
Impact of Corporate Announcements on Share prices

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Abstract

The stock price movement is an area of research that has attracted attention of various academicians and scholars. Perhaps no other area of finance has been subject to so much empirical investigation during the last four decades as the behavior of stock prices. This paper attempts to contribute positively to the understanding of the behavior of Indian share prices in relation to various corporate announcements. Dividend announcements usually are considered as positive signals to shareholders and also is expected a positive impact on the share price. Yet, different announcements are expected to impact share prices differently. A standard methodology to study the influence of impact factors on the stock price movement is adopted in this paper to examine the price movements of 10 companies (listed on Bombay Stock Exchange) surrounding 30 days of announcement periods each for four corporate announcements viz. Stock split, Right Issue, Bonus Issue and Dividend.

Keywords : *Corporate announcements, Bonus issue, Corporate Payout, Share prices, CAAR*

Introduction

The corporate announcements have an impact on the market price of shares. The market reacts to the corporate announcement e.g. for dividend announcement. If the dividend is up to the expectation level of the equity investors, it will impart positive signals and the share price is expected to rise. At the same time, if the dividend announcement is not up to the expectation level of the shareholders, the market reaction will bear trend for that particular scrip.

Though every stockholder has a tiny ownership of the company, usually stockholders' behaviours are guided by herd mentality. Investors tend to ignore the fundamental of stocks when they invest. On the other hand, the purpose of a firm is to maximize the shareholders' value. Hence, the management takes action which essentially increases the wealth of the

shareholders. While several actions taken by the company's management impact share prices, the paper will examine two of actions that have a direct impact on share prices.

Bonus Issue

When a company issues bonus shares in a certain proportion to the existing holders, it is termed as bonus issue. 2 for 1 bonus would mean investors get two

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additional shares, free of cost for the one share they hold in the company.

Over years, bonus issues and share prices have been the subject of much empirical discussion in finance literatures. It is evident that bonus issues increase the number of equity stocks outstanding but have no effect on stockholder's proportional ownership of stocks. The date of the bonus issues is known well in advanced and therefore should contain no new information. As such, one would not expect any significant price reaction on bonus issue announcement. However, empirical studies on bonus issues have documented a statistically significant rise in the market price of the share.

This paper is an attempt to examine the stock market reaction to corporate announcements in India in line with previous studies conducted in various developed countries of the world such as USA, UK, Australia, etc.

Dividends

Dividends are part of the profit that the company distributes among its shareholders. The impact of dividend depends on the amount of dividend declared by companies in proportion to the stock price. In a perfect market, share prices should go down by the amount of dividend declared. However, this may not happen in reality. If the dividend declared is too low (below 2% of the price), the prices do not change much. However, if the dividend is significant, the prices fall by approximately the dividend amount.

Sometimes, announcement of dividend increases the share price in the short term as everyone wants to possess the stocks to get dividends. However, this is a temporary phenomenon. The ex-dividend prices go back to the old level that are even lower by the dividend amount.

Research Methodology

Objectives of the Research

- To examine the stock market reaction to the corporate information announcements.

- To examine if an investor can earn abnormal returns by trading in stocks after the corporate announcements.
- To examine if average abnormal returns and cumulative average abnormal returns are close to zero.
- To examine if average abnormal returns occur randomly.

Hypotheses

Since this study empirically examines the stock market reaction to dividend information, the hypotheses being tested are:

- H_{01} : The investor cannot earn abnormal returns by trading in stocks after the Bonus Issue announcement.
- H_{02} : The average abnormal returns and cumulative average abnormal returns in the event of Bonus Issue window are close to zero.
- H_{03} : The average abnormal returns occur randomly and are not impacted by Bonus Issue announcement.
- H_{04} : The investor can not earn abnormal returns by trading in stocks after the Dividend announcements.
- H_{05} : The average abnormal returns and cumulative average abnormal returns in the Dividend event window are close to zero.
- H_{06} : The average abnormal returns occur randomly and are not impacted by Dividend announcement.

Sampling Design and Sample Size

40 selected companies (10 each for Stock split, Right Issue, Bonus Issue and Dividend) are listed on the Bombay Stock Exchange (BSE). All selected companies have made announcements most recently except for companies chosen for dividend. 10 companies which have declared final dividend (not interim) in 2013 are

chosen for the analysis of dividend announcement effects.

Sources of Data

Primary Data

Primary Data have been collected for this study are from Bombay Stock Exchange and National Stock Exchange websites.

Secondary Data

These data are collected from published sources such as Magazines, Newspapers, Books and the website. All the Data used in this paper is Secondary Data.

Data Collection

Three sets of data are used in this study. The first set of data is related to the corporate announcement made by sample companies on the dates which the Board of Directors meets and approves the corporate announcement of the company. This set of data is collected from the Economic Times website.

Table 1: Sample Companies with Bonus Issue Announcement Dates

S.No.	Company Name	Announcement Date
1	Tata Teleservices (Maharashtra) Ltd.	20/06/2013
2	Sun Pharmaceutical Industries Ltd.	28/05/2013
3	Heritage Foods Ltd.	17/07/2013
4	PNB Gilts Ltd.	23/05/2013
5	Omaxe Ltd.	30/10/2013
6	BS Ltd.	08-09-2013
7	Ajanta Pharma Ltd.	29/07/2013
8	CCL Products India Ltd.	07-03-2013
9	Poly Medicure Ltd.	13/05/2013
10	Sutlej Textiles & Industries Ltd.	05-08-2013

The second set of data consists of daily closing prices of the stocks selected for study at the Bombay Stock Exchange for the period covered in the event window taken for the study which is 61 days i.e. from 30 days before the announcement of dividend till 30 days after the dividend announcement. This set of data is collected from the Bombay Stock Exchange website.

Table 2 : Sample Companies with Dividend Announcement Dates

S.No.	Company Name	Announcement Date
1	HCL Technologies Ltd.	31/07/2013
2	Videocon Industries Ltd.	12-02-2013
3	Procter & Gamble Hygiene & Healthcare Ltd.	14/08/2013
4	Aptech Ltd.	14/05/2013
5	Sun Pharmaceutical Industries Ltd.	28/05/2013
6	Tech Mahindra Ltd.	08-08-2013
7	Goenka Diamond & Jewels Ltd.	13/05/2013
8	Oil And Natural Gas Corporation Ltd.	29/05/2013
9	Muthoot Finance Ltd.	14/05/2013
10	Bharat Heavy Electricals Ltd.	23/05/2013

The third set of data consists of the S&P BSE SENSEX index points published by Bombay Stock Exchange on daily basis for the entire event window. This set of data is collected from BSE website.

