The Impact of Dividend Announcements and Bonus Issue Announcements on Returns to Shareholders

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ABSTRACT: *This article aims to study how quickly and fully information gets reflected in stock prices. Event study methodology has been undertaken to study the same. It involves studying the impact of an event (Ex: Dividend, stock split, rights issue. Bonus issue announcements) on the abnormal returns to shareholders i.e. the returns to shareholders after excluding the actual market return. There were 8 companies on the Nifty 50 Index who made bonus issue announcements and 43 companies who made dividend announcements. The pre-event window consists of 10 days and the post-event window consists of 10 days. It has been found that there is no significant difference between pre and post Bonus Issue and Dividend announcement average abnormal returns in all companies except one. This research may be helpful to investors and companies alike.*
KEY WORD: *Bonus Issue Announcements, Dividend Announcements, Event Study, Abnormal Returns*

I. INTRODUCTION AND LITERATURE REVIEW

The efficient market hypothesis (EMH), proposed by Eugene Fama, suggests that it is possible for an investor to 'beat the market'. Depending on when information reflects on stock prices, markets can be classified into- Strong, Semi-strong, and Weak forms. The Indian stock market is largely found to be Semi-strong, meaning that the stock prices reflect all publicly available information (Babitha Rohit, 2016). Companies often announce Bonus Issues, Stock Splits, Dividends, Rights Issues due to profitability of the company or other internal or external reasons. These announcements usually mean shareholders are affected and the main aim of this study is to measure the impact. Bonus Issues mean that shareholders get additional shares from the company in the ratio of their current holding. Dividends are given per share to shareholders when the company is profitable. This research is useful for investors and companies alike, to understand the effect of corporate actions on abnormal returns to shareholders.

The author (Fama, 1970) in his research paper about testing the Efficient Market Hypothesis had provided ground-breaking insights for further research into this topic. He has done an empirical study to test the efficiency of the market and proved that the three forms of market – strong form, semi strong form, and weak form are possible in reality with exceptions of some markets.

The main aim of the authors (Dr. S. Padmavathy, 2017) was to understand the stock price behaviour after demonetization. They employed the event study methodology to calculate the abnormal returns to shareholders holding Banking and automobile sector scrips. They found that after demonetization was announced, the banking sector have significant returns while the automobile sector did not. They concluded that investors had not gained much abnormal returns from this event.

The authors (Babitha Rohit, 2016) have studied a sample of 90 stock splits and rights issue announcements from 2011 to 2014 to ascertain their impact on the prices of stocks listed on the Bombay Stock Exchange. They calculated average abnormal returns and cumulative average abnormal returns but found that they were not statistically significant. The outcome of their study was that the effect of Stock splits and Rights issue is very instantaneous and investors get no abnormal returns from them.

The authors (UrszulaMrzygłód, 2017) have done an empirical study on the Polish stock market reactions to dividend announcements and pay-out of the dividends. Their study comprised of 56 companies and Average abnormal returns were calculated to analyse the data. The authors found that there was a positive impact of the dividend announcement in the Polish market but the market did not significantly react to the dividend payout. They also found that the abnormal return behaviour disappeared within two days after the announcement date.

The authors (Xiaoqi Li, 2013) have analysed the stock returns after stock splits on the New York Stock Exchange between 2000 to 2009. They analysed a sample of 120 stock splits and found Average Abnormal returns (AAR) and Cumulative Average Abnormal Returns (CAAR) and found that there are positive abnormal returns in the days following stock splits.

The authors (Terrill Keasler, 2015) have analysed the impact of announcements of stock buybacks and long-term value creation to the companies. Their data included the stock buybacks of two select companies listed on US stock markets. They found that there was a positive CAAR for at least following ten days after the announcement of the buy back. They concluded that share buy backs have a short-term impact and there is no long-term value creation as the market capitalization of the companies remained unaffected.

The authors (Khaled Hussainey, 2011) analysed the dividend policies of financial firms in the United Kingdom and their impact on the share price volatility. They used multiple regression model with the measures of dividend yield and pay-out ratio over the period of ten years. The authors found that there is a significant negative relationship between dividend pay-out, dividend yield and the stock prices of the firms.

