

Accounting Information, Dividend Announcement and Ex – Dividend Effects on Stock Returns – Evidence from Indian Market

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Abstract

This study intends to examine the efficiency of Indian market by analyzing the impact of three events associated with the dividend announcements on stock returns. The three events considered are accounting information announcement, cash dividend announcement and ex- dividend date. Using a pure sample of 215 Indian companies which declared a cash dividend during the year 2015, a macro level analysis is done at the first stage. The results justify the signaling ability of cash dividend announcements in the Indian stock market. Sector wise analysis of 21 sectors suggests that investors' reaction to these events could also be influenced by the life stages of companies and industries. The trend of mean cumulative abnormal returns suggests that the Indian market is not efficient over time.

Keywords: Cash dividend, Market efficiency, Signaling hypothesis

I. INTRODUCTION

A superfluity of research in the past has shown that the dividend announcements are considered as events which can alter the stock returns. Dividend announcements can be used as a direct signal of strength regarding a company's liquidity in the market (Douglas and Frank, 2013). Another important event for the investors is the release of accounting information. This will help in meaningful evaluation of the projects and efficient allocation of resources in the economy. The financial statement data (fundamental signals) tend to influence the investors' decisions as these signals will be analysed by the followers of fundamental analysis to predict the future performance of the companies (Hussain and Hassan, 2010). Event study methodology is a commonly accepted design to examine the effect of specific uncertain events on the volatility of stock returns. Measuring abnormal returns and variability of stock returns during the event windows are two frequently used methods to understand the information content of specific events (Singh and Jain, 2015). Though there are numerous

studies done in analyzing the information content of cash dividend announcements and accounting information disclosures, this study is unique by doing a deeper sector wise analysis in the context of Indian market. This study also indicate that it is important to understand whether the different sectors give positive or negative abnormal returns in the short run, due to the dividend announcement event, which has not been done previously in the literature on abnormal returns.

For better elucidation, this paper has been divided into eight sections: Section 1 contains the introduction. Section 2 reviews the relevant literature. Section 3 covers objectives and research hypotheses. Section 4 discusses research methodology. Section 5 contains the analysis and interpretation of the results.

II. REVIEW OF LITERATURE

Dividend declaration is considered as one of the key focus areas of the organization's financial policy. The core of dividend policy includes the decision like whether to distribute profits to the shareholders in the form of dividend or to retain it in. Dividend policy adopted by a firm has inference in the practical life for all, whether a manager or the organization's stakeholders. Similar is the case with investors who consider dividends not only as a source of income but also as a significant element for purpose of firm's valuation. At the time of declaration of dividends, two factors are given due consideration, first, the motive behind it and second is the market reaction after its declaration. Majority of the companies consider it advantageous to declare the dividends, as it will have positive impact on its goodwill and the share prices.

Compared to investors, the management is supposed to have superior information about the current and future financial position of the firm. Therefore, dividend announcements convey prized information to the market since they are considered to reflect management's expectations about current and future cash flows. Subsequently, dividend increases (decreases) convey positive (negative) information to the market about the future prospects of the firms that

distribute dividends. Thus, an announcement of dividend increase (decrease) is accompanied with a rise (fall) in stock prices. The above argument is considered the key premise of the so-called information content of dividends hypothesis or the dividend signaling hypothesis that was initially proposed by Lintner (1956) and further developed by Fama et al. (1969), Bhattacharya (1979 and 1980), Miller and Scholes (1982), John and Williams (1985), Miller and Rock (1985) and Ambarish et al. (1987). As per the dividend signaling hypothesis, dividend announcements trigger share returns because they contain information about managements' assessment on firms' future prospects. The earlier empirical evidences make it clear that dividends affect market valuations. However, it is not clear whether management use dividends intentionally as a signal or not.

Ex – dividend date is yet another important event which could influence the stock returns due to 'clientele' effect. Though the Ex-dividend event cannot be considered as an unexpected or surprise event, based on the market reactions around this date, investor profile and perceptions in an economy can be better understood. The ex- dividend date is the day on which all shares bought and sold no longer come attached with the right to be paid the most recently declared dividend. This is an important date for any company that has many stock holders, including those that trade on exchanges, as it makes reconciliation of who is to be paid the dividend. Prior to this date, the stock is said to be cum dividend (with dividend): existing holders of the stock and anyone who buys it, will receive the dividend, whereas any holders selling the stock lose their right to the dividend. On and after this date, the stock becomes ex- dividend: existing holders of stock will receive the dividend even if they now sell the stock, whereas anyone who now buys the stock now will not receive the dividend. The ex- date is the second business day before the date of record.

