

# Corporate (Dividend) Actions and Impact on Stock Abnormal Returns: A Study on Indian Context

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## ABSTRACT

*Dividend announcement is one of the important corporate action and this action influence shareholders wealth. Investors expect to invest before the dividend date to come, it may lead to positive abnormal return in that stock and also if investors not happy with amount of dividend, it may also lead abnormal return. In this study, try to understand the stocks abnormal returns and cumulative returns in relation to dividend announcements. An event study used to understand the stocks abnormal returns and cumulative returns during event window period. In this research 120 companies randomly selected from different sectors that declared the dividend in 2016.*

## Keywords

*Abnormal returns, Corporate actions, Cumulative abnormal returns, Dividend announcement date, Event window, Stocks*

## INTRODUCTION

Corporate actions are many, namely Dividend action, Stock split, Bonus issue, Rights issue, Mergers & acquisitions and most importantly Results announcements & Board meetings and many more. In this some actions performed very regularly like quarterly once or yearly once, example Result announcement & Dividend announcement and some actions performed very rarely may be life time once or twice or may not be also, example Stock splits, Bonus issue, Rights issue, Corporate restructure etc.

Investors invest the capital in companies in the process of expecting capital appreciation and more returns. Corporate actions are one of the major factors which influence the share price movement, so investors eagerly wait for corporate actions to make use that actions impact on share price. Dividend action is one of the important corporate actions where most of the companies regularly announce

and investors eagerly wait for dividend announcement to get positive abnormal returns from investment, but dividend announcement may impact or may not impact on share price movement and even if impact is there, that impact may create positive or negative abnormal returns. In this article, researcher trying to analyses dividend announcement impact on stock abnormal returns by taking perspectives.

## LITERATURE REVIEW

Very extensive literature reviewed to understand the corporate actions especially dividend announcement impact on stock abnormal returns. In literature review, some researchers found dividend announcement impact is there on stock abnormal returns and some researchers found no impact on stock abnormal returns.

**Ball & Brown (1968)**, investigated post earnings announcement drift, it shows the movement of share prices for many days and many months. According to their study, shareholders have received abnormal return at the time of results announcements and cash dividend announcements. They also investigated three various patterns first one is, the results announcements and dividend announcements after market close, second one is, dividend announcement before the market open and results announcement after the market close, third one is, results announcement before market open and dividend announcement after market close. Based on their study, they found shareholders pay attention to intraday market and evidence to support the overall study,

**Obaidullah, (1992)**, conducted research on Indian stock market efficiency using event methodology to understand the impact of stock dividend announcements. He found that stock prices adjustment happens much before announcement itself and stock prices decrease in subsequent period. He also found that size of the bonus issue nowhere impacts on market or stock prices and also

abnormal returns noticed when the stock went ex-bonus after three months of announcement.

**Md. Hamid Uddin, (2003)**, conducted study on 137 companies which listed in Dhaka Stock Exchange and paid dividends. Researcher did not find any abnormal returns form announcement of dividend and also found that no positive dividend for the period of 30 days for the period announce announcement and investors lost nearly 20% percent investment.

**Parul Bhatia, (2010)**, conducted study on positive significant dividend effect on share prices, and found that share price not going to change drastically, but the dividend announcement effect the share prices but not drastically, with other people and no significant effect

**Woolridge (1983)**, conducted a study on 225 companies which announced dividends during period of 1970-1977 from NYSE. He studied dividend announcement impact on stock prices and found that increase in the price of dividend stocks produced positive returns and decrease in the price of dividend stock resulted negative returns. Author attributed this phenomenon to dividend signaling theory and also to wealth transfer hypothesis.

**Rao (1994)**, studied BSE companies for the period of one year from 1988-89 and found that share prices react positively to dividend increases and this also start two days prior the official announcement dividend date. For bonus announcement shares reacted positively on same day only and for rights issue share prices react positively one day late after announcement and same thing continued to another one more day. He contributed this theory to signaling theory.

