Impact Of Earning Announcement, Bonus Issue and Buy-back on Equity Share Prices In India

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INTRODUCTION

Perhaps no other area of finance has been subjected to so much empirical Investigation during the last three decades as the behavior of stock prices. Stock market efficiency has now become a paradigm in the finance literature for explaining share price behavior. One of the dominant themes in the academic literature since the 1960's has been the concept of efficient capital markets which means that security prices reflect all available information. Generally, market efficiency has two dimensions, one is the set of information to be reflected in prices and secondly is the speed of adjustment of prices to new information. The efficient market theoretists, believe that the process of adjustment of stock prices to new information is very quick. The efficient market hypothesis has historically been sub-divided into three categories, each dealing with a different type information. Weak-form explains whether all information contained in the historical prices is fully reflected in the current prices or not while in the semi-strong form of efficiency, the security prices reflect all publicly available information like dividend announcement, earning announcement, stock splits, issue of bonus shares and right shares, buy-back of shares, etc.. Infact, such publicly available information is already impounded in the current security prices. The third and the final stage of the capital market is strong-from of efficiency. In this form the security, prices reflect all published and unpublished public information. This is a significant strong assertion, and empirical studies have not borne out the strongly efficient market hypothesis. People with private or inside information have been able to outperform the market. Thus, three forms of efficient market hypothesis, therefore, tends to describe different stages of market efficiency. This classification was originally suggested by Fama (1973). After the discussion of three forms of efficient market hypothesis, we have mainly emphasized on semi-strong form of the market.

OBJECTIVES

The primary objective of the study is to investigate whether the Indian stock market is efficient in semi-strong form or not. The semi-strong form of market efficiency has been tested with the help of the following specific objectives of the study:

- To study the effect of earning announcements on equity share prices in India.
- To examine the impact of bonus issues on equity share prices in India.
- To investigate the effect of buy-back of share on equity prices in India

HYPOTHESES

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- Issues of bonus shares have no significant impact on abnormal returns over the event window period. Thus, the null hypothesis is that the average abnormal returns over the event window period are not significantly different from zero.
- Declaration of buy-back of shares has no significant impact on abnormal returns over the event window period. Thus, the null hypothesis is that average abnormal returns over the event window are not significantly different from zero.
- It is hypothesized that adjustment of stock prices to new equilibrium prices and expected returns take place at or before the arrival of news concerning bonus or buy-back learning and that the above or below equilibrium prices and expected returns do not occur thereafter.

RESEARCH METHODOLOGY

The study has been carried out during the recent eight years period from Jan 1, 1996 to December 31, 2004. The main sources of data were secondary i.e. journals, Newspapers, Websites. To test earning announcement impact on share prices sample of 38 companies have been taken. To investigate the impact of bonus issues on share prices, 100 companies were taken as sample. To examine the effect of buy-back of shares on share prices, 54 companies were selected as sample.

Event Study Methodology

The impact of earning announcement, bonus issue, and buy-back on share prices were examined by using the popular 'event study methodology'. Historically, the methodology was first used by Ball and Brown (1968). However, Fama et al. (1969) popularized the use of the methodology for testing the semi-strong version of he EMH. It has since then used by a number of researchers for studying the impact of variety of events on share prices. Therefore, it will be useful to briefly discuss the procedure adopted in using the event study methodology. The steps involved in event study methodology were:

Define the Event of Interest

The first step is to identify the event to be studied and the collection of a sample of companies that had a surprise announcement of that event during the study period. It is well known that share prices change due to some announcement that is considered as a surprise by investors. Therefore, events such as an announcement of a merger, an earning announcement, bonus issue or buy back can be well treated as a surprise to investors. In other cases, such as the impact of right issue, it is considered to be more complicated. In such cases, it is necessary to define as to what constitutes a surprise. This can be done by comparing announcements with earnings forecasts made by professional analysts. Therefore, in order to form a sample of surprises, one first separates out a group of firms where the announcement is significantly different from what is being forecasted, since, positive and negative surprises would affect price differently. This group is further separated into two groups, one for positive and another for negative earning surprises. As mentioned earlier, in this study, three major events i.e. earning announcement, issue of bonus shares and buy back of shares will be studied on a sample of Indian companies during the recent eight-years period.

Specify Day of Announcement of an Event

The next step is specification of announcement date or what is called the 'event date'. The event date for each company will be taken as the date of 'Board of Directors meeting' in which the decision to issue bonus or buy back or earning announcement was taken. This date is designated as t=0.

