

Impact of Dividend Declaration and Ex-Dividend Date on Securities of Nifty Index

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ABSTRACT

Purpose: To check whether dividend declaration date and ex- dividend date fall any impact on the returns of nifty 50 securities at different time frames.

Design/Methodology/Approach: In this research secondary data was used from the date 1st April 2022 to 1st March 2023. This data was collected from the trust worthy websites of nseindia.com and investing.com. Event study methodology was employed in this research. Paired t test was applied on the data of different time frames. Research tools as SPSS, advanced excel and smart PLS were applied in this research.

Result: It was found that there was no significant impact of dividend declaration and ex-dividend date on returns of securities at different time frames. Correlation coefficients were also indicating that there was no significant relationship between both the factors. When 7 days Cumulative Abnormal Returns (CAR) were computed, it was found no impact of both the above mentioned factors on Cumulative Abnormal Returns (CAR)

Originality / value: The study was conducted to guide the investors' whether they should invest in securities after announcement of dividend by companies or not. It would-be helpful for traders and investor in making right decision, based on dividend announcement of the company.

Keywords: Car, Aar.

JEL: G11, G17, G12.

1. INTRODUCTION

One of the main areas of emphasis for the organization's financial policy is dividend declaration. The goal of stock market investing is to increase returns in addition to company dividends. Investors typically monitor the dividend policies of various firms closely. Many businesses offer dividends twice a year in order to prosper. The company's policies in this regard determine whether a dividend is declared. Numerous profitable corporations choose to reinvest their profits in their businesses to spur growth and raise stock prices rather than paying dividends to investors. The companies paying regular dividend are always on top priority of investors, if any company paying regular dividend stops paying dividend effects negativity to its reputation as well its share price. Furthermore, if companies don't have past record of paying dividend are generally noticed favourably when they declare dividends to pay (Jais et al, 2010). While companies must closely monitor how dividends are financed, investors are more interested with how much of a company's revenues are set aside for potential future investments than they are with the dividend payment itself. (Akinkoye & Akinadewo, 2018).



According to Miller and Modigliani's irrelevance theory of dividends (1958), pay-outs have no effect on a company's worth. Dividend policy does not affect a company's cost of capital or stock price, indicating that its impact lies in how a company divides its earnings between retained profits and dividends, rather than the value of its earnings itself.

It has been seen and seen that firms declare dividends in order to keep the goodwill of their shareholders, even in the face of significant losses. At least 11 businesses that, when considered separately, had net losses in the 2022 fiscal year have announced dividend payments. (source: monycontrol.). Such practice can't be carry out for longer period because such companies are paying dividend hampering their capital.

The day a stock trades without the benefit of being eligible for a dividend is known as the ex-dividend date, and the dividend declaration date is the day the board of directors announces the dividend. The record date is one working day ahead of the ex-date. That being said, since the market is now utilising T+1 settlement, the record date and the ex-dividend date coincide. In order to qualify for a dividend prior to the ex-date, you must possess shares in that company. You will not be paid dividends if you buy shares on the ex-date. In this study, the impact of the dividend declaration and the ex-dividend date on Nifty 50 shares will be investigated. This purpose is served by the division of the paper into sections. What impact

