Buy Back of Shares and their impact on Liquidity: An Analytical Study of Selected Sectors in India

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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

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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

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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 Liquidity Position of selected sectors.
2. To study the impact of Buy Back of shares Pre and Post Performance of selected sectors.

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

Hypothesis of Study

Null Hypothesis (H_0): There is no significant difference between in Post and Pre announcement of Buy Back of shares.

Alternative Hypothesis (H_1): There is significant difference between in Post and Pre announcement of Buy Back of Shares.

Sample of the Study

The study is based on analytical nature. Nine Sectors have been selected for analyzed the liquidity positions of companies. In this study sample of 90 companies has been included in Nine Sectors. The summary of selected sample presented by the below Table.

Sample Size

Sr. No.	Name of Sectors	No. of Companies
1	Agricultural Sector	9
2	Electronic Sector	6
3	Engineering Sector	12

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4	Financial Service Sector	7
5	Heavy Industry Sector	10
6	Information and Computer Software Sector	12
7	Pharmaceuticals Sector	14
8	Textile Sector	8
9	Miscellaneous Sector	12
	Total Companies in Selected Sectors	90

`Data Collection

The study has been based on secondary data. 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 and other Sources.

Methods for data Analysis

The assessing the performance of the company before and after buy-back appropriate statistical tools such as T Paired Test, Descriptive Statistics and Wilcoxon Signed Test with the help of (SPSS). The study also used parameters such as Volume, Trade and Market Capitalization for explored the impact of Buy Back of shares during study period.TableNo.1 presented the changes in Volume, average trade and market capitalization of shares.

Table No. 1 Sector: Agricultural

Variables	Volume	Trade	Market Capitalization
Mean Post	-4095.026	-30.841	2.389
Mean Pre	-219.106	2.855	0.324
Difference of Mean	-3875.920	-33.696	2.064
Standard Deviation	122096.682	228.904	114.319
T Value	-0.246	-1.140	0.140
p Value	0.807	0.259	0.889
Wilcoxon Test	-0.309	-0.508	-0.213
Sig (2 tailed)	0.757	0.611	0.831
Increase/Decrease	Decrease	Decrease	Decrease

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The Table No. 1clearly shows that the Agricultural Sector has decreased number of volume at higher rate during the study period. The pre volume of agricultural sector has been -219.106 and post -4095.026 during the study period. The high volume of shares indicates the higher liquidity in market. In this case who wish to sell a large number of shares of a certain stock, lower liquidity will force them to sell the stock slowly over a longer period of time, to avoid losses due to slippage. The result of Volume indicates that the agricultural sector has lower liquid in the market during the study period. The average number of trades changes from 2.855 to -30.841 during the study period. The analysis shows that there has been a decrease in the number of volume, shares and market capitalization in respect of entire sample nine companies of agricultural sector. The comparative analysis of agricultural sector has with the help of T Paired Test and Wilcoxon Test. The results show that there difference between post and pre volume, trade and market capitalization has not statistically significant at 5 percent level of significance. The result of Wilcoxon Test indicates that there is not statistically significant decrease in the liquidity during before and after Buy Back of shares announcements.

Table No.2 Sector: Electronic Sector

Variables	Volume	Trade	Market Capitalization
Mean Post	-182.081	-17.667	-0.194
Mean Pre	-1264.214	-553.758	-0.515
Difference of Mean	1082.133	536.092	0.321
Standard Deviation	74522.270	4404.417	4.447
T Value	0.112	0.943	0.559
p Value	0.911	0.350	0.578
Wilcoxon Test	-0.302	-1.119	-.294
Sig (2 tailed)	0.763	0.263	0.768
Increase/Decrease	Decrease	Decrease	Decrease

Table No. 1 descriptive statistics are reported for the six companies included in Electronic Sector. It is clear from the table no.1 that the average number of Volume, Trade and Market Capitalization has decreased in post period in respect of all companies of electronic sector. The Volume of electronic sector has changes from -182.081 to -1264.214 during the study period. This result indicates that the higher changes in the market due to Buy Back of shares. The trade of this sector also

recorded from -553.758 to -17.667 during the study period. It also shows the companies are purchased maximum number of shares and due to this cause liquidity of sector has been decreased during the study period. The Market Capitalization of this sector has minor changes from -0.194 to -0.515. It observed the electronic sectors has minimum changes in market capitalization for twelve year. There has been not statistically significant decrease in the selected variables. Hence Alternative Hypothesis is rejected and it concluded that the liquidity position of electronic sector has not improved after Buy back announcement. The average number of Volume has decreased by 1081.919 percent during the post period as compared to pre period. The number of trades also has been decreasing at higher rate in post period as compared to the pre period of announcement of Buy Back of Shares. Table No.3 Presented the Engineering Sector.