Specify the Window Period:

This step involved the specification of the 'event window period'. The researcher has to decide and specify the number of days in the window period, sufficient enough to see the impact of the event on share prices. In this study, a window period of 61 days have been used. The window period is designated as -30, -29,-28.....-last the 30 days prior to the event, 0 as the event day, and +1,+2,+3,..........+30 days after the event day.

Compute Observed Returns for Sample Companies and for the market portfolio:

The daily returns for each sample company has been computed for the 'estimation window period' and also for the 'event window period' as;

$$R_{it} = (P_{it} - P_{it-1})/P_{it-1} \dots\dots\dots(1)$$

Where P_{it} and $P_{it}-1$ are the respective daily prices for company t and t-1. Analogously, the actual returns for the market portfolio are also computed as :

$$R_{mt} = (I_t - I_{t-1})/I_{t-1} \dots\dots\dots(2)$$

Where I_t and I_{it-1} the respective daily index values at time t and t-1.

As mentioned earlier, in this study window period of 61 days has been used; 30 before the event plus the event day plus 30 days after the event. Therefore, for all these days the actual returns for each sample company for each event will be computed separately by using equation 1 above.

Compute Expected or Normal Returns:

Different researchers have used different models for computing expected returns. There are several equilibrium models, such as the Capital Asset Pricing Model (CAPM), the Arbitrage Pricing Model (APT) etc. that could on a market index as the expected return. In this study, the expected returns on a stock have been estimated by using Market model.

Compute 'Abnormal' Returns for the Window period for sample Companies:

The next step to be followed is to compute the 'abnormal' returns for each of the sample company for the window period. Abnormal returns, defined as the actual return minus the expected return for the company I on the day t is calculated as:

$$AR_{it} = R_{it} - \alpha - \beta_i R_{mt} \dots\dots\dots\dots\dots\dots\dots (3)$$

Compute Average Abnormal Return (AAR) for each day in the event window period:

It is to be remembered that we normally look at the average effect of the announcement rather than examine each company separately, because other events occurring and averaging across all companies should minimize the effect of these other events, thereby allowing a better examination of the event under study. Therefore, one should compute the average abnormal return on the event day t (AARt) by dividing the aggregate abnormal return for all securities on day t by N, which is the sample size.

$$AAR_t) = AR_{it} / N \dots\dots\dots\dots\dots\dots\dots\dots (4)$$

Compute Cumulative Average Abnormal Return (CAAR)

For computation of cumulative average abnormal returns, the individual day's average abnormal return (AAR) is added together from the beginning of the period for specified period and is tested for significance.

Note that the study has used 61 days as the event window period. Therefore, for the 61 days period (30 days before the event day, and 30 days after) for instance, the entry for -20 would be the sum of daily average abnormal returns for days -30 to -20 and for -10 would be the sum of average daily abnormal returns for -30 to -10.

The cumulative average abnormal returns for event days t_1 through t_2 has been calculated by summing the average abnormal returns for these days :

$$CAAR_d) = AAR_t \dots\dots\dots\dots\dots\dots\dots\dots (5)$$

Summary of Main Findings

It is important to note that the study has also examined the announcement effect of bonus issue separately for (i) full sample, and (ii) bonus ratio-wise.

Announcement Effect: Bonus Issue (Full Sample)

- No significant average abnormal return (AARs) has been observed on the event date.
- The positive average abnormal return for 13 days period prior to bonus announcement has been seen. Out of these 13 days, positively significant average abnormal return has occurred for t-1, t-5, t-8, and t-12 days.
- The AARs for the post 5 days, announcement period were negative. Out of these five days negative and significant abnormal return has been found only t+4 day, thereby indicating that the market had overreacted earlier and corrected its overreaction during these 5 days.
- Surprisingly, CAARs for all 61 days over the event window period were positive.
- The anticipated reaction of stock prices prior to the event date rather than on the event date or thereafter provide evidence in support of the semi-strong efficiency of the Indian stock market.

