

# A Study on Share Prices Reactions to Dividend Announcement and Execution in India: Overreaction or Drift?

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Highly conflicting views are found between theories and empirical studies regarding impact of dividend announcement and execution in the stock market and for the creation of wealth of the shareholders. This paper uses panel data approach and examines the study of 30 stocks considered for a time period of 2009 to 2013 to study stock market reaction pertaining to dividend announcement and execution. The study indicates positive abnormal return pre, on the day of announcement and post announcement period while discards possibility of positive abnormal return on pre-execution, on the day of execution and post execution and thus confirms that dividend announcement and not dividend execution increases wealth of the shareholders.

**Keywords:** Dividend, Announcement, execution, Abnormal return,

## **INTRODUCTION**

As per Miller and Modigliani (1961), dividend payment has no impact on shareholders wealth in the absence of taxes and other market imperfections. While Walter (1956) and Gordon (1959 and 1962) proved that valuation of stocks depends upon expected future dividend. A dividend payment increases cash flow to the investors but reduces that of company. If the company's return is more than their opportunity cost of capital, and in such case if it pays out all or major chunk of dividend from earning in current year; it decreases company's capacity to pay higher or consistent dividend in future. Moreover, it also leads to company to borrow from the market at comparatively higher cost of capital. So, major theories in this area suggest that dividend payment is not a desirable corporate outcome when companies have better investment opportunities available at their hand. Despite all such arguments and theoretical support, dividend announcement and execution carry some information for the investors and stock prices adjust accordingly. As per tax-dividend hypothesis investors dislike cash dividend since they are taxable. The hypothesis also implies that stock dividends should result in positive abnormal return. The signaling hypothesis says that firms will declare dividend when future prospectus are high for the firm's operations and profitability. According to free cash flow theory, the dividend has information content in which the behavior of the managers will be more aligned with the interest of share holders. This theory says that manager will invest in those projects which are likely to generate positive net present value. The other theory named dividend clientele theory says that there are two types of investors-some prefer dividend while other group of investors prefer retained earnings over dividend payment.

## **LITERATURE REVIEW**

Akbar and Baig (2010) found that the reaction of stock prices to cash dividend announcement is statistically insignificant. The research says that for the given window of 41 days; return are negative might be because of the tax effect of the cash dividend. However, the negative returns are compensated by the cash dividends which are not taken in to account while calculating dividend. Mamun et al (2013) studied stock price reaction to dividend announcement in the Bangladesh Capital Market and found that the dividend declaration does not bring any gain to the investors. On contrary, dividend results in to substantial fall in the share prices both in pre-dividend and post dividend period as the market passes through a continuous revision of directives of regulators to check a bullish

market. Empirical findings by Lenstoane (2011) indicated that there is no statistically significant market reaction on the dividend announcement day and it does not support the irrelevance theorem.

Bhatia (2010) has studied and tried to find out if there is any significant change or not for selected companies of NSE India for the time period 2008-09. Researcher has used event study method with constant mean return model to find out impact of before and after dividend announcement in India. The research says that it cannot be generalized that there is an impact of dividend announcement on the stock return, because as all companies in general declare almost a constant dividend every year on the face value of the share. So, dividend values are already known to the shareholders and therefore stock return do not result in to drastic changeover at the stock exchanges. However, the research with too small period for the study cannot be relied upon. Kamat et al (2009) have used panel data for a reasonably longer time window of 1971 to 2007. The empirical work by the author reveals that some tangible variables like asset, increased earnings over a number of year, size etc are the prime movers of dividend in India. Pani has also used panel data approach to explore the possible link between dividend policy and stock price behavior and concluded that size of the firm remains consistently positive over different sectors considered for the study. The finding reveals that the dividend paying companies are large, profitable and growth rate of the firm does not seem to dissuade the dividend payment.