Methodology

In this paper, two-stage approach is used to test the stock price responses to corporate announcements. The first stage consists of estimation of parameters like beta based on the ex-post returns on stocks, market index and expected returns on each of the stocks based on the market model. In the second stage, these estimated parameters are used to calculate abnormal returns around the event day. In this paper the date of corporate announcement is defined as day 0 or event day. If event day is a non-trading day then the immediate following trading day is considered as the event day. Pre-announcement period includes 30 trading days prior to the dividend announcement date, i.e., days -30 to -1. Post announcement period includes 30 trading days after

the corporate announcement, i.e., days +1 to +30. Thus, the event window chosen is of 61 trading days (including day 0 as the event day). The estimated abnormal returns are averaged across securities to calculate average abnormal returns (AARs) and average abnormal returns are then cumulated over time in order to ascertain cumulative average abnormal returns (CAARs). In this paper, the market model to measure the returns of the stock that is related to market movement is used. Market model was developed on the basis of Sharpe index.

Market Model can be expressed mathematically as:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + e_{it} \quad \text{for } i = 1, \dots, N$$

Where,

$E(R_{it})$ = Expected return on security 'i' during time period 't'

α_i = Intercept of a straight – line or alpha coefficient of *i*th security.

β_i = Slope of a straight – line or beta coefficient of *i*th security.

R_{mt} = Expected return on index (S&P BSE Index in this Paper) during time period 't'.

e_{it} = Error term with a mean zero and a standard deviation which is a constant during time period 't'.

Paper uses raw returns. For the values of α a proxy of 8% per annum interest on Treasury Bill is used and for β values are estimated by using the formula that is described in this paper. Therefore the following simplified model of regression is used for estimating the returns on each security by taking the actual returns on market R_{mt} .

$$\text{Expected Return } E(R_{it}) = \alpha_i + \beta_i R_{mt}$$

The abnormal returns of individual security are averaged for each day surrounding the event day i.e., 180 days before to 180 days after the event day. The AAR is the average deviation of the actual return of a security from the expected return. The following model is used for computing the average abnormal returns (AAR's):

$$AAR_{it} = \sum AR_{it} / N$$

Where,

i = the number of securities in the study.

N = total number of securities in the portfolio.

t = the number of days surrounding the event.

Since the security's overall reaction to the dividend announcement or the event will not be captured instantaneously in the behaviour of average abnormal return for one specific day, it is necessary to accumulate the abnormal returns over a long period. It gives an idea about average stock price behaviour over time. Generally if market is efficient CAAR is close to zero. The model used to ascertain CAAR is:

$$CAAR_t = \sum AAR_{it} \quad \text{Where } t = -180, \dots, 0, \dots, +180.$$

Beta is calculated using following equation:

$$\beta_i = \frac{N \sum R_{mt} R_{it} - (\sum R_{mt})(\sum R_{it})}{N (\sum R_{mt}^2) - (\sum R_{mt})^2}$$

Where,

β_i = Slope of a straight – line or beta coefficient of security.

R_{mt} = Return on market index 'm' during time period 't'.

R_{it} = Return on security 'i' during time period 't'

Parametric Significance Test

The cumulative average abnormal return provides information about the average price behaviour of the securities during the event window. If markets are efficient, the AAR's and the CAAR's should be close to zero. Parametric 't test' is used to assess significance of AAR's. The 5% level of significance with appropriate degree of freedom was used to test the null hypothesis of no significant abnormal returns after the event day. The conclusions are based on the results of t values on AAR's of event window. The t statistics for AAR's for each day during the event window is calculated as:

$$t = \frac{AAR}{S.E. (AAR)}$$

Where,

AAR = Average abnormal return

S.E.(AAR) = Standard Error of average abnormal return

The standard error is calculated by using the following formula:

$$S.E. = \frac{\sigma}{\sqrt{N}}$$

Literature Review

This paper by Jeroid B. Warner and Ross L. Watts, studies the association between a firm's stock returns subsequent to the change of the top management and finds that there is an inverse relation between the probability of a management change and a firm's share performance.

According to Mihir Dash, (2008) Company 's investment announcements can be expected to affect the long-term performance of its stock prices. If the stock markets are efficient (Fama, 1970), investors expect the market to react quickly to the announcement adjusting the market capitalization of the firm by the change in the expected present value of the announcement.

The study by Ramesh, S. and Nimalathasan, B. (2011) have identified sixty-seven events of 32 Companies listed in the CSE for the period from year 2003 to 2007. These sixty-seven events are divided into financial sector and nonfinancial sector. Several interrelated procedures are performed through t-test by the researchers during the data analysis procedures to analyze their impacts on stock prices.

Analysis and Interpretation : Bonus Announcement

Results reported in this paper are obtained in terms of the event study methodology wherein the abnormal returns of all the companies are computed through Sharpe Model with a view to study the informational efficiency. In order to investigate the incidence of market efficiency, Average Abnormal Return (AAR) and Cumulative Average Abnormal Returns (CAAR) centric to the dividend announcement date were obtained for portfolio of sample stocks for the study period. The same were condensed for 61 days window comprising 30 days prior/post to announcements.

Table 3: Abnormal Results of 10 Selected Companies Around the Event Window : Bonus Announcement

Days	1	2	3	4	5	6	7	8	9	10
-30	-0.11407	7.367023	3.516409	-0.18068	-0.15556	-10.0758	66.50718	2.273165	6.427299	-1.96075
-29	-0.07112	-3.72019	-8.98156	0.341522	-0.89886	-1.9397	41.59836	-7.38509	23.41011	-0.05241
-28	-0.2378	6.708245	-0.30508	-0.07887	-0.45199	0.459306	9.690839	1.155253	-10.4137	-0.33704
-27	-0.00087	27.1393	-13.1599	-0.01391	0.528216 3.073516	-0.64257	13.97171	-18.9466	7.889817	
-26	-0.1039	-9.76912	-19.2193	-0.06234	-0.11318 1.636736	-6.70192	-18.1265	5.972121	11.23088	
-25	-0.11097	5.985655	-4.81005	-0.42175	0.242131	1.077293	-47.7994	-12.941	-15.0827	-1.56354
-24	-0.8211	22.92904	-1.54421	0.408203	-0.10033	12.0752	27.71614	-8.17902	-8.15077	-11.5232
-23	1.54176	17.36718	-2.66293	-0.08714	-0.40983	-1.98954	-19.7617	-7.32339	15.54559	-0.68096
-22	0.323183	-15.5403	0.167757	0.53726	-1.58648 0.672866	-18.5054	-1.85826	8.261427	-11.767	
-21	-0.9086	-17.6484	6.85514	-0.2726	-5.07836	14.71204	-16.756	3.969771	7.020461	-0.78136
-20	-0.78901	5.882821	-1.03317	-0.16072	1.170574 4.702618	-5.49467	8.432921	12.75221	-5.10981	
-19	-0.43085	7.583396	7.349773	0.3488	-0.30463 6.125909	-8.9422	41.31115	4.814958	7.39837	
-18	-0.02925	22.91492	-7.01971	-1.19322	-0.31616 6.108328	3.934693	6.452315	1.447576	-12.1241	
-17	-0.22368	-5.20766	8.164803	-0.31424	1.074871	-5.53508	36.29323	5.538153	6.941617	-9.25653
-16	-0.04963	1.1646	-0.92271	-0.16614	-0.01217	-6.17265	13.23426	-5.83728	-8.9483	-1.08369
-15	-0.46192	-8.76306	-4.2843	-0.39832	-0.17532	25.44757	4.757353	-4.30353	5.737603	-0.07543
-14	-0.14711	-35.0913	2.005636	-0.28955	-2.35651	-13.6932	8.560415	-3.66586	2.103722	-2.42182
-13	-0.19576	-17.9949	-5.18154	-0.24462	-0.12097 0.272912	-5.14353	36.74058	8.141409	-5.1402	