Announcement Effect: Bonus Ratio-wise

- In case of less than 50% bonus, shareholders reacted negatively, which indicates that stock prices under reacted to the announcement on the event date. In the Indian stock market, shareholders appear to view the announcement of small bonus ratio as bad news. Market reacted negatively, 2 days before and after, or even on the event date.
- In case of 50% bonus, average abnormal return (AARs) have been seen around the event date. Market reacted positively for 7 days prior to the announcement date but out of these 7 days significant reaction has been noted only for one day. Market corrected its overreaction by providing negative excess return on or after the event date. It indicates that shareholders' responses are not very encouraging regarding this issue.
- Market reaction regarding more than 50% and less than 100% bonus ratio is not systematic. Unsystematic and surprising pattern of AARs have been observed. In this particular case, market reaction is not as per expectation prior to the event date, a little bit these findings point out the inefficiency of the market in disseminating the information regarding the bonus issue.
- The significant and positive behavior of AAR has been seen in case the bonus was announced in the ratio of 1:1. the market began to react positively 10 days prior to the event date and corrected its overreaction exactly after 10 days prior to the event date. Market provides significant and positive return even on the announcement date. The CAARs are also positive for 60 days over the event window period and it is on the peak (12.023%) on the event date.

- Large bonus ratio of more than 100% to 900% is also analyzed. Traders respond positively and significantly on the event date and till 2 days after the event date. It means market considered it as a good news and reacted positively as per the expectations.
- Thus, after analyzing different bonus ratios, it has been revealed that Indian shareholders do not welcome all bonus issues. In fact, our results demonstrate that shareholders' preference is for a high bonus ratio rather than a low bonus ratio. Apparently, the low bonus ratio does not convey the same informational content as the high bonus ratio.

Announcement Effect of Earning Announcement

It is worth recalling that the study has examined the announcement effect of earnings on share price separately for (i) full sample, (ii) sample of favorable earning announcements and (iii) sample of unfavorable earning announcements.

Announcement Effect of Earnings: Full Sample

- There were positive abnormal returns revealed 5 days prior to the day of the announcement. Out of these 5 days the abnormal return for -1 day and -3 day is statistically significant (at 5% level of confidence). Surprisingly, percentage CAARs are positive for all 61 days in the event window.
- No significant abnormal return either positive or negative has been observed on the announcement date of earnings. It indicates the semi-strong form efficiency of Indian stock market.
- Immediately after the announcement date, the analysis reveals negative but not significant abnormal return. Thereby indicating that market had overreacted on the earning announcement information and corrected its overreaction later.
- After the announcement day, abnormal returns are negative for 17 days and positive for 13 days, of these only two are significant.
- Good performance of the companies listed in BSE 'A' group, will be already anticipated by the investors. This belief strengthened by the, by and large, highest percentage CAAR found on the event day.
- The reported results in this study are in tune with the Indian authors and somewhat different from the foreign studies.
- All the findings states that there is not so significant impact of earnings announcements on share prices seen around the event date. The reason for irrelevant reaction might be disclosure of quarterly earnings.

Announcement Effect: Favorable Earnings

- There were positive reaction observed 4 days before the earnings announcement as better performance was anticipated by the investors over the previous year. Out of these 4 days, the abnormal return for -2 days is statistically significant (at 5% level of confidence).
- Even on the announcement date positive abnormal return had been found but the abnormal return was not significant.
- The findings indicate that the market had overreacted to good news expectations and after the announcement date this overreaction is corrected within +4 days by showing negative but insignificant abnormal return.
- Market reacted on the announcement of good earnings this belief can be further strengthened by percentage CAAR, which is positive for almost all 61 days in the event window period, except for two days.

Announcement Effect Unfavorable Earnings

- In case of unfavorable earning announcement negative abnormal return has been observed only for one day before and after the earnings announcement.
- Market reacted as per the expectations but negative percentage AAR around earning announcement is not significant.
- Thus, it is evident that market did not react sharply to the decline in earnings.

Announcement Effect of Buy-Back of Shares

In this study, buy-back of shares is also analyzed to check the semi-strong form efficiency of Indian stock market. Brief findings of the study have been given below:

- In the present study, the stock prices started to increase almost before 13 days from the date of buy-back announcement. Interestingly, positively as well as significant abnormal return was observed on 6th day before the announcement date. It might be due to official information of buy-back to stock exchange.
- There were no abnormal returns occurring on the event date or thereafter.
- The systematically positive behavior of AAR before the announcement date of buyback is treated as a positive signal by the investor but negative message after the buy-back is the message for investor that buyback of shares do not lead to a long term or permanent improvement in valuation of shares.

CONCLUSION

Overall, the empirical results in respect of bonus shares, earning announcements, and buy-back of shares announcement more or less are supporting the semi-strong for efficiency market is that investor should react on or before the announcement date not thereafter.