2. LITERATURE REVIEW

Pettit and Watts (1978) studied the response of the market to the announcement of dividend changes. They discovered that there was no proof that the company's dividend announcement affected its stock price. The investigation showed a clear correlation between pre-announcement and post-announcement stock behaviour. There are no better returns during the post-announcement period than during the pre-announcement of dividends. **Rao (1994)** The results of a 1988–1989 study on BSE listed businesses showed that stock prices respond favourably to announcements of dividend increases, and that this response occurs even two days in advance of the official announcement.. **Gordon Newlov (2010)** Examined how dividend announcements affected the companies listed on the Ghana Stock Exchange (GSE), researchers discovered that three of the stocks they chose to study underperformed even after the announcement and that the GSE did not exhibit a semi-strong EMH. **Bayezid Ali (2010)** examined the connection between the stocks of particular private commercial banks and dividend announcements. He discovered that, of the 25 banks, the share prices of 11 banks fell following the announcement, and he came to the conclusion that there was no clear indication of a positive impact of the announcement of dividends on stock prices. **Neetu Mehndiratta (2010)** made an effort to monitor how Indian stock prices responded to dividend announcements. Fifteen firms listed on the national stock exchange were chosen by the researcher. According to this study, there was an unusual change in return for a few days, but it was not sustained over an extended length of time. **Saravana kumar (2011)** studied how stock prices behaved leading up to and on the day of the dividend announcement and found that corporate dividend results are not impacted by how corporations behave with their stock returns. **Shaveta Gupta (2012)** examined the impact of dividend policy changes on the stock market's responsiveness to news. He came to the conclusion that the Indian stock market appears to have benefited from the dividend hike. **Chavli (2013)** investigated the impact of dividends (both cash and stock) on the performance of firm share prices in the Indian context. This study covered 67 FMCG companies between April 2007 and August 2011. The findings demonstrated that the market reacts favourably to dividend announcements, with average abnormal returns (AAR) being particularly beneficial around the announcement date. **Santosh Kumar (2013)** examined the data supporting the average anomalous return around the time of the announcement. This study covered 42 companies in the BSE 500 index. They discovered that the market reacted well to the dividend announcement. However, this encouraging signal was only observed for a single day following the dividend announcement. Bigger businesses are more affected than medium-sized and small businesses. **Byson M. (2015)** discovered a significant positive correlation between a company's dividends and stock price on the Malawi Stock Exchange. **Sukhjeet Matharu (2015)** examined how stock prices responded to dividend announcements. 25 firms representing diverse industries that were listed on the Bombay Stock Exchange in 2013 were the subject of this study. Investors should make intelligent investment decisions after thorough research because this study indicated a considerable difference between pre and post-dividend announcement for a few days. **Jack (2015)** examined, from 2001 to 2012, the impact of the ex-dividend date on the cash-dividend policy of the Taiwan Stock Exchange (TWSE). The equities used in this study were listed on the TWSE. This study found that for companies choosing to implement an exclusive cash-dividend policy for the year, cumulative abnormal returns occur over the ten-day window preceding and following the ex-dividend date. **Dinh Bao Ngoc (2016)** conducted a study to investigate the impact of the dividend announcement and ex-dividend dates on stock prices. This study was done on 432 listed Vietnamese companies. Positive effects were seen on the day of the dividend announcement, price increases were noted as the ex-dividend date drew near, and price declines were noted following the ex-date. **Shireen Rosario (2016)** investigated the effect of a cash and stock dividend announcement on the performance of the share price in Oman. Twenty-one listed companies on the Muscat Securities Market were the subject of this study. The analysis came to the conclusion that a share price gain follows a dividend announcement. **Rawat (2016)** looked into how ex-dividend day affected stock returns for Indian firms listed between 2011 and 2015 that were included in the Nifty 50. In this study, daily abnormal returns of (61,31,11) days were analysed. The conclusion reached was that the preannouncement period had seen extremely high real returns, indicating a favourable response from the market. **Ines Chaabouni (2017)** investigated the response of stock price to dividend announcement. He conducted the research 10 companies for the period 2014-2015, in this research he found that there was immediate reaction of dividend announcement on stock prices.



Research Objectives

- Ranking the companies as per their dividend pay-out ratio.
- To assess how a dividend announcement affects the stock market.
- To assess how Nifty index securities are affected by the ex-dividend date.
- To explore the correlation between the returns before and after the event day.

Hypothesis

Ho: There is no significant impact of dividend declaration on prices of securities of Nifty index.

Ho: There is no significant impact of Ex-dividend date on prices of securities of Nifty index.

3. RESEARCH METHODOLOGY

Research Design: The study is descriptive in nature. To assess the impact of dividend declaration and ex-dividend date pair t test was conducted. M S Excel and SPSS were used in this research.

Period of study: The study's time frame is from April 1, 2022, to March 31, 2023. We Analysed the return on different time frames as (before and after) 1 day, (before and after) 3 days, (before and after) 5 days, (before and after) 7days of declaration of dividend and ex-dividend date.

Data Collection: In this investigation, secondary data was utilised from the reliable websites of stock market. The NSE and https://www.chittorgarh.com/ipo/ipo_dashboard.asp websites were used to gather the data.

Sample Selection: All the shares of nifty 50 index were considered in this research. We carried out research on 48 shares because two companies Tata Motors and Hindustan Liver did not announce or pay and dividend during the research period.