The authors (Kau, June 2013) studied the dividend policies of Information Technology sector firms and analysed their impact on shareholder's wealth. They considered variables like Dividend per share (DPS), Retained earnings per share and found their impact on the Market Price per share. They found a significant positive impact of these variables on the shareholder's wealth.

The researcher (Chaabouni, 2017) has studied the stock prices response to dividend announcements of ten companies in Saudi Arabia in the year 2014-15. The methodology of finding the abnormal returns has been adopted by the author. It was found that there is a positive impact of the dividend announcements on the stock prices.

The authors (Anees, 2016) have studied share buyback announcements and their impact on the stock price. Their data consisted of 10 companies' buyback announcements spanning from 2002 to 2012 in Islamabad. They used Linear Regression Model to explore the impact with the independent variables being the company, month and the buy back. The results show that the buyback announcements and share prices are interdependent and the month in which the announcement takes place has a significant impact on the share prices. The limitation however is that the author has considered a sample of only 10 companies.

The main aim of the author (Ray, 2011) was to test the semi-strong form of efficiency in the Indian market. The bonus issues and stock splits that happened from 1996 to 2008 have been considered to calculate the abnormal returns. It was found that Stock splits had a significant impact on the stock prices but the bonus issue did not. The two events however affected the liquidity of the shares in the market.

The impact of stock split announcements on the stock prices has been analysed by the authors (Mitesh Patel, 2016). A sample of 34 companies in the year 2016 were considered and the AAR and CAAR were calculated. It was found that the Indian stock market is efficient and the stock split announcement had a negative impact on the stock prices. It was also found that the investors got no abnormal returns because of the stock split announcement.

The authors (Kevin Campbell, 2011) have examined the impact of dividend announcements of companies listed on the Nigerian stock market. They adopted event study methodology and calculated the abnormal returns to shareholders to analyse them. They found that the markets reacted positively to the announcements. They also found that the effect of the announcements lasted for ten days after the same.

The authors (Mohammad Hashemijoo, 2012) have studied the relationship between dividend policy of the company and price volatility of the shares. 84 companies listed on the Malaysian stock market were studied by them. It was found that the price volatility of the shares was negatively related with the two variables-dividend yield and dividend pay-out.

This study done by the authors (Swati Goyal, 2013) talks about how the bonus issue announcements have impacted the share price volatility in Indian companies listed on NSE and BSE. They found that the share prices reflected the Bonus Issue announcement and that the information was discounted very quickly. They concluded that the Indian stock markets are efficient in the semi-form.

The authors (Shilpa Chandak, 2012) have studied the impact of Bonus Issue announcements on the share price volatility of Indian IT Sector stocks. They have done an event study taking +30 to -30 days before and after the event, into consideration. They have found a positive impact of the announcement on returns to shareholders. They also found that, on the day of the event, the markets reacted heavily to the information.

1.2 Research Objectives
- To analyze the impact of Dividend announcements on returns to shareholders.
- To study the impact of Bonus Issue announcements on returns to shareholders.

1.3 Research Methodology
The purpose of this study is to see how quickly and fully information reflects in the Indian stock market. The same has been studied using an event study methodology. The events studied were Bonus Issue Announcements and Dividend Announcements by companies on the Nifty 50 Index in the year 2017-18. The basis of the paper is that if an investor holds a market portfolio (Nifty 50 index) the additional returns the investor gets due to events like Bonus Issue announcement and Dividend announcement. There were 8

companies on the Nifty 50 Index who made bonus issue announcements and 43 companies who made dividend announcements. The pre-event window consists of 10 days and the post-event window consists of 10 days. Stock Split announcements and Rights Issue Announcements were not considered as Nifty 50 Index companies did not announce these corporate actions in 2017-18.

