

# MARKET REACTION TO BONUS ANNOUNCEMENTS: EMPIRICAL EVIDENCE FROM BOMBAY STOCK EXCHANGE

<sup>1</sup>Prof. Babitha Rohit, <sup>2</sup>Dr. Prakash Pinto, <sup>3</sup>Prof. Shakila B.

---

---

## ABSTRACT

*A capital market in which stock prices fully reflect all available information can be termed as informationally efficient market. A number of studies have empirically tested the response of security prices to the release of different information. The objective of this study is to find evidence of semi-strong form of efficiency in the Indian stock market. The paper examines the share price reaction to bonus issue announcements around the announcement date by using the event study methodology. Bonus announcements of companies listed on the Bombay Stock Exchange in 2010 and 2011 is taken as a sample for the study. The abnormal returns are calculated using the Market Model and t-tests is conducted to test the significance.*

---

---

## INTRODUCTION

Theoretically efficient market is one in which trading on available information fails to provide an abnormal profit, thereby assuming that an investor will obtain an equilibrium rate of return. From the time when the first paper on efficient markets was published by Ball and Brown (1968), followed by Fama et al (1969), a number of empirical studies have been conducted over the last forty years to test the various forms of efficiency of the markets around the world (LeRoy,1973; Foster et al, 1978; Brown and Warner, 1980; Grinbalt et al, 1984; Ramachandran, 1985; Lamoureux and Poon, 1987; Obaidulla, 1990; Fama, E, 1991; Mitchell and Mulherin,1994; Srinivasan, R, 1997; Dubois and Jeanneret, 2000; Byun and Rozeff, 2003; Bechmann and Raabelle, 2005;

Guo, Liu and Song, 2007; Li, Stork and Zoua, 2010).

The semi-strong form of the efficient market hypothesis can be studied through event study. It tests the speed of adjustment of prices to new information. As with many modern economic analyses, the event study is an attempt to quantify some variable (in this case, the response of a stock price to some event) in an objective manner that is standard and replicable, and thus would have measurable statistical properties. An event study averages the cumulative performance of stocks over time, from a specified number of time periods before an event to specified number periods after (Dimson and Mussavian, 2000). Corporate announcements like bonus, earnings, dividends, mergers, acquisitions, buyback



**Prof. Babitha Rohit**

*Assistant Professor*

Department of Business  
Administration,  
St. Joseph Engineering College,  
Vamanjoor, Mangalore – 575028.  
Email: babitha.rk2002@gmail.com



**Dr. Prakash Pinto**

*Professor and Dean*

Department of Business  
Administration,  
St. Joseph Engineering College,  
Vamanjoor, Mangalore – 575028.  
Email : prakashpinto74@gmail.com



**Prof. Shakila B.**

*Assistant Professor*

Department of Business  
Administration,  
St. Joseph Engineering College,  
Vamanjoor, Mangalore – 575028.  
Email: bolar\_shakila@yahoo.co.in

offers come under the purview of event studies.

## **BONUS SHARES**

This paper tests the semi-strong form of market efficiency by studying the effect of bonus issues on stock prices of companies making such an announcement. Bonus issues (equivalent to stock dividend in the US and scrip issues in the UK) are simply distributions of additional stocks made to existing shareholders in proportion to their current investment (Dhar and Chhaochharia, 2008). *Bonus shares are issued by converting the reserves of the company into share capital. It is nothing but capitalization of the reserves of the company.* While the issue of bonus shares increases the total number of shares issued and owned, it does not increase the value of the company.

Unlike a rights issue, a bonus issue does not risk diluting the investment. Although the earnings per share of the stock will drop in proportion to the new issue, this is compensated by the fact that the shareholder will own more shares. The whole idea behind the issue of Bonus shares is to bring the Nominal Share Capital into line with the true excess of assets over liabilities.

A bonus issue is also a signal that the company is in a position to service its larger equity. It is a sign of good health of a company. The management would not have given these shares if it was not confident of being able to increase its profits and distribute dividends on all these shares in the future. Another variation of this argument attaches more importance to 'the implied promise of higher dividends', as managers are reluctant to cut dividend per share (Nayak and Prabhala, 2001).