4. ANALYSIS AND RESULTS:

Companies' Ranking in Accordance with D/P Ratios: Below mentioned table 1 indicates companies of nifty 50 with their dividend announcement date, ex- dividend date and dividend % declared. One company (Tata Motors) out of 50 did not pay any dividend. As it can been seen in below table Britannia Company paid highest dividend of **5650%** while lowest **17%** was paid by HDFC Life. We also provided ranks to the companies as per their dividend paid. Sothat investors or readers can focus at companies paying higher dividend.

Table 1

S.No.	Name of Companies	Dividend Announcement Date	Ex- Dividend Date	Dividend %	Rank
1	Britannia	02-05-2022	20-06-2022	5650%	1
2	Hero Motocop	04-05-2022	27-07-2022	3250%	2
3	LTmindtree	19-04-2022	30-06-2022	3000%	3
4	Eicher motors	13-05-2022	12-08-2022	2100%	4
5	JSW Steel	27-05-2022	04-07-2022	1735%	5
6	Hindustan Liver	07-10-2022	01-11-2022	1700%	6
7	HDFC Bank	23-04-2022	12-05-2022	1550%	7
8	Divis Lab	23-05-2022	11-08-2022	1500%	8
9	Bajaj Auto	27-04-2022	30-06-2022	1400%	9
10	Nestle	10-10-2022	31-10-2022	1200%	10
11	Maruti Suzuki	29-04-2022	03-08-2022	1200%	11
12	Bajaj Finance	26-04-2022	30-06-2022	1000%	12
13	TCS	10-10-2022	17-10-2022	800%	13
14	LT	18-10-2022	27-10-2022	750%	14
15	Sun pharma	31-05-2022	19-08-2022	750%	15



16	Titan	04-05-2022	08-07-2022	750%	16
17	SBI	13-05-2022	25-05-2022	710%	17
18	ITC	18-05-2022	26-05-2022	625%	18
19	Tata Consumptions	04-05-2022	09-06-2022	605%	19
20	Dr. Reddy lab	19-05-2022	11-07-2022	600%	20
21	Tata Steel	20-04-2022	29-06-2022	510%	21
22	HCL Tech	12-10-2022	19-10-2022	500%	22
23	UPL	09-05-2022	27-07-2022	500%	23
24	Asian paints	29-09-2022	31-10-2022	440%	24
25	Ultratech Cement	29-04-2022	02-08-2022	380%	25
26	Tech Mahindra	25-10-2022	09-11-2022	360%	26
27	Infosys	13-10-2022	27-10-2022	330%	27
28	M&M	30-05-2022	14-07-2022	325%	28
29	Hindalco	26-05-2022	11-08-2022	300%	29
30	Cipla	27-07-2022	08-08-2022	250%	30
31	ICICI Bank	25-04-2022	08-08-2022	250%	31
32	Grasim	24-05-2022	11-08-2022	250%	32
33	Adani Ports	25-05-2022	14-07-2022	250%	33
34	Apollo Hospital	25-05-2022	18-08-2022	235%	34
35	Coal India	04-11-2022	15-11-2022	150%	35
36	ONGC	09-11-2022	21-11-2022	135%	36
37	Adani Enterprises	04-05-2022	14-07-2022	100%	37
38	Idusind Bank	29-04-2022	11-08-2022	85%	38
39	Reliance	06-05-2022	18-08-2022	80%	39
40	Bajaj Finserv	28-04-2022	30-06-2022	80%	40
41	Bharti Airtel	17-05-2022	01-08-2022	60%	41
42	BPCL	25-05-2022	19-08-2022	60%	42
43	power Grid	27-10-2022	14-11-2022	50%	43
44	Wipro	13-01-2023	24-01-2023	50%	44
45	Axis Bank	28-04-2022	07-07-2022	50%	45
46	NTPC	20-05-2022	10-08-2022	43%	46
47	SBILife	02-03-2023	16-03-2023	25%	47
48	Kotak Bank	04-05-2022	11-08-2022	22%	48
49	HDFC Life	26-04-2022	31-05-2022	17%	49
50	Tata Motors				50

Source: Collected from moneycontrol.com and compiled by the researcher.