-12	-0.08817	16.14462	19.20779	-0.44382	-0.40973 4.568719	-0.16221	13.46325	-1.85732	14.25705	
-11	-0.18064	5.791779	-0.61313	0.357602	-0.38046	-7.64383	-39.4352	3.655707	4.35357	-8.91721
-10	0.07138	18.09089	7.227236	-0.3498	0.221163	-13.5023	16.44403	2.202466	1.205288	-13.9803
-9	-0.13744	-6.92019	9.170895	-0.46248	0.6599 12.32294	13.93034	-6.61732	5.741157	9.591605	
-8	-0.16034	-5.48147	-7.05349	0.759277	-0.60309 1.393512	-8.06163	12.49253	0.485272	11.23664	
-7	-0.33156	-4.52569	7.349974	0.099523	-0.61162 1.180039	-10.5863	74.73031	-8.76731	-5.3606	
-6	-1.41711	2.81758	29.96907	-0.40862	0.175701	20.29588	-2.20893	-13.6419	8.943567	-0.19819
-5	0.18606	11.10655	-4.54221	1.994566	-2.55442	-6.58528	2.614856	2.227902	-17.0988	-0.20885
-4	0.040065	29.80091	-1.47076	0.238723	0.239188 4.226961	-7.92371	-9.09013	2.336912	9.245676	
-3	-0.05419	17.24721	-14.4702	0.622143	-0.26335	0.371809	-19.6719	3.172846	15.29005	-0.25842
-2	0.0929	-37.9389	2.2858	0.2885	-0.8286	9.1017	-44.9049	0.5613	-5.0832	4.0614
-1	0.5394	34.4885	0.4575	0.3553	-6.3433	11.2730	-25.9604	11.3965	-2.8564	3.2068
0	0.6149	-23.6034	1.7823	-1.3972	2.6975	-7.6748	-21.8699	-3.0413	28.1788	31.0654
1	-0.4216	70.9201	23.0479	0.2503	4.9274	15.0013	2.3447	-6.5992	0.6841	-18.1234
2	-0.3934	4.3790	-2.6125	-1.1915	-0.5115	5.1037	-46.5747	-8.2499	-11.0562	-4.8821
3	-0.2925	-12.4604	0.1444	-0.7819	0.0403	-10.8544	-21.0987	2.6837	2.6212	4.4064
4	-0.1478	-23.1715	-6.6782	-0.0426	0.8314	7.9987	-19.2591	-3.3811	-4.6441	-2.0221
5	0.0008	3.3511	-9.7974	-0.3496	-0.3853	-1.3582	-23.2949	-1.2458	-6.5452	5.3480
6	-0.1047	18.7078	-6.4757	0.0916	1.0786	-1.1573	-16.3347	3.3917	-1.3215	-0.8174
7	0.2449	-17.8700	-264.1161	-0.1120	1.1249	-0.7631	75.7336	-12.7319	-7.4393	1.9381
8	0.2532	-3.3649	14.9093	-0.0745	-19.1880	-7.5634	-31.2893	-0.9348	-1.1190	-4.0370
9	0.0781	-13.6463	-3.6406	0.2603	0.3209	2.0428	-3.9400	-0.5098	15.7863	-0.2492
10	-0.1166	-6.0342	-11.2543	-0.1956	0.1006	1.4858	-3.8583	2.8896	-10.6385	2.8788
11	-0.0924	0.5139	5.0917	0.2093	0.0280	-23.4119	2.5295	-4.5144	1.9404	-3.7407
12	0.0948	-24.6283	-8.1274	-0.2257	0.3223	-7.0439	-22.9731	-4.6350	0.7356	-5.8228
13	-0.1632	-8.1054	5.3050	0.3840	1.9019	-5.0727	4.8881	-0.6289	2.9058	1.3445
14	0.0441	16.1128	1.5207	-0.1253	1.6398	8.2989	-22.4588	0.6059	4.2633	0.1011
15	0.1292	0.5374	7.0285	-0.6272	0.6454	-7.4630	3.1737	-5.4482	5.0579	-0.1763
16	-0.2580	-10.7415	2.0633	-0.1237	-0.1053	-20.5977	-32.0728	7.5069	1.6637	0.1240
17	-0.2922	23.7664	5.0630	-0.0056	-0.0292	19.6904	22.4556	-6.8345	1.6124	1.2761
18	0.1052	-19.8030	-9.8297	0.3756	0.4349	-5.9655	-9.4431	0.9267	-1.9415	-0.1456
19	0.2472	5.6040	3.2828	-0.4396	0.2623	-4.6852	5.7337	-1.7187	-4.7480	-10.1402

20	-0.2951	-2.2399	8.2782	0.2859	-0.4480	8.2368	-44.8988	-16.3261	-0.2509	-0.0322
21	-0.1206	-5.8466	-6.1257	0.1674	-0.4660	0.1748	-28.6131	11.6056	-2.8796	7.8796
22	-0.1003	22.6237	-2.5125	-0.9015	-0.3078	-2.3691	25.8813	-6.0956	-1.7578	3.7782
23	-0.0441	17.9274	2.8684	-0.3767	-0.2078	0.3529	63.0349	-0.5939	-1.8203	-4.9953
24	-0.1540	-10.4348	-9.0003	-0.5082	0.4261	-5.3625	71.3318	1.7012	18.1774	-8.1793
25	-0.0419	6.9957	11.2819	-0.4881	-1.5789	2.2708	-14.2726	1.6641	-7.3714	0.5638
26	-0.2184	21.8239	-4.5765	-0.6972	-0.2417	7.1467	-12.4383	27.2438	3.9447	16.6749
27	-0.5756	2.9348	9.4429	0.4000	-0.6079	0.3268	46.5604	2.0183	-0.4375	-14.6254
28	0.1069	1.3172	-5.2024	0.1401	-1.1261	25.9957	-10.9247	-4.2377	-6.0902	1.1233
29	0.0801	13.5712	0.1748	-4.9819	0.2834	-2.8328	9.5215	17.0734	5.6000	-5.1871
30	-0.1592	33.3971	-4.8325	-0.7681	1.0934	0.3641	-18.5107	2.6576	-13.9533	4.9678

Patterns of ARs

Table 3 clearly shows that investors can earn abnormal returns by trading in the stocks after the bonus issue announcement. A positive incidence of abnormal return was noticed around 5 days pre/post

announcement for each company. This rejects the first null hypothesis (H01) that the investors cannot earn abnormal returns by trading in the stocks after bonus issue announcement.

