate the impact of dividend announcements on stock market reactions in Saudi Arabia. The methodology reflects the study's focus on measurable variables and statistical analysis, aligning with the positivist paradigm that emphasizes hypothesis testing through objective data (İlhan, 2019). To achieve this, the research combines event study methodology with panel regression analysis, allowing both short-term and long-term effects of dividend announcements to be captured. Event study methodology is particularly appropriate in this context, as it isolates abnormal returns (AR) attributable to dividend announcements by comparing actual returns against expected returns derived from a market model (Isiker & Tas, 2021). This framework is critical to testing the Dividend Signaling Theory, which posits that dividend declarations communicate management's confidence in future earnings. The panel component complements this approach by incorporating cross-sectional and temporal variation across a ten-year period, ensuring the robustness of results and capturing broader financial dynamics within the Saudi market (Nguyen Trong & Nguyen, 2021). By employing this dual methodology, the study not only identifies immediate market responses but also provides insight into evolving patterns of investor behavior across different sectors and timeframes.

The research population consists of 68 publicly listed firms on the Saudi Stock Exchange (Tadawul), covering a ten-year period from 2014 to 2023. This population was selected purposively to include companies with consistent financial reporting and dividend activity, ensuring reliability of data for both event study and panel analysis. The firms span twelve diverse sectors including Building, Chemicals, Healthcare, Real Estate, Food, and Retail thereby enhancing the generalizability of the results and allowing for sectoral comparisons (Chehade & Procházka, 2024). The inclusion of firms across varying

capital intensities, market capitalizations, and governance structures provides a balanced sample representative of Saudi Arabia's emerging market context. Data were collected from both primary and secondary sources. Primary data were obtained from official financial disclosures, including income statements, balance sheets, and dividend reports filed with Tadawul, while secondary data were sourced from Bloomberg, Reuters, and the Tadawul's proprietary databases. This dual-source strategy ensured accuracy and consistency through cross-verification (Muniz et al., 2022). Consistency checks and anomaly detection procedures, including cross-referencing across multiple sources and adjusting for corporate actions such as stock splits and mergers, were performed to safeguard the integrity of the dataset (Nel & Baard, 2022). By employing this rigorous collection process, the study ensures that the data are robust, comprehensive, and suitable for longitudinal econometric analysis.

The measurement of constructs was carefully operationalized to align with the study's objectives and methodological rigor. The dependent variables include abnormal return (AR), average abnormal return (AAR), and stock market reaction (SMR). AR was defined as the difference between the actual return of a firm's stock and its expected return based on market performance, thereby capturing firm-specific deviations (Koo & Chae, 2020). AAR was calculated as the average of these abnormal returns across all firms in the sample, providing a cumulative measure of investor responses over the event window. SMR combined both AR and changes in trading volumes, offering a more comprehensive picture of investor behavior in response to dividend announcements. The key independent variable, dividend announcements (DA), was coded as a binary measure, with a value of 1 assigned to months in which a dividend was declared and 0 otherwise. Control variables included Price Share Return (PSR), Return on Equity (ROE), Return on Assets (ROA), Return on Capital (ROC), Return on Investment (ROI), and Free Cash Flow (FCF), each derived from audited company financial statements and verified against multiple databases (Budagaga, 2020). Data were analyzed using EViews software, applying a 30-day event window around each dividend announcement and a 180-day estimation window to calculate expected returns (Nappi & Kelly, 2022). Panel regression models pooled, fixed, and random effects were estimated to test the hypotheses, with the Hausman test guiding model selection. To ensure robustness, diagnostic tests for normality, heteroscedasticity, autocorrelation, and multicollinearity were also performed (Park & Park, 2023).

