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IMPACT OF BUY BACK OF SHARES ON STOCK PRICE RETURNS

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Abstract :

Buyback of shares by the Company leads to a reduction in the number of shares available to shareholders for further purchase. This reduction on supply part may lead to an appreciation in the stock prices in the market. The study measured the impact of buyback of shares has been using Standard Event Methodology. The research paper has been written to explore the impact buyback of shares on stock price. The short term stock price returns calculated for the event window period, i.e. 21 days 10 days before and after the announcement of buy back of shares.

Key Word: Buy Back of Shares, Average Abnormal Return , Cumulative Average Return

Introduction

Shares buy back have become a company event in the financial market worldwide. Buyback program the company distributes the excess cash flow among the shareholder by way of repurchasing its own shares, generally at premium .India shares buy back were introduced in 1999 has receive and attention of all major companies .Since then there has been a spate of announcement of share buy backs. Small investors in India also need to know whether they will benefit by will participating in the buy -back offer or they will be better off in the post buy back phase companies acquire their own shares to improve earnings per share by reducing the number of shares .Share buy backs by their very nature decrease the total number of shares .Outstanding with fewer shares outstanding after a buy back and assuming that buy back does not adversely affect the company earning ,the per share effect of the remaining shares will increase.

History of Buy back of Shares

Prior to1998 buy back were not allowed in India .In the 1970 period, if MNC wanted to continue doing their business in India, they could do so only by diluting their shareholding and getting listed on the exchange. The buyback ordinance was introduced by the government of India (GOI) on October 31; 1998.There was insertion of new section of new sections 77A, 77AA, and 77B in the company's law which allowed buy back. The major objective of the buyback ordinance was to revive the capital markets and protect companies from hostile takeover bids. The ordinance was issued along with a set of conditions intended to prevent its misuses by companies and protect the interest of investors .

The buyback of shares was allowed only if the articles of association of the company permitted it to do so and after passing a special resolution at a general meeting .It also allowed the promoters of a company to make an open offer to purchase the shares of its subsidiary .This allowed foreign promoters to utilize their surplus funds and make an open offer to acquire a 100% stake in their Indian subsidiaries .Now that the norms have been altered and MNC's were permitted to carry on their business without any such compulsion ,they would rather operate as wholly subsidiaries without being listed on the bourses Several MNC's like Philips India Philips, Cadbury India Otis Elevators Carries Zircon Reckitt benkisers etc announced offers to buy back the shares of its Indian subsidiary under Security exchange board of India

Review of Literature

There are least studies regarding the impact of Buy Back of shares on liquidity position of selected sectors in India, because the undervaluation of shares is most important reason for companies can buy back of shares, so also studies have conducted on effect of Buy Back of shares on stock prices evidence from India.