Empirical analysis by Manoj (2012) for Infosys stock concluded that share price is not always been positively correlated to dividend. Researcher found that for Infosys, share holders do not expect dividend but prefer the company to turn over the capital and increase in capitalization. Saleem et al (2013) have analyzed the impact of dividend announcement on stock prices in Pakistan and investigated whether change in dividend announcement lead to change in stock price. Contrary to Manoj (2012) research by Saleem summarized that dividend announcement has a strong impact on share prices and increase in dividend announcement increases stock prices. Khan (2009) attempted to analyze impact of divided vis-a-vis retained earnings. The finding of the study says that the impact of the dividend on stock prices is comparatively better than that of retained earnings. The study also came out with interesting finding that the impact of dividend announcement varies from industry to industry. Bayezid Ali (2010) has studied impact of dividend announcement on banking industry of Bangladesh. The research says that dividend announcement does not convey any information as the

result of the study is mixed. This is in confirmation with the earlier research done by Bhatia (2010) but contradictory to the Khan (2009). Further, the research summarized that the performance of the individual company matters rather than sector as a whole which is in line with the research of Kamat et al (2009). Empirical finding by Malla (2009) proved that ex-day stock price proved to fall by significantly less than the dividend. The study found that there is no significance difference between the average market price per share before and after the cash dividend payment of commercial banks, development banks and finance company. Rashid and Rahman summarized that the impact of dividend announcement is ambiguous due to inefficient capital market. An empirical examination by Eades et al (1985) reveals that there is a lag in the market's response to dividend announcement and it is due to confounding of ex-dividend effects with announcement effects. When ex-dividend effect is controlled, there is no evidence of a lag in the market's response to dividend announcement.

Findings by the Bhana (1998) are consistent with many earlier studies as it concludes that the share prices tend to react positively to the announcement of the special dividends. The paper came out with very important findings that the share price reactions are negatively related to dividend declaration frequency. It further implies that frequent declaration of special dividends convey less information than do infrequent declarations. Michaely et al (1995) found that market reacts to dividend announcement rather than dividend execution. The more comprehensive study was made by Fracassi (2008) as the study has included price sensitivity to announcement of dividend changes. The paper concluded that the positive price response to dividend increases is primarily due to signaling of higher future earnings. The stock price reaction to dividend increases is highly sensitive to the market dividend premium. Kadioglu (2008) used event study method and found that there is a significant negative relationship between the cash dividend per share and abnormal return after the announcement. Studies by Chen et al (2007) half supports the signaling hypothesis. The result implies that investors react pessimistically to cash dividend increases and react optimistically to dividend decreases.

## **RATIONALE FOR THE STUDY**

In any country, capital market is considered to be a very attractive field for any investment. In case of India, capital market investment is very important and significant for the development and market capitalization of domestic industry, trade and commerce. However, investors consider several things

before they invest their funds in any particular securities. Among them, so far the most important subject matter is return from investment in securities that partly depends on dividend announcement in the stock market. On the other hand, announcement of dividend is considered to be a significant variable for stock price movement. In this paper, we have tried to identify the impact of dividend announcement on stock prices. Impact of dividend announcement and execution is not a new phenomenon in US and other European market and they are many researches are undertaken to study the effect of same; however their findings are confusing and mutually conflicting. Moreover, it is erroneous to directly conclude and relate from such studies for Indian market as it largely differs from developed market of the other countries. There are some good studies are found in Indian context after 2005 which have studies the impact of stock dividends on stock returns; however their research like foreign research are not giving consistent conclusion and mutually conflicting with each other. One more reason to conduct this study is that companies do not go for dividend announcement just to please the investors; as there are other motives of the company as studied in literature review section. Moreover, unlike earlier studies, it was decided to use panel data approach to study the impact of dividend announcement and execution on year on year basis.

### **OBJECTIVE OF THE STUDY:**

1. To identify market reaction to announcement and execution of dividend on selected companies popularly traded in India.
2. To study whether abnormal return is generated or not on account of dividend.
3. To study and compare which event an announcement or execution generates more abnormal return.

### **RESEARCH METHODOLOGY**

The study relies on [www. bseindia.com](http://www.bseindia.com), [www. nseindia.com](http://www. nseindia.com) and [moneycontrol.com](http://moneycontrol.com) to study the given objectives. The present study studies the marker reaction to announcement and execution of cash dividend with a sample of 30 companies. For the given empirical analysis shares of those A1 and B1 group are selected for which no other corporate event such as stock split, bonus share, right issue, mergers and acquisition are announced and executed within the selected window. Moreover, these are those 30 companies which have provided dividend in the last five years i.e. from year 2009 to 2013. Care has been taken care that all the selected 30 securities are from different diversified

sector. Another most important criterion is that the scrip must be traded continuously for the selected time framework.