The third important event around the dividend announcement, which could influence the stock returns, is the release of fundamental data or accounting information of the firm. This article also intends to empirically test the possibility to earn abnormal stock returns using fundamental scrutiny. Ohlson (1995), Feltham and Ohlson (1995), Ou and Penman (1989a, 1989b), Penman (1992), Lev and Thiagarajan (1993), and Abarbanell and Bushee (1997) had attempted to explain the effect of accounting information announcements on stock returns using different methodologies. But mostly, the researchers have adopted event study methodology to understand whether the news of a significant event could alter the

pattern of stock return for a firm or an industry (Schweitzer, 1989).

Vast majority of the studies, to understand the effect of specific events like dividend announcements and accounting information on stock returns, were conducted in US (Fama and French, 1988; Baskin, 1989; and Ohlson, 1995). This was followed by studies in the emerging markets (Venkatesh, 1989; Kim and Verrecchia, 1991; Mitra and Owers, 1995; Gurkul et.al, 2003; Docking and Koch, 2005; Fracassi, 2008). The results of these studies provided support for 'signalling', 'maturity' and 'risk information' hypotheses. Khan (2012) examined the effect of dividends on stock prices in the chemical and pharmaceutical industry of Pakistan. The result confirms that if companies pay cash dividend, it will positively influence its stock prices.

There are a few more studies which had explored other relevant proxies related to dividend announcements. Kibet (2015) examined effects of dividend policy on share price of firms listed at the Nairobi Securities Exchange, Kenya and reported that there was a significant positive relationship between cash dividend and share returns. Hashemijoo et.al. (2012) examined the relationship between dividend policy and share price volatility with a focus on consumer product companies listed in Malaysian stock market with a sample of 84 companies from 142 listed consumer product companies for a period of six years from 2005 to 2010. The results showed significant negative relationship between share price volatility and two proxy measures of dividend policy, namely dividend yield and dividend payout.

Rarely do we find studies in the past which attempted to measure empirically, the effect of all the three major events related to cash dividend announcements on stock returns in an emerging economy like India. In this research, we try to explain the effect of three events namely, accounting information announcement, dividend announcement and ex-dividend on stock returns. We have also analysed the sector wise trend of the abnormal stock returns in the short run, by examining whether they have shown positive or negative abnormal returns in the short run.

III. OBJECTIVES AND HYPOTHESIS

To fill the identified gaps regarding the impact of specific events related to the cash dividend announcement on the abnormal stock returns, we have measured the magnitude and direction of change in abnormal stock returns in the Indian market. We have also examined the sectoral reactions to the three specific events related to the cash dividend announcements.

The following null hypotheses were formulated.

H_{01} : There is no significant difference between the means of abnormal returns earned before and after the AGM date announcements in the market.

H_{02} : There is no significant difference between the means of abnormal returns earned before and after the dividend date announcements in the market.

H_{03} : There is no significant difference between the means of abnormal returns earned before and after the ex-dividend date in the market.

IV. RESEARCH METHODOLOGY

A. Data Description and Sample Size

The population consists of companies in BSE 500 which declared cash dividend in the year 2015. 377 companies in BSE 500 declared final cash dividend during the year 2015. BSE 500 represents nearly 93% of total market capitalisation of Indian stock market. The only limitation of this sample selection is that, only large cap companies will get represented in this sample. Apart from these conditions, only those companies which satisfied the following conditions were taken for the study, in order to get a pure sample status.

Condition 1: Companies whose gap between AGM announcement date and dividend announcement date should be 12 days or more. 149 companies were eliminated because their above mentioned gap was less than 12 days.

Condition 2: Companies should not have declared stock split during the period of study. 7 companies were filtered out as they declared stock split.

Condition 3: Companies should not have declared bonus shares during this period. 6 companies were removed from the initial 377 based on this filtration criterion.

Condition 4: Companies should have not made rights issue during the period. No companies were filtered out using this criterion.

Thus, after filtering out all the companies that had the influence of all other corporate actions, a pure sample of 215 companies was identified. This can be called as a 'Pure sample' because it is assumed that the stock prices of these companies will purely reflect the characteristics of dividend declaration.