The daily returns of the stocks were calculated using the following formula,

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}} \tag{1}$$

Where,

$R_{i,t}$ = Return on Stock i on day t

$P_{i,t}$ = Price of stock i on day t

$P_{i,t-1}$ = Price of stock i on day t-1

The expected return of the stocks was calculated using Market Model, with the following formula,

$$E(R_{i,t}) = \alpha + \beta(R_m) \tag{2}$$

Where,

$E(R_{i,t})$ = Expected return on stock i on day t

R_m = Daily market return of Nifty 50 Index

α_i and β_i = OLS intercept and slope coefficient estimators respectively

The daily abnormal returns are calculated as,

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \tag{3}$$

Where,

$AR_{j,i}$ = Abnormal Returns on security i at time t

$R_{i,t}$ = Actual Returns on security i at time t

$E(R_{i,t})$ = Expected Returns on security i at time t

The Average Abnormal Returns are determined as,

$$AAR_{i,t} = \frac{AR_{i,t}}{N} \tag{4}$$

Where,

N = Number of Observations (-10 days, -10 days and day of announcement = 21)

The statistical significance of the Average Abnormal Returns was tested using a Paired Sample T-Test, where pre-event average abnormal returns and post-event average abnormal returns were analysed. Excel was used to calculate Average Abnormal Returns of each stock while SPSS software was used to compute Paired Sample T-test values.

1.4 Scope of the Study

The Efficient Market Hypothesis is a well-researched topic, in which researchers have found evidence which both prove and disprove it. This study aims to study the efficiency of the Indian stock markets.

1. The findings of this research can be the basis on which investors can make investment decisions. If the actual impact of announcements on the abnormal returns to shareholders can be ascertained, investors may use this to determine where they want to invest and also estimate their earnings during or after the event.
2. Speculators can also use the finding of this research to speculate in the stock markets, as a day by day abnormal returns to shareholders are studied.
3. This research will serve as a basis for future research in this field of study. Since there are some limitations to this study, other researchers may try to reduce the limitations and conduct a better study.

1.5 Hypotheses

H_0: There is no significant difference between Average Abnormal Returns before and after dividend announcement.

H_1: There is a significant difference between Average Abnormal Returns before and after dividend announcement.

H_0: There is no significant difference between Average Abnormal Returns before and after Bonus Issue announcement.

H_1: There is a significant difference between Average Abnormal Returns before and after Bonus Issue announcement.

1.6 Data Analysis and Interpretation
Table 1: Paired Samples Test (Pre and Post Bonus Issue Announcement Average Abnormal Returns)

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PREAARGAIL POSTAARGAIL	-.021111915198	.137464947660	.043470233304	-.077224584439	.119448414836	.486	9	.639
Pair 2 PREAARWIPRO POSTAARWIPRO	-.024335293254	.064110220902	.020273431935	-.070196982519	.021526396011	-1.200	9	.261
Pair 3 PREAARICICIBANK POSTAARICICIBANK	-.073923549783	.161656733518	.051120347702	-.189565810502	.041718710936	-1.446	9	.182
Pair 4 PREAARHINDPETRO POSTAARHINDPETRO	-.007389590388	.121933569364	.038558780243	-.079836430526	.094615611302	.192	9	.852
Pair 5 PREAARLT POSTAARLT	-.025750187807	.117546118481	.037171346451	-.058337239819	.109837615432	.693	9	.506
Pair 6 PREAARBPCL POSTAARBPCL	.045678506571	.086756908035	.027434943215	-.016383646732	.107740659875	1.665	9	.130
Pair 7 PREAARRELIANCE POSTAARRELIANCE	.016693664690	.088684424314	.028044477382	-.046747350695	.080134680076	.595	9	.566
Pair 8 PREAARM&M POSTAARM&M	-.017693994065	.071583668994	.022636743729	-.068901866035	.033513877905	-.782	9	.454

The Pre-Bonus Issue announcement average abnormal returns and Post-Bonus Issue announcement average abnormal returns have been analysed using Paired Sample T-Test (Table 1). There are eight pairs which have been tested and the results are as shown above. The T-Test shows that the p-value or the probability value of all the pairs are greater than 0.05, which means that the null hypothesis is accepted.There is no significant difference between the pre and post Bonus Issue announcement average abnormal returns.