An announcement of a stock dividend also reveals bad as well as good news for

shareholders. The bad news is that the share capital increases, which improves security for debt holders and other claim holders at the expense of the shareholders. However, this appears to be a necessary step for these firms in order to finance steady growth by debt (at an unchanged debt to equity ratio) and retained earnings alone. The good news is that stock dividends are associated with a permanent increase in cash dividends (Bechmann and Raaballe, 2005)

When a bonus issue is announced, the company also announces a record date for the issue. The record date is the date on which the bonus takes effect, and shareholders on that date are entitled to the bonus. After the announcement of the bonus but before the record date, the shares are referred to as cum-bonus. After the record date, when the bonus has been given effect, the shares become ex-bonus.

*However there are some conditions which need to be satisfied by companies in India before issuing bonus shares.* 1) Bonus shares can be issued by a company only if the Articles of Association of the company authorises a bonus issue. 2) It must be sanctioned by shareholders in general meeting on recommendations of Board of Directors of company. 3) Guidelines issue by SEBI must be complied with. The company must take care that issue of bonus shares does not lead to total share capital in excess of the authorized share capital.

## **LITERATURE REVIEW**

Foster and Vickrey (1978) used daily returns in their study of 82 stock dividend announcements and found considerable positive abnormal returns around announcement dates.

Grinblatt et al, (1984) studied splits and stock dividends for the years 1967-1976. They documented post-announcement abnormal returns, particularly around the exdates of splits and stock dividends. Crawford, Franz, Lobo (2004) replicated the GMT (Grinblatt, Masulis and Titman) finding that the market response to small stock distributions declared between 1967 and 1976 is significantly larger than the response to large distributions.

Ramachandran (1985) studied the impact of bonus issue announcements on Indian stock prices. He found a varied evidence of semi – strong form efficiency in the Indian stock market. Lakonishok and Lev (1987) investigated the trading volume changes after stock dividend announcement. They established that trading volume did not increase due to stock dividend announcements.

Obaidullah (1992) accounted a positive stock market reaction to bonus issue announcements and supported the semi-strong form of market efficiency. Similar observations were also made by Rao (1994).

Balachandran and Tanner (2001) examined share price reaction to announcement of bonus share issues of Australian companies, using daily return for the period from January 1992 to December 2000. Price reaction to bonus issue announcements from the day of the announcements to the day after the announcements (day 0 to day 1) is statistically significant and shows positive average of 2.37% for uncontaminated events and 2.11% for contaminated events employing the market model.

Lukose and Rao (2002) investigated the operating performance of BSE listed firms subsequent to equity bonus payments. They

observed statistically significant positive abnormal return of 11.60% for five days starting from day-3.

Bechmann and Raaballe (2005) examined stock splits and stock dividends in Denmark. The results document some similarities and important differences between the two types of corporate events. Despite this, both events are associated with an average announcement effect of approximately 2.5%.

Mishra, A.K (2005) examined the stock price reaction to bonus issue in the Indian capital market. The results indicated that there are significant positive abnormal returns for a five day period prior to bonus announcement in line with evidence from developed stock markets.

Malhotra et al, (2007) examined the stock market reaction and liquidity changes around the bonus issue announcement of Chemical companies in India from January 2000 to January 2006. Contrary to previous results the study showed that bonus announcements made by Indian Chemical companies were associated with significantly negative abnormal returns.

Dhar and Chhaochharia (2008) studied a sample consisting 90 stock splits and 82 bonus issues listed on the BSE 500 for a period of 7 years. They report a positive AAR of 1.8% in respect of bonus issues and a positive AAR of 0.8% for stock splits.

Shirur (2008) analysed the reasons for the issue of bonus shares and stock splits in Nifty companies . The study concluded that the Indian capital market is not inherently a semi-strong form of Efficient Market Hypothesis. The top management has to send signals to make the market efficient.