Croce, Damineli & Gidia (2008) assessed the operating performance of industrial companies for the buyback period 1989 to 2001which listed on the Italian Stock Exchange. The study found that the generally highlights a positive abnormal return of the company stock price at the announcement. The study analyzed the buyback are signaling the acknowledgement of the future operating performance. The study analyzed the effect of free cash flow on companies that announced buyback of shares by poor operating performance medium-long run both in absolute terms. **Nicholas & Frank (2008)** the study analyzed the effect of stock repurchase announcements on stock price from semi strong form efficient market hypothesis. The study showed that the why companies repurchase their stock. **Kaur & Singh (2010)** the study tested abnormal returns for information Signaling free cash flow and leverage Hypothesis. The study analyzed that the buyback are emerging as a tool of capital restructuring. It made an empirical analysis by taking the data for the year 1999-2004.It found that the data 100 events of shares buyback are available on Bombay Stock Exchange listed companies. The results indicated that the market reaction to buyback announcement is positive. It observed that the positive price reaction start even before the public announcement. It was reported that the mean abnormal returns of the 2.22 percentage for share buybacks on the day of announcement. **Kaur (2012)** investigated that the impact of open market share buyback announcements on share price s of Bombay Stock Exchange listed companies. The study observed that the significance positive mean daily returns are analyzed for two days observation period .The study examined the a sample of 172 events of shares buyback through open market repurchase announced between March 2001 to March 2012 .The study found that the shares buyback announcement was created positive market reaction on stock market .The study also suggested that the stock market was welcomed share buyback. **Rajlaxmi (2013)** the study measured expected returns of the stock by taking analytical period 2007 to 2010.It also indicated the six repurchase announcements with the help of single index model. The study found that beta is obtained by regressing the daily return with index return .It based on "efficient market hypothesis" which theory provided the information that is past, public or insider information .The study concluded that the "Buyback announcement of shares "is considered as relative information or corporate announcements for undertaking the possible impact of public new information. **Bhatia (2013)**examined the short term effect of shares repurchases on stock price in India .The study focused on two major hypothesis .Firstly ,Undervaluation Hypothesis which indicated the negative abnormal return before share repurchase announcement. Secondly, Signaling Hypothesis which indicated that the positive abnormal return after share repurchases announcement. The study also analyzed the Undervaluation and Signaling Hypothesis by taking the data for the period 2011 to 2012.The results indicated that the negative abnormal returns by testing the Signaling Hypothesis .It found that the size affected by the shares repurchases reaction. It showed that the cumulative abnormal return 4.5 percentages which were showed positive impact of share repurchase. **B & Rane (2013)** assessed the performance of share buyback by taking the study period 2005 to 2010 from the listed companies on Bombay Stock Exchange .The study examined the impact of buybacks on shareholder value creation .The study showed that when buyback was announced decreased in the number of shares and increased the earning per share .The study examined the sample of 27 Indian companies and 5 Multinational companies .The study found that the all buyback announcement related to belong 21 Industries .The results indicated that the 78 percentage of the buyback programs have registered on enhancement in the earning per share while 22 percentage have recorded **Brockma, Paul & Mortal (2008)** examined the impact of stock market liquidity on managerial payout decision. The period of study ranges from 1983 to 2006 and is based on sample of repurchases initiators and non- initiators firms. The study focused on two major issues i.e. role of stock market liquidity in the decision to initiate cash payouts and secondly, it investigated the role of stock market liquidity in ongoing repurchase and dividend decision. The study points that out the stock market liquidity have more effect on repurchase decision as compared to the dividend decision. The study also explored positive relation between stock market liquidity and repurchase of shares. **Chaidech (2013)** examined the impact of stock market liquidity on payout decision of listed companies in Thailand. The period of the study ranges from 1, January, 2000 to 31, December, 2012 and is based on the Sets Smart database. The study focused on two major issues i.e. testing the liquidity impact on cash payout and stock market liquidity has most effected on share repurchase than the dividend. The study highlighted that the payout of initiating firms is 4.95 per centage more than non-initiating firms. The study analyzed that the coefficient of operating income has positive and operating income volatility is negative but both are not significant at 5 per cent level. The study further reported that the stock market liquidity has positively related to share repurchase and negatively related to dividend.

Research Methodology

Research methodology can be defined as a way to systematically solve the research problem by logically adopting various steps .For finding and exploring research question, a Researcher faces lot of problems that can be effectively resolved with using correct research methodology. The proposed study has been analytical study nature

Objective the Study

1. To study the impact of Buy Back of shares on stock price returns.
2. To study the impact of Buy Back of shares Pre and Post Performance of companies.

Study Period

The study period has been taking from 2000 to 2012. The study based on 121 days event window 60 days before and after announcement of Buy back of shares during the study period

The study measured the impact of buyback of shares based on two hypothesizes i.e. following:

Null Hypothesis(H_0): *There is no significant difference in AAR of pre and post buyback of shares announcement for the different event windows*

Alternative Hypothesis (H_a): *There is significant difference in AAR of pre and post announcement of buyback of shares for the different event windows*

Sampling Size

The present study is based on a sample of companies listed on Bombay Stock Exchange for the examining the effect of buy back of shares on profitability.

Data Collection

The study is based on secondary data. The secondary data mainly compares of daily share prices, daily volume of transactions and financial ratio. The data are collected from official website of SEBI (Security Exchange Board of India), NSE (National Stock Exchange), BSE (Bombay Stock Exchange) CMIE Data Base, CAPLINE Data Base, PROWESS Data Base, Financial newspapers including Economics Times, Financial Express and other Sources.