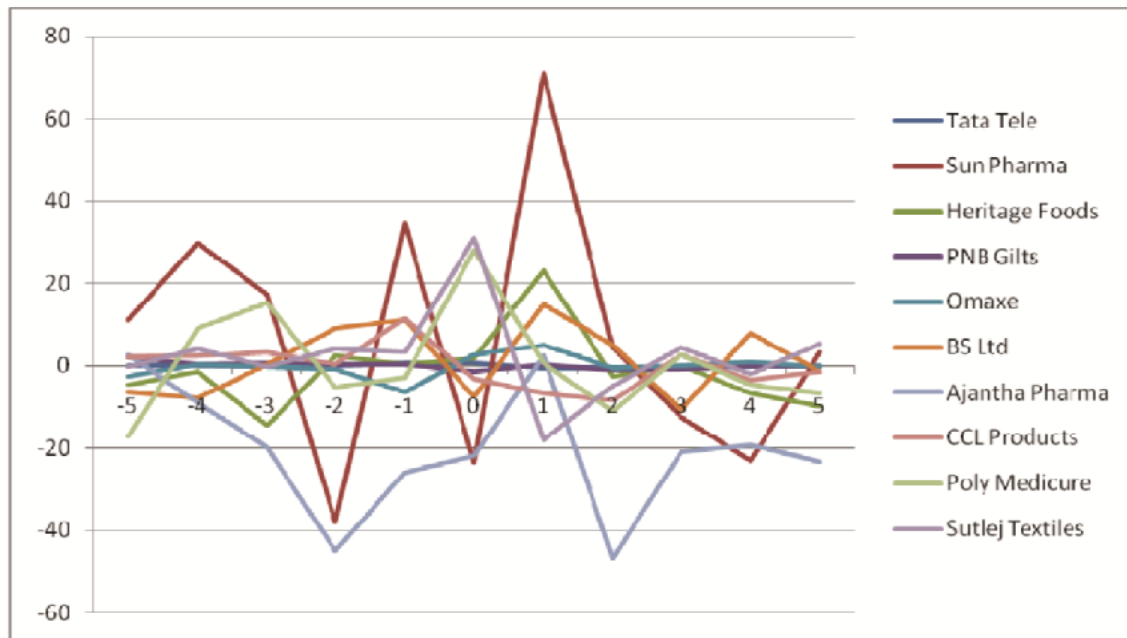


Fig. 1: Abnormal Returns of all 10 companies separately from 5 days prior to announcement to 5 days after announcement.

Table 4: Average Abnormal Returns, Cumulative Average Abnormal Returns & t-values of portfolio.

Days	AAR	CARR	Std Error	t value
-30	7.3604	7.3604	6.7495	1.0905
-29	4.2301	11.5905	5.0036	0.8454
-28	0.6189	12.2094	1.6518	0.3747
-27	1.9839	14.1933	4.0783	0.4864
-26	-3.5257	10.6677	3.1243	-1.1285
-25	-7.5424	3.1252	4.9145	-1.5347
-24	3.2810	6.4062	4.2183	0.7778
-23	0.1539	6.5601	3.3355	0.0461
-22	-3.9295	2.6307	2.6731	-1.4700
-21	-0.8888	1.7419	3.2320	-0.2750
-20	2.0354	3.7772	1.8512	1.0995
-19	6.5255	10.3027	4.2007	1.5534
-18	2.0175	12.3202	2.9415	0.6859
-17	3.7475	16.0678	4.0374	0.9282
-16	-0.8794	15.1884	1.8946	-0.4641
-15	1.7481	16.9365	2.9564	0.5913
-14	-4.4996	12.4369	3.8343	-1.1735
-13	1.1133	13.5503	4.4814	0.2484
-12	6.4680	20.0183	2.6257	2.4634
-11	-4.3012	15.7171	4.1828	-1.0283
-10	1.7630	17.4801	3.3385	0.5281
-9	3.7279	21.2080	2.3766	1.5686
-8	0.5007	21.7088	2.1801	0.2297
-7	5.3177	27.0264	7.8852	0.6744
-6	4.4327	31.4592	3.9366	1.1260
-5	-1.2860	30.1732	2.3228	-0.5536
-4	2.7644	32.9376	3.4451	0.8024

-3	0.1986	33.1362	3.5558	0.0559
-2	-7.2364	25.8998	5.8344	-1.2403
-1	2.6557	28.5555	4.8410	0.5486
0	0.6752	29.2307	5.6479	0.1196
1	9.2032	38.4338	7.7038	1.1946
2	-6.5989	31.8349	4.7161	-1.3992
3	-3.5592	28.2757	2.6368	-1.3498
4	-5.0516	23.2241	2.9796	-1.6954
5	-3.4276	19.7965	2.5981	-1.3193
6	-0.2942	19.5023	2.7372	-0.1075
7	-22.3991	-2.8968	28.0908	-0.7974
8	-5.2408	-8.1376	3.9184	-1.3375
9	-0.3498	-8.4874	2.2795	-0.1534
10	-2.4743	-10.9617	1.6627	-1.4881
11	-2.1447	-13.1063	2.5230	-0.8500
12	-7.2303	-20.3367	2.9501	-2.4508
13	0.2759	-20.0607	1.3214	0.2088
14	1.0003	-19.0605	3.0668	0.3262
15	0.2858	-18.7747	1.3775	0.2075
16	-5.2541	-24.0289	3.8812	-1.3537
17	6.6703	-17.3586	3.4778	1.9180
18	-4.5286	-21.8872	2.1433	-2.1129
19	-0.6602	-22.5474	1.5681	-0.4210
20	-4.7690	-27.3164	4.9406	-0.9653
21	-2.4224	-29.7388	3.3946	-0.7136
22	3.8239	-25.9149	3.5005	1.0924
23	7.6145	-18.3004	6.4568	1.1793
24	5.7997	-12.5007	7.7253	0.7507
25	-0.0977	-12.5983	2.2240	-0.0439

26	5.8662	-6.7321	3.9375	1.4898
27	4.5437	-2.1885	5.0314	0.9031
28	0.1102	-2.0782	3.1295	0.0352
29	3.3303	1.2520	2.4645	1.3513
30	0.4256	1.6776	4.3563	0.0977

Patterns of AAR

The behaviour of Average Abnormal Returns (AAR) around the dividend announcement, (as shown in table 4) offers some interesting readings. A positive incidence of average abnormal return was noticed around 5 days pre/post announcement for the portfolio. Though the positive incidence of average abnormal returns in the post announcement period reflects investor's confidence in the stock performance

and this also rejects the first part of second null hypothesis (H02) that the average abnormal returns are close to zero. The t-test value on AAR for portfolio shows that most days during event window are significant at 5% level. This rejects the third null hypothesis (H03) that average abnormal returns occur randomly. Hence, the t-values on AAR's indicate that the market abnormal returns do not occur randomly and few investors can earn abnormal returns by predicting the patterns in the market.

