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Financial Restructuring through Share Buyback: An Empirical Study of Selected Indian Companies

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Abstract

In the present era of global competitive economy, corporate restructuring plays a pivotal role in achieving corporate excellence and obtaining competitive edge. Financial restructuring is an integral part of corporate restructuring. It aims at remodeling the capital structure of a firm in the best possible manner so as to ensure corporate value creation by means of judicious and effective use of available finance. Share buyback is considered to be one of the important methods of financial restructuring. The present paper made an attempt to examine the impact of financial restructuring through share buyback on corporate financial performance and also to investigate whether this contributes to the share holders' value creation with reference to three selected Indian companies namely, Britannia Industries Ltd., Sun Pharmaceuticals Industries Ltd., and Hindustan Unilever Ltd. "Control Sample Methodology" has been applied in order to draw inferences about the impact of share buyback on corporate financial performance by conducting a robust comparative analysis between the sample companies and the control companies in respect of five important financial parameters i.e. Earnings per Share, Return on Capital Employed, Economic Value Added, Market Value Added and share price growth. The results indicate a positive impact of share buybacks on EPS and on ROCE in few cases. However, no significant impact on share buybacks on EVA, MVA and share prices has been evidenced in general.

Keywords: Financial restructuring, Share buyback, Shareholders' value creation, EVA, MVA, Control company, Kinked Exponential Model

I. Introduction

Since the introduction of New Economic Policy in July, 1991, the Indian corporate sector has gone through a lot of structural changes, especially with the liberal entry into the Indian economy. Moreover, the advent of Liberalization, Privatization and Globalization (LPG) has resulted in significant increase in the global competitiveness. In order to survive and grow in such a competitive environment, it becomes a necessity for the Indian corporate sector to keep pace with the dynamics of change. In this context, the role of corporate restructuring becomes crucial. Corporate restructuring may be defined as a comprehensive process of rearranging and redeployment of the resources of the company with a view to achieving the basic objectives of survival, growth and profitability. Financial restructuring is an integral part of corporate restructuring. The objective of financial restructuring is to redesign the capital structure of a firm in the best possible manner so as to ensure corporate value creation through judicious as well as effective use of available finance. Share buyback is considered to be one of the important methods of financial restructuring. The share buyback practice was originated in the United States in the late 1960s and it became popular in the late 1980s. In India it was first introduced in 1998. The share buyback in India is regulated by the provisions of section 77A, 77AA and 77B of the Companies Act, 1956. But after the recent amendment of the Companies Act, 2013 section 68 comprises the provision of share buyback. There are various methods by which the firms may repurchase the shares from the existing shareholders. Share buyback operation may be carried out through tender offer or from the open market either by inviting tenders or by the book-building process; or odd-lot shares or by issuing shares to employees pursuant by utilizing the scheme of stock option or sweat equity.

There are various reasons for which a company may undertake share buyback operation. The main motives behind share repurchase are: preventing under valuation of shares of the company by the market in comparison to their intrinsic value, enhancing earning per share (EPS), returning surplus cash to the shareholders, eliminating hostile takeover threats, increasing promoters' voter rights, raising debt-equity ratio of the company, maintaining shareholders' value under the situation of poor state of secondary market etc. Considering the aforesaid advantages many Indian companies has resorted to share buyback strategy. Besides, in recent years there have been a significant increase number of buyback announcements by the Indian companies. In fact, there were 193 buyback announcements from January 2001 to December 2017 by Indian listed companies for open market repurchase and 190 announcements for tender offer repurchase (Verma et al., 2018). This has led to significant amount of academic research in the aforesaid area.

Apart from the introductory section, the rest of the paper has been designed as follows. Section II deals with the review of existing literatures related to the present context of the study. Section III of this article has been devoted to highlight the basic objective of the study. Database & methodology used in the study is highlighted in section IV. Major findings of the study have been presented in section V and finally section VI encompasses on conclusion of the study.

II. Review of Literature

In line with the increasing popularity of share buybacks, there are lots of studies in the existing literature available both in international and Indian context. Most of the studies have focused on the underlying reasons behind share buyback by looking at the impact of share repurchase on the performance of the firm. For instance, Varmaelen (1984) conducted an empirical study on share buybacks by US companies with a total of 131 buyback tender offers. In this study it was found that, 13% of positive returns received by shareholders were permanent. This study concluded that the positive reaction of the stock market to an information signaling effect where by management undertakes the share buyback strategy to inform the investors that share of the company have been undervalued and the company has enough faith on its future prospect. Similar observation were made in another study by Grullon (2004) in which the author suggested that boosting earnings per share (EPS) and signaling a firm's optimism about their future prospects are the two common reasons for buyback of shares. Medury (1992) has explained the stock repurchasing behavior on the basis of leverage adjustment hypothesis. Asquith and Mullins (1986) in his study also came into similar conclusion indicating that share buybacks have been used for the alteration of the capital structure of the firm. Oswald and Young (2004) has found that firms buying back with surplus cash are more in cases where there is low investment return. Besides, various studies have concentrated on the impact of share repurchase on share price of the companies undertaken buyback strategy. For instance, while examined the long term price reaction of share buyback companies Mikkelson and Ruback (1991) found that a positive impact of buy backs on share prices. On the other hand, an opposite observation was made by Klein and Rosenfeld (1998). While examining the share prices of 77 US firms undertaking target buy backs the authors revealed that, the announcement of target buy back registered a negative price reaction, over the entire time frame. However, non participating shareholders received positive share returns of more than 12 percent. Eberhart and Siddque (2004) in their study focused on the relationship between liquidity challenges and abnormal stock returns around buyback announcements. Their findings provided strong support for an alternative explanation for the positive stock price reaction to buyback announcements, which was referred to by them as liquidity hypothesis. Dol and Wahid (2013) conducted an empirical study of 101 buyback companies listed on Main and Second Board of Malaysia. The main objective of the study was to find out whether there is any impact of share buyback on the operating performance of the company. The author found that the operating performance of the companies under study improved as an outcome of the reduction in number of outstanding shares which was reflected in their earnings per share, return on assets, return on equity and market value to book value of equity.

In India, the study of buy back is extremely less and the area remained as a relatively unexplored area. However, there are few notable studies, especially one by Mishra (2005), where the author undertook 25 buyback cases of Indian companies to analyze the issue of whether share buybacks help in creating value for the shareholders with the help of several parameters like, ROE, EPS, price to book value ratio enterprise value/asset ratio, current ratio etc. He also examined the impact of buyback on share prices. In his study, he noticed the mixed result in respect of changes in ROE and EPS. In majority of the cases, positive movements have been noticed in share prices. Finally he concluded that, distributing surplus cash to shareholders is an incidental objective. The basic motive behind share buyback is to enhance promoters' stake. Banarjee (2014) in his study further strengthened this point. Ramesh and Rane (2013) assessed the effect of share repurchase on the shareholders' value creation by analyzing the EPS of 27 Indian companies and 5 multinational companies belonging to 21 different industries listed on Bombay Stock Exchange. The study found that 78% of the sample buyback companies experienced an increase in EPS. While for the remaining a reduction in EPS was registered. Thus, the authors came into conclusion that the buyback of shares created value to the shareholders.

In this context, the main question is: Do share buy backs increase shareholders' value? Does financial restructuring through share buy backs facilitate in improving financial performance of the companies? In this backdrop, an attempt has been made by the present paper to address these questions properly with the help of the empirical study with reference to three selected Indian companies, namely, Hindustan Unilever Ltd, Britannia Industries Ltd and Sun Pharmaceuