

Corporate Announcements and Share Price Dynamics: A Study in Indian Context

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Abstract

The relationship between share price dynamics and corporate announcements, particularly regarding stock splits and bonus issues, has been a subject of interest among shareholders, analysts, and traders globally. This study delves into the impact of such corporate announcements on share prices, with a specific focus on the Indian stock market. This study aims to analyse how stock splits and bonuses impact a company's share price. The methodology employed in the study involved using the event study approach to evaluate the influence of stock splits and bonus announcements on the market performance of selected companies. The event window encompasses 61 trading days. By adopting this approach, the study was able to examine market reactions and fluctuations surrounding the announcement, capturing both short-term and long-term impacts on stock prices and trading volumes. The study includes 22 large-cap companies that announced bonus issues and stock splits between 2020 and 2023. The AARs, CAARs and t-tests were analysed to ascertain whether there were any significant abnormal returns during the 61-day window period. This study enables future research in this area.

Keywords: Announcement effects, Event study methodology, Stock splits, Bonus issue

1. Introduction :

Stock splits and bonus issues are common corporate events that can have significant impacts on the market value and trading activity of a company's stock. Stock splits and a Bonus issue are corporate announcement affecting the number of outstanding shares and their market price, they are carried out for different purposes and have different outcomes. The study will focus on understanding how corporate announcements such as stock splits and bonus issues affect the share prices of selected companies in the Indian stock market. The study will analyse both short-term and long-term market reactions surrounding the announcement period, capturing fluctuations in stock prices and trading volumes within a 61-day event window. The methodology of the study will involve employing the event study approach to evaluate the market response to corporate announcements.

Neglected firm effect: The neglected firm effect implies that stocks of less well-known companies might do better in the market when compared to those of their more well-known competitors. According to this

argument, there are more information inefficiencies in these less well-known stocks, which smart investors might benefit from.¹

Efficient Market Hypothesis: Eugene F. Fama defined a market to be “informationally efficient” if prices always incorporate all available information. The efficient markets hypothesis (EMH) argues that markets are efficient, leaving no room to make excess profits by investing since everything is already fairly and accurately priced.²

Advantages and Disadvantages of Stock Splits to Shareholders/Investors

For shareholders and investors, stock splits can have advantages and disadvantages. A stock split decreases the price of the stock, which makes it more affordable for a wider range of investors, including those with limited funds. This is one of the main advantages of the split. Due to its affordability, the stock can attract more investors, which would increase demand and eventually raise its value. In addition, because more shares are available for trading after a stock split, the market experiences an increase in liquidity. More liquidity can make it easier for investors to buy and sell shares, which will make the market as a whole more efficient. There are also drawbacks to consider, splits often lead the stock price to become more volatile. Although traders may be able to profit from short-term price fluctuations due to this increased volatility, long-term investors may face greater risk and uncertainty. In addition, speculative trading activity may be drawn to the additional liquidity that follows a stock split, which might increase price volatility and make it harder for investors to determine the stock's true worth.

Advantages and Disadvantages of Bonus Issue to Shareholders/Investors

Investors receive bonus shares from the company without incurring any tax liabilities. For long-term investors looking to increase their investment, these shares are especially beneficial. Bonus shares increase an investor's stake in the business and increase stock liquidity because the company issues them to shareholders at no cost. Acquiring bonus shares has minimal disadvantages from the viewpoint of the investor. Investors must understand that while the profit remains constant, the increased number of shares may lead to a decrease in earnings per share

1.2 Objective of the study

1. To analyse the impact of stock split on share price returns.
2. To analyse the impact of bonuses on share price returns.

1.3 Review of Literature:

Mitesh Patel et al (2016) examine the impact of stock split announcements on the Indian stock market, focusing on 34 companies between January and July 2016. Using event study methodology, the research concludes that the Indian stock market is efficient during stock split announcements, making abnormal returns unlikely. the findings reveal a negative impact on stock returns and trading volume after stock splits, supported by a decrease in volume ratio. The study contributes to understanding stock price and

¹ <https://www.investopedia.com/terms/n/neglectedfirm.asp>

² Eugene F. Fama (Efficient Capital Markets: A Review of Theory and Empirical Work 1970)

trading volume fluctuations in the Indian Stock Exchange, aligning with the efficient-market hypothesis that all available information is already incorporated into stock prices.

Mihir Dash, Amaresh Gouda (2009) investigate how stock splits affect returns in the Indian market, especially after a spike in stock prices in 2005. The study focuses on 24 stock splits that occurred on the National Stock Exchange between January 2006 and August 2007. To prevent abnormal returns, a 15-day interval was used before and after the split. The post-split results show increased liquidity and a statistically significant rise in variance. SUN PHARMA is one exception, with increasing mean returns that could be explained by the neglected firm theory. A small sample size and reliance on historical data are two limitations that make the results suggestive and sensitive to the conditions of a particular study era.

Satyajit Dhar, Sweta Chhaochharia (2008) investigate the effects of stock splits and bonus issues on the Indian stock market using event study methodologies. 90 stock splits and 82 bonus issues in the BSE 500 index from April 1, 2001, to March 31, 2007 were analysed, the study calculates abnormal returns with the Capital Asset Pricing Model and conducts t-tests for significance. The results show a significantly positive announcement effect for both events, with abnormal returns of 1.8% for bonus issues and 0.8% for stock splits. The study supports the semi-strong form efficiency of the Indian stock market. Bonus issues result in a sharp spike on the announcement date. At the same time, stock splits show positive returns throughout the event window, potentially related to the prevalence of stock splits in momentum stocks.

Athulya Shahi (2021) The impact of stock split announcements on CNX Nifty 100 companies. The event window is 61 trading days long and is based on secondary data and descriptive analysis. The results support the efficient market hypothesis by showing that all available information has an impact on stock prices. The normality of the distribution during the event window is also investigated in this study. The Efficient Market Hypothesis holds true and share prices accurately reflect all available information. The stock market responds to events such as announcements of stock splits. Announcements of stock splits, bonus issues, and dividend declarations are important factors when making decisions for investors. The Cumulative Abnormal Return (CAAR) is positive during the post-announcement phase and negative during the pre-announcement period.

Radha Vyas (2021) Investors typically respond positively to stock split announcements. As a result, numerous researchers are interested in this phenomenon. Thus, the researcher attempted to study the impact of selected stock splits on stock price performance in the Indian stock market using cumulative abnormal returns (CAR) and cumulative average abnormal returns (CAAR) by selecting 10 stock splits announced by BSE-listed companies from various sectors between January 2021 and May 2021. The market model-event study methodology was employed to conduct the analysis. An 81-day event window (t-40 to t+40) and a 30-day estimation period before stock split announcements were utilised to evaluate market reaction. The analysis findings support a semi-strong form of the efficient market theory in the Indian stock market.

2. Research Methodology

2.1 Research Hypothesis:

1 (H0): There is no significant impact of stock splits and bonus announcements on the market performance of specific companies.

1 (H1): There is a significant impact of stock splits and bonus announcements on the market performance of specific companies.

2 H0: The average abnormal returns (AARs) and cumulative abnormal returns (CAARs) during the event window are not significantly different from zero.

2 H1: The average abnormal returns (AARs) and cumulative abnormal returns (CAARs) during the event window are significantly different from zero.

2.2 Methodology

The methodology employed in the study involved using the event study approach to evaluate the influence of stock splits and bonus announcements on the market performance of specific companies. A market model is used for this study. Day 0 corresponds to the announcement date or the next trading day in case the announcement was made on a non-trading day. The event window encompasses 61 trading days, including the 30 days before (-30, -1) and after (+1, +30) the announcement date, which is 0. The nifty50 Index of the National Stock Exchange India is considered a surrogate for a market portfolio.

2.3 Variables:

Normal Return, Abnormal returns, Abnormal returns, Average abnormal return (AAR) and Cumulative average abnormal return (CAAR)

2.4 Source of the study

The data from 22 prominent companies was sourced from the National Stock Exchange (NSE) website, Money Control and Yahoo Finance. In addition, Articles & Research papers are also referred.

SR NO	COMPANY NAME	NSE SYMBOL	DATE OF ANNOUNCEMENT
1	Ircon International	IRCON	11/02/2020
2	Laurus Labs	LAURUSLABS	30/04/2020
3	Eicher Motors	EICHERMOT	12/06/2020
4	Dixon Technologies	DIXON	02/02/2021
5	Indian Railway Catering and Tourism Corporation	IRCTC	12/08/2021
6	Jubilant FoodWorks	JUBLFOOD	02/02/2022
7	Tata Steel	TATASTEEL	04/05/2022

8	Bajaj FinServ	BAJAJFINSV	28/07/2022
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Table 1 : Companies with stock split announcements.

SRNO	COMPANY NAME	NSE SYMBOL	DATE OF ANNOUNCEMENT
1	Britannia Industries	BRITANNIA	05/10/20
2	Varun Beverages	VBL	03/05/21
3	Aarti Industries	AARTIIND	18/5/2021
4	Power Grid	POWERGRID	17/06/21
5	Bombay Stock Exchange	BSE	8/02/2022
6	Indian Oil Corporation	OIC	17/05/2022
7	Torent Pharma	TORNTPHARM	22/05/2022
8	REC	RECLTD	30/06/2022
9	GAIL	GAIL	27/07/2022
10	Bharat Electronics	BEL	04/08/2022
11	Samvardhana Motherson	MOTHERSON	16/08/2022
12	Macrotech Developers	LODHA	22/04/2023
13	Blue Star	BLUESTARCO	04/05/2023
14	Berger Paints	BERGEPAIN	09/08/2023

Table 2: Companies with bonus announcements

3. Data Analysis

Objective 1: To analyse the impact of stock split on share price returns:

3.1 Results and discussion of Abnormal returns and significance:

Table 3: Significance of Abnormal Returns (Stock Splits)

SRNO	COMPANY NAME	NSE SYMBOL	AR	T-STATISTICS OF AR
1	Ircon International	IRCON	-5.669647	-3.060683141
2	Laurus Labs	LAURUSLABS	-3.159723	-1.72098

3	Eicher Motors	EICHERMOT	2.4820992	0.796035913
4	Dixon Technologies	DIXON	1.0646	0.40271
5	Indian Railway Catering and Tourism Corporation	IRCTC	3.953715121	1.53780401
6	Jubilant FoodWorks	JUBLFOOD	-5.552495	-2.858335
7	Tata Steel	TATASTEEL	-2.632415568	-1.163997
8	Bajaj FinServ	BAJAJFINSV	7.828202	5.873432

Discussion :

The data presented above provides information on the abnormal returns (AR) and the associated T-statistics for several NSE-listed companies. Ircon International and Jubilant FoodWorks show significant negative abnormal returns, indicating underperformance relative to normal returns, on the other hand, companies like Bajaj FinServ, Indian Railway Catering and Tourism Corporation (IRCTC), and Eicher Motors show substantial positive abnormal returns, indicating exceptional performance above normal expectations, of these, Bajaj FinServ stands out with remarkably high abnormal returns as shown by a highly significant T-Statistic. Laurus Labs, Dixon Technologies, and Tata Steel, show less pronounced deviations from normal returns, with varying degrees of statistical significance.

3.2. Results and discussion of Average Abnormal Returns (Stock Split):

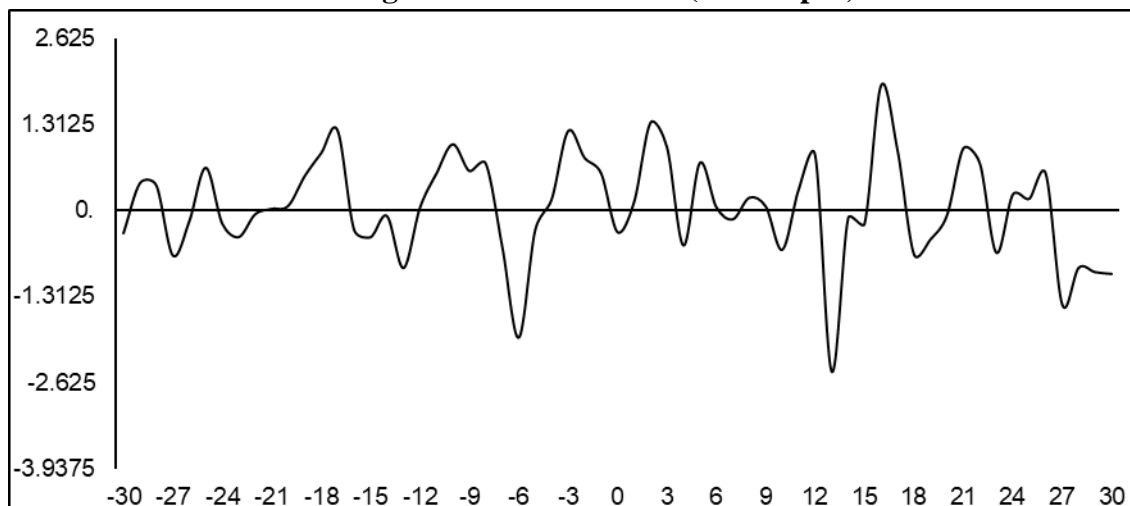


Figure 1: AAR of Stock Split (61 days window period)

Discussion :

The dataset outlines the average abnormal returns for 8 companies over 61 days surrounding the announcement of a stock split. Before the event, from day -30 to day -1, the returns displayed a mixed

pattern, with both positive and negative values suggesting a degree of market volatility or uncertainty leading up to the split announcement. On the day of the event (t_0), there was a negative average abnormal return, indicating a possibly cautious market sentiment following the stock split announcement. In the days following the event, spanning from day 1 to day 30, the returns exhibited a varied pattern, with some days showing positive returns while others recorded negative ones. Day 13 saw a particularly significant negative abnormal return, possibly indicating a sharp market correction.

3.3. Results and discussion of Cumulative Average Abnormal Returns

Table 4: Results and discussion of Cumulative Average Abnormal Returns (Stock Split)

Combined Window Period	Days Covered	CAAR	T Statistics of CAAR
(-5,5)	11	4.786445	2.090495
(-10,10)	21	4.231224	1.337485
(-15,15)	31	1.891944	0.492221
(-20,20)	41	5.958826	1.348035
(-30,30)	61	3.437413	0.637528

Interpretation:

Positive abnormal returns of 4.786445 are present within the (-5,5) event window, supported by a T statistic of 2.090495. During the (-20,20) event window, a significant positive abnormal return of 5.958826 is observed, backed by a T statistic of 1.348035. The statistical significance of abnormal returns deteriorates with broader event windows, as evidenced by the less noticeable abnormal returns within (-10,10) and (-30,30) windows. Although a constructive abnormal return is evident during the (-10,10) event window, its statistical significance is relatively lower, supported by a T statistic of 1.337485. the (-15,15) and (-30,30) event windows, the abnormal returns lack statistical significance, indicating a less pronounced market response during these periods.

3.4 Significant CAAR Table (Stock split)

Window Period	CAAR	T Statistics of CAAR
+20	2.04727	2.072621

Table 4: Significant CAAR Table (Stock split)

Interpretation:

The Cumulative Average Abnormal Return (CAAR) of 2.04727 with a T-statistic of 2.072621 at +20 days following a stock split indicates a statistically significant positive abnormal return.

Objective 2: To analyse the impact of bonus issues on share price returns.

3.5 Results and discussion of Abnormal returns and significance:

Table 5 Significance of Abnormal Returns (Bonus issue)

SR NO.	COMPANY NAME	NSE SYMBOL	AR	T-STATISTICS OF AR
1	Britannia Industries	BRITANNIA	-0.227013	-0.113504
2	Varun Beverages	VBL	5.46684611	2.32318634
3	Aarti Industries	AARTIIND	0.201502	0.115741
4	Power Grid	POWERGRID	-0.61071	-0.345385
5	Bombay Stock Exchange	BSE	-3.7326882	-1.089623
6	Indian Oil Corporation	OIC	-0.5147857	-0.341405
7	Torent Pharma	TORNTPHARM	-1.5600722	-0.7990349
8	REC	RECLTD	3.36229705	2.46134754
9	GAIL	GAIL	1.378334	0.686195
10	Bharat Electronics	BEL	2.5476662	1.3950454
11	Samvardhana Motherson	MOTHERSON	3.76657208	1.22900637
12	Macrotech Developers	LODHA	-0.363115	-0.1226932
13	Blue Star	BLUESTARCO	-0.7156068	-0.509021
14	Berger Paints	BERGEPAIN	-1.7744514	-1.6264611

Discussion :

The table shows the Abnormal Returns (AR) and their T-statistics for several publicly traded corporations. Varun Beverages performance significantly deviates from the norm, as evidenced by its greatest abnormal return of 5.47 and significant T-Statistic of 2.32. REC (Rural Electrification Corporation) shows notable abnormal returns of 3.36 and a matching T-Statistic of 2.46, indicating statistically significant performance. With positive abnormal returns of 2.55 and 3.77, respectively, Bharat Electronics and Samvardhana Motherson demonstrate performance that surpasses the average.

Torrent Pharma and the Bombay Stock Exchange have negative abnormal returns, which indicate underperformance.

3.6 Results and discussion of Average Abnormal Returns (Bonus Issue)

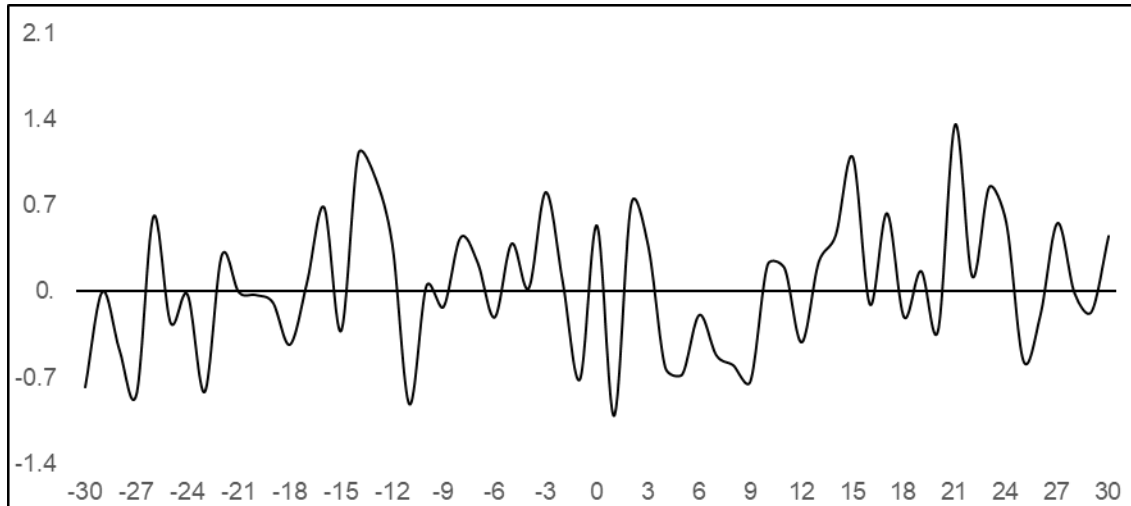


Figure 2: AAR of Bonus issue (61 days window period)

Discussion :

From the event study methodology, the author has calculated the daily average abnormal returns of 14 companies for a 61-day event window surrounding the announcement of a bonus issue. Before the announcement, from day -30 to day -1, the returns fluctuated, with both negative and positive values. This suggests a certain level of market volatility or uncertainty. On the day of the announcement (t_0), the market showed a positive response, with an average abnormal return of 0.5374. This indicates that the news of the bonus issuance was received positively. Following the event, from day 1 to day 30, the returns displayed different patterns, with some days showing positive returns and others negative ones. Days 1 and 2 had significant negative abnormal returns of -1.0028 and -0.7074, respectively.

