"Impact of Share Buybacks on Firms Financial Performance"

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Abstract
The buyback of Shares or buying once own company's shares are a capital restructuring decision, through which a company will decide to repurchase their own earlier issued shares. Section 77A, 77AA and 77B of the Companies Act, 1956 are few provisions that are relating to buyback of shares in India along with Securities Exchange Board of India (Buyback of Securities) Regulations, 1998, and the amended SEBI (Buy-back of Securities) Regulations, 2018. Till the current days the buyback are done in three ways, such as; a) Open Market Repurchase of shares through stock market or book building process. b) Tender offer /fixed price offer method. c) Odd - Lot holders' method of Repurchase. Buy back of shares creates value for rest of the shareholders, as we all know that, shareholders value maximization should be the primary objective of all organisations. When an organisation creates value for shareholders, it means that they are trying to satisfy some of the objective of the firm.

In this study the authors analysed the short term and long-term impact of buyback announcements on share price by calculating the abnormal return before and after the buyback announcement and by calculating the financial performance of the selected Nifty 50 companies. Further, this paper tries to analyse the impact of share buyback during commencement of buyback by the company. To assess the data various statistical tools have been used such as mean, standard deviation, CAGR, Paired-T-test, and Anova, were used. The risk-free return considered during the study is 10 years sovereign bond prices. Through the results, it was found that; there is no significant differences between before and after buyback announcement by the firms on stock prices and financial performance.

Keywords: Abnormal returns, Buyback of shares, Nifty 50 Companies, financial analysis

I. Introduction

The buyback of Shares or buying once own company's shares are a capital restructuring decision, through which a company will decide to repurchase their own earlier issued shares. That is, It is a just opposite process of issuing shares to raise the capital. The motives behind a repurchase of shares are to increase earnings per share by decreasing its outstanding shares or to increase the promoters' stake or to increase the market price of the share or to distribute surplus cash flow having by the companies due to no systematic investment opportunity. Through buyback the companies will distribute excess cash to their investors by offering shares buyback at a premium price. However, this will boost the shareholders confidence or it might help in correcting the undervalued share price of company. With this aspect, the study was made to analyse the buyback decisions made by Nifty 50 index companies over the past 6 years and its impact on operating performance and stock prices of the company.

Objectives of the study
1. To study the short-term impact of buyback announcements on share price.
2. To study the long-term impact of buyback announcements on operating performance of the selected companies.
3. To comparatively analyse the post Buyback impact on operating performance and stock prices of companies.
4. To analyse the impact of buybacks on stock prices, from the opening day of subscription, to closing day of subscription by companies.

Hypothesis of the Study
H_1: There is a significant difference between ROE; before buyback decision and after buyback decision

H$_2$: There is a significant difference between ROA; before buyback decision and after buyback decision

Methodology of the study

The study based on the secondary data of day to day historical stock prices of selected Nifty 50 companies, who have made buyback decisions during the period of 2015-16 to 2019-20 [5 Years]. The Nifty 50 constituents as of October 2020 were taken for the selection of samples. Further selected operating ratios such as; Return on net worth, EPS, Book value per share, PE ratio, Debt-Equity ratio were calculated along with current net worth of the company as of buyback date, for 2 year period before the announcement of buyback and 2 years post the announcement of buyback. Event study methodology was adopted to assess the abnormal prices 20 days before and after announcement of buybacks and during the opening and closing dates of buybacks.

Analysis and Interpretation

I.   Analysis of abnormal return, Post the announcement of buyback with that of pre-announcement period

On an average only 16 percent effect of changes in stock prices can be explained with the overall market index. This study is of much significance, with the alpha of 0.1 percent and systematic risk of 50 percent. But the p-value in both cases seems to be significant. so we can assume that this could not be the only decision for decision making, so it is further financial ratios have been analysed for better decision making.

It seems only liquidity is considered for decision making purpose and not the other financial aspects because post the buyback decision, the trend they had have reverted in the opposite direction. So further while making buyback decision; it has to be seen to it that, the time they have chosen must be appropriate in all aspects.

Buyback of shares were considered twice in Sun Pharma, twice in TCS, once by Adani, Tech Mahindra and Dr. Reddy Laboratory, twice by HCL, thrice by Wipro, twice by Infosys, Coal India Ltd and by Bosch ltd.

Cumulative mean is more, risk has decreased to some extent of Sun Parma, Cumulative mean is more, whereas the risk has increased to some extent of TCS Shares, Cumulative mean value has decreased, whereas the risk has decreased to some extent with respect to Adani, Cumulative mean value has decreased, whereas the risk has increased to some extent of Tech Mahindra shares, Cumulative mean value has increased, whereas the risk has increased to some extent of shares of Dr Reddy, Cumulative mean value has increased, whereas the risk has increased to some extent of HCL stocks, Cumulative mean value has increased, whereas the risk has increased to some extent of HCL stocks, Cumulative mean value has decreased, whereas the risk has increased to some extent of Wipro, Cumulative mean value has increased, whereas the risk has decreased to some extent of Infosys shares, Cumulative mean value has decreased, whereas the risk has increased to some extent of Coal India Ltd and Cumulative mean value has decreased, whereas the risk has decreased slightly with regard to the share of Bosch company ltd. Whereas, if we take overall mean value, there is a negative impact of the buyback decision with -0.0126 mean and more risk by 0.0070 percent.

II.   Impact of buyback decisions on financial performance of selected companies

Table 1: Impact of buyback decisions on Return on Equity and Return on Assets one quarter before and one quarter after buyback announcement

	ROE	ROA
Mean Difference	-1.52	-0.51
Standard deviation of difference	4.537371	2.572746
Standard Error of Differences	1.434843	0.813574
T-alpha half 95% Confidence level	2.262157	2.262157
Lower Confidence Level	-4.76584	-2.35043
Upper Confidence Level	1.72584	1.330432
T-test (paired)	**1.06144**	**0.626864**

Source: Authors Compilation

1.   RETURN ON EQUITY

H$_1$: There is a significant difference between ROE; before buyback decision and after buyback decision

Through calculations using "Paired t-test", t-value of 1.06 was obtained. The t-value is less than the critical value. That is, the alternative hypothesis; "There is a significant difference between ROE; before buyback decision and after buyback decision" is **REJECTED**. The null hypothesis stating; "There is no significant relationship between ROE; before buyback decision and after buyback decision" is ACCEPTED.

2. RETURN ON ASSETS

H₂: There is a significant difference between ROA; before buyback decision and after buyback decision

Through calculations using "Paired t-test", t-value of 0.62 was obtained. The t-value is less than the critical value. That is, the alternative hypothesis; "There is a significant difference between ROA; before buyback decision and after buyback decision" is **REJECTED**. The null hypothesis stating; "There is no significant relationship between ROA; before buyback decision and after buyback decision" is ACCEPTED

Table 2: Performance of companies post the buyback decisions

	Sun Pharma	TCS	Adani. Ltd	Tech Mahindra	HCL Tech	Bosch	Coal Ltd	Infosys	Wipro	Dr. Reddy
Net Worth (₹ in Lakhs)	1606750	3200000	-196000	-19556	403500	417878	4700	26000	-800000	-1100000
Return on Net Worth (%)	8.890	-1.070	0.720	2.120	0.160	0.340	25.710	0.000	3.517	-4.120
Earnings Per Share (Basic) (In ₹)	-1.170	-4.850	0.240	0.850	-2.610	-26.660	-0.570	-1.540	0.527	-19.180
Book Value per share (In ₹)	-38.630	-110.590	-7.740	-15.670	-44.760	-1212.290	-7.000	-88.700	-12.683	56.210
Price Earnings (PE) Multiple	-2.540	-1.010	-0.550	-0.560	-0.920	-2.820	-0.360	-1.520	-0.857	-1.130
Total Debt Equity Ratio	-0.002	-0.002	-0.090	-0.090	0.000	-0.004	-0.030	-0.002	-0.023	0.020

Source: Authors Compilation

	Sun Phama	TCS	Adani Ltd	Tech Mahendra	HCL Tech	Bosch	Coal Ltd	Infosys	Wipro	Dr. Reddy
Net Worth (₹ in Lakhs)	2nd	1st	8th	7th	4th	3rd	6th	5th	9th	10th
Return on Net Worth (%)	2nd	9th	5th	4th	7th	6th	1st	8th	3rd	10th
Earnings Per Share (in ₹)	4th	8th	3rd	1st	7th	10th	5th	6th	2nd	9th
Book Value per share (in ₹)	5th	9th	2nd	4th	6th	10th	1st	8th	3rd	7th
Price Earnings (PE) Multiple	9th	6th	2nd	3rd	5th	10th	1st	8th	4th	7th
Total Debt Equity Ratio	7.5th	7.5th	5.5th	5.5th	2nd	10th	4th	9th	3rd	1st

