AN EMPIRICAL STUDY ON DIVIDEND ANNOUNCEMENT DATE AND EFFECTIVE DATE IMPACT ON SHARE PRICE

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Abstract—*The investment decision is influenced by many factors of which one such factor is return. The shareholders may get return in the form dividend which affects the share prices. The behavior of stock prices is unpredictable as price movement for different activities will move in different ways. The stock price movements can be divided into Economic and corporate activities. The impact of economic activities will be more or less same on all the stock prices while impact of corporate action varies from one stock to the other. Dividend payment is one of the important corporate actions that will have an impact on the behavior of stock prices. This research highlights the impact of dividend payment on the behavior of stock prices. To understand this behavior, ten stocks have been randomly picked which has paid the dividend in 2018. The researchers have used popular event window study and cumulative returns. In this regard, the researchers have picked two dates, namely dividend announcement date and the other is dividend effective date. The paired sample t-test is employed to compare cumulative returns before and after dividend announcement.*

Keywords—*Corporate Actions, Cumulative Returns, Dividend Payment, Event Window, Stock Price Behavior*

INTRODUCTION

The shareholders are the real owners of the business who are decide whether hold the shares of the company or sell the shares based on returns. The decision depends on corporate action. The corporate action may result in some benefit to the shareholders as there is a relationship between corporate actions and its impact on share price. The dividend is one important event of corporate action which may have direct impact on the shareholder's wealth.

According to the dividend signalling theory, a company decides to announce its dividend payout policy to signal the market that the firm is now processing future prospects, which will result in changing its stock prices. The market price of a security is the most recent price at which the security is traded. Dividends affect the price of the underlying stock in three primary ways. While the dividend history of a given stock plays a general role in its popularity, the declaration and payment of dividends also has a specific and predictable effect on the market prices.

LITERATURE REVIEW

Mark et. al. (1984) examined the valuation effects of stock dividend announcements that, there is a significant increase in a firm's stock price at the announcement and; in general. This upward revision of the firm's value cannot be attributed to any other contemporaneous announcements. They found that, this increase may be partially due to forecasts of imminent increases in cash dividends, but a sub sample of stocks that paid no dividends in the three years prior to the announcement displays similar price behavior. **Obaidullah (1992)** investigated efficiency of the Indian stock markets by analyzing the effect of stock dividend announcements using event study methodology. He finds that the entire adjustment in the stock prices due to announcement occurred much before the announcement itself and prices declined in the subsequent period. The study also found that the market reaction was nowhere related to the size of the stock dividend. In addition, abnormal returns were noticed when the share went ex-bonus three months after the date of announcement.

The study by **Dhar (2008)** evaluated the market reaction around the bonus issue to show that the event provided significant positive average abnormal returns. **Parul Bhatia, (2010),** witnessed that the stock price is determined from the positive significant dividend effect. The stock returns did not change drastically but the announcements did affect the stock prices, with the significant t-test values.

OBJECTIVES

1) To find out the influence of dividend announcement and effective dates on shares cumulative returns.

2) To compare the average returns of the stocks before and after dividend announcement and effective dates.

3) To examine the stocks returns and market returns around announcement dates.

HYPOTHESIS

H_0: Dividend announcement date and effective dates has no impact on stock price. (d = 0)

Ha: Dividend announcement date and effective dates has impact on stock price. (d ≠ 0)

RESEARCH METHODOLOGY

The research design applied for this study is descriptive in nature. The research is based on secondary data only. The purpose of this study is to find out the effect of dividend announcement and dividend effective dates on share price cumulative returns. To find out the impact of dividend on share price 21 days window prices before and after announcement dates and effective dates are taken for analysis. For the year 2018, ten companies were randomly selected for analysis. Two tail paired sample t test is used to measure the deviation in cumulative returns before and after dividend announcement dates & effective dates at 5% significance. To compare average mean and cumulative average of stocks with market around announcement date NSE Nifty Index used.