Different time periods for dividend declaration and ex-dividend dates were studied. We examined the effects of the dividend declaration and ex-dividend date on returns for the seven days that preceded and followed the announcement. In order to determine the effect of the announcement and the ex-dividend date, adjusted abnormal returns for each scenario were computed. Both the return of a particular stock and the return of a nifty 50 were taken into account when determining the market-adjusted rate of return. The formula below was utilised to calculate them:



$AR_{is} = RT_{is} - RT_i$

AR_{st} = Abnormal return of specific stock on t day

RT_{st} = Return of specific stock on t day

RT_i = Return of index on t day

Percentage return on security on day i is given by the expression:

$$RT_{is} = \frac{(C_{Pt} - C_{Pt-1})}{C_{Pt-1}} * 100$$

C_{Pt} = Closing price of security on day t

C_{Pt-1} = Closing price of security before 1 day of day t, in the same manners returns of index was calculated.

Dividend announcement date and ex-dividend date was taken as 0. Abnormal returns were calculated considering the days before and after of this base date 0. We examined different sub event windows (D-1, D+1) (D-2, D+2) (D-3, D+3) (D-4, D+4) (D-5, D+5) (D-6, D+6) (D-7, D+7).

Paired T test (Dividend declaration): It was conducted to check the significant difference in adjusted abnormal returns (AAR) between the pre-dividend announcement period and the post-dividend announcement period at different time frames. As mentioned in the below table, p values at the 5% significance level at different time frames are higher than 0.05. We can accept the null hypothesis that there is no significant impact of dividend declaration on return of securities. Table 2b indicates the correlation between the returns at different time frames. The result shows that no correlation exists among the variables because the r value is less than the prescribed limits and the p value is higher than 0.05, a 5% significance level, indicating that no significant correlation exists among the variables.

Table 1. Paired T test of Dividend Declaration

Different Pairs	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 (D-1,D+1)	0.62569	3.31779	0.47397	-0.32729	1.57868	1.320	48	0.193
Pair 2 (D-2,D+2)	0.04473	1.96657	0.28094	-0.52014	0.60959	0.159	48	0.874
Pair 3 (D-3,D+3)	0.40126	2.58555	0.36936	-0.34139	1.14392	1.086	48	0.283
Pair 4 (D-4,D+4)	0.40590	1.80495	0.25785	-0.11255	0.92434	1.574	48	0.122
Pair 5 (D-5,D+5)	0.10372	1.80234	0.25748	-0.62141	0.41397	-0.403	48	0.689
Pair 6 (D-6,D+6)	0.01415	2.21353	0.31622	-0.62165	0.64995	0.045	48	0.964
Pair 7 (D-7,D+7)	0.56057	1.86225	0.26604	-1.09547	-0.02567	-2.107	48	0.06

Table 2. Paired Samples Correlation Between Pre and Post announcement of Dividend.

Pairs	N	Correlation	Sig.
Pair 1 (D-1, D+1)	49	-0.215	0.137
Pair 2 (D-2, D+2)	49	0.097	0.507
Pair 3 (D-3, D+3)	49	-0.103	0.479
Pair 4 (D-4, D+4)	49	0.207	0.154
Pair 5 (D-4, D+4)	49	0.210	0.147
Pair 6 (D-5, D+5)	49	-0.077	0.597



Pair 7 (D-7, D+7)	49	0.187	0.199
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Paired T test (Ex-Dividend Date): The aim of the study was to determine whether there was a statistically significant difference in adjusted abnormal return (AAR) or not, between the pre-dividend and post-dividend periods at various time points. We can accept the null hypothesis that there is no significant impact of the ex-dividend date on the return of stocks because, as the table below illustrates, p values at the 5% significance level for various time frames are higher than 0.05. The correlation between the returns at various time frames is shown in Table 3b. The results indicate that there is no correlation between the variables because the p value is more than 0.05 and the r value is less than the specified limits.

Table 3. Paired T test of Ex-Dividend

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 (D-1,D+1)	-0.32416	2.13958	0.30565	-0.93872	0.29040	-1.061	48	0.294
Pair 2 (D-2,D+2)	0.02151	1.60066	0.22867	-0.43826	0.48127	0.094	48	0.925
Pair 3 (D-3,D+3)	-0.22089	1.94858	0.27837	-0.78059	0.33880	-0.794	48	0.431
Pair 4 (D-4,D+4)	-0.00441	2.21389	0.31627	-0.64031	0.63149	-0.014	48	0.989
Pair 5 (D-5,D+5)	0.01901	1.96162	0.28023	-0.54443	0.58245	0.068	48	0.946
Pair 6 (D-6,D+6)	0.19804	1.62946	0.23278	-0.26999	0.66608	0.851	48	0.399
Pair 7 (D-7,D+7)	0.50357	1.64328	0.23475	0.03157	0.97557	2.145	48	0.057

Table 4 Paired Samples Correlation Between Pre and Post Ex-Dividend Date.