## OBJECTIVES

- To find the abnormal returns of the selected stock
- To classify the selected stock into different classes and calculate cumulative returns
- To determine the impact dividend announcement on abnormal returns

## HYPOTHESIS

$H_0$ : Dividend announcement has no impact on average abnormal returns ( $d = 0$ )

$H_1$ : Dividend announcement has impact on average abnormal returns ( $d \neq 0$ )

## RESEARCH METHODOLOGY

This article is empirical study in nature and used secondary data. For the selection of sample, random sampling is used. Secondary objective of this article is understanding the impact of dividend announcement on shares abnormal returns. Secondary objective selection of sample is important to determine the dividend impact on stock abnormal returns. Simple regression model used to find expected returns from the stock. To know the clear impact of dividend announcement on stocks, stocks classified into four different classes, i.e. cumulative abnormal return base 2 classes (positive & negative returns) and event day abnormal return base 2 classes (positive & negative returns). These event day abnormal return classifications has just done to know the different dividend declared stock influence the stocks prices and their abnormal returns when compare with market index.

### Simple regression model as fallows

Expected Return ( $E$ ) =  $\alpha + \beta RM$

$\alpha$  = Alpha coefficient of stock

$\beta$  = Beta coefficient of the stock

$R_M$  = Expected of the return of the market

Abnormal returns calculated as fallows

$$A = R - E$$

$R$  = Actual Returns

$A$  = Abnormal returns

Average Abnormal returns calculated as fallows

$$AR = \frac{\sum_{t=1}^n At}{n}$$

$t$  = the number of security in the study

$n$  = total number of stocks in the class

$t$  test used to determine the significance of dividend announcement on abnormal returns

$$t = \frac{AR}{\sigma(AR)} \quad AR = \text{Average abnormal return};$$

$\sigma(AR)$  = Standard error of average abnormal return;  
Standard error is calculated is  $\sigma(AR) = \frac{\sigma}{\sqrt{n}}$

**DATA ANALYSIS & INTERPRETATION**

**Table 1: Average abnormal returns, Cumulative average abnormal returns, Standard error and calculated *t* values of all selected stocks**

ALL Selected Stocks (N = 120)				
Day	AAR	CAAR	STE	<i>t</i> Values
-10	0.0515	0.0515	0.1377	0.3739
-9	0.0065	0.0581	0.1583	0.0414
-8	-0.2357	-0.1776	0.1273	-1.8511
-7	0.0591	-0.1185	0.1461	0.4045
-6	-0.0741	-0.1926	0.1631	-0.4544
-5	-0.0120	-0.2046	0.1257	-0.0954
-4	-0.0711	-0.2757	0.1491	-0.4768
-3	0.0385	-0.2372	0.2357	0.1633
-2	0.0140	-0.2232	0.1742	0.0803
-1	-0.0068	-0.2300	0.1444	-0.0474
0	-0.1590	-0.3890	0.2859	-0.5562
1	-0.2284	-0.6175	0.3012	-0.7583
2	0.0307	-0.5867	0.1812	0.1696
3	-0.1887	-0.7754	0.1382	-1.3653
4	-0.0306	-0.8061	0.1517	-0.2020
5	-0.2092	-1.0153	0.1383	-1.5125
6	-0.1205	-1.1358	0.1140	-1.0563
7	-0.1153	-1.2510	0.1320	-0.8734
8	-0.1202	-1.3712	0.1702	-0.7062
9	0.1882	-1.1830	0.1575	1.1949
10	-0.1883	-1.3713	0.1429	-1.3183