Joshiyura (2009) studied bonus announcements from 2002 to 2008 of companies listed on the NSE. The results showed that while there is sufficient evidence of positive abnormal return associated just prior to and on the announcement day, there is no significant return observed on ex-bonus day.

Lazar and Pramod (2010) conducted a study of 80 companies listed in the BSE and 12 corporate actions. Their study concluded that corporate actions like bonus announcements, mergers and acquisitions announcements and net profit announcements made a severe impact in changing the share prices. On the other hand corporate announcements like Increase in production capacity announcements, Introduction of new product announcement and Meeting of Board of Directors announcements made a slight impact in changing the share prices.

Kaur and Singh (2010) studied bonus share announcements of companies listed on BSE from 2005 - 2009. The analysis revealed that 77% events generate positive results on the day of the announcement.

Raja and Sudhakar (2010) investigated the informational efficiency of capital market with respect to bonus issue announcement from 2000 to 2007 released by 43 IT companies on the Bombay Stock Exchange. The AAR on the announcement day was found to be 2.06%, concluding that the Indian capital market, for the IT sector is efficient but not perfectly efficient to the announcement of bonus issue.

### **OBJECTIVES OF THE STUDY**

With the global economic depression of 2008, the road to recovery was a difficult one for the Indian stock market. In 2010, the stock market

consolidated its position. The economy grew at the rate of 9% and sector wise, the consumer durable sector was the best performer. In 2011, the economic growth rate slipped to 6.1%, the lowest in more than 2 years due to poor performance of the manufacturing, mining and farm sectors. The BSE sensex reached a high of 19701.73 points in April, 2011 and a low of 15175.08 points in December, 2011 indicating volatility in Indian stock markets. Despite these ups and downs of the market, there were 80 and 50 bonus announcements in 2010 and 2011 respectively. With this backdrop of the stock market scenario the paper tries to achieve the following objectives.

1. To study the reaction of security prices to announcements of bonus shares by companies listed on BSE.
2. To analyse the announcement behaviour of securities over different window periods.

### **DATA AND METHODOLOGY**

Companies listed on the BSE and announced bonuses for two years i.e from 1<sup>st</sup> January, 2010 to 31<sup>st</sup> December, 2011 were taken as sample for the study. This period of two years were chosen since 130 companies declared bonus issue. However the study did not include 26 companies either because data was fully or partially not available or the security did not fulfil the criteria of having at least 30 daily returns in the entire 115 days, and no missing return data in the last 20 days. The final sample for the study consisted of 104 bonus announcements.

The daily share price data of the sample companies were collected from the Bombay Stock Exchange database. The broad based BSE 500 index was taken as the surrogate for market

index. For the purpose of testing the semi strong form of efficiency of the market, standard event study methodology has been used.

In this study, the announcement date is taken as the event date, defined as '0'. The event window in this study is 31 days trading period from  $t = -15$  to  $t = +15$ . 85 trading days period

from  $t = -100$  to  $t = -16$  before the announcement date is taken as the estimation window. This period is used to calculate the parameters  $\alpha$  and  $\beta$ . Market model is used to compute the abnormal returns in this study.

The daily returns are calculated for both the individual securities as well as market index using the following equation

$$R_{j,t} = \frac{P_t - P_{t-1}}{P_{t-1}} \times 100 \quad \dots 1$$

Where,  $R_{j,t}$  = Returns on security j on time t

$P_t$  = Price of the security at time t

$P_{t-1}$  = Price of the security at time t-1

Abnormal returns are computed using the following equation

$$R_{j,t} = \alpha_j + \beta_j R_m + e_t \quad \dots 2$$

Where,  $R_{j,t}$  = The daily return on security j on time t

$R_m$  = The daily return on the Indian stock market at day t

$\alpha_j$  and  $\beta_j$  = OLS intercept and slope coefficient estimators respectively