Table 1: Dividend Announcement Dates

S.No	Stock	Pre announcement period	Dividend Announcement Date	Post announcement period	Dividend %
1	Coal India (CI)	29.01.18 to 25.02.18	26-02-18	27.02.18 to 30.03.18	270%
2	Sasken	08.02.18 to 07.03.18	08-03-18	09.03.18 to 07.04.18	40%
3	Hero Motors (HM)	04.04.18 to 04.05.18	05-05-18	06.05.18 to 02.06.18	1600%
4	Karnataka Bank (KB)	22.04.18 to 19.05.18	20-05-18	21.05.18 to 17.06.18	50%
5	M&M	02.05.18 to 29.05.18	30-05-18	31.05.18 to 27.06.18	240%
6	ITC	27.04.18 to 19.05.18	20-05-18	21.05.18 to 22.06.18	850%
7	BPCL	28.04.18 to 25.05.18	26-05-18	27.05.18 to 23.06.18	150%
8	ONGC	27.04.18 to 25.05.18	26-05-18	27.05.18 to 22.06.18	60%
9	PFC	27.04.18 to 24.05.18	25-05-18	26.05.18 to 22.06.18	6%
10	Hexaware (HW)	29.06.18 to 27.07.18	28-07-18	29.07.18 to 26.08.18	50%

Source: Moneycontrol.com

Table 2: Dividend Effective dates

S.No	Stock	Pre effective period	Dividend Effective Date	Post Effective period
1	Coal India (CI)	12.02.18 to 13.03.18	14-03-18	15.03.18 to 13.04.18
2	Sasken	24.02.18 to 27.03.18	28-03-18	29.03.18 to 28.04.18
3	Hero Motors (HM)	16.08.18 to 14.09.18	15-09-18	16.09.18 to 17.10.18
4	Karnataka Bank (KB)	21.06.18 to 19.07.18	20-07-18	21.07.18 to 18.08.18
5	M&M	22.06.18 to 20.07.18	21-07-18	22.07.18 to 19,08.18
6	ITC	02.05.18 to 29.05.18	30-05-18	31.05.18 to 27.06.18
7	BPCL	09.05.18 to 05.06.18	06-06-18	07.06.18 to 04.07.18
8	ONGC	02.08.18 to 30.08.18	31-08-18	01.09.18 to 30.09.18
9	PFC	14.07.18 to 10.08.18	11-08-18	12.08.18 to 12.09.18
10	Hexaware (HW)	11.07.18 to 07.08.18	08-08-18	09.08.18 to 07.09.18

Source: Moneycontrol.com

ANALYSIS & INTERPRETATION

Table 3: Average Mean & Cumulative Return Around Announcement Date

S. No	Stocks	Mean Average Before Announcement	Mean Average After Announcement	Cumulative R Before Announcement	Cumulative Return After Announcement
1	Coal India	-0.314	-0.224	-5.971	-4.249
2	Sasken	-0.246	0.636	-4.665	12.093
3	Hero Motors	-0.148	0.451	-2.816	8.563
4	Karnataka Bank	-0.021	0.697	-0.402	13.243
5	M&M	-0.005	0.273	-0.1	5.187
6	ITC	0.242	-0.105	4.603	-1.989
7	BPCL	-0.244	0.07	-4.634	1.337
8	ONGC	-0.359	0.063	-6.821	1.189
9	PFC	-0.244	-4.645	-0.105	-1.994
10	Hexaware	0.091	-0.301	1.729	-5.722

Table 3 indicates that, except ITC and Hexaware other companies before dividend announcement date mean average was in negative, but after the dividend announcement date most of the companies mean average turns positive and in the case of ITC, Hexaware average mean turns more negative after announcement date. The same is observed in cumulative returns also, before dividend announcement date all the stocks cumulative mean return except ITC and Hexaware in negative, after announcement date most of the stocks cumulative mean returns either turns positive or increased from negative cumulative returns. In the case of ITC, Hexaware it's observed opposite. It is found that there is impact of dividend announcement on the returns and as well as cumulative returns of the stocks.