\* Significance @ 5% ,1.9803 and \*\* Significance @ 1%, 2.6181

It is observed from table 1 that, on the 9<sup>th</sup> day it is highest positive abnormal return at 0.1882 and on 10<sup>th</sup> day it is highest negative abnormal average return at -0.1883. During 21 days window period, most of the days average abnormal returns are in negative and only seven days abnormal returns are in positive and it shows in cumulative abnormal returns. Due to have more negative abnormal returns cumulative abnormal returns are increased from -10 day to +10day in negative value. Cumulative returns are started at 0.0515 on -10<sup>th</sup> day positive note and it is ended at -1.3713 on -10<sup>th</sup> day, it shows that there is not much higher value of abnormal returns either negative or positive side and only more number of negative abnormal returns only caused to have ending day cumulative return at -1.3713. On any day during 21 days event window calculated *t* values are not significant either at 5% or 1% significance level that means dividend announcement is not impacting on selected stocks abnormal on any day during 21 days window period.

**Table 2: Classification of selected samples based on classes**

	Total sample	Positive returns	Negative returns
Cumulative abnormal returns	120	52	68
Event day returns	120	58	62

Table 2 exhibits classification of selected samples based on classes namely cumulative abnormal returns and event day basis. In both the classes negative returns generated samples are more than the positive return generated samples and more negative returns samples may impact on total result.

**Table 3: Average abnormal returns, Cumulative average abnormal returns, Standard error and calculated *t* values of positive cumulative selected stocks**

Positive Cumulative Return Stocks AAR (N = 52)				
Day	AAR	CAAR	STE	<i>t</i> Values
-10	0.4250	0.4250	0.2138	1.9881
-9	0.2143	0.6393	0.2376	0.9019
-8	-0.2219	0.4173	0.1619	-1.3707
-7	0.5613	0.9786	0.2601	2.1578*
-6	0.1698	1.1484	0.2613	0.6499
-5	0.4262	1.5747	0.2085	2.0447*
-4	0.2514	1.8261	0.2226	1.1297
-3	0.7410	2.5672	0.4226	1.7534
-2	0.5803	3.1475	0.2572	2.2563*
-1	0.1351	3.2826	0.2223	0.6080
0	0.6694	3.9520	0.4101	1.6323
1	1.0662	5.0182	0.4921	2.1667*
2	0.3782	5.3964	0.2918	1.2960
3	0.0531	5.4495	0.2067	0.2570
4	0.2193	5.6688	0.2661	0.8238
5	0.2186	5.8874	0.1995	1.0953
6	0.1106	5.9979	0.1785	0.6195
7	0.0892	6.0871	0.2097	0.4253
8	-0.0134	6.0737	0.3012	-0.0444
9	0.3158	6.3895	0.2100	1.5033
10	0.1483	6.5378	0.1660	0.8934

\* Significance @ 5% 2.0086 and \*\* Significance @ 1% 2.6778

It is found from table 3 that, out of 21 days window period only two days negative abnormal average returns observed and remaining other days, it is positive abnormal average returns, it leads positive cumulative returns at the end last day of event period. Important thing can be noticed from table 3 that, on event day abnormal return is 0.6694 but next day it increased to 1.0662 and its calculated *t* value is

significant at 5% level, it means dividend announcement impact is there on 1 day after dividend announcement. It is also observed t calculated values are significant three times at 5% level before dividend announcement date.

**Table 4: Average abnormal returns, Cumulative average abnormal returns, Standard error and calculated t values of all negative cumulative selected stocks**