Pair 1 (D-1,D+1)	49	0.153	0.295
Pair 2 (D-2,D+2)	49	0.136	0.351
Pair 3 (D-3,D+3)	49	0.265	0.066
Pair 4 (D-4,D+4)	49	-0.154	0.291
Pair 5 (D-5,D+5)	49	0.171	0.241
Pair 6 (D-6,D+6)	49	0.059	0.689
Pair 7 (D-7,D+7)	49	0.419	0.003

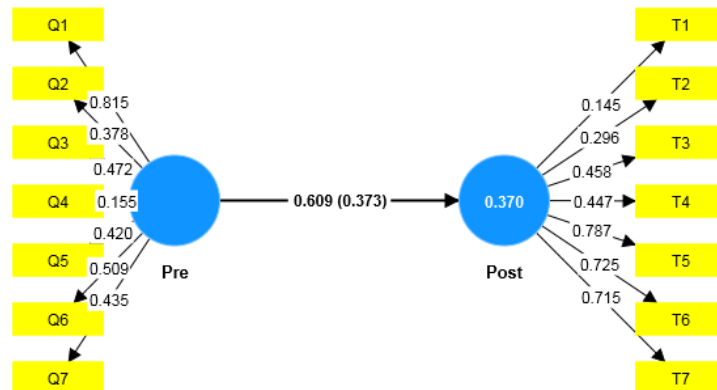
Paired T test of Cumulative Abnormal Return (CAR): It was conducted to check the impact of dividend declaration and ex dividend on 7 days' cumulative abnormal returns (CAR). CAR was find out adding all the 7 days' individual returns of before declaration and after the declaration, before the ex-dividend date and dafter the ex-dividend date. Below mentioned results show that p value in both the conditions, dividend declaration and ex-dividend are higher than 0.05, significance level at 5%, so we can accept the hypotheses that there was no impact of dividend declaration and ex-dividend date on 7 days' cumulative abnormal returns.

Table 5. Paired T test of 7 days CAR Pre and Post of Dividend Declaration & Ex-Dividend

α	Paired-Differencesα					tα	dfα	Sig.-(2-tailed)α
	Meanα	Std.· Deviation nα	Std.-Error- Meanα	95%-Confidence- Interval-of-the- Differenceα				
				Lowerα	Upperα			
Pair-1·CAR·(D- 7,D+7)·Dividend· Declaration·α	0.82744α	5.51171α	0.78739α	-0.75570α	2.41059α	1.051α	48α	0.299α
Pair-2·(D-7,D+7)· Ex-Dividend·α	0.23830α	5.23551α	0.74793α	-1.26522α	1.74211α	0.319α	48α	0.751α



Graphical Presentation by Smart PLS: We also attempted to check the impact of pre and post returns on stock prices of nifty 50 through smart PLS. Result shows that mostly outer loading values are lesser than 0.708, path having p values more than 0.05, 5% level of significance, indicating no significance impact of pre and post announcement of dividend on stock returns. Path coefficient and r square are 0.609 and 0.370.



5. CONCLUSION:

The study reveals that there was no significant impact of dividend announcement date and ex-dividend date on returns of securities on nifty 50. Paired t test was applied on adjusted abnormal returns of securities at different time frames. Different time frames were based on dividend announcement and ex-dividend dates. P values at different time frames under both the conditions were higher than 0.05, indicating no significant impact of both the factors on returns. Correlation coefficient was also applied on data and found there was no strong correlation of dividend announcement with stock prices. It can be interpreted that dividends announcements are not so efficient or have little bit impact on values of shares. We also attempted to analyse the impact of cumulative Abnormal return (CAR) of 7days before and after of announcement of date at the returns of securities, but p values in both the conditions were more than 0.05 indicating no relationship among these two factors. We attempted to check the impact of such dividend declaration through smart PLS. But 10 values of outer loading out of 14 were less than standard value of 0.708. So we may strongly justify that there was no relationship between dividend declaration and return of securities.

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