

# Information Content of Dividend Announcements: An Event Study of Indian Capital Market



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*Investors are expected to use dividend announcements as a cue while making investment decisions. This study aims to examine the signalling hypothesis of dividends through an empirical investigation of market response to dividend announcements. Data regarding dividend announcements of companies and their respective stock prices are collected from CMIE Prowess database. An event study methodology is used with an estimation period of 120 days and event period of 21 days in total. The results contribute valuable insights into the paradoxical nature of dividends and prove that market reacts to the announcement of dividends.*

**Keywords:** Market efficiency, Corporate Decision Making, Dividend Announcements, Asymmetric Information, Event study  
**JEL Classifications:** G14,G35,E44,D82,C58

## 1. Introduction

In today's financial literature, dividend policy is one of the most fascinating subjects (Mtunya et al., 2016). Dividends received and capital gains make up the returns related to the shareholders. Both of them are directly impacted by a company's decision to pay dividends. Determining whether to pay dividends or reinvest the funds in the business to take advantage of additional opportunities that provide capital gains is therefore a crucial task for management (Bezawada & Tati, 2017). For investors planning their portfolios, economists attempting to comprehend and evaluate how the capital markets operate, and corporate officials who must establish the policy, the impact of a company's dividend policy on the current price of its shares is a significant issue (Miller & Modigliani, 1961).

Several studies provide evidence in support of the information hypothesis of dividends, which states that announcements of changes to the dividend policy do provide insight into the company's prospects for the future (Felimban et al., 2018). It is anticipated that a dividend policy will result in higher share prices since investors will be more confident about the company's prospects going forward (Adeiza et al., 2020). Because of this, when dividend announcements are made, the market typically responds, reflecting how investors understand the information. Several studies provide evidence in support of the information hypothesis of dividends, which states that announcements of changes to the dividend policy do provide insight into the company's prospects for the future (Felimban et al., 2018).

Even with the growing discussion, stock price valuation on dividend has grown to be a challenging problem. To solve this complex puzzle, numerous hypotheses, models, and explanations have been offered (Tariq et al., 2014). Existing studies have generally demonstrated that there are various ways to evaluate the informational content of cash dividend announcements (Anwar et al., 2015) and at the same time they are giving contradictory results on market reaction to corporate dividend announcements. As per signalling theory dividend announcements are considered to be a signal which provide private information regarding companies future prospects (Bhattacharya, 1979) whereas there are studies stating dividend related stock price reactions are not always predictable (Fama & French, 2001). Studies like (Asquith & Mullins, Jr., 1983) show that the market responds favourably to new dividend initiations, while other research suggests that share repurchases may have surpassed dividends as the preferred way to distribute capital to shareholders (Grullon & Michaely, 2002).

Based on the discussion above, this paper seeks to contribute to the existing literature on dividend by empirically testing the signalling hypothesis of dividends, specifically examining the market reactions to dividend announcements in the Indian context.

The structure of the paper is as follows. A section outlining the data and methodology follows a review of earlier research. Following the presentation of the analysis and empirical data, the paper's last part summarizes the key conclusions and suggests directions for future research.

## 2. Literature Review

The idea of dividend signaling is one of the most challenging topics in the literature on behavioural accounting and finance. It implies that dividend fluctuations are a good indicator of a company's future performance and contain valuable information about profitability (Hussainey & Aal-Eisa, 2009). The foundational paper on signalling theory where Bhattacharya explain dividend announcement as the signal of future prospects of company. Firms paying higher dividends have superior future prospects than those firms not paying dividends (Bhattacharya, 1979).

According to signalling theory a firm's decision to increase its dividend payout is an indication of promising future prospects, such as increased predicted earnings or stable finances. A dividend cut, on the other hand, can indicate financial difficulties or deteriorating prospects for the future. This signalling effect is predicated on the idea that investors take dividend fluctuations as significant indicators of the company's future and that managers have superior knowledge about it. There are numerous studies such as (Baker & Powell, n.d.; Grullon & Michaely, 2002; Hussainey & Aal-Eisa, 2009; Ichev, 2024; Kalay, n.d.; Miller & Modigliani, 1961; Ross, n.d.) supporting signalling theory. This theory has been strongly supported by empirical research, which demonstrates that market responses to dividend announcements frequently align with the notion that payouts are a predictor of a company's future performance (Anwar et al., 2015).