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Table 4: Cumulative Return (CR) Deviation, SD and t-values around announcement date

S.No	Stock	Cumulative Deviation	SD	Calculated t Value	Critical t value @ 5% sign	Result
1	Coal India	-0.130	3.405	-0.166	2.101	H_0 is Accepted
2	Sasken	-35.145	14.849	-10.317	2.101	H_0 is Rejected
3	Hero Motors	-2.941	4.628	-2.770	2.101	H_0 is Rejected
4	Karnataka Bank	-7.308	3.397	-9.379	2.101	H_0 is Rejected
5	M&M	-3.993	1.480	-11.758	2.101	H_0 is Rejected
6	ITC	-0.877	3.027	-1.262	2.101	H_0 is Accepted
7	BPCL	-1.735	2.745	-2.756	2.101	H_0 is Rejected
8	ONGC	-4.233	3.061	-6.028	2.101	H_0 is Rejected
9	PFC	-2.438	2.857	-3.719	2.101	H_0 is Rejected
10	Hexaware	2.101	2.102	4.355	2.101	H_0 is Rejected

Table 4 exhibits, cumulative deviation and standard deviation of Sasken is high is high while ITC and Coal India cumulative return deviation is less. M&M cumulative return standard deviation is very less compared to other stocks standard deviation. Most of the stocks calculated t value fall on rejection region when at 5% significance level, that mean that those stocks null hypothesis likely rejected. In the case of Coal India and ITC calculated t value fall in the accepted region at 5% significance level, this m,eans that stocks null hypothesis likely accepted. Table 4 also shows that, most of the stocks null hypothesis likely rejected, that means dividend announcement date impact on stocks cumulative returns

Table 5: Average mean & Cumulative return around effective date

S. No	Stocks	Mean average Before Effective date	Mean average After Effective date	Cumulative Return Before Effective date	Cumulative return After Effective date
1	Coal India	0.304	-0.325	5.774	-6.176
2	Sasken	2.781	0.063	52.840	1.206
3	Hero Motors	0.469	-0.267	8.920	-5.066
4	Karnataka Bank	0.577	-0.166	10.960	-3.152
5	M&M	0.385	0.076	7.310	1.435
6	ITC	0.608	0.058	10.388	1.046
7	BPCL	0.440	0.667	8.354	12.669
8	ONGC	0.475	0.444	9.029	8.440
9	PFC	0.207	0.490	3.942	9.317
10	Hexaware	-0.056	-0.316	-1.067	-6.000

It is observed from table 5, that the prices of stocks fall post effective date which contrasts to announcement date. Sasken mean average and cumulative return before effective date was in 2.781 and 52.840 respectively, but after effective date Sasken mean average and cumulative returns are 0.063 and 1.206 respectively. BPCL mean average and cumulative return before effective date was 0.440 and 8.354 respectively, but after effective date BPCL mean average and cumulative return are 0.667 and 12.669 respectively and its contrast to Sasken and most of other stocks. Its others words most of the

stock's average mean before effective date moves up in positive direction while after the effective date most of stock's average mean turns negative or reduced except BPCL and PFC stocks. The same thing can be observed in the case of cumulative return which was high or positive, but after the effective date cumulative mean return reduced or turned into negative or reduced. Therefore, the dividend effective date has impact on majority of stocks average mean as well as cumulative mean average of stocks.

Table 6: Cumulative Return (CR) Mean Deviation, SD & t-values around effective date

S.No	Stock	Cumulative Deviation	SD	Calculated t Value	Critical t value @ 5% sign	Result
1	Coal India	6.758	4.945	5.956	2.101	H_0 is Rejected
2	Sasken	29.542	20.608	6.248	2.101	H_0 is Rejected
3	Hero Motors	8.170	4.113	8.658	2.101	H_0 is Rejected
4	Karnataka Bank	6.432	7.504	3.736	2.101	H_0 is Rejected
5	M&M	4.751	2.552	8.116	2.101	H_0 is Rejected
6	ITC	-1.016	3.765	-1.176	2.101	H_0 is Accepted
7	BPCL	-3.482	2.157	-7.037	2.101	H_0 is Rejected
8	ONGC	-0.288	1.824	-0.688	2.101	H_0 is Accepted
9	PFC	-5.034	3.228	-6.796	2.101	H_0 is Rejected
10	Hexaware	2.977	4.013	3.233	2.101	H_0 is Rejected