### ***Panel Data Approach***

Selection criteria of scripts to be undertaken for study

The basic sample for the study is comprised of 30 securities of Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) equity stocks that have declared cash dividend between January 2009 to December 2013.

Scripts are included in the study based upon following fulfillment criteria.

1. The stock price data is available for -10 days prior to the dividend announcement date and +10 days post announcement.
2. For the same 30 securities stock price data should be available for -10 days prior to the execution date and +10 days post execution.
3. Announcement and Execution dates are available

### ***Methodology to ascertain Market Reaction around dividend announcement and execution***

In this paper the cash dividend announcement and execution date is considered as an event and is defined as 0. The estimation window considered for the study is -10 days prior to announcement and execution of stock and post +10 days from date of announcement and execution. The benchmark index considered for the study is BSE Sensex.

The study uses the Market Model Method. The expected rate of return on the security was calculated using the market model. The model parameters were estimated by regressing daily stock return on the market index over the estimation period. The market model is given by

$$R_t = \alpha + \beta R_{mt} + \varepsilon_t \quad (i)$$

Where  $R_{mt}$  is the return on sensex for day t,  $\beta$  measures the sensitivity of the firm to market- this is a measure of risk- and  $\varepsilon_t$  is the statistical error term where  $\sum \varepsilon_t = 0$ .

Thus the predicted return for the firm in the event period is the return given by the market model on that day using these estimates. The market model method is the most widely used method since it takes explicit account of both the risk associated with the market and mean returns.

The market's reaction to the stock dividend is measured using daily stock return data to compute excess stockholder returns. These excess returns are a measure of the stockholder's return from the new information which becomes available to the market. The daily excess return for the security is estimated by:

$$XR_t = R_t - E(R_t) \quad (ii)$$

Where  $t$  = day relative to an event,  $XR_t$  = excess return on the security for the day  $t$ ,  $R_t$  = actual return on the security for day  $t$ ,  $E(R_t)$  = predicted or expected rate of return on the security for day  $t$ .

First, the average abnormal returns (AAR) for each relative day  $t$  are calculated across the securities. Daily average cumulative abnormal returns (CAR) are the sum of the average abnormal return over event time. In the event time, the day on which a dividend is announced/executed is designated as 0. Trading days prior to the announcement/execution are numbered event days -2, -1 and so on and the post announcement/execution days are numbered as +1 +2 etc.

Average Abnormal Return (AAR): An average of abnormal returns across the  $N$  firms on a day  $t$ .

$$AAR_t = \frac{1}{N} \sum_{i=1}^N (AR_{i,t})$$

Cumulative Abnormal Return (CAR): cumulative sum of stock  $i$ 's prediction error (Abnormal returns) over the window  $(t_1, t_2)$

$$CAR_{i,t} = \sum_{T_1}^{T_2} (AR_{i,t})$$

### Hypothesis Test for impact of dividend

Based on the above mentioned research methodology, and formation of the windows; below hypothesis were studied.

H0<sub>1</sub>: There are no excess returns present in the pre announcement period.

H0<sub>2</sub>: There are no excess returns present on the announcement day.

H0<sub>3</sub>: There are no excess returns present in the post announcement period.

H0<sub>4</sub>: There are no excess returns present in the pre execution period.

H0<sub>5</sub>: There are no excess returns present on execution day.

H0<sub>6</sub>: There are no excess returns in post execution period.

## DISCUSSION AND FINDINGS

As mentioned in the literature review and rationale for the study, there is no clear cut evidence is found about whether dividend plays any role or not to increase wealth of the shareholders. Also, no clarity is found in the earlier studies that what matters for investors: dividend announcement or execution. Therefore, total those 30 companies were selected who have announced and paid dividend in last five years are from different sectors. Separate analysis is made to find out which event (announcement or execution) is more effective.