$e_t$  = The error term for security j at day t

The expected return for the security j at day t is defined as

$$ER_{j,t} = \alpha_j + \beta_j R_m \quad \dots 3$$

Where,  $\alpha_j$   $\beta_j$  are OLS estimators

The daily abnormal return is calculated as

$$AR_{j,t} = R_{j,t} - ER_{j,t} \quad \dots 4$$

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

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

$ER_{j,t}$  = Expected Returns on security j at time t

The Average Abnormal Return (AAR) is calculated by the equation given below

$$AAR_t = \frac{1}{n} \sum_{j=1}^n AR_{j,t} \quad \dots 5$$

Where,  $AAR_t$  = Average Abnormal Returns on day t

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

$n$  = Number of Sample announcements

The Cumulative Average Abnormal Returns (CAAR) is calculated by the equation given below

$$CAAR_k = \sum_{t=1}^k AAR_t \quad \dots 6$$

Where,  $CAAR_k$  = Cumulative Average Abnormal Returns for the  $k^{th}$  period

$AAR_t$  = Average Abnormal Returns on time t

The study uses cross sectional t tests to examine the statistical significance of the AAR for each trading day. The cross sectional t test assumes

that the day '0' abnormal returns are independent and identically distributed. The statistical significance is computed as follows

$$t = \frac{\text{Mean Abnormal Return}}{\text{Standard Deviation}}$$

$$t(AAR) = \frac{AAR_t}{S(AAR_e)} \quad \dots 7$$

Where  $AAR_e$  is AAR of the estimation period for the entire sample and  $S(AAR_e)$  represents

the standard deviation of the AAR of the estimation period.

## DATA ANALYSIS AND INTERPRETATION

**Table 1 reports AAR and CAAR for 104 bonus announcements using 31 days event window.**

Table 1: Announcement Returns						
Day	AAR (%)	CAAR (%)	t statistic	1%	5%	10%
-15	0.491526	0.491526	1.403935	ns	ns	ns
-14	-0.24848	0.243043	-0.70974	ns	ns	ns
-13	-0.31017	-0.06713	-0.88594	ns	ns	ns
-12	-0.25441	-0.32154	-0.72665	ns	ns	ns
-11	-0.26318	-0.58471	-0.7517	ns	ns	ns
-10	0.82284	0.238127	2.35026	ns	Sig	Sig
-9	-0.0601	0.178026	-0.17167	ns	ns	ns
-8	0.437057	0.615083	1.248358	ns	ns	ns
-7	0.249266	0.864349	0.711974	ns	ns	ns
-6	0.808601	1.67295	2.309589	ns	Sig	Sig
-5	0.344771	2.017722	0.984763	ns	ns	ns
-4	0.690281	2.708003	1.971634	ns	ns	sig
-3	1.35283	4.060833	3.86406	Sig	Sig	Sig
-2	0.387102	4.447935	1.105672	ns	ns	ns
-1	1.693643	6.141578	4.837516	Sig	Sig	Sig
0	1.768176	7.909754	5.050403	Sig	Sig	Sig
1	0.722721	8.632476	2.064294	ns	Sig	Sig
2	-0.73066	7.901818	-2.08696	ns	Sig	Sig
3	-0.69139	7.21043	-1.9748	ns	ns	Sig
4	-0.53338	6.677053	-1.52347	ns	ns	ns
5	-0.42354	6.253513	-1.20975	ns	ns	ns
6	-1.92529	4.328228	-5.49915	Sig	Sig	Sig
7	-1.15175	3.176474	-3.28973	Sig	Sig	Sig
8	-0.26721	2.909261	-0.76323	ns	ns	ns
9	-0.637	2.272256	-1.81946	ns	ns	Sig
10	-0.00585	2.266406	-0.01671	ns	ns	ns
11	-1.36947	0.89694	-3.91157	Sig	Sig	Sig
12	-0.08321	0.813726	-0.23768	ns	ns	ns
13	-0.27074	0.542982	-0.77332	ns	ns	ns
14	-0.41816	0.124822	-1.19438	ns	ns	ns
15	-0.4225	-0.29768	-1.20678	ns	ns	ns

Note: Sig = significant, ns = not significant

It is found that on the announcement day, there is positive AAR of 1.76%, which is significant at 1% level. 64.4% of the sample companies show positive abnormal returns on the announcements date. This analysis reveals that bonus announcements have a positive impact on the share prices of companies. These results for announcements are comparable with the returns documented for Indian companies (Dhar and Chhaochharia,2008; Kaur and Singh, 2010).