B. Research Design and Tools for Analysis

The data in the present study has been analyzed by using 'Event Study'. The procedure for event studies is to investigate whether there are abnormal returns around the AGM announcement date, dividend announcement date and ex-dividend date. The effects exist only if abnormal returns are significant. Paired sample T test has been used for testing the

hypothesis for the whole sample and for the sector wise classification.

C. Event Study

Fama, Fisher, Jensen and Roll (1969, 1988), developed this method to analyze the effect of stock split increases the wealth of the shareholders. An event test analyzes the security both before and after an event, such as stock split, dividend, earnings, etc. To conduct an event study, the following terms need to be defined – event of interest, event window, estimate window and estimation model.

D. Event of interest

The event is the action that the researcher would like to study. The event is expected to convey some information that potentially influences the stock prices. Here, we are taking three events for study. Thus, the events of interest are announcement of AGM dates, announcement of dividends and ex-dividend date.

E. Event window

An event window is the period in which an event occurs; during this period the security prices of the relevant firms are examined. The event window has been chosen as -8, through 0 to +8 for each event. Here, 0 depicts the event date, -8 is the 8 day time period prior to event date, and +8 is the 8 day time period after the event date.

F. Estimation window

An estimation window is the period used for estimating the expected returns. Typically, the estimation window is chosen prior to the event window. The expected returns (also called normal returns) are calculated using a time period other than the event window. The standard and generally accepted period is 120 days before the commencement of event window. The estimation window used for the study is from day -129 to day -9 before the first event. Thus comprising 120 days before the announcement of AGM date. So, here we assume that the normal returns of the company is same as the average returns during this period.

For the testing of hypothesis, following variables have to be calculated

- 1) Daily returns
- 2) Normal returns
- 3) Abnormal returns (AR)
- 4) Cumulative Abnormal Returns (CAR)
- 5) Average Abnormal Returns (AAR)

G. Daily Returns

'Daily returns' is the returns a stock yields on a particular day when compared with the previous day. It is simply calculated by the formula:

$$R_i = [(P_1 - p_0) / p_0] * 100$$

Where,

R_i = Return on security i.

P_1 = Current day's closing price of security.

p_0 = Previous day's closing price of security.

H. Normal Returns

'Normal returns' is the expected return, a stock yields on a normal day. It is calculated by finding the average of daily returns from -120th day to -9th prior to the announcement of first event. i.e., the AGM announcement date.

$$NR_i = \sum_{t=-129}^{-9} R_t$$

Where,

NR_i = Normal Return for the security i

R_t = Return for the day t.

P_1 = Current day's closing price of security.

p_0 = Previous day's closing price of security.

I. Abnormal Returns (AR)

'Abnormal returns' is the return a stock yields over the expected or normal returns on a particular day. It is the difference of Daily returns and Normal Returns. It is calculated by the formula:

$$AR_{it} = R_{it} - NR_i$$

Where,

AR_{it} = Abnormal Return on security i for the day t.

R_{it} = Return on security i for the day t.

NR_i = Normal Return for the security i.

J. Cumulative Abnormal Returns (CAR)

'Cumulative Abnormal returns' is the sum of all abnormal returns of all stocks on a particular day. It is calculated by using the formula:

$$CAR_t = \sum AR_t$$

Where,

CAR_t = Cumulative abnormal Return for the day t.

AR_t = Abnormal Return for the day t

K. Average Abnormal Returns (AAR)

'Average Abnormal returns' is the average of cumulative abnormal returns of all stocks on a particular day. It is calculated by dividing cumulative abnormal return with the sample size, using the formula:

$$AAR_t = CAR_t / N$$

Where,

AAR_t = Average Abnormal Return for the day t.

CAR_t = Cumulative Abnormal Return for the day t.

N= Number of companies in the sample.

V. ANALYSIS

The results of paired sample t – test on the average abnormal returns of sample companies during Pre and Post Accounting Information announcement

(Table.1) revealed that the sample companies enjoyed the highest average abnormal returns of 0.179 % on the next day of event date, i.e., the next day of accounting information announcement date. But, such patterns of variance are not statistically significant for the sample companies, since the paired sample t value is 0.673. Though statistically insignificant, the probable reason for the return volatility around the event could be because of the low information environment which existed before the event and greater investor uncertainty.