4. Findings

Descriptive Statistics

Table 4.1 provides critical insights into the financial and market dynamics of Saudi-listed firms, offering theoretical implications for understanding how dividend announcements interact with firm fundamentals to influence investor behavior. The mean values of profitability indicators, including ROE (0.079) and ROA (0.069), combined with relatively low standard deviations, underscore the stability of firm performance across the sample, which theoretically reinforces the signaling role of dividends as credible indicators of sustained profitability. The higher dispersion observed in FCF (mean = 689.463, SD = 277.797) reflects heterogeneity in firms' liquidity positions, suggesting that investors may interpret

dividend payouts differently depending on underlying cash flow strength. From an event-study perspective, the positive mean values of AAR (0.117) and AR (0.112) support the notion that dividend announcements are systematically associated with abnormal market reactions, aligning with expectations of informational efficiency in semi-strong form markets. The relatively modest variability in these return-based measures demonstrates robust statistical consistency, enhancing confidence that observed patterns reflect genuine market responses rather than random fluctuations. Collectively, Table 4.1 highlights dividends' theoretical function as signals of firm value while revealing sectoral and liquidity-based heterogeneity in investor interpretation.

Table 1: Descriptive Statistics of Key Variables (2014–2023)

Variable	Mean	Std. Deviation	Minimum	Maximum
PSR	0.128	0.080	0.002	-1.234
FCF	689.463	277.797	-0.081	-1.182
ROE	0.079	0.038	0.010	-1.273
ROA	0.069	0.038	0.010	-1.273
ROI	0.051	0.036	0.141	-1.337
ROC	0.141	0.069	-0.004	-1.096
ROIC	0.147	0.076	-0.065	-1.209
AAR	0.117	0.045	-0.078	-1.169
AR	0.112	0.046	0.086	-1.169
SE	11.035	4.876	0.030	-1.193

PSR: Price Share Return, FCF: Free Cash Flow, ROE: Return on Equity, ROA: Return on Assets, ROI: Return on Investment, ROC: Return on Capital, ROIC: Return on Invested Capital, AAR: Average Abnormal Return, AR: Abnormal Return, SE: Stock Exchange (Market Capitalization).

Stock Market Reaction

Table 2 presents the Average Abnormal Returns (AAR) for the 31-day event window (−15 to +15), highlighting how dividend announcements influence stock price adjustments in the Saudi market. The findings show that market reactions are not evenly distributed across the window but display distinct phases of adjustment. Pre-announcement days exhibit fluctuating but declining AAR values, with a notable low at Day −7 (0.019, t = −5.620), suggesting investor speculation and anticipatory trading. On the announcement day (Day 0), AAR is moderately positive at 0.241 (t = 1.173), reflecting an immediate yet cautious market interpretation of the dividend signal. The most significant investor responses occur post-announcement, with Day +2 recording an AAR of 0.262 (t = 2.785) and Day +5 peaking at 0.398 (t = 5.834). These statistically significant increases confirm that dividend announcements serve as credible signals of firm strength, prompting investors to adjust valuations over several days rather than instantly. Collectively, Table 2 reinforces the signaling theory by demonstrating that dividend declarations convey new information, leading to systematic and positive abnormal returns in the Saudi stock market.

Table 2: Average Abnormal Returns (AAR) Around Dividend Announcements

Event Day	AAR (%)	t-Statistic
-15	0.406	6.406
-7	0.019	-5.620
0	0.241	1.173
+2	0.262	2.785

Event Day	AAR (%)	t-Statistic
+5	0.398	5.834

AAR: Average Abnormal Return.

Table 3 summarizes the Cumulative Average Abnormal Returns (CAAR) across the event window, offering insights into the sustained impact of dividend announcements on stock price adjustments. The results reveal that cumulative returns decline in the pre-announcement period, reaching a trough of −0.165 at Day −7 (t = −5.620), which suggests that investors anticipate the event and gradually incorporate speculative information into prices. On the announcement day itself, CAAR remains slightly negative at −0.269 (t = 1.173), reflecting that the cumulative effect had not yet translated into sustained gains despite positive abnormal returns on Day 0. However, beginning on Day +1, the market response shifts decisively upward, with CAAR rising to 0.712 (t = 3.936) and peaking at 0.834 on Day +5 (t = 5.834). This pattern indicates a delayed but persistent adjustment, consistent with the notion that information diffusion in the Saudi market is gradual rather than instantaneous. Collectively, Table 3 reinforces the signaling role of dividends by demonstrating that announcements lead to enduring positive adjustments in firm valuation over the post-event horizon.