Table 2: Paired Samples Test (Pre and Post Dividend Announcement Average Abnormal Returns)

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PREAARSBIN POSTAARSBIN	.039085577158	.097338550781	.030781152461	-.030546227361	.108717381676	1.270	9	.236
Pair 2 PREAARYESBANK POSTAARYESBANK	-.020718023130	.089552428885	.028318964528	-.084779971580	.043343925319	-.732	9	.483
Pair 3 PREAARINFY POSTAARINFY	-.024837763025	.050090883383	.015840128150	-.060670622379	.010995096329	-1.568	9	.151
Pair 4 PREAARITC POSTAARITC	.044311194438	.161189734571	.050972669668	-.070996995359	.159619384235	.869	9	.407
Pair 5 PREAARBPCL POSTAARBPCL	.045678506571	.086756908035	.027434943215	-.016383646732	.107740659875	1.665	9	.130
Pair 6 PREAARJSWSTEEL POSTAARJSWSTEEL	.043258212467	.139903229870	.044241285840	-.056822529188	.143338954122	.978	9	.354
Pair 7 PREAARTCS POSTAARTCS	-.031062159485	.076194642708	.024094861646	-.085568523344	.023444204374	-1.289	9	.229
Pair 8 PREAARASIANPAINT POSTAARASIANPAINT	.047399424721	.107467300340	.033984144306	-.029478050744	.124276900185	1.395	9	.197
Pair 9 PREAARICICIBANK POSTAARICICIBANK	-.073923549783	.161656733518	.051120347702	-.189565810502	.041718710936	-1.446	9	.182

Pair		Mean	Std. Deviation	Std. Error Mean	CI Lower	CI Upper	t	df	Sig.
Pair 10	PREAARHINDUNILVR POSTAARHINDUNILVR	.009635452719	.105042192232	.033217257787	-.065507204913	.084778110350	.290	9	.778
Pair 11	PREAARUPL POSTAARUPL	.033251022978	.100834030140	.031886520090	-.038881296840	.105383342795	1.043	9	.324
Pair 12	PREAARHDFC POSTAARHDFC	-.002402819599	.054348880018	.017186624914	-.041281666252	.036476027054	-.140	9	.892
Pair 13	PREAARHEROMOTOCO POSTAARHEROMOTOCO	-.022479709701	.078283366514	.024755374109	-.078480256559	.033520837158	-.908	9	.388
Pair 14	PREAARZEEL POSTAARZEEL	-.021222819175	.119528283221	.037798161979	-.106728202036	.064282563687	-.561	9	.588
Pair 15	PREAARAXISBANK POSTAARAXISBANK	-.005319738899	.146632587148	.046369295459	-.099574894958	.110214372756	.115	9	.911
Pair 16	PREAARBAJAJAUTO POSTAARBAJAJAUTO	.038745470575	.072301843429	.022863850426	-.012976152437	.090467093586	1.695	9	.124
Pair 17	PREAARBAJAJFINSV POSTAARBAJAJFINSV	.031647569544	.094441806190	.029865121390	-.035912028726	.099207167814	1.060	9	.317
Pair 18	PREAARBAJFINANCE POSTAARBAJFINANCE	.027475011799	.096290865680	.030449845342	-.041407323948	.096357347545	.902	9	.390
Pair 19	PREAARULTRACEMCO POSTAARULTRACEMCO	-.048276041527	.054880383019	.017354700920	-.087535102522	-.009016980531	-2.782	9	**.021**
Pair 20	PREAARHINDPETRO POSTAARHINDPETRO	.007389590388	.121933569364	.038558780243	-.079836430526	.094615611302	.192	9	.852
Pair 21	PREAARKOTAKBANK POSTAARKOTAKBANK	-.009234443699	.059912935991	.018946133904	-.052093576217	.033624688819	-.487	9	.638
Pair 22	PREAARBHARTIARTL POSTAARBHARTIARTL	-.025079253490	.158213808116	.050031599094	-.138258593746	.088100086766	-.501	9	.628
Pair 23	PREAARM&M POSTAARM&M	-.024780005669	.091439862177	.028915823341	-.090192142559	.040632131220	-.857	9	.414
Pair 24	PREAARRELIANCE POSTAARRELIANCE	.018347856751	.085084827906	.026906185051	-.042518162485	.079213875986	.682	9	.512
Pair 25	PREAARHDFC POSTAARHDFC	.037172818363	.109388699549	.034591744086	-.041079143294	.115424780020	1.075	9	.311
Pair 26	PREAARDRREDDY POSTAARDRREDDY	.027665018060	.115472571082	.036515633190	-.054939083114	.110269119233	.758	9	.468
Pair 27	PREAARINFRATEL POSTAARINFRATEL	.002710674055	.141632565830	.044788149888	-.098607160022	.104028508132	.06	9	.953
Pair 28	PREAARTATASTEEL POSTAARTATASTEEL	-.049028959020	.170568742953	.053938572536	-.171046487234	.072988569194	-.909	9	.387
Pair 29	PREAARTITAN POSTAARTITAN	.042641482747	.125338713473	.039635581357	-.047020431522	.132303397015	1.076	9	.310