### *Impact of Dividend Announcement*

**Table 1: Average Abnormal Return of 30 Companies (Announcement)**

Time	Average Abnormal returns of 30 companies				
	2013	2012	2011	2010	2009
-10	1.96	1.06	1.81	0.44	-6.43
-9	1.81	0.79	2.02	0.04	-6.82
-8	1.75	1.29	1.75	-0.07	-7.28
-7	1.37	0.93	1.30	0.55	-5.57
-6	1.74	0.53	2.10	-0.34	-6.87
-5	1.90	1.17	2.34	-0.09	-6.78
-4	1.47	0.73	1.26	-0.57	-7.83



<b>-3</b>	1.75	1.13	1.74	0.07	-6.59
<b>-2</b>	1.63	1.02	1.86	-0.01	-6.81
<b>-1</b>	1.55	1.18	1.87	-0.20	-7.53
<b>0</b>	<b>0.79</b>	<b>0.42</b>	<b>1.03</b>	<b>-0.55</b>	<b>-5.90</b>
<b>1</b>	2.29	1.38	1.86	-0.51	-6.82
<b>2</b>	1.34	1.04	2.32	-0.58	-6.62
<b>3</b>	1.73	0.55	2.05	0.05	-7.40
<b>4</b>	1.65	0.94	1.66	-0.35	-6.48
<b>5</b>	1.66	1.34	1.87	0.64	-7.41
<b>6</b>	1.73	0.88	2.15	-0.12	-5.26
<b>7</b>	1.31	0.91	2.02	0.00	-7.09
<b>8</b>	1.41	1.10	2.08	0.34	-7.19
<b>9</b>	2.02	1.03	1.61	-0.69	-6.49
<b>10</b>	1.35	1.33	1.93	-0.55	-7.35

(Source: Authors' calculation)

From Table 1, it can be inferred that average abnormal return is positive before announcement day, on the day of announcement and after announcement day except for the year 2010 and 2009. It can be also noted that average abnormal return is comparatively more after announcement day than before the announcement day; which indicates that dividend announcement results in to positive abnormal gain for the investors and thus increases their wealth.

**Table 2: Cumulative Abnormal Return of 30 Companies (Announcement)**

Event Window	Cumulative Abnormal Return (Announcement)				
	2013	2012	2011	2010	2009
from -10 to 0	17.73	113.16	19.08	-0.73	-74.41
From -5 to 0	9.09	5.63	10.09	-1.34	-41.44
from -3 to 0	5.72	3.74	6.50	-0.69	-26.84
From -1 to 0	2.34	1.60	2.90	-0.75	-13.43
Announcement Day	0.79	0.42	1.03	-0.55	-5.90
From 0 to +1	3.07	1.80	2.88	-1.07	-12.72
from 0 to +3	6.14	3.38	7.26	-1.60	-26.74
From 0 to +5	9.45	5.67	10.79	-1.31	-40.62
from 0 to +10	17.28	10.92	20.58	-2.33	-74.00

(Source: Authors' calculation)

From the above Table 2 it can be observed that cumulative abnormal return is positive before dividend announcement day except for the years 2010 and 2009. Similarly, cumulative abnormal

return decreases when market approaches announcement date which indicates leakage of information before formal announcement of dividend is made. In a similar track, it further increases when number of days increases after announcement day except for the years 2010 and 2009. As out of five years, three years have shown insignificant positive abnormal return on the day of announcement, it reject hypothesis 2. Table 1 and Table 2 confirms that there is presence of average abnormal return before and after announcement day; thus rejects hypothesis 1 and 3.