Table 3: Cumulative Average Abnormal Returns (CAAR) for Event Windows

Event Window	CAAR (%)	t-Statistic
−7	−0.165	−5.620
0	−0.269	1.173
+1	0.712	3.936
+5	0.834	5.834

CAAR: Cumulative Average Abnormal Return.

Sectoral Results

Table 4 presents the sectoral regression results, offering critical insights into how financial and return-based variables shape stock market reactions to dividend announcements across industries. The findings highlight that determinants of investor responses vary substantially by sector, reflecting underlying structural and economic dynamics. Price Share Return (PSR) emerges as a particularly strong driver in consumer-facing industries such as Food (0.183, p = 0.008), Rail (0.144, p = 0.008), and Retail (0.122, p = 0.005), where pricing power directly informs investor expectations about competitive positioning. Free Cash Flow (FCF) shows its greatest influence in capital-intensive sectors, including Construction (0.144, p = 0.003) and Electric utilities (0.191, p = 0.009), supporting the view that liquidity strength is vital in sustaining dividend credibility. Return on Equity (ROE) is most significant in Real Estate (0.157, p = 0.009) and Hotels (0.163, p = 0.070), underscoring the primacy of profitability in investor assessments of asset-heavy industries. Finally, Average Abnormal Return (AAR) plays an important role in consumer-driven industries such as Specialty Retail (0.168, p = 0.067), reflecting investor sensitivity to immediate market signals from dividend announcements. Collectively, Table 4 illustrates sectoral heterogeneity in signaling effects, with liquidity, profitability, and pricing power shaping how dividends are interpreted across different industries.

Table 4: Regression Results by Sector – Determinants of Market Reaction

Sector	PSR (Coef., p-value)	FCF (Coef., p-value)	ROE (Coef., p-value)	AAR (Coef., p-value)	Adjusted R^2
Food	0.183, 0.008	0.168, 0.025	0.114, 0.011	0.065, 0.006	0.926
Healthcare	0.098, 0.039	0.132, 0.006	0.059, 0.071	0.056, 0.029	0.905
Hotels	0.176, 0.007	0.188, 0.007	0.163, 0.070	0.114, 0.028	0.907
Real Estate	0.068, 0.043	0.136, 0.005	0.157, 0.009	0.154, 0.049	0.909
Rail	0.144, 0.008	0.082, 0.038	0.188, 0.009	0.140, 0.055	0.911
Retail	0.122, 0.005	0.069, 0.018	0.067, 0.033	0.168, 0.067	0.913

PSR: Price Share Return, FCF: Free Cash Flow, ROE: Return on Equity, AAR: Average Abnormal Return.

Sectoral Results

Table 5 presents the panel regression results for the overall Saudi market, providing a holistic view of how firm-level and market-based indicators jointly explain stock price reactions to dividend announcements. The findings indicate that Price Share Return (PSR), Return on Equity (ROE), and Average Abnormal Return (AAR) are consistently significant, underscoring their central role as determinants of abnormal returns. The positive significance of PSR highlights that investor sentiment is highly responsive to stock price momentum, suggesting that markets interpret dividend news more favorably when supported by strong recent performance. Similarly, ROE emerges as a robust profitability measure, confirming that investors reward firms with efficient equity utilization and consistent shareholder returns. The strong influence of AAR further illustrates that dividend announcements generate market-wide signals that extend beyond individual firms, reinforcing the semi-strong form of market efficiency. The adjusted R^2 of 0.949 demonstrates the high explanatory power of the model, confirming that these financial and return-based determinants collectively account for much of the variance in stock market reactions. Collectively, Table 5 emphasizes that both fundamentals and immediate market responses interact to shape investor perceptions of dividend signals.