An analysis of the daily AARs during pre-announcement period shows that there were negative AARs from -14 to -11 days. AARs became positive from -8 continuing up to -1, with some days having increased AAR, while on other days having decreased AARs. Statistically significant positive AARs were found for 5 out of 10 days immediately prior to the announcement day. This finding is in line with the result documented by Mishra (2005) who found positive abnormal returns appearing about eight days before the formal announcement. The positive AARs even before the announcement is made public, indicates market knowledge of the forthcoming bonus issue.

The post announcement period analysis shows

Window period	AAR (%)	CAAR (%)
-1 to +1	1.3948	4.18454
-7 to +7	0.17075	2.56138
-15 to +15	-0.0096	-0.29768

An analysis of the 3 day window period shows that AAR for 3 days is 1.3948% and the CAAR is 4.18%. During this window period there were 11 companies (10.50%) showing negative AARs on all the 3 days implying that some company securities do not show any reaction to bonus announcements.

returns are in contrast to pre announcement period. A positive return of 0.72% is documented for day 1 only. The days from 2 to15 record negative AARs. Day 6 shows the highest negative AAR of -1.90%. Negative returns in the post-announcement period show that market has slightly overreacted to bonus announcements which are corrected in this period (Kaur and Singh, 2010)

The AARs on days -3,-1, 0, 6, 7 and 11 show significance at 1%, 5% and 10% level. The AARs on days -10, -6, 1 and 2 show significance at 5% and 10% level. Only 10% significance level is shown for days -4, 3 and 9. The CAARs follows a decline from -15 to -11 days. The CAARs are positive for 27 days in the window period. It reaches a peak of 8.63% on day 1 and declines to -0.29% on day 15.

#### MULTI PERIOD WINDOW ANALYSIS

The study computes announcement returns for bonus shares over several windows. The window periods selected are 3 days, 15 days and 31 days. It is generally held that shorter windows reflect the announcement effects better than longer windows (Hyderabad, 2009). Table 2 shows the AARs and CAARs for different window periods.

24 companies (23%) show positive AARs on announcement day, but negative returns on either day -1 or day +1. Positive returns on announcement day, but negative returns on days prior to after the announcement day are recorded by 9 companies (8.65%). This analysis reveals that the market reacted positively to



these stocks at least on the announcement day. 41 companies (39.4%) showed positive AARs on all the days of the 3 day window period, which shows that the market reacted positively to the bonus share announcements.

The 15 days window period is studied from days -7 to +7. There are fluctuations in the AARs during this period. The AAR is 0.17% while the CAAR is 2.56%. The AARs increases from days -5 to -3, falling on day -2 at 0.387%. Day -1 records an increase of 337% in AAR from the previous

day. This sharp increase may be attributed to shareholders trying to capitalize on the bonus announcement. The AARs drop after the announcement day and becomes negative from day -2. The number of companies in the sample that show positive AARs for more than 11 out 15 days in the window period is 5 (4.80%).

The study also computes AAR for 31 days window period. It shows a negative AAR of 0.0096%. Correspondingly the CAAR is also negative (0.297%) during this period.

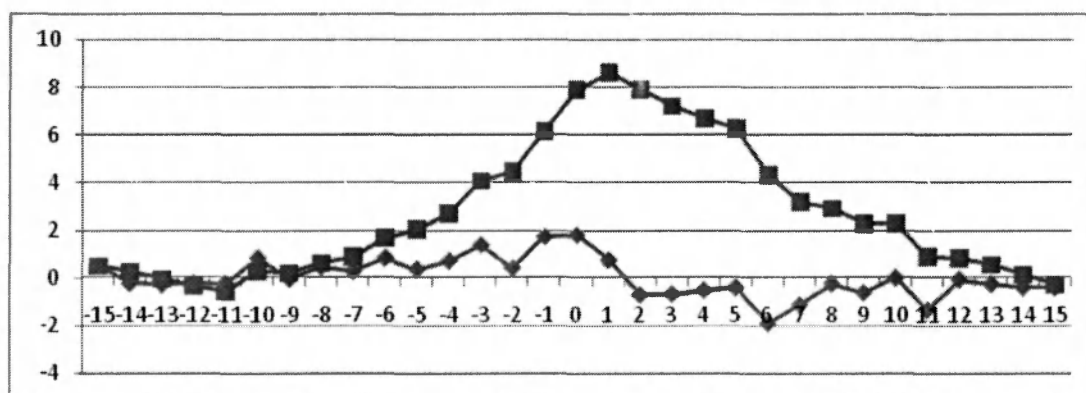
A year wise data of bonus announcements is shown in the following table.