3.7 Results and discussion of Cumulative Average Abnormal Returns (Bonus Issue)

Table 6: Results and discussion of Cumulative Average Abnormal Returns (Bonus Issue)

Combined Window Period	Days Covered	CAAR	T Statistics of CAAR
(-5,5)	11	-0.0661427	-0.0391701
(-10,10)	21	-1.4657595	-0.6282354
(-15,15)	31	1.31446209	0.46369941
(-20,20)	41	1.72981292	0.53061135
(-30,30)	61	2.47323196	0.62196974

Discussion :

The Cumulative Average Abnormal Returns (CAAR) indicates that companies issuing bonus shares have distinct market reactions across different event window periods. Within the (-5,5) event window, a slight negative abnormal return of -0.0661427 is observed, which is statistically insignificant, with a T statistic of -0.0391701. During the (-10,10) event window, a more negative abnormal return of -1.4657595 is noted, lacking statistical significance with a T statistic of -0.6282354. The market reaction changes substantially in wider event window periods, as evidenced by positive abnormal returns during the (-15,15), (-20,20), and (-30,30) windows. It is noteworthy that during the (-30,30) event window, a significant positive abnormal return of 2.47323196 is observed, supported by a T statistic of 0.62196974. Despite exhibiting positive abnormal returns during longer event windows, the statistical significance remains relatively low.

3.8 Result and Discussion of Significant CAAR table (Bonus issue)**Table 7: Significant CAAR table (Bonus issue)**

Window Period	CAAR	T Statistics of CAAR
-20	2.42400678	3.61995847
-15	2.19994882	3.76884148

Discussion :

The Cumulative Average Abnormal Return (CAAR) for a bonus issue is significant at both -20 and -15 days before the event, with T-statistics of 3.61995847 and 3.76884148 respectively. This indicates a statistically significant positive abnormal return leading up to the bonus issue announcement.

4. Conclusion :

This study examines the relationship between corporate announcements, such as stock splits and bonus issues, and their impact on share prices in the Indian stock market. Using an event study methodology spanning a 61-day event window, the research has revealed significant market reactions to these announcements, which contradicts the predictions of the Efficient Market Hypothesis (EMH). The findings provide useful insights into the effects of stock splits and bonus issues on market performance.

Regarding stock splits, the study has identified substantial market reactions, with noticeable abnormal returns observed across different event window periods. Companies like Bajaj FinServ, IRCTC, and Eicher Motors have demonstrated significant positive abnormal returns, indicating strong performance post-split announcements. The Cumulative Average Abnormal Return (CAAR) at +20 days post-stock split has shown a statistically significant positive abnormal return, reaffirming the market's favourable sentiment towards such events. Regarding bonus issues, most companies have experienced significant positive abnormal returns surrounding the announcement period. Notably, Varun Beverages and REC have exhibited significant positive abnormal returns, reflecting robust market performance post-announcement. The Cumulative Average Abnormal Return (CAAR) leading up to the bonus issue announcement has demonstrated statistically significant positive abnormal returns at both -20 and -15 days before the event, indicating anticipation and positive market sentiment preceding bonus issuances.

The findings suggest that corporate announcements, specifically regarding stock splits and bonus issues, have a significant impact on share prices. While the EMH posits that markets are generally efficient, the observed market reactions to corporate announcements suggest that inefficiencies exist, presenting opportunities for investors and traders.

Scope for further research

Investor behaviour and decision-making are critical areas that require further exploration. While this study focuses on capturing short-term and immediate market reactions to corporate announcements, future research could explore the long-term effects of stock splits and bonus issues on company performance, shareholder value, and market stability.

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