Negative Cumulative Return Stocks AAR (N = 68)				
Day	AAR	CAAR	STE	t Values
-10	-0.2341	-0.2341	0.1734	-1.3502
-9	-0.1523	-0.3864	0.2117	-0.7195
-8	-0.2462	-0.6326	0.1885	-1.3059
-7	-0.3249	-0.9575	0.1498	-2.1687*
-6	-0.2606	-1.2181	0.2060	-1.2652
-5	-0.3471	-1.5652	0.1427	-2.4321*
-4	-0.3177	-1.8830	0.1967	-1.6149
-3	-0.4987	-2.3817	0.2454	-2.0323*
-2	-0.4191	-2.8008	0.2240	-1.8713
-1	-0.1154	-2.9162	0.1901	-0.6071
0	-0.7925	-3.7087	0.3801	-2.0849*
1	-1.2184	-4.9271	0.3312	-3.6786**
2	-0.2350	-5.1621	0.2257	-1.0411
3	-0.3736	-5.5357	0.1839	-2.0314*
4	-0.2218	-5.7574	0.1722	-1.2879
5	-0.5364	-6.2938	0.1820	-2.9476**
6	-0.2971	-6.5909	0.1454	-2.0436*
7	-0.2716	-6.8626	0.1679	-1.6181
8	-0.2019	-7.0644	0.1942	-1.0392
9	0.0907	-6.9737	0.2275	0.3987
10	-0.4457	-7.4194	0.2137	-2.0862**

\* Significance @ 5% 1.9966 and \*\* Significance @ 1% 2.6524

Table 4 says that, abnormal return of selected sample is negative all the event days except one day, and even after event day it is observed highest negative abnormal return at -1.2184 and same phenomena observed in positive cumulative returns also. Cumulative return of 68 samples is negative at -7.4194, it is highest negative value compare to all cumulative returns. In this classification only more number of days abnormal average returns are significant at 5% and 1% level, nearly six days abnormal returns are significant at 5% level and two times abnormal returns are significant at 1% level. More significant days observed after event day only, that means investors may reacted negatively if dividend is not announced up to their expectations, actually these much abnormal returns significance not observed in positive cumulative return samples also.

**Table 5: Average abnormal returns, Cumulative average abnormal returns, Standard error and calculated t values of all positive event day selected stocks**

Positive Event Day AAR (N = 58)				
Day	AAR	CAAR	STE	t Values
-10	-0.0771	-0.0771	0.2191	-0.3520
-9	0.0536	-0.0235	0.2684	0.1997
-8	-0.3189	-0.3425	0.1798	-1.7742
-7	0.1431	-0.1993	0.2318	0.6174
-6	-0.0338	-0.2331	0.2201	-0.1536
-5	-0.0451	-0.2782	0.1571	-0.2868
-4	0.1826	-0.0956	0.1896	0.9628
-3	-0.0391	-0.1348	0.2209	-0.1771
-2	0.0275	-0.1073	0.2192	0.1253
-1	0.0114	-0.0959	0.1553	0.0734
0	1.8856	1.7897	0.3168	5.9520**
1	-0.4956	1.2940	0.4256	-1.1645
2	0.0089	1.3029	0.2279	0.0389
3	-0.2430	1.0599	0.2015	-1.2064
4	-0.3191	0.7407	0.1823	-1.7503
5	-0.1402	0.6005	0.2012	-0.6968
6	-0.0960	0.5045	0.1719	-0.5588
7	-0.1439	0.3606	0.1853	-0.7766
8	-0.2632	0.0973	0.2279	-1.1551
9	0.0636	0.1610	0.1910	0.3332
10	-0.1185	0.0424	0.2075	-0.5712

\* Significance @ 5% 2.0032 and \*\* Significance @ 1% 2.6665

From table 5 it can be saying that, out of 120 samples, 58 samples event day abnormal returns are in positive, but 13 days average abnormal returns are in negative only eight days average. Cumulative average abnormal returns before event day it is negative then decreased negative returns then around event day turned positive returns later cumulative became reduced by end of the window period. Average abnormal return is only significant on event day only at 1% significance level.

It is find from table 6 that, out of 120 samples 62 samples average abnormal returns are in negative on event day. In 21 days event window period 12 days abnormal returns are in negative and remaining 9 days abnormal returns are positive, Cumulative returns are started with lower positive value then turned into negative later increased negative values. Average abnormal return is significant only on event day at 1% significant level as same positive event day samples.