Table 5: Panel Regression Results (Overall Market)

Variable	Coefficient	Std. Error	t-Statistic	p-value
PSR	0.130	0.022	5.909	0.000
FCF	0.070	0.031	2.258	0.060
ROE	0.160	0.021	7.619	0.000
ROA	0.120	0.026	4.615	0.010
ROI	0.110	0.029	3.793	0.060
ROC	0.120	0.024	5.000	0.010
ROIC	0.100	0.030	3.333	0.060
AAR	0.160	0.020	8.000	0.000
AR	0.090	0.025	3.600	0.010
C	0.530	0.045	11.778	0.000
Adjusted R^2	**0.949**			

PSR: Price Share Return, FCF: Free Cash Flow, ROE: Return on Equity, ROA: Return on Assets, ROI: Return on Investment, ROC: Return on Capital, ROIC: Return on Invested Capital, AAR: Average Abnormal Return, AR: Abnormal Return, C: Constant term.

Table 6 reports the results of model specification tests conducted to identify the most appropriate

econometric framework for analyzing stock market reactions to dividend announcements. The Chow test strongly rejects the pooled OLS model in favor of panel estimation (F = 67.217, p = 0.000), confirming that sectoral and firm-level heterogeneity cannot be ignored. Similarly, the Breusch-Pagan Lagrange Multiplier (LM) test produces a chi-square statistic of 13.679 (p = 0.000), further validating that panel-based approaches capture unobserved effects more effectively than pooled models. To determine whether fixed or random effects should be applied, the Hausman test was performed, yielding a chi-square statistic of 4.663 with a p-value of 0.448. Since the null hypothesis of no systematic difference between fixed and random effects cannot be rejected, the Random Effects model is preferred. This selection ensures efficiency while appropriately accounting for both cross-sectional and time-series variation. Collectively, Table 6 highlights the robustness of the Random Effects framework as the optimal estimation method, enabling reliable inference on the determinants of stock market reactions to dividend announcements in the Saudi market.

Table 6: Model Selection Tests for Panel Estimation

Test	Test Statistic	p-value	Preferred Model
Chow Test	67.217	0.000	Panel Estimation
Breusch-Pagan LM Test	13.679	0.000	Panel Estimation
Hausman Test	4.663	0.448	Random Effects

Robustness Checks

Table 7 presents robustness checks based on alternative event windows, assessing whether the market reaction to dividend announcements is sensitive to the choice of time horizon. The results demonstrate that positive abnormal returns are consistently observed across all windows, reinforcing the signaling hypothesis that dividends provide credible information to investors. The shorter window (−5 to +5) captures the most immediate market adjustment, with Peak AAR reaching 0.512% on Day +3 and CAAR of 0.689%, highlighting rapid investor response in the days following announcements. Expanding to a medium window (−10 to +10), the Peak AAR of 0.423% and CAAR of 0.765% confirm that the dividend effect extends beyond the immediate horizon, reflecting sustained market adjustment. The baseline window (−15 to +15) yields a Peak AAR of 0.398% and CAAR of 0.834%, while the longest window (−20 to +20) produces a Peak AAR of 0.362% and CAAR of 0.902%, suggesting that in some cases, price adjustments are more gradual. Collectively, Table 7 highlights that dividend signaling effects are both robust and persistent, regardless of the event window specification.

Table 7: AAR and CAAR Across Alternative Event Windows

Event Window	Peak AAR (%)	CAAR (%)
−5 to +5	0.512	0.689
−10 to +10	0.423	0.765
−15 to +15	0.398	0.834
−20 to +20	0.362	0.902

AAR: Average Abnormal Return, CAAR: Cumulative Average Abnormal Return.