From the table 6, Sasken cumulative deviation and standard deviation are very high and t-test calculated value is 6.248, which is higher than the t-test critical value and its null hypothesis is likely rejected. ITC cumulative deviation and standard deviation are less and t-test calculated value is -1.176, which is falls between acceptance region and its null hypothesis is likely accepted. Except ITC and ONGC stocks, all others calculated t-value fall on rejection region at 5% significance level, it means that the ITC and ONGC stocks null hypothesis accepted other selected stocks null hypothesis likely rejected.

Table 7: Comparison of Stocks Average Mean (AM) & Cumulative Return (CR) with Market Mean (MM) & Cumulative Market Return (CMR) around Announcement date (AD)

S.No	1	2	3	4	5	6	7	8	9	10
Stock	CI	Sasken	HM	KB	M&M	ITC	BPCL	ONGC	PFC	HW
AM Before AD	-0.31	-0.25	-0.15	-0.02	-0.01	0.00	-0.24	-0.15	-0.24	0.09
MM Before AD	-0.42	0.08	-0.03	-0.25	0.24	-0.07	0.06	0.06	-0.15	0.26
AM After AD	-0.22	0.64	0.45	0.70	0.27	0.44	0.07	0.14	-0.03	-0.30
AMM After AD	0.54	0.01	0.32	0.01	-0.04	0.27	0.07	0.07	0.09	-0.04
CR Before AD	-5.97	-4.66	-2.82	-0.40	-0.10	-0.03	-4.63	-2.90	-4.65	1.73
CMR Before AD	-7.98	1.56	-0.59	-4.84	4.48	-1.41	1.18	1.18	-2.88	4.94
CR After AD	-4.39	15.90	8.44	14.08	4.54	8.88	10.53	1.26	-1.48	-9.64
CMR After AD	9.70	0.89	6.15	0.89	-0.97	5.36	2.49	2.49	3.38	-1.05

Table 7 shows, Sasken average mean before dividend announcement date was -0.25 and Market average mean was 0.08, which is higher than Sasken average mean and then after announcement date Sasken average mean is 0.64 and Market

average mean is 0.01, which is lesser than Sasken average mean. The same thing can be observed in Sasken cumulative return before dividend announcement date was -4.66 and Market cumulative return was 1.56, which is higher than the Sasken cumulative return and then after announcement date Sasken cumulative return is 15.90 and Market cumulative return is 0.89, which is lesser than Sasken cumulative return. It means that dividend announcement impact is there on Sasken average mean and cumulative return compare to Market average mean and cumulative mean. Hero Motors, M&M, BPCL, Karnataka Bank and ONGC stocks also shows same trend as shown by Sasken stock in comparison of Market. Majority of selected stocks returns have shown positive trend in comparison of Market return after dividend announcement date. It is confirmed that there is impact of dividend announcement date on the returns and as well as cumulative returns of the stocks.

CONCLUSIONS

The above research indicates that the mean return and cumulative return of selected stocks increased positively after dividend announcement date in seven stocks out of ten stocks and also, it's proved that eight stocks null hypothesis has likely rejected that means dividend announcement is impact on stock prices, stocks average returns and cumulative average returns. This research also proves that the mean return and cumulative return of selected stocks decreased after the dividend effective date in seven stocks out of ten stocks. Stocks returns and cumulative returns comparison with market return and cumulative returns around announcement dates shows that most of the stocks return are high after the announcement date in comparison with market return. So, it is also concluding that dividend announcement has impact on stocks average mean and cumulative return in comparison with market return and cumulative return around announcement dates.

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