**Table 6: Average abnormal returns, Cumulative average abnormal returns, Standard error and calculated *t* values of all negative event day selected stocks**

Negative Event Day AAR (N= 62)				
Day	AAR	CAAR	STE	<i>t</i> Values
-10	0.1718	0.1718	0.1708	1.0062
-9	-0.0375	0.1344	0.1777	-0.2108
-8	-0.1578	-0.0234	0.1810	-0.8720
-7	-0.0195	-0.0429	0.1828	-0.1067
-6	-0.1118	-0.1547	0.2409	-0.4641
-5	0.0189	-0.1358	0.1951	0.0971
-4	-0.3083	-0.4441	0.2248	-1.3714
-3	0.1111	-0.3330	0.4086	0.2719
-2	0.0014	-0.3316	0.2694	0.0051
-1	-0.0239	-0.3555	0.2400	-0.0996
0	-2.0717	<b>-2.4272</b>	0.3112	-6.6579**
1	0.0216	-2.4056	0.4268	0.0506
2	0.0512	-2.3544	0.2804	0.1826
3	-0.1378	-2.4923	0.1912	-0.7210
4	0.2392	-2.2531	0.2353	1.0166
5	-0.2738	-2.5269	0.1916	-1.4289
6	-0.1433	-2.6702	0.1525	-0.9396
7	-0.0885	-2.7587	0.1891	-0.4680
8	0.0136	-2.7450	0.2517	0.0541
9	0.3048	-2.4402	0.2477	1.2304
10	-0.2536	-2.6939	0.1982	-1.2798

\* Significance @ 5% 2.0003 and \*\* Significance @ 1% 2.6603

Important thing observes from table 5 and table 6 that, average abnormal returns are very less in number either negative or positive in values during event window, but on event day average abnormal returns higher in number either positive or negative.

It is observing from table 7 that, cumulative returns of different classes for different windows, for all stocks cumulative returns highest at -0.15 for -2 to 0 window and lowest at -1.37 for -10 to +10 window. In positive cumulative returns class highest cumulative value at 6.54 for -10 to 10 window and lowest at event day, for negative cumulative returns class highest cumulative value is at -0.79 for event day and lowest value -7.42 for -10 to +10 window, for positive event day class highest cumulative value at -5 to 0 window and lowest at 0.04 for -10 to +10 window and for negative event day class highest cumulative value at -2.00 for 0 to +2 window and lowest at -2.69 for -10 to +10 window. In almost all classes -10 to +10 window has lowest cumulative values except in positive cumulative class, in that class same window has highest cumulative value.

**Table 7: Cumulative average returns of all selected classes for different event windows**

S.No	Event window	Cumulative Returns				
		All stocks	Positive Cumulative stocks	Negative cumulative stocks	Positive event day stocks	Negative event day stocks
1	-10 to +10	-1.37	6.54	-7.42	0.04	-2.69
2	-5 to +5	-0.82	4.74	-5.08	0.83	-2.37
3	-2 to +2	-0.35	2.83	-2.78	1.44	-2.02
4	Event day 0	-0.16	0.67	-0.79	1.89	-2.07
5	-10 to 0	-0.39	3.95	-3.71	1.79	-2.43
6	-5 to 0	-0.20	2.80	-2.49	2.02	-2.27
7	-2 to 0	-0.15	1.38	-1.33	1.92	-2.09
8	0 to +2	<b>-0.36</b>	2.11	-2.25	1.40	-2.00
9	0 to +5	-0.79	2.60	-3.38	0.70	-2.17
10	0 to +10	-1.14	3.26	-4.50	0.14	-2.34

## CONCLUSION

Stock abnormal returns may get affected by many corporate actions, like results announcements, dividends, splits, bonus issues, mergers and many more. In this article, try to understand dividend announcement and its impact on stock abnormal returns. Researcher has found

selection of samples influence on dividend announcement impact on abnormal returns. If the random sample includes only either positive or negative cumulative return stocks that may impact the abnormal return of stocks, it means some stocks abnormal returns may get influence by dividend announcement and some stocks won't get influence by dividend announcement.

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