Year	No. of Companies		
	Positive AAR	Negative AAR	Total
2010	39	25	64
2011	28	12	40
Total	67	37	104

In year 2010 there was more number of bonus announcements compared to 2011. The decrease in the announcements in 2011 may be due two reasons. Firstly Indian economic growth rate was slowing down and secondly, the profitability of the Indian corporate sector showed a decline due to increased labour costs and inflation.

The number of companies showing positive AAR on announcement day in 2010 is 39 (60.9%). On the other hand 70% of the companies show positive AAR on announcement day during 2011. The average positive AAR for the two years is 65%. This indicates that for most of the bonus share announcements the market reacts positively, at least during the short run.

Figure 1: AAR and CAAR for -15 to +15 days period



## CONCLUSION

This study examines the share price reaction to 104 bonus announcements of companies listed on Bombay Stock Exchange from 1<sup>st</sup> January 2010 to 31<sup>st</sup> December, 2011. The study uses the standard event methodology and applies the Market Model for calculating average abnormal returns. It is found that AAR on the announcement day is 1.76% and 0.72% on day 1 followed by negative AARs for the rest of the event window. The corresponding CAAR for announcement day is 7.9%. These results indicate that stock markets react positively on the announcement day, supporting the semi strong form of Efficient Market Hypothesis. The AAR on announcement day is statistically significant at 1%, 5% and 10%. The results for 3 days, 15 days and 31 days window period shows an AAR of 1.3948%, 0.17075% and -0.0096% respectively. This proves that shorter windows reflect the announcement effects better than longer windows. Year wise analysis reveals that most of the issues the market reacts positively for bonus share announcements. It can be concluded that bonus announcements lead to abnormal returns for the investors and supports the argument that Indian stock market is a semi strong form of efficient market.

## REFERENCES

- Balachandran, B., & Tanner, S. (2001, October 02). Bonus Share Issues and Announcement Effect. Retrieved February 11, 2012, from Science Research Network Electronic Paper Collection: <http://papers.ssrn.com/abstract=288743>
- Bechmann, K., & Raaballe, J. (2005, June 09). The Differences Between Stock Splits and Stock Dividends - Evidence from Denmark. Retrieved February 17, 2012, from Social Science Research Network: <http://ssrn.com/abstract=492922>
- Belgaumi, M. S. (1995). Efficiency of the Indian Stock market: An Empirical Study. *Vikalpa*, 20 (2), 43-52.
- Bombay Stock Exchange. (n.d.). Historical Prices. Retrieved January 25, 2012, from Bombay Stock Exchange: <http://www.bseindia.com>
- Brown, S. J., & Warner, J. B. (1985). Using Daily Stock Returns. *Journal of Financial Economics*, 3-31.
- Chandra, P. (2008). *Investment Analysis and Portfolio Management* (3rd ed.). New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Crawford, D., Franz, D. R., & Lobo, G. J. (2004, September 15). Signaling Managerial Optimism through Stock Dividends and Stock Splits: A Reexamination of the Retained Earnings Hypothesis. Retrieved February 09, 2012, from Social Science Research Network: <http://ssrn.com/abstract=589781>
- Dhar, S., & Chhaochharia, S. (2008, January 25). Market Reaction Around the Stock Splits and Bonus Issues. Retrieved February 05, 2012, from Social Science Research Network: <http://ssrn.com/abstract=1087200>
- Dimson, E., & Mussavian, M. (2000). Market Efficiency. *The Current State of Business Disciplines*, 3, 959-970.
- Fama, E. (1991). Efficient Capital Markets: II. *The Journal of Finance*, 46 (5), 1575-1617.
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25 (2), 383-417.

- Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review* , 10(1), 1-21.
- Fan-fah, C., Mohd, S., & Nasir, A. (2008). Earnings Announcements: The Impact of Firm Size on Share Prices. *Journal of Money, Investment and Banking* (3), 36-46.
- Foster, Taylor, W., & Vickrey, D. (1978). The Information Content of Stock Dividend Announcements. *Accounting Review* , 53 (2), 360-370.
- Grinblatt, M., Masulis, R., & Titman, S. (2007, June 21). The Valuation Effects of Stock Splits and Stock Dividends. Retrieved February 17, 2012, from Social Science Research Network: <http://ssrn.com/abstract=995759>
- Joshiyura, M. (2009). Price and Liquidity Effects of Bonus Announcements: Empirical Evidence from Indian Stock Market. *The IUP Journal of Applied Finance* , 15 (11), 5-23.
- Kaur, K., & Singh, B. (2010). Bonus Share Announcements and Market Efficiency: A Study of BSE Listed Companies. *Advances in Management* , 3(11), 49-58.
- Lakonishok, J., & Lev, B. (1987). Stock Splits and Stock Dividends: Why, Who and When. *Journal of Finance* , 42 (4), 913-932.
- Lazar, D., & Pramod, G. (2010). A Study on the Influence of Corporate Actions on Share Prices of Selected Companies from NSE. *Indian Journal of Finance* , 23-31.
- Lukose, J., & Sagar, N. R. (2003, August 06). Does Bonus Issue Signal Superior Profitability? A Study of the BSE Listed Firms . Retrieved February 17, 2012, from Social Science Research Network: <http://ssrn.com/abstract=428122>
- McNichols, M., & Dravid, A. (1990). Stock Dividends, Stock Splits and Signaling. *Journal of Finance* , 45 (3), 857-880.
- Malhotra, M., Thenmozhi, M., & ArunKumar, G. (2007, February 13). Social Science Research Network. Retrieved October 20, 2012, from Social Science Research Network Web site: <http://ssrn.com/abstract=962830>
- Mishra, A. K. (2005, June 01). An Empirical Analysis of Market Reaction Around the Bonus Issues in India. Retrieved February 15, 2012, from Social Science Research Network: <http://ssrn.com/abstract=733043>
- Nayak, S., & Prabhala, N. R. (2001). Disentangling the Dividends Information in Splits: A Decomposition using Conditional Event Study Methods. *The Review of Financial Studies* , 14 (4), 1083-1116.
- Obaidullah, M. (1992). How Do Stock Prices React to Bonus Issues? *Vikalpa* , 17 (1), 17-22.
- Raja, M., & Sudhakar, J. C. (2010). An Empirical Test of Indian Stock Market Efficiency in Respect of Bonus Announcements. *Asia Pacific Journal of Finance and Banking Research* , 4 (4), 1-14.
- Ramachandran, J. (1985). Behaviour of Stock Market Prices; Information Assimilation and Market Efficiency. FPM Thesis, IIM, Ahmedabad.
- Rao, S. N. (1994). The Adjustment of Stock Prices to Corporate Financial Policy Announcements. *Finance India* , 32 (2), 161-182.
- Shirur, S. (2008). Dilemma of Corporate Action: Empirical Evidences of Bonus Issues vs Stock Splits. *Vikalpa* , 33 (3), 35-47.
- Srinivasan, R. (1997). Security Prices Behaviour Associated with Rights Issue-Related Events. *The ICAI Journal of Applied Finance* , 3(1), 50-62.
- Weston, F. J., Chung, S. K., & Hoag, S. E. (2007). *Mergers, Restructuring and Corporate Control* (3rd ed.). New Delhi: Prentice-Hall of India.