Table1: Results of Paired Sample t-test of Average Abnormal Returns (AAR) of Accounting Information Announcement date of all companies

Day	CAR	AAR	CAAR	T value	paired sample t value	Table value @ 95 %
-8	13.861%	0.064%	0.064%	-0.441	0.673	0.05
-7	-16.794%	-0.078%	-0.014%			
-6	-74.996%	-0.349%	-0.362%			
-5	-29.268%	-0.136%	-0.499%			
-4	-1.055%	-0.005%	-0.503%			
-3	28.605%	0.133%	-0.370%			
-2	-72.194%	-0.336%	-0.706%			
-1	-19.535%	-0.091%	-0.797%			
0	-20.885%	-0.097%	-0.894%			
1	38.512%	0.179%	-0.715%			
2	-33.052%	-0.154%	-0.869%			
3	30.299%	0.141%	-0.728%			
4	18.011%	0.084%	-0.644%			
5	-47.381%	-0.220%	-0.865%			
6	-47.337%	-0.220%	-1.085%			
7	-21.945%	-0.102%	-1.187%			
8	-35.544%	-0.165%	-1.352%			

Ross (1989) has suggested that variance of returns could be influenced by the flow of information. Therefore, the first null hypothesis H_{01} : There is no significant difference between the means of abnormal returns earned before and after the AGM date announcements in the market, is not rejected.

To compare the mean variance before and after the cash dividend announcement, paired sample t – test was done again during the second event window. The test result (Table.2) revealed that the sample companies enjoyed positive abnormal returns on 3 days in the entire event window. The highest average abnormal returns of 0.328 % was obtained on the previous day of event date.

Table 2. Results of Paired Sample t-test of Average Abnormal Returns (AAR) of Cash Dividend Announcement date of all companies

Day	CAR	AAR	CAAR	T value	paired sample t value	Table value @ 95 %
-8	60.364%	0.281%	0.281%	2.994	0.02	0.05
-7	-32.712%	-0.152%	0.129%			
-6	-52.377%	-0.244%	-0.115%			
-5	-19.231%	-0.089%	-0.204%			
-4	-32.085%	-0.149%	-0.354%			
-3	-22.858%	-0.106%	-0.460%			
-2	-24.000%	-0.112%	-0.572%			
-1	70.453%	0.328%	-0.244%			
0	1.114%	0.005%	-0.239%			
1	-80.191%	-0.373%	-0.612%			
2	-99.697%	-0.464%	-1.075%			
3	-71.414%	-0.332%	-1.408%			
4	-15.346%	-0.071%	-1.479%			
5	-61.782%	-0.287%	-1.766%			
6	-133.890%	-0.623%	-2.389%			
7	-24.902%	-0.116%	-2.505%			
8	-48.024%	-0.223%	-2.728%			

On the dividend announcement date, companies enjoyed a positive abnormal return of 0.005 % and the pattern is statistically significant. Therefore, the second null hypothesis H_{02} : There is no significant difference between the means of abnormal returns earned before and after the dividend date announcements in the market, is rejected. The results reveal that the share trading activity of the dividend announcing companies' increases which results in higher volatility in the stock returns.

To explore the impact of the third event associated with the cash dividend announcement, i.e., Ex – dividend date, paired sample t – test was done again for the third event window (Table.3). Though it was found that the sample companies enjoyed the highest average abnormal returns of 0.397 % on the previous day of ex-dividend date, the pattern is not statistically significant. Therefore the null hypothesis, H_{03} is not rejected.

Table 3. Results of Paired Sample t-test of Average Abnormal Returns (AAR) of Ex - Dividend date of all companies

Day	CAR	AAR	CAAR	T value	paired sample t value	Table value @ 95 %
-8	-28.954%	-0.135%	-0.135%	-0.336	0.747	0.05
-7	-7.497%	-0.035%	-0.170%			
-6	-1.032%	-0.005%	-0.174%			
-5	-24.668%	-0.115%	-0.289%			
-4	7.165%	0.033%	-0.256%			
-3	-20.069%	-0.093%	-0.349%			
-2	12.411%	0.058%	-0.291%			
-1	85.336%	0.397%	0.106%			
0	-97.310%	-0.453%	-0.347%			
1	-24.581%	-0.114%	-0.461%			
2	16.281%	0.076%	-0.386%			
3	16.985%	0.079%	-0.307%			
4	20.957%	0.097%	-0.209%			
5	-40.792%	-0.190%	-0.399%			
6	36.198%	0.168%	-0.231%			
7	22.351%	0.104%	-0.127%			
8	16.379%	0.076%	-0.050%			