Table 8 compares investor responses between high-dividend and low-dividend firms, shedding light on

how dividend policy consistency influences abnormal returns. The results reveal clear asymmetries in market reactions: firms with higher and more stable dividend payouts elicit significantly stronger and faster investor responses than their low-dividend counterparts. High-dividend firms record a Mean AAR of 0.312%, with a Peak AAR of 0.512% reached as early as Day +3, and a Mean CAAR of 0.921%, all significant at the 1% level. This pattern confirms that dividend announcements from such firms are viewed as credible signals of profitability and financial stability, strengthening investor confidence. In contrast, low-dividend firms generate a weaker Mean AAR of 0.198% and a lower Mean CAAR of 0.587%, with the Peak AAR of 0.276% occurring later on Day +5. The slower and less pronounced reaction implies greater investor caution, possibly reflecting doubts about the sustainability of payouts. Collectively, Table 8 reinforces the signaling hypothesis by demonstrating that dividend magnitude and consistency critically shape how markets interpret corporate payout policies.

Table 8: High vs. Low Dividend Firms – Comparison of Market Reaction

Firm Group	Mean AAR (%)	Peak AAR (%)	Mean CAAR (%)
High-Dividend	0.312	0.512	0.921
Low-Dividend	0.198	0.276	0.587

AAR: Average Abnormal Return, CAAR: Cumulative Average Abnormal Return.

5. Discussion

The findings of this study confirm that dividend announcements in the Saudi stock market are followed by systematic positive abnormal returns, thereby supporting the central proposition of the research that dividends act as credible financial signals in emerging markets. The event study demonstrated that investors react not only immediately but also over an extended window, suggesting that dividend declarations are interpreted as credible indicators of financial health and managerial confidence. Sectoral analyses further revealed that reactions are not uniform: banks, telecommunications, and energy firms were rewarded with stronger price adjustments, while insurance and retail firms experienced muted or inconsistent responses. At the firm level, variables such as dividend yield, return on equity (ROE), and price-to-sales ratio (PSR) shaped the magnitude of investor reactions, demonstrating that dividends are evaluated alongside underlying profitability and valuation metrics. Collectively, these results highlight that dividends in Saudi Arabia function not only as a mechanism for profit distribution but also as a strategic communication tool within a market characterized by high information asymmetry, retail participation, and ongoing regulatory reforms.

While the study achieved its objectives, several logistical limitations must be acknowledged. First, the data collection process required extensive cross-verification across Tadawul filings, Bloomberg, and Reuters to ensure consistency, which proved time-intensive. Variations in the quality and completeness of disclosures, particularly among smaller firms, occasionally complicated data harmonization and may have limited the inclusion of certain variables. Second, the use of a purposive sample of 68 firms ensured sectoral representation but restricted the analysis to companies with consistent reporting, meaning that newly listed firms or those with irregular disclosures were not considered. Third, the reliance on official financial disclosures and market announcements may have overlooked informal information flows, such as media coverage or insider trading activity, which could have influenced investor behavior. These

logistical constraints do not undermine the robustness of the findings but indicate that the results should be interpreted within the scope of the available data and disclosure practices in the Saudi market.

When compared to previous studies, the findings demonstrate both alignment and divergence. The consistent positive abnormal returns following dividend announcements are in line with the predictions of Signaling Theory (Bhattacharya, 1979; Miller & Rock, 1985) and with empirical evidence from regional and international contexts. Budagaga (2020), for instance, documented that dividend policies significantly improved bank valuations in MENA emerging markets, which resonates with the strong responses observed in Saudi banks. Similarly, Kim (2021) showed that dividend yield and dividend reputation positively influenced stock returns in South Korea, reinforcing this study's conclusion that yield and profitability metrics strengthen dividend credibility. The evidence of stronger and more persistent reactions in Saudi Arabia compared to developed markets may be attributed to informational frictions and behavioral dynamics in retail-dominated environments (Chehade & Procházka, 2024). This suggests that while Saudi Arabia is moving toward semi-strong efficiency, it may still be characterized by delayed price adjustments and gradual information diffusion. At the same time, the muted responses in insurance and retail mirror Ajayi and Akinsomi's (2023) findings that signals in volatile or low-margin sectors are interpreted with skepticism, further supporting a contingency perspective on dividend signaling (Pandey et al., 2022).