		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig.
Pair 30	PREAARCIPLA - POSTAARCIPLA	-.078149115948	.125123498699	.039567524470	-.167657074841	.0113588429 45	-1.975	9	.080
Pair 31	PREAARTECHM - POSTAARTECHM	.036310747654	.250766560113	.079299349096	-.143076842910	.2156983382 17	.458	9	.658
Pair 32	PREAARADANIPORTS - POSTAARADANIPORTS	-.049086329535	.159296983278	.050374129155	-.163040526624	.0648678675 53	-.974	9	.355
Pair 33	PREAAREICHERMOT - POSTAAREICHERMOT	-.033099749151	.120788611673	.038196712830	-.119506716674	.0533072183 72	-.867	9	.409
Pair 34	PREAARLT - POSTAARLT	.025750187807	.117546118481	.037171346451	-.058337239819	.1098376154 32	.693	9	.506
Pair 35	PREAARIOC - POSTAARIOC	.010061418413	.112159900688	.035468074831	-.070172941118	.0902957779 43	.284	9	.783
Pair 36	PREAARMARUTI - POSTAARMARUTI	-.014020814047	.100869564208	.031897756949	-.086178553405	.0581369253 11	-.440	9	.671
Pair 37	PREAARGAIL - POSTAARGAIL	-.030553279465	.091027827865	.028785526651	-.095670664764	.0345641058 34	-1.061	9	.316
Pair 38	PREAARHINDALCO - POSTAARHINDALCO	-.013406946989	.114620932711	.036246321490	-.068587928795	.0954018227 73	.370	9	.720
Pair 39	PREAARNTPC - POSTAARNTPC	-.013389106388	.064570719576	.020419054402	-.059580216560	.0328020037 84	-.656	9	.528
Pair 40	PREAARGRASIM - POSTAARGRASIM	-.046621214699	.087743336467	.027746879274	-.109389016394	.0161465869 96	-1.680	9	.127
Pair 41	PREAARPOWERGRID - POSTAARPOWERGRID	-.002902633964	.072884691554	.023048163187	-.055041201406	.0492359334 79	-.126	9	.903
Pair 42	PREAARSUNPHARMA - POSTAARSUNPHARMA	-.009500825942	.234727099057	.074227226158	-.177414477271	.1584128253 87	-.128	9	.901
Pair 43	PREAARONGC - POSTAARONGC	-.007162943195	.058173061467	.018395937270	-.048777444456	.0344515580 67	-.389	9	.706

The Pre-Dividend announcement average abnormal returns and Post-Dividend announcement average abnormal returns have been analyzed using Paired Sample T-Test (Table 2). There are forty-three which have been tested and the results are as shown above. The T-Test shows that the p-value or the probability value of all the pairs except one are greater than 0.05, which means that the null hypothesis is accepted in these cases.There is no significant difference between the pre and post Bonus Issue announcement average abnormal returns. In pair 19 i.e. AARs of ULTRACEMCO is 0.021 which is less than 0.05. The null hypothesis is rejected in this case. There is a significant difference between AARs of ULTRACEMCO pre and post the dividend announcement.

II.   CONCLUSION

This research examines the effect of Bonus Issue Announcements and Dividend Announcements of Nifty 50 companies in the year 2017-2018. Event study methodology was used to analyse the abnormal returns shareholders have got during -10 to +10 days of the event announcement. It was found that there was no significant difference between Pre-Bonus Issue announcement average abnormal returns and Post-Bonus Issue announcement average abnormal returns. In case of Dividend announcements, there was found no difference between pre and post dividend announcement average abnormal returns in all companies except one. It may be concluded from the study that Bonus Issue announcements and Dividend Announcements have no impact on abnormal returns to shareholders.

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