Table No.3 Sector Engineering

Variables	Volume	Trade	Market Capitalization
Mean Post	-4150.536	-56.456	39.674
Mean Pre	3833.800	56.145	22.290
Difference of Mean	-7984.336	-112.602	17.385
Standard Deviation	122096.682	228.904	114.319
T Value	-0.532	-0.967	0.452
p Value	0.597	0.337	0.653
Wilcoxon Test	-0.876	-0.707	-0.427
Sig Level	0.768	0.381	0.480
Increase/Decrease	Decrease	Decrease	Decrease

The table above depicts the changes in Volume, Trade and Market Capitalization of Shares from engineering sector during post and per announcement of Buy Back of Shares. It has clearly indicates that the number of Volume, Trade has decreased from 3833.800 to -4150.536, 56.145 to-56.456 respectively in pre period to post period at aggregate level. The market capitalization has increased from 22.290 to 39.674. However, the Paired Test Sample T –Test and Wilcoxon Signed Test reported that the decrease in selected two variables has

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not been statistically significant at 5 percent. The average number of Volume and Trade of result indicates that the decrease has not statistically significant at 5 percent.

Table No.4 Sector: Financial Service Sector

Variables	Volume	Trade	Market Capitalization
Mean Post	-10184.092	-89.903	2.223
Mean Pre	12654.533	63.811	-2.307
Difference of Mean	-22838.625	-153.714	4.529
Standard Deviation	479742.691	1713.486	32.627
T Value	-0.369	-0.695	1.075
p Value	0.714	0.490	0.287
Wilcoxon Test	-.258	-.096	-1.561
Sig Level	0.797	0.924	0.119
Increase/Decrease	Decrease	Decrease	Decrease

It is clear analysis from the analysis that the Volume of this sector has changes from 12654.533 in pre period to -10184.092 in post period during study period. The clearly indicates of result there has been decreased in volume and trade during study period. The Market Capitalization has increased from-2.307 to 2.223. The T Value of volume and trade has positive except the market capitalization. Both the Paired Sample T- Test and Wilcoxon test reported that the selected variables such as Volume and Trade not statistically significant decrease in the liquidity position in post period and pre period of announcement of Buy Back of Shares

Table No.5: Heavy Industry

Variables	Volume	Trade	Market Capitalization
Mean Post	-1110.700	-474.603	-17.096
Mean Pre	557.922	-2.678	-6.655
Difference of Mean	-1668.622	-471.925	-10.440
Standard Deviation	183077.959	18062.232	482.946
T Value	-0.071	-0.202	-0.167
p Value	0.944	0.840	0.868
Wilcoxon Test	-.236	-.066	-.184
Sig Level	0.814	0.947	0.854
Increase/Decrease	Decrease	Decrease	Decrease

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The Heavy Sector constitutes sample of ten companies. The variable number of volume, trades and Market Capitalization has showed decrease in post period. It is clear from analysis that the all selected variables have decreased at higher level in post period. The p value obtained from T Test and Wilcoxon Test are 0.944, 0.840 and 0.868 respectively at 5 percent level, indicating that there is not statistically decrease in the selected samples during post period. Hence, Null Hypothesis (H_0) is rejected and it may concluded that the liquidity positions has decreased during post period.

Table No. 6 Sector: Information and Computer Software

The Sectors analysis from below table it clearly shows that the selected variables have decreased at higher rate during post announcement of Buy Back of Shares. The analysis reveals that there is

an decrease in selected variables of twelve companies in information and computer software. However T Paired Test indicates that the difference between pre and post number of volume and trade are not statistically significant at 5 percent level. The market capitalization has statistically significant at 1 percent level significance.