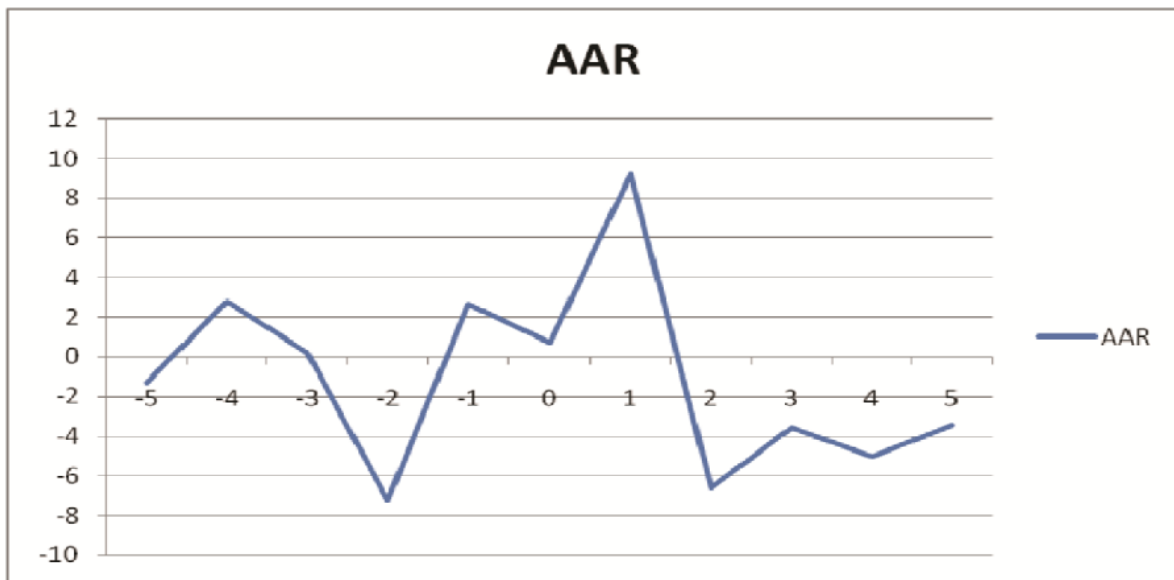


Fig 2: The Average Abnormal Returns of the 10 companies from 5 days prior to announcement to 5 days after announcement.

Patterns of CAAR

The results reported in the table 4 reveals that the Cumulative Average Abnormal Returns have a rising tendency in the post announcement/event period. A higher negative incidence of cumulative return in post

event phase window for few days reflects over expectation and irrational to the new information disclosure concerning bonus issue. This rejects second part of null hypothesis (H02) that the cumulative average abnormal returns are close to zero.

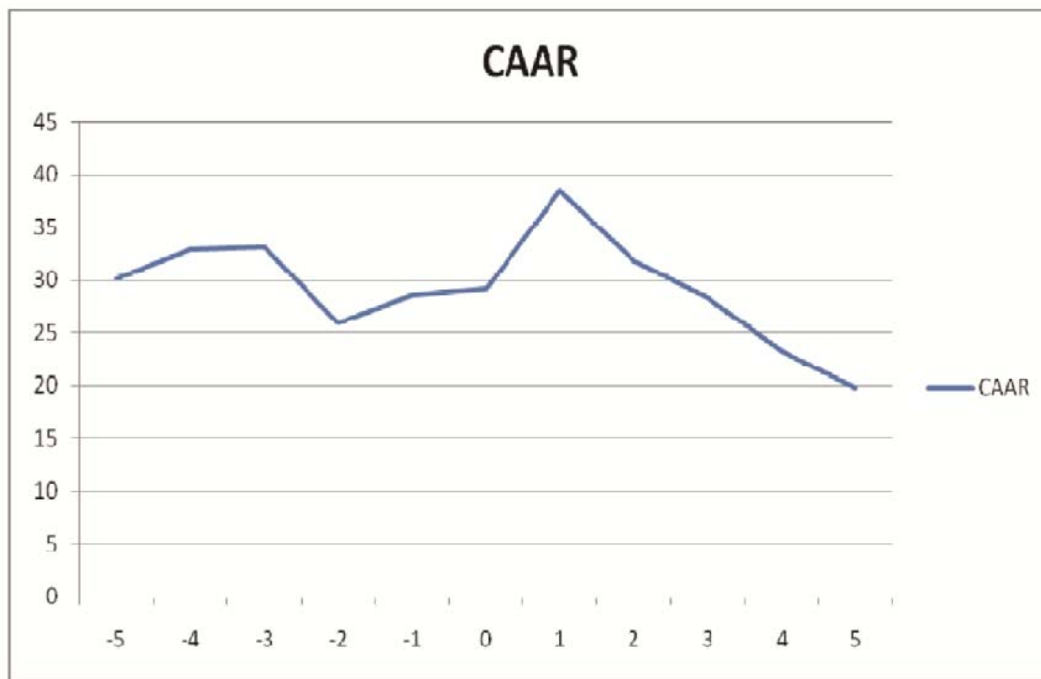


Fig 3: The Cumulative Average Abnormal Returns of the 10 companies from 5 days prior to announcement to 5 days after announcement.

Dividend Announcement

Table 5: Abnormal Results of 10 Selected Companies Around the Event Window (Dividend Announcement)

Days	1	2	3	4	5	6	7	8	9	10
-30	0.2685	-0.2964	8.4188	-0.5044	11.3661	33.4355	-0.4782	8.3666	3.6044	-1.2821
-29	-10.1639	5.3074	-2.6875	3.2250	7.1454	-22.3477	1.2864	4.8210	-2.3172	-3.1143
-28	-1.1430	-2.3742	-4.4169	1.4447	-3.6350	-27.1213	0.4171	-2.4443	-1.0119	-0.9081
-27	5.0768	-0.9220	21.3425	-0.6232	6.9945	-29.9582	0.9009	0.1356	-0.2746	4.4538
-26	-10.5192	-1.3841	27.8990	-1.0551	27.1291	0.0449	0.2790	-9.1690	-0.3298	-2.3114
-25	17.5381	-1.2357	-25.2058	-0.3766	-9.5581	27.9657	-0.9795	-1.9939	1.3600	-0.7998
-24	21.0523	-0.9741	-22.0617	0.1679	6.0991	7.0785	0.4370	-4.7490	-14.0139	0.5515
-23	-28.4329	-0.3741	-21.2210	-0.3360	22.9361	8.7260	0.3998	0.2577	-3.3782	-0.5056