Methods for data Analysis

The impact of buyback of shares on stock price returns with the help of Average Abnormal Returns and Cumulative Average Abnormal Returns. This Chapter based on One Sample T-Test has been used for analyzing the impact of buyback of shares on stock prices during the post buyback period. The standard event study methodology has been used for this study. The method of computing simple returns computed the simple returns for different event windows.

$$Rit=\sum\left[\frac{CP_t-CP_{t-1}}{CP_{t-1}}\right]$$

R_{it}=Simple return of stock

CP_t→ Closing price

CP_{t-1}= Previous day closing price of a stock

Then we compute market return

$$R_{mt}=\sum\left[\frac{CP_{mt}-CP_{mt-1}}{CP_{mt-1}}\right]$$

R_{mt}= Market return on BSE Sensex

CP_{mt} = Closing index value on BSE Sensex

CP_{mt-1}= Previous index value on BSE Sensex

Further abnormal return calculated

$$AR_{it}=\sum\left[R_{it}-R_{mt}\right]$$

AR_{it}= Expected return of given stock

Expected Return= $\alpha+\beta(R_{mt})+\varepsilon$

α = intercept. (Mean return over the period not explained by the market).

E (Rjt) = is the expected return on security j,

Rm =is the expected market return,

Bj=slope of the regression and,

Ej= the error term (with a zero mean and constant standard deviation).

Subsequently average abnormal return for each stock is calculated by

$$AAR_{it}=\sum\frac{1}{n}\left(AR_{it}\right)$$

AAR_{it}= Average abnormal return

n= Number of Observation

Cumulative Average Abnormal Return

CAR_{it}= ΣAAR_{it}

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T-testing statistics = $\dfrac{AAR_{it}}{\frac{n}{s}}$ T-Test = $\dfrac{AAR}{\left[S\dfrac{(AAR)}{\sqrt{n}}\right]}$

T-Test = $\dfrac{CAAR}{\left[S\dfrac{(CAAR)}{\sqrt{n}}\right]}$

S (AAR) = Standard Deviation of Average abnormal return calculated over estimation period.

S (CAAR) = Standard Deviation of Cumulative average abnormal return calculated over estimation period.

n= Number of Observation

Event Window Period -21 Days

The impact of buyback of shares on stock prices has been measured with Average and Cumulative average abnormal returns on the basis of the market price of the securities. The table 1 presented the AAR and CAAR for the event window of 21 days.

Table: 1

AAR and CAAR for the Event Window 21 Days

Days	AAR	T-Value	Sig Level	CAAR	T-value	Sig Level
-10	-0.0316	-1.685	0.095	-0.0316	-1.685	0.095
-9	-0.0042	-0.204	0.839	-0.0358	-1.093	0.277
-8	0.0119	0.576	0.566	-0.0240	-0.547	0.585
-7	-0.0125	-0.456	0.650	-0.0365	-0.585	0.560
-6	0.0122	0.565	0.573	-0.0242	-0.375	0.708
-5	0.0408	1.401	0.165	0.0166	0.199	0.843
-4	-0.0001	-0.006	0.995	0.0164	0.198	0.844
-3	0.0129	0.420	0.675	0.0293	0.272	0.786
-2	0.0506	**(2.34)***	**0.021**	0.0799	0.710	0.479
-1	-0.0065	-0.343	0.732	0.0734	0.615	0.540
0	0.0566	1.826	0.071	0.1300	0.931	0.354
1	0.2035	0.854	0.395	0.3334	**(2.65)***	**0.009**
2	-0.0466	-1.757	0.082	0.2868	**(2.63)***	**0.010**
3	-0.0594	**(-2.36)***	**0.020**	0.2274	**(2.48)***	**0.015**
4	-0.0132	-0.549	0.585	0.2142	**(2.63)***	**0.010**
5	-0.0204	-0.720	0.474	0.1939	**(2.88)***	**0.005**
6	-0.0289	-1.913	0.059	0.1650	**(2.48)***	**0.015**
7	-0.0441	-1.539	0.127	0.1210	**(1.952)***	**0.054**
8	-0.0048	-0.323	0.747	0.1162	1.878	0.064
9	-0.0181	-1.390	0.168	0.0981	1.573	0.119
10	-0.0054	-0.481	0.632	0.0927	1.455	0.149