Table No.6 Information and Computer Software

Variables	Volume	Trade	Market Capitalization
Mean Post	2283.562	-4.675	0.997
Mean Pre	-665.610	-5.606	-0.811
Difference of Mean	2949.172	0.931	1.808
Standard Deviation	210969.440	1320.928	5.391
T Value	0.108	0.005	2.598
p Value	0.914	0.996	**0.012***
Wilcoxon Test	-.714	-.692	-2.363
Sig (2 Tailed Test)	0.475	0.489	**0.018***
Increase/Decrease	Decrease	Decrease	Decrease

*indicating significance at 1 percent

Table No.7 Sector: Pharmaceuticals

Variables	Volume	Trade	Market Capitalization
Mean Post	-480.164	-0.226	0.040
Mean Pre	-286.540	-2.973	-0.226
Difference of Mean	-193.624	2.746	0.267
Standard Deviation	40973.232	160.228	124.166
T Value	-0.037	0.133	0.017
p Value	0.971	0.895	0.987
Wilcoxon Test	-.074	-.125	-1.185
Sig Level	0.941	0.900	0.236
Increase/Decrease	Decrease	Decrease	Decrease

The sector wise analysis indicates that the number of volume and Trade decrease in post period in respect of twelve companies from the Pharmaceuticals Sector, whereas it has decreased in respect of market capitalization. The results of Paired Test revels that the decrease in Liquidity has been not statistically significant at 5 percent. The market capitalization has increased -0.226 to 0.040 during the study period.

Table No.8 Sector: Textile

Variables	Volume	Trade	Market Capitalization
Mean Post	-4528.883	-73.224	12.584
Mean Pre	1849.590	13.514	9.355
Difference of Mean	-6378.474	-86.738	3.229
Standard Deviation	312930.318	2079.491	255.513
T Value	-0.158	-0.323	0.098
p Value	0.875	0.748	0.922
Wilcoxon Test	-.103[b]	-.191[a]	**.000**
Sig Level	0.918	0.848	1.000
Increase/Decrease	Decrease	Decrease	Decrease

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Table No. 9 Sector: Miscellaneous

Variables	Volume	Trade	Market Capitalization
Mean Post	-5262.836	-19.282	1.184
Mean Pre	-85.681	0.776	-0.716
Difference of Mean	-5177.156	-20.058	1.899
Standard Deviation	180552.538	307.370	28.666
T Value	-0.222	-0.505	0.513
p Value	0.825	0.615	0.610
Wilcoxon Test	-.074	-.125	-1.185
Sig Level	0.941	0.900	0.236
Increase/Decrease	Decrease	Decrease	Decrease

The comparative analysis from table no 8 and 9 from indicates that the selected variable such as Volume and Trade has been decreasing at higher rate during study period. The sector wise analysis indicates that the market capitalization has positive change in post period from -0.716 to 1.184. The trade of shares has decreased by 0.776 in pre period to -19.282 in post period in respect of Miscellaneous Sector. The textile sector volume, Trade and market capitalization has also changes from 1849.590 to -480.164, 13.514 to -73.224 and 9.355 to 12.584 respectively. The Pharmaceuticals and Textile sectors have resulted is not statistically significant at 5 percent.

Results and Discussion

It results clearly indicated the almost sectors have selected variables are decreased due to announcement of Buy back of Shares. The only Information and Computer Software sector of market capitalization has decrease statistically at 5 pecrcent significant. There are some sectors such as textile and Pharmaceuticals sectors of market capitalization have increased in post period. The study also observed the selected variables have decreased at higher rate in post period. Comparative analysis of all selected sectors volume only Engineering and Information and Computer software has positive t value, but results is not statistically significant at 5 percent level.

Conclusion

The study examined the impact of Buy Back of Shares on Liquidity with the help of T Paired Test and Wilcoxon Signed Test. The study also observed the liquidity position sector wise. The Liquidity position may be negative or positive with Buy-Back of Shares. The study concluded that the there is negative impact of liquidity on Buy Back of Shares. The study

based on the three variables such as Volume, Trade and Market Capitalization. The all the table analysis that the almost sectors have decrease the liquidity after announcement of Buy Back of Shares. The main reason of Buy Back of Shares is undervaluation. The previous studied concluded that the there is temporary effect on Buy Back of shares on Liquidity as compared to Permanent.

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