Source: Authors Compilation

Interpretation: There are differences among companies' performance post the buyback decisions. When computed 6 different ratios for 2 years before and two years after buyback of shares, it was observed that none of the companies operating and financial ratios were in the expected level, their performance vary in each cases. Net worth (₹ in Lakhs) were better in TCS, Sun Pharma, Bosch and HCL; Coal India Ltd, Sun pharma, Wipro, Tech Mahendra performed well on Return on Networth; Tech Mahendra, Wipro, Adani, and Sun Pharma's EPS was good; Coal India ltd, Adani, Wipro and Tech Mahendra did well with higher Book value per share; Coal India ltd, Adani, Tech Mahendra and Wipro performed well when it comes to PE ratio and finally Debt to Equity ratio was good in Dr Reddy Lab, HCL, Wipro and Coal India ltd. thus Net Worth (₹ in Lakhs), Return on Net Worth, Earning Per Share, Book Value per share, PE ratio and Total Debt Equity Ratio was good only in above mentioned companies.

III. Analysis of Abnormal Returns during the buyback process [Between Open and close of buyback of shares]

Table 3: Abnormal Return and Cumulative Abnormal return of companies before and after buyback decision

	Expected Return	Abnormal Return	Cumulative	Expected Return	Abnormal Return	Cumulative	
	Sun Pharma			**Wipro**			
Mean	-0.0017	-0.0022	-0.0293	-0.0025	0.0010	0.0062	Mean
Std Dev	0.0051	0.0183	0.0197	0.0094	0.0083	0.0048	Std Dev
	TCS			**Coal India**			
Mean	-0.0006	0.0000	0.0005	0.0027	0.0082	0.0650	Mean
Std Dev	0.0018	0.0068	0.0066	0.0131	0.0229	0.0145	Std Dev

	Adani				Bosch			
Mean	-0.0010	0.0063	0.0257		-0.0019	-0.0075	-0.0355	Mean
Std Dev	0.0039	0.0182	0.0169		0.0080	0.0083	0.0228	Std Dev
	Tech Mahindra				Infosys			
Mean	-0.0043	-0.0037	-0.0354		-0.0016	-0.0019	-0.0176	Mean
Std Dev	0.0058	0.0226	0.0195		0.0038	0.0110	0.0173	Std Dev
	HCL				Dr Reddy Lab			
Mean	-0.0021	0.0039	0.0265		0.0010	0.0053	0.0228	Mean
Std Dev	0.0081	0.0098	0.0102		0.0087	0.0207	0.0230	Std Dev

Source: Authors Compilation

As mentioned earlier few companies have made buyback more than once, few of them have done three times, since consistency were found average abnormal return of the decision have been considered. Cumulative mean of abnormal return of Sun Pharma is negative during buy back period with -0.023 and a SD of 0.0197, Whereas, cumulative mean of abnormal return of TCS is 0.0005 and a SD of 0.0066 with 51 percent of systematic risk, cumulative mean of abnormal return of Adani is 0.0026 and a SD of 0.017, cumulative mean of abnormal return of Tech Mahindra is negative at -0.035 and a SD of 0.02 with negative beta value, cumulative mean of abnormal return of HCL is 0.0265 and a SD of 0.0102 with negative beta value, cumulative mean of abnormal return of Wipro is 0.0265 and a SD of 0.0102, whereas the systematic risk is more in this period, cumulative mean of abnormal return of Coal India Ltd is 0.065 and a SD of 0.0145, cumulative mean of abnormal return of Bosch Ltd is negative at -0.0355 and a SD of 0.0228, whereas the systematic risk is higher, cumulative mean of abnormal return of Infosys is negative at -0.0176 and a SD of 0.0173 and the cumulative mean of abnormal return of Dr Reddy is 0.0228 and a SD of 0.0230. It also could be observed that the negative beta value in most of the cases, which tells that most of them have considered buyback when market was low and the stock prices were at its low. Though not much prediction can be made using this data, certainly it is gives us a different perspective and cannot be ignored.

It would be necessary to mention that when in case of 2 or 3 times of buyback of share decisions was made, the mean result of the same were considered, since some similarities were for in 83 percent of times.

II. Conclusion

Buyback decision when market is low is a right decision. Shareholders value maximization should meet with good operational as well as financial performance. Shareholders views also must be understood before taking up buyback decision. When market is low, the other investment avenues will be priced very low, so the opportunity cost must also be considered. It was observed from this study few investors consider to sell the shares back to the company, which results in high volatility in first 4 days of buyback announcement and much volatility could be observed when buyback is undertaken, so transparency and accountability needs to be maintained.

Through the analysis of; impact of buyback decisions on Return on Equity and Return on Assets one quarter before and one quarter after buyback announcement, it was understood; (a) There is no significant difference between ROE; before buyback decision and after buyback decision, and (b) There is no significant difference between ROA; before buyback decision and after buyback decision

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