-22	-20.5735	-0.5713	-22.0679	1.9683	17.5354	-4.5254	0.0569	2.4456	-2.4055	3.7915
-21	9.6750	-0.0473	-23.4800	-0.7966	-15.6291	39.5202	-0.4584	-4.1611	-3.8827	-2.5218
-20	6.1177	4.6442	36.2665	0.2622	-17.5738	-17.8561	-0.3609	-2.2781	-3.0514	0.7223
-19	27.0083	1.3638	87.2563	-0.1185	5.9691	51.9286	0.0766	-2.0706	-20.3364	-2.2013
-18	-6.1576	-1.1752	-8.4766	-0.7785	7.7547	-11.5647	-0.9010	-7.3507	-13.8923	1.1582
-17	26.8056	1.1769	-30.6708	0.4709	22.7965	-17.0788	-0.9657	-3.0140	1.6409	-0.2283
-16	1.5336	-3.6459	-6.9551	-0.9500	-5.1352	1.2295	0.0009	-1.9131	-2.8156	-3.5758
-15	19.9226	-1.8954	-48.3201	0.7959	1.3238	-5.7487	-0.4353	1.9267	7.9225	1.6178
-14	-6.7901	0.2097	64.5749	-0.9314	-8.6882	38.8848	0.0689	2.1699	2.0547	0.3908
-13	15.2809	-0.8899	-6.5457	-0.6703	-35.1292	41.3797	-0.5675	1.5241	-0.9017	0.8151
-12	12.4111	1.3996	-46.6833	-1.2405	-17.8887	5.1878	0.6604	0.6987	1.2345	-2.5971
-11	4.8849	-0.9682	-23.0501	-0.7361	16.1740	29.7568	-0.6151	5.0492	-1.4329	1.0897
-10	-2.2929	-0.5988	-56.4557	0.0283	5.4733	-24.6568	0.1604	-0.9266	1.3083	-0.9437
-9	-20.3878	-0.9289	-13.4547	-0.6295	18.1135	39.5633	-0.5021	2.0269	0.9831	-1.2256
-8	33.8869	-0.2515	-34.1334	-0.5008	-6.5573	32.6839	-0.1929	1.3416	1.8325	-0.6099
-7	-2.5843	0.6446	33.0476	0.0702	-5.4561	-14.6945	0.2664	-5.9611	2.3274	-1.6691
-6	6.8515	-0.8754	-53.7327	0.5570	-4.4970	16.1714	0.1626	-3.6920	-0.8566	-3.3639
-5	3.5651	-1.3100	-81.8924	1.7629	2.7716	4.6793	-0.7800	2.6925	1.9155	1.7370
-4	8.1651	1.3241	53.3483	7.9047	11.0235	-16.4369	0.5101	6.2241	3.4792	7.2351
-3	2.7035	0.0041	52.7708	2.0679	29.7644	30.7229	-0.5196	-3.3888	6.0088	1.2187
-2	-3.8478	-0.4501	31.6696	2.9009	16.9604	-25.0131	-0.4734	-4.3581	5.5931	4.9577
-1	13.1447	-0.4724	-16.9443	-1.4439	-37.9167	-4.3987	0.1087	3.7809	4.1334	-1.6811
0	31.8896	-0.5747	29.0892	4.8713	34.7299	14.4586	1.7801	0.8943	-8.2733	-3.1111
1	-7.8240	0.0178	41.2372	-3.8607	-23.5073	19.3137	-1.3342	-1.6673	7.4746	-3.3618
2	9.3695	-0.2763	-86.5670	0.4629	70.9103	59.8232	-0.3475	1.8704	-1.8372	0.0119
3	13.1471	0.1511	-5.8445	-1.8970	4.4292	-8.9496	-0.4371	-6.4695	-0.6535	4.9149
4	2.2350	-2.5249	-40.1578	-2.1206	-12.7970	11.5981	0.9594	1.9883	-1.4801	-0.0054
5	-35.9287	-0.0886	-44.7465	0.9421	-23.2823	-27.2004	-0.3609	5.7071	1.1058	1.3454
6	-4.0497	-1.6989	1.1962	1.8508	3.3033	-43.2282	-0.5713	0.3302	-7.1273	-0.1232

7	23.9765	-0.1113	21.3147	-2.1398	18.7244	-9.7615	-0.0710	-2.4186	-4.4248	-1.1531
8	3.3225	0.3691	-25.0106	0.6727	-17.9060	31.8452	-0.1037	0.8616	2.3790	-0.9013
9	-22.1496	1.0630	-14.1607	-0.6423	-3.4316	91.5821	-0.1337	-6.8592	0.1822	-1.3731
10	13.4042	0.0563	1.0294	0.2483	-13.6376	12.2795	-0.3678	2.8554	-3.4912	-1.7386
11	14.2042	-0.0695	4.8299	-1.5304	-6.2546	-12.2368	0.2873	3.7682	1.2388	-1.4015
12	-29.1542	-0.1948	-29.2769	-1.2620	0.4386	9.5059	0.3504	-4.1275	-2.5107	-5.8988
13	-7.6658	0.6886	40.4514	-1.8891	-24.7866	-8.2293	0.2865	-2.2143	-3.3762	0.8354
14	10.8382	6.4892	-62.6865	2.0761	-7.8460	7.0371	-1.0506	-2.6807	-6.1057	-1.1154
15	39.8080	-2.6232	5.7989	2.4351	16.2222	-5.1810	0.1583	0.2574	3.6294	-1.8008
16	-2.3373	0.0427	-27.3819	-0.5103	0.4616	32.5943	-0.2089	1.6962	0.1570	-2.7734
17	14.1824	0.2658	47.6851	0.5993	-10.7250	-4.9723	0.2223	6.5798	6.8703	4.1552
18	29.0123	2.9870	3.5688	0.4925	23.3771	-24.4664	0.0285	-4.7079	-0.1260	-0.5570
19	31.6784	-1.8100	15.6672	0.7634	-19.7623	-24.2154	0.2613	9.5872	-7.8038	-0.6729
20	16.8790	-2.6421	-69.3214	-0.1413	5.4315	-10.7136	-0.6693	-0.9738	-0.1572	-2.8869
21	-5.4183	1.2796	-61.5310	0.0685	-2.1746	-24.7643	-0.2746	6.4422	-0.7331	-1.3544
22	-2.8129	2.4880	-20.6802	1.2700	-5.9035	-19.2441	-0.3296	-0.5398	-5.9683	-2.4736
23	11.1320	-1.4502	11.6407	0.2031	22.8631	-20.3253	-0.5410	-5.3633	-3.5078	-2.9950
24	-31.2092	-0.1701	9.9873	0.1581	18.3118	-10.2256	0.3630	-3.8689	1.0426	0.8933
25	-6.0674	4.8690	11.5592	1.4201	-10.3005	31.7573	-0.4268	-5.7410	-0.5804	-4.4575
26	29.7225	1.2328	14.7725	0.6397	6.9117	-1.0422	0.1210	-7.1569	-2.6430	5.0938
27	5.3332	-4.9625	23.8080	0.3709	21.6124	-28.4572	-0.2277	5.2505	-0.9623	2.3107
28	12.2925	-0.1438	-62.9481	0.7167	3.1071	10.6979	0.2557	-7.7599	-5.2133	6.1718
29	-26.9866	-3.2745	15.5282	-0.0865	1.3800	31.0077	-0.4534	-4.6731	-6.2466	-2.2055
30	-49.4425	-2.9094	18.7362	-0.0080	13.4447	10.9609	-2.7757	-2.6555	-15.2866	-5.6933

Patterns of ARs

Table 5 clearly shows that investors can earn Abnormal Returns by trading in the stocks after the dividend announcements. A lesser positive or higher negative incidence of abnormal return was noticed around 5 days pre/post announcement for each

company having positive dividend announcement and few days pre/post negative returns for those companies having negative dividend announcement. This rejects the fourth null hypothesis (H04) that the investors cannot earn abnormal returns by trading in the stocks after Dividend announcements.