(*) indicating significance at 5 percent level

The analysis of AAR reveals that the AAR on the event day has been 5.66 percent for the event window of 21 days. The event day of stock return has been not statistically significant at 5 percent level of significance. Analyzing the AAR, the values of AAR has turned out as positive for only for

6 days out of 21 days of the event window. The AAR has been positive after one day of buyback announcement. The AAR has negative thought-out the after the announcement of a buyback. However, the value of AAR has not been statistically significant at 5 percent level of significance. The CAAR on the event day is not statistically significant at 5 percent level of significance. The CAAR having inconsistent trend before the buyback, but it has been positive for the window period 10 days post buyback. The result for post buyback indicates statistically significant difference in seven out of ten days. Concluding AAR has been negative during the buyback period, but CAAR has been positive during post buyback. The CAAR for selected time intervals for the event window 21 days has been given in the table 1.1

Table: 1.1

CAAR for Event Window up to 21 Days

Days	CAAR
-10 to +10	0.0927
-5 to +5	-0.2181
0 to -10	-0.1205
0 to +10	0.0568
+10 to -10	-0.0316
+5 to -5	0.4200

It is clear from the Table 1.1 that the CAAR for the event window of 21 days (t_{-10}) to (t_{+10}) be approximately i.e.9.27 percent. The cumulative average abnormal returns in the pre event window period of (t_{-10}) to (t_{+10}) and (t_{-5}) to (t_{+5}) days are inconsistent i.e. 0.0927 and -0.2181 percent respectively. The cumulative average abnormal returns in post window of (t_{+10}) to (t_{-10}) and (t_{+5}) to(t_{-5}) days are consistent i.e. 0.0316 and 0.4200 respectively for event window 21 days.The cumulative average abnormal returns are positive on announcement day. Cumulative average abnormal returns in the post and pre buyback period are 0.1205 and 0.4200 percent respectively. So it may be concluded that the investors do not take the buyback as a positive sign for event window of 21 days for the study period from 2000 to 2012. The company- wise analysis of the stock price returns for the event window period has been explored in the Table 1.2

The individual companies' wise analysis indicates that the total 90 sample companies, in which 52 companies have positive mean returns and 38 companies have negative average abnormal return on announcement day of buyback for the event window of 21 days. In other words, there are positive abnormal returns more than fifty eight percentage, approximately companies of a total sample for the event window of 21 days. It is clear from analysis that there are 60 companies i.e. 66.67 percent of the sample, having positive average abnormal returns during pre buyback period. Only 33.3 percent of the sample companies were having negative returns during the pre buyback period. The results indicate that the in post buyback period, only 59 companies have positive average abnormal returns, i.e. only 65.56 percent of the total sample companies has positive abnormal returns in the post buyback period, while 34 percent of the companies have negative average abnormal return in the post buyback period. The result clearly indicates that the investors have an unfavorable attitude towards the buyback of shares.

Table: 1.2

Share Price Reaction around buyback of shares for Event Window of 21 Days

Particulars	No of Companies	Percentage of Sample

Companies having positive mean returns during announcement day Companies having negative mean returns during announcement day	52 38	57.78 42.22
Companies having positive mean return during pre buyback period. Companies having negative mean return during pre buyback period.	60 30	66.67 33.33
Companies having positive mean returns during post buyback Period Companies having negative mean returns during post buyback Period	59 31	65.56 34.44

Conclusion

Combined Result of Selected Event Windows Period

The study also analyzed the stock price returns reactions before and after the buyback of shares with the help of Paired Sample T Test. The table 1.3 depicts the results of Paired Sample T Test for different event windows.

Table: 1.3

Paired Sample T Test for Selected Different Event Windows

Variables	Mean Difference	df	T-value	Sig Level
AAR (21 Days Event Window)	-0.0110	9	-0.386	0.708

The mean of difference of average abnormal returns for event window, i.e. 21 days (t_{-10}) to (t_{+10}), are -0.0110,. It also observes from the table 1.3 that the stock price returns has not improved in case selected event windows. The result of Paired Sample T Test clearly indicates that the difference between post and pre AAR has been not statistically significant at the 5 percent level of significance. It can conclude that the negative impact of buyback on the average abnormal return during the daily basis event window period. So, the null hypothesis is accepted, that there is no significant difference between post and pre AAR in case of selected event window period.

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