However, not all studies support the view that dividend changes function as reliable signals of future firm performance. For instance, (Fama & French, 2001) reveals that rather than indicating future profitability, the market's response to dividend fluctuations is frequently impacted by changes in firm fundamentals, such as growth potential or firm size. By arguing that market responses to dividend changes are frequently weak, (Brav et al., 2005) further cast doubt on the signalling theory and raise the possibility that other factors, such as earnings announcements, tax implications, and liquidity needs, may influence stock price movements more than previously thought. There are also studies that contrasts this view arguing that dividend announcements may not always carry significant information (Easterbrook, 1984; Fama & French, 2001; Miller & Modigliani, 1961).

By challenging signalling theories, (Ben Said, 2012) offers a number of other theories, such as tax preferences and agency costs, which offer distinct perspectives on how the market would respond to dividend announcements.

### 3. Sample Selection , Methodology and Testable Hypothesis

#### 3.1 Sample selection

An event study methodology is used in this study to investigate how dividend announcements affect stock prices. The NIFTY 50 index companies that are included in the sample were chosen for their high market capitalization and liquidity, ensuring that the results are reliable and applicable to the Indian stock market. Sample period consist of four years starting from 1 st April 2020 to 31<sup>st</sup> March 2024.

#### Event Window and Estimation Period

- The event window spans 20 days before ( $t=-20$ ) and 20 days after ( $t=+20$ ) the announcement date ( $t=0$ )
- The estimation window for the study is 120 days prior to the event window .

#### 3.2 Methodology

Event study methodology has been used for analysing stock price reaction to dividend announcement. Dividend announcement date of the companies were taken as the event day and based on which event window and estimation window has been selected Adjusted closing price of the selected companies corresponding to the event window periods and estimation window were taken for the analysis .Three models are employed to estimate abnormal returns ( $AR(i, t)$ ) during the event window:

1. Market Model: The market model establishes a linear relationship between a stock's returns and the market's returns. It estimates the normal returns ( $E[R_{i,t}]$ ) using the equation:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t}$$

Where

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t})$$

2. Market-Adjusted Model: The market-adjusted model assumes that the stock return should equal the market return under normal conditions. Thus, abnormal returns are calculated directly as:

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

3. Raw Return Model: The raw return model evaluates the actual return of the stock without adjustment for market movements. Abnormal returns in this model are equivalent to the observed stock returns:

$$AR_{i,t} = R_{i,t}$$

#### Cumulative Abnormal Returns (CARs)

- To measure the aggregate impact over the event window, cumulative abnormal returns (CARs) are calculated for each model:

$$CAR_{i,t} = \sum_{t=t_1}^{t_2} AR_{i,t}$$

### 3.3 Testable Hypothesis

Announcements of dividends are often considered significant corporate events that may influence the stock prices and emotions of investors. An event study investigates whether such announcements trigger statistically significant abnormal returns that reflect market responses. This study investigates how well the market adjusts the values of stocks based on information from dividend announcements. The purpose of the study is to establish whether the event window has a noticeable impact on the performance of the stock. Therefore, we test the following hypothesis

**Null Hypothesis(H0):** Dividend announcements do not have a significant effect on stock prices

**Alternative Hypothesis(H1):** Dividend announcements have a significant effect on stock prices

## 4. Empirical Results

### 4.1 Price Reaction Results

Following Table lists the ARs during the event period (day -20 to day +20) as determined by the market model, the market-adjusted returns model, and the raw returns model along with the associated t-values. The main purpose of the study is to know the effect of dividend announcement on stock prices by analyzing abnormal return around the event window. The Abnormal returns measured by these three models on the date of announcements (t=0) are 1.51,1.31,1.33 respectively and it is statistically significant at 1 percentage level of significance . The t-values for these days were found to exceed the critical threshold, indicating a rejection of the null hypothesis in favour of the alternative hypothesis. This results supports the signalling hypothesis and shows positive market reactions for the dividend announcement .The empirical results of the study confirms the existing theory that market respond positively to the announcement of dividend and the positive changes in AR around the dividend announcements stresses the fact that the information content of dividend announcements leads to market inefficiency around the event days.