Further, an in-depth sector wise analysis was done to understand the impact of these three events. There are 215 sample companies belonging to 21 sectors which have declared cash dividend during the period of study and which satisfy all other conditions required for a pure sample. The three null hypotheses formulated at the beginning of the research were tested sector wise also, using paired sample t – test. But the test was applied only for those sectors which have ten or more pure samples under them. Ten sectors are there with more than 10 pure samples, which include automotive, banking, cement / construction, chemicals, engineering, finance, miscellaneous, oil & gas, pharmaceuticals and technology sectors. The results of the paired sample t – test done sector wise for the three events (event 1 – accounting information announcement; event 2 – cash dividend announcement and event 3 – Ex- dividend date) is shown in Table 4. The figures reveal that only the patterns and variations around the ex- dividend date for chemical industry is the only statistically significant pattern where the third null hypothesis related to the sector is rejected.

Table 4. Results of sector wise Paired Sample t-test of Average Abnormal Returns (AAR) of all the three events

S l . No	Industry	no. of companies	period	mean	t value	Paired t value
1	Automotive	13	before event 1	-0.081	0.397	0.703
			after event 1	-0.252		
			before event 2	-0.0575	0.53	0.613
			after event 2	0.23388		
			before	-0.4985	-1.022	0.341

			event 3				
			after event 3	0.01912			
2	Banking	15	before event 1	-	-0.493	0.637	
			after event 1	0.18112			
			before event 2	-	0.323	0.756	
			after event 2	-0.0735			
			before event 3	-	-1.001	0.35	
			after event 3	37.8746			
3	Cement/ construction	12	before event 1	-	-0.372	0.721	
			after event 1	0.22637			
			before event 2	-	1.134	0.294	
			after event 2	-0.1725			
			before event 3	-	2.021	0.083	
			after event 3	0.00862			
4	Chemicals	19	before event 1	-	-1.103	0.306	
			after event 1	0.33713			
			before event 2	-	2.331	0.052	
			after event 2	0.08675			
			before event 3	-	2.406	0.047	
			after event 3	-0.182			
5	Engineering	22	before event 1	-	-1.845	0.108	
			after event 1	0.34012			
			before event 2	-	-0.621	0.554	
			after event 2	0.05725			
			before event 3	-	0.435	0.677	
			after event 3	0.086			
6	Finance	21	before event 1	-	0.501	0.631	
			after event 1	0.07638			
			before event 2	-	1.447	0.191	
			after event 2	0.16513			
			before event 3	-	-0.711	0.5	
			after event 3	0.11838			
7	Miscellaneous	14	before event 1	-	0.67	0.524	
			after event 1	0.03588			
			before event 2	-	1.385	0.209	
			after event 2	0.35625			
			before event 3	-			
			after event 3	0.15475			
8	Oil & gas	10	before event 1	-	-0.377	0.717	
			after event 1	0.73425			
			before event 2	-	-1.067	0.321	
			after event 2	-0.1495			
			before event 3	-	1.455	0.189	
			after event 3	0.20725			
9	Pharmaceuti-cals	16	before event 1	-	-1.731	0.127	
			after event 1	0.07213			
			before event 2	-	-0.455	0.663	
			after event 2	0.557			
			before event 3	-	-0.054	0.958	
			after event 3	0.4965			
10	Technology	11	before event 1	-	1.227	0.259	
			after event 1	0.02963			
			before event 2	-	1.937	0.094	
			after event 2	0.27325			
			before event 3	-	0.044	0.956	
			after event 3	0.20625			

For the remaining eleven sectors, mathematical analysis of the average abnormal returns was done in order to understand the impact of the three events on the stock returns during the short run. The following trends and patterns were revealed during the analysis. W1, W2 and W3 mentioned below denote the first event window (Accounting information announcement), second event window (Cash dividend announcement) and third event window (Ex- dividend announcement) respectively.

For the Conglomerate sector, it was found that in W1, the highest return of 1.501% was on day 4. Day 0 and day 1 had an increase in abnormal returns. This shows that there was an immediate impact of the event. The post event window showed a positive response to the event. In W2, the highest return of 1.669% was on day 3. Day 0 and day 1 had negative returns. This shows that there was no immediate impact on the event.