### *Impact of Dividend Execution*

**Table 3: Average Abnormal returns of 30 companies (Execution)**

Time	Average Abnormal returns of 30 companies				
	2013	2012	2011	2010	2009
-10	2.76	2.71	0.22	-1.26	-0.15
-9	2.83	2.94	0.26	-1.77	-0.70
-8	3.06	3.27	-0.01	-2.07	-0.78
-7	2.85	3.43	0.46	-1.85	0.21
-6	2.75	2.86	0.42	-1.57	-0.24
-5	3.42	2.62	0.16	-1.40	-0.03
-4	2.94	2.42	0.18	-2.09	-0.38
-3	2.73	2.63	0.08	-1.64	1.06
-2	2.96	2.69	-0.18	-2.03	0.44
-1	2.91	3.21	0.25	-1.84	-0.52
0	<b>1.74</b>	<b>1.88</b>	<b>-1.05</b>	<b>-2.71</b>	<b>-4.12</b>
1	2.87	3.03	0.41	-1.97	0.16
2	3.07	2.82	0.28	-2.06	-0.15
3	2.73	2.29	0.16	-2.16	-0.30
4	3.20	2.75	0.40	-1.48	-0.50
5	2.64	2.72	0.00	-1.52	0.28
6	2.57	2.90	0.54	-2.07	0.45
7	2.84	2.88	0.87	-1.68	0.55
8	3.06	2.75	0.23	-1.62	-0.49
9	2.85	3.10	0.64	-1.69	-0.16
10	2.92	2.64	0.42	-0.55	0.34

(Source: Authors' calculation)

From Table 3 it can be noted that after dividend announcement and before dividend execution stocks give positive abnormal return except for the year 2010 and 2009. Like dividend announcement

results; average abnormal return for post dividend execution is relatively more than pre dividend execution. Only in two years i.e. 2013 and 2012 dividend execution have given positive abnormal return; while it has resulted in to negative abnormal return in the year 2011, 2010 and 2009. By observing Table 1 and 3, it can be noted that the average abnormal return realized on the day of dividend execution is more than that of dividend announcement; but dividend announcement shows positive abnormal return in three year out of five while dividend execution shows abnormal positive return only in two years out of five. Moreover, post execution abnormal return is more than post announcement abnormal return. It indicates that investors can increase positive gain after dividend announcement and execution.

**Table 4: Cumulative Abnormal Return of 30 Companies (Execution)**

Event Window	Cumulative Abnormal Return (Execution)				
	2013	2012	2011	2010	2009
from -10 to 0	30.93	30.66	0.78	-20.24	-5.21
From -5 to 0	16.69	15.46	-0.57	-11.72	-3.55
from -3 to 0	10.33	10.42	-0.91	-8.23	-3.13
From -1 to 0	4.65	5.09	-0.81	-4.56	-4.63
Execution Day	1.74	1.88	-1.05	-2.71	-4.12
From 0 to +1	4.61	4.91	-0.64	-4.68	-3.95
from 0 to +3	10.41	10.01	-0.20	-8.90	-4.40
From 0 to +5	16.25	15.48	0.20	-11.90	-4.62
from 0 to +10	30.49	29.75449	2.90	-19.52	-3.93

(Source: Authors' calculation)

Table 4 shows cumulative abnormal return of dividend execution for a period of -10 to +10 days (before and after execution) for a year 2009 to 2013. Except for the year 2013 and 2012, cumulative abnormal return is negative before execution of dividend, on the dividend execution day and post dividend execution. This indicates that dividend announcement and not dividend execution mostly results in to positive abnormal gain for the investors. From Table 3 and 4, it can be interpreted that only two years out of five years have shown positive abnormal return on the day of execution of dividend, pre execution and post execution of dividend; thus fails to reject all three hypothesis 4,5 and 6 which means dividend execution fails to increase wealth of the investors.

## CONCLUSION

From the above empirical study separately made for dividend announcement and execution, it can be concluded that there are more chances that dividend announcement results in to positive abnormal return compared to dividend execution. However, dividend execution shows greater magnitude of abnormal return compared to announcement. This empirical study rejects hypothesis 1, 2, and 3 and thus indicates that there is a positive abnormal return found on pre-announcement, on the day of announcement and post announcement period. The study fails to reject all three hypotheses namely 4, 5 and 6 and so indicates that there is absence of significance abnormal return on the pre-execution, on the day of execution and post execution dividend. However, one strange outcome is observed in this study, which shows that magnitude of abnormal return is higher for the year 2013 and 2012 in the case of dividend execution than dividend announcement. Thus, it can be summarised that dividend announcement carries some trigger in the market compared to execution of dividend.

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