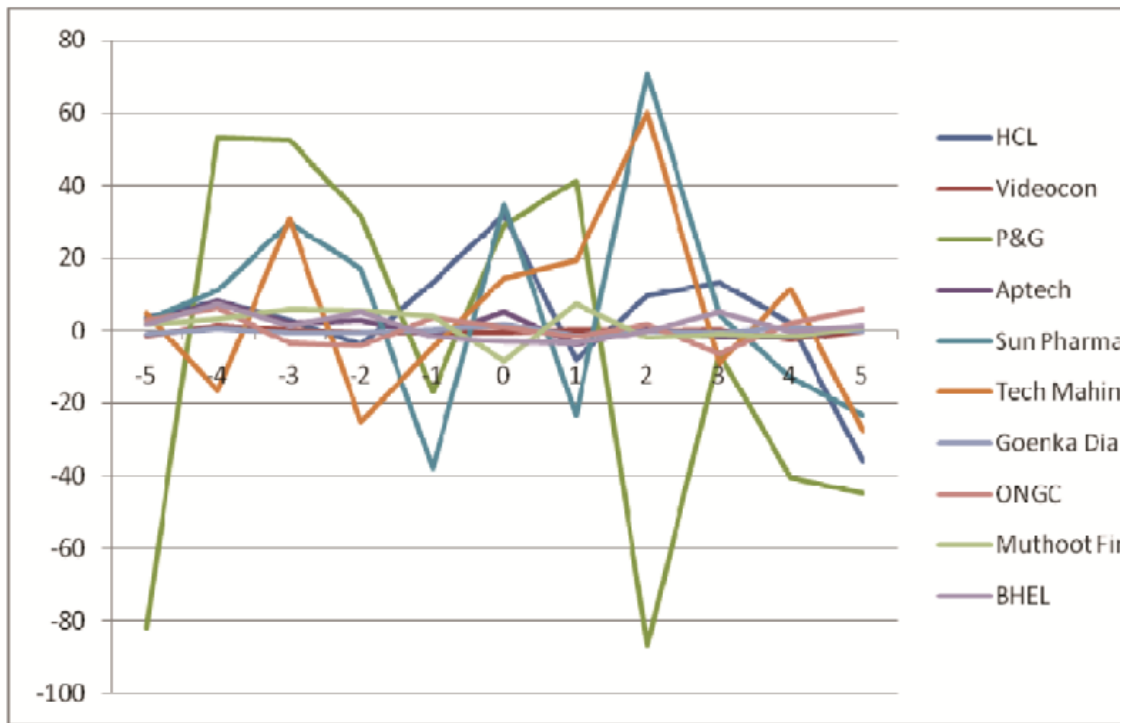


Fig. 4: Abnormal Returns of all 10 companies separately from 5 days prior to announcement to 5 days after announcement.

Table 6: Average Abnormal Returns, Cumulative Average Abnormal Returns & t-values of portfolio.

Days	AAR	CARR	Std Error	t-value
-30	6.2899	6.2899	3.3461	1.8798
-29	-1.8846	4.4053	2.7969	-0.6738
-28	-4.1193	0.2860	2.6154	-1.5750
-27	0.7126	0.9987	4.0064	0.1779
-26	3.0583	4.0570	4.2480	0.7199
-25	0.6715	4.7284	4.4981	0.1493
-24	-0.6413	4.0872	3.7021	-0.1732
-23	-2.1928	1.8944	4.5031	-0.4870
-22	-2.4346	-0.5402	3.6656	-0.6642
-21	-0.1782	-0.7184	5.2602	-0.0339

-20	0.6893	-0.0291	4.7286	0.1458
-19	14.8876	14.8584	10.1563	1.4659
-18	-4.1384	10.7201	2.0644	-2.0046
-17	0.0933	10.8134	5.2545	0.0178
-16	-2.2227	8.5907	0.8678	-2.5613
-15	-2.2890	6.3017	5.5654	-0.4113
-14	9.1944	15.4961	7.4298	1.2375
-13	1.4295	16.9256	5.9699	0.2395
-12	-4.6818	12.2439	5.2428	-0.8930
-11	3.0152	15.2591	4.2712	0.7059
-10	-7.8904	7.3687	5.9737	-1.3209
-9	2.3558	9.7245	5.2097	0.4522
-8	2.7499	12.4744	6.1055	0.4504
-7	0.5991	13.0735	3.9231	0.1527
-6	-4.3275	8.7460	5.8266	-0.7427
-5	-6.4859	2.2602	8.3980	-0.7723
-4	8.2777	10.5379	5.5647	1.4876
-3	12.1353	22.6731	5.9655	2.0342
-2	2.7939	25.4671	4.6389	0.6023
-1	-4.1690	21.2981	4.4468	-0.9375
0	10.5754	31.8735	5.0179	2.1075
1	2.6488	34.5223	5.4811	0.4833
2	5.3420	39.8643	13.2960	0.4018
3	-0.1609	39.7034	2.0459	-0.0786
4	-4.2305	35.4729	4.4157	-0.9581
5	-12.2507	23.2222	5.8792	-2.0837
6	-5.0118	18.2104	4.3510	-1.1519
7	4.3936	22.6040	3.8201	1.1501
8	-0.4471	22.1568	4.6870	-0.0954

9	4.4077	26.5645	9.9702	0.4421
10	1.0638	27.6283	2.4261	0.4385
11	0.2836	27.9119	2.1941	0.1292
12	-6.2130	21.6989	4.0436	-1.5365
13	-0.5899	21.1089	5.1584	-0.1144
14	-5.5044	15.6045	6.6235	-0.8310
15	5.8704	21.4749	4.2071	1.3953
16	0.1740	21.6489	4.5073	0.0386
17	6.4863	28.1352	5.0578	1.2824
18	2.9609	31.0961	4.6470	0.6372
19	0.3693	31.4654	5.1443	0.0718
20	-6.5195	24.9459	7.3230	-0.8903
21	-8.8460	16.0999	6.4088	-1.3803
22	-5.4194	10.6805	2.5756	-2.1042
23	1.1656	11.8461	3.7031	0.3148
24	-1.4717	10.3744	4.0947	-0.3594
25	2.2032	12.5776	3.8233	0.5763
26	4.7652	17.3427	3.3492	1.4228
27	2.4076	19.7503	4.5617	0.5278
28	-4.2823	15.4680	6.8153	-0.6283
29	0.3990	15.8670	4.7233	0.0845
30	-3.5629	12.3041	6.0175	-0.5921