The post event window showed a negative response to the event. In W3, the highest return of 1.378% was on day 0. This shows that there was an immediate response to the event. Overall, the post event window showed a negative response.

For Consumer Durable sector, in W1, the highest return of 1.179% was on day 5. Day 0 and day 1 had negative abnormal returns. This shows that there was no immediate impact on the event. The post event window showed a positive response to the event. In W2, the highest return of 2.456% was on day -8. Day 0 and day 1 had negative returns. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 1.659% was on day 2. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a positive response.

For Consumer Non Durable sector, in W1, the highest return of 2.839% was on day 4. Day 0 had positive abnormal returns. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 0.861% was on day -1. Day 0 and day 1 had positive returns. This shows that there was an immediate impact on the event. The post event window showed a positive response to the event. In W3, the highest return of 0.864% was on day -8. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a positive response.

For Food & Beverages sector, in W1, the highest return of 1.695% was on day -7. Day 0 had positive abnormal returns. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 1.197% was on day -8. Day 1 had positive returns. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 1.594 % was on day -8. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a positive response.

For Manufacturing sector, in W1, the highest return of 1.723% was on day -8. Day 0 had negative abnormal returns. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 2.853% was on day 0. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event.

In W3, the highest return of 1.652 % was on day 4. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a negative response.

For Media sector, in W1, the highest return of 4.953% was on day 1. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 3.781% was on day -2. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 3.546% was on day 8. Day 0 had a positive and second highest ARR. This shows that there was an immediate response to the event. The post event window showed a positive response to the event.

For Metals & Mining sector, in W1, the highest return of 1.657% was on day -4. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a positive response to the event. In W2, the highest return of 2.129 % was also on day -4. Day 0 had a positive ARR. This shows that there was an immediate impact on the event. The post event window showed a positive response to the event. In W3, the highest return of 1.173 % was on day 4. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a positive response to the event.

For Retail – Real Estate sector, in W1, the highest return of 1.106% was on day -7. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 2.279% was on day 0. This shows that there was an immediate impact on the event. The post event window showed a positive response to the event. In W3, the highest return of 1.879% was on day -7. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a positive response to the event.

For Services sector, in W1, the highest return of 1.156% was on day 5. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a positive response to the event. In W2, the highest return of 0.972% was on day -4. Day 1 had a positive ARR. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 2.301% was on day 3. Day 0 had a positive ARR. This shows that there

was an immediate response to the event. The post event window showed a positive response to the event.

For Telecom sector, in W1, the highest return of 2.144% was on day -6. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W2, the highest return of 1.377% was on day 7. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 5.794% was on day 3. Day 0 had a positive ARR. This shows that there was an immediate response to the event. The post event window showed a positive response to the event.

For Tobacco sector, in W1, the highest return of 4.900% was on day -2. Day 0 had a negative ARR. This shows that there was no immediate impact on the event. The post event window showed a positive response to the event. In W2, the highest return of 2.090 % was on day -1. Day 0 had a positive ARR. This shows that there was an immediate impact on the event. The post event window showed a negative response to the event. In W3, the highest return of 8.751% was on day -1. Day 0 had a negative ARR. This shows that there was no immediate response to the event. The post event window showed a negative response to the event.

VI. CONCLUSION

The form of market efficiency existing in Indian markets was tested using event study method, where the impact of three major events related to cash dividend announcements were studied thoroughly. The theory developed by Fama, Fisher, Jensen and Roll (1969, 1988) to study the semi-strong market efficiency, suggests that if markets are efficient, then Mean Cumulative Abnormal returns should be close to zero. On further analysis, it was found that the mean Cumulative Abnormal Returns did not show a trend of moving near to 0, even though the event window was widened, which meant that Indian stock market is not efficient over time.

The paper has examined the impact of three events (Accounting Information announcement, Cash dividend announcement and Ex- dividend date) on the variability of stock returns. At first, the analysis was done at a macro level, taking all the 215 companies using the pure sample selection criteria. At the macro level, it was found that only for the second event (Cash dividend announcement) there is significant variation of stock returns in the pre and post event window. It suggests that the investors focus on the information content of cash dividend announcements. The results justify the signalling ability of cash dividend announcements in the Indian market.

Further sector wise analysis, suggests that the investors' reaction to these events could also be influenced by the life stages of companies and industries. An important implication of this study is that the managers may use dividend announcements to influence stock returns because of the information content of this event.

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