Days	Market Model		Market Adjusted Model		Raw Return Model	
	AR percent	t statistic	AR percent	t statistic	AR percent	t statistic
-20	0.497	0.45	0.265	-0.88	-0.193	1.23
-19	0.471	0.53	0.456	1.37	-0.129	-0.33
-18	0.602	0.86	0.903	-0.92	-0.561	-0.79
-17	0.121	0.92	0.675	-0.54	-0.345	-1.83
-16	0.231	-0.56	0.346	-0.73	0.678	0.25
-15	-0.779	-0.83	0.236	-0.68	0.463	1.27
-14	-0.345	0.46	-0.209	0.23	0.567	0.93
-13	0.055	0.95	0.466	1.82	-0.332	0.45
-12	0.561	0.87	0.864	-0.55	0.124	-0.98
-11	0.128	-0.46	0.775	-0.88	0.092	-0.65
-10	0.432	-0.39	-0.167	-0.23	0.338	-0.45
-9	1.234	0.87	-0.564	-0.56	0.413	1.84
-8	0.324	0.89	-0.875	-0.98	0.779	-0.37
-7	0.291	-0.42	-0.432	0.77	0.345	-0.79
-6	0.478	-0.12	-0.433	0.37	0.674	0.36
-5	0.142	0.46	0.271	0.87	0.322	1.63
-4	0.255	0.76	-0.183	-1.02	-0.237	-0.54
-3	0.113	0.28	0.127	0.48	0.268	0.93
-2	0.514	0.56	0.244	0.85	0.353	0.71
-1	0.862	1.39	0.423	1.37	0.521	1.08
0	1.511	2.32	1.319	2.46	1.338	2.32
1	0.302	1.07	0.497	1.31	0.382	1.24
2	0.941	0.67	0.254	1.06	0.241	0.93
3	0.381	-0.26	-0.181	0.79	-0.368	0.84
4	0.277	0.28	0.216	-1.98	-0.272	0.27
5	0.053	-0.32	-0.122	0.34	-0.552	0.47
6	0.156	0.65	0.344	-1.12	1.819	0.28
7	0.023	0.05	-0.076	0.92	1.246	0.92
8	0.194	-1.12	-0.386	0.67	0.454	0.34
9	0.024	-0.17	-0.871	0.28	-0.672	0.37
10	-0.612	-0.33	-0.345	0.48	-0.873	-0.84
11	-0.188	-1.09	-0.133	-0.45	-0.761	-0.27
12	-0.012	0.06	-0.462	-0.06	-0.653	-0.67
13	0.191	0.65	0.056	-0.95	-0.346	0.08
14	0.128	0.66	-0.653	0.85	-0.236	0.43
15	0.205	0.35	-0.661	0.37	-1.234	0.67
16	0.034	0.66	-0.125	0.07	-0.234	0.84
17	0.641	0.33	-0.564	-1.68	-1.347	-0.36
18	0.032	-0.25	0.821	0.66	0.009	1.72
19	0.149	0.53	0.234	0.39	0.087	0.76
20	0.432	-0.34	0.643	0.45	-0.245	-0.36

Table 3: Daily average Abnormal returns from 20 days before to 20 days after dividend announcement days of selected 50 companies in National Stock exchange over the period 2020-2024.

## 5. Conclusion

Announcements of dividends are often considered significant corporate events that may influence the stock prices and emotions of investors. This study uses an event study methodology to examine how dividend announcements affect stock prices in the Indian stock market. The market reaction is indicated by the existence of abnormal return values. The results show that stock prices are highly impacted by dividend announcements, especially on and around the day of the event. Because higher dividends result in positive abnormal returns, which show improved investor preference and confidence in the company's future prospects, the evidence gives credence to the signalling theory. Because stock prices quickly adapt to new information in dividend announcements, the data also imply that the Indian stock market demonstrates semi-strong form efficiency. Thus, based on the perspective of signalling theory, the results of this study prove empirically that dividend announcements are a signal and contain information relevant to investors as a consideration in the investment decision making process.

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