Patterns of AAR

The behaviour of Average Abnormal Returns (AAR) around the dividend announcement, (as shown in table 6) offers some interesting reading. A lesser positive incidence of average abnormal return was noticed around 5 days pre/post announcement for the portfolio. Though the positive incidence of average abnormal returns in the post announcement period reflects investor's confidence in the stock performance and this also rejects the first part of fifth null hypothesis

(H05) that the average abnormal returns are close to zero. The t-test value on AAR for portfolio shows that most days during event window are significant at 5% level. This rejects the sixth null hypothesis that average abnormal returns occur randomly. Hence the t-values on AAR's indicate that the market abnormal returns do not occur randomly and few investors can earn abnormal returns by predicting the patterns in the market.

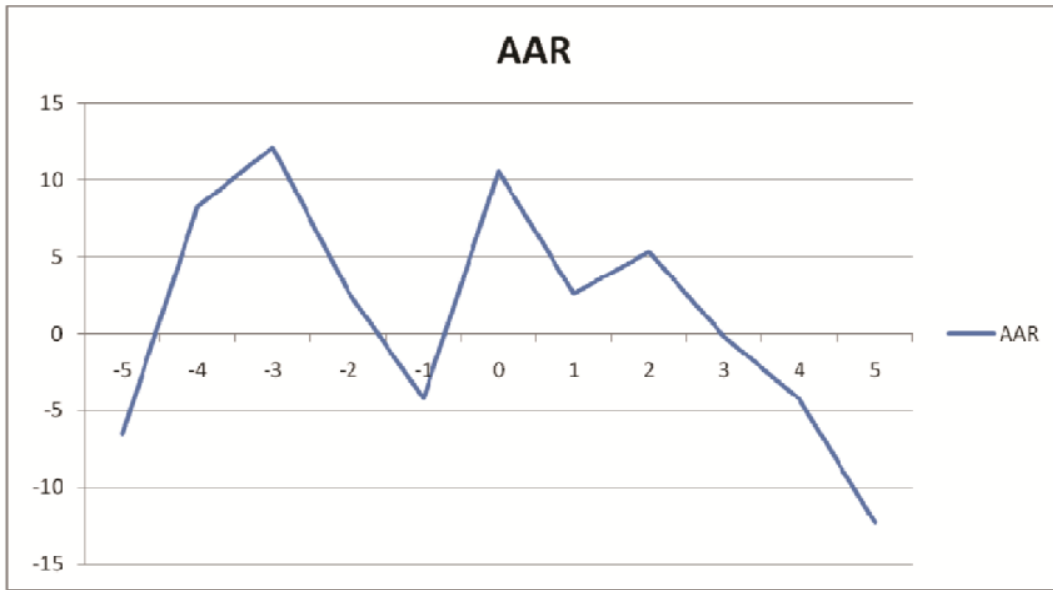


Fig 5: The Average Abnormal Returns of the 10 companies from 5 days prior to announcement to 5 days after announcement.

Patterns of CAAR

The results reported in the table 6 reveals that the cumulative average abnormal returns have a rising tendency in post announcement/event period. A higher negative incidence of cumulative return in post

event phase window for few days reflects over expectation and irrational to the new information disclosure concerning annual dividend. This rejects small part of fifth null hypothesis (H05) that the cumulative average abnormal returns are close to zero.

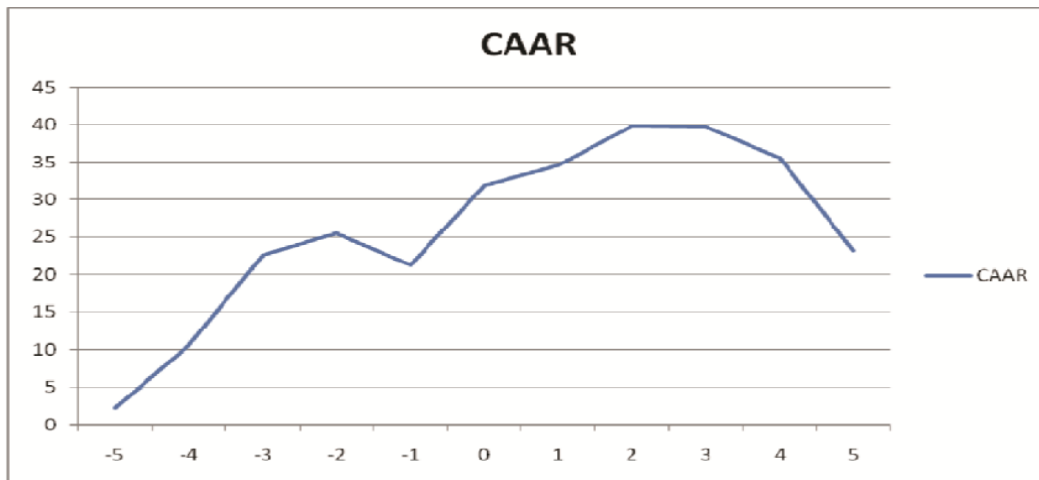


Fig 6: The Cumulative Average Abnormal Returns of the 10 companies from 5 days prior to announcement to 5 days after announcement.

Conclusion

Bonus Issue

When a company issues bonus shares in a certain proportion to the existing holders, it is termed as bonus issue. The bonus issues date is known well in advanced and therefore should contain no new information. As such, one would not expect any significant price reaction on the bonus issue announcement. In this paper, it is found that investors gain significant value in the period preceding as well as on the announcement day and the investors shift their security positions at the time of bonus issue announcement.

Due to the lack of information content prior to the announcement, the investors over-react at any announcement information or the company related information which is released into the market. This causes stock price fluctuations and the investors can earn abnormal returns whenever any major announcement information or the company related information is released in the market.

Dividend

A dividend is a payment made by the corporation to its shareholders usually as distribution of profits. When a corporation earns profit or surplus, it can either reinvest it in the business or it can distribute it to shareholders.

The dividend announcement has an impact on the market price of the shares and the expectation is that the market will react positively, if the dividend announced is upto the expectation level of the investors. At the same time, if the dividend announced is not upto the expectation level of the shareholders, the market reaction will be negative or follow a bearish trend for that the particular scrip. In this paper, using an event study methodology, it is found that investors gain significant value in the period preceding as well as on the announcement day and the investors shift their security positions at the time of dividend announcement which indicate that in post announcement period, there is a possibility of low or no information content in dividend announcement in BSE.

Due to the lack of information content, investors over-react at any announcement information or the company related information which is released into the market, and causes stock price fluctuations. For this the investors can earn abnormal returns whenever any major announcement information or the company related information is released in the market.

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