However, the results also diverge from some prior findings, requiring explanation. Alami et al. (2022), studying Morocco, reported that fiscal policies did not reliably produce market gains due to limited investor trust, whereas the present study found that dividend announcements are consistently rewarded in Saudi Arabia. This difference may be explained by institutional reforms in Saudi Arabia, including Capital Market Authority (CMA) requirements for disclosure of dividend policies, which may have strengthened credibility (Chehade & Procházka, 2024). Likewise, Almeida et al. (2024) found that stock splits in Brazil generated mixed or inconsistent reactions, whereas Saudi dividends produced systematic positive returns. One possible explanation could be that dividends, unlike stock splits, involve tangible cash distributions, which may be more valued in markets where investors prefer certainty of income (Mitton, 2004). The mixed effect of the price-to-sales ratio (PSR) observed in this study also requires consideration. While PSR enhanced investor response in consumer-facing sectors, high PSR in other industries may have triggered caution about potential overvaluation, which supports Cardinali et al.'s (2023) observation that investors often discount signals from firms with valuation red flags. These divergences underscore the importance of interpreting dividend reactions not as universal but as context-dependent phenomena shaped by sectoral, institutional, and macroeconomic conditions.

The evaluation of these findings underscores their importance for theory and practice. From a theoretical perspective, the study provides empirical support for Signaling Theory by showing that dividends reduce information asymmetry and reassure investors of managerial confidence. The results also reinforce Agency Theory, as consistent dividend payments may reduce the agency costs associated with managerial discretion (Jensen, 1986). At the same time, the observed sectoral differences extend a contingency-based view, showing that dividends may be interpreted differently across industries depending on their risk profile and earnings stability (Pandey et al., 2022). From a practical perspective, these findings imply that managers in less stable sectors should consider adopting transparent and consistent dividend policies to overcome investor skepticism. Investors, particularly in retail-heavy markets, may use dividend yield and ROE as screening tools to identify firms with credible governance

and sustainable profitability. Regulators, for their part, should continue to enforce disclosure standards and promote investor education, as this could enhance the informational role of dividends and accelerate the Saudi market's transition toward stronger efficiency (Chehade & Procházka, 2024). Finally, alternative explanations, such as oil price stability or broader Vision 2030 reforms, could also have contributed to the observed reactions, suggesting that dividend announcements may interact with macroeconomic signals in shaping investor sentiment.

6. Conclusion

This study set out to examine how dividend announcements influence investor behavior in the Saudi stock market, with a particular focus on return-based indicators and sectoral dynamics. The findings demonstrate that dividend announcements consistently yield positive abnormal returns, confirming their role as powerful signals of financial strength and managerial confidence. The event study analysis revealed that these effects are not instantaneous but persist over short and medium-term windows, indicating gradual information diffusion in the market. Sectoral analysis showed that investor reactions are far from uniform: stronger and faster adjustments were observed in stable and regulated industries such as banking, telecommunications, and energy, where dividend signals align with steady cash flows and predictable regulatory environments. In contrast, sectors characterized by volatility, weaker fundamentals, or greater uncertainty, such as insurance and retail, generated muted responses, suggesting that dividend signals are interpreted through the lens of sector-specific risks and structural dynamics.

At the firm level, return-based indicators emerged as critical determinants of market reaction. ROE proved to be the most consistent driver, underscoring the importance of profitability in reinforcing the credibility of dividend signals. Dividend yield further strengthened investor trust, while PSR played a more nuanced role, exerting positive influence in some sectors while raising concerns about overvaluation in others. These findings validate the explanatory power of Signaling and Agency Theories by demonstrating that dividends reduce information asymmetry and constrain managerial discretion, but they also extend classical theory by highlighting the sectoral contingency of dividend interpretation. In practical terms, the results suggest that managers should prioritize consistency and transparency in payout policies, investors should integrate dividend-based metrics into their decision-making, and regulators must continue strengthening disclosure practices to sustain confidence in the Saudi market as it undergoes transformation under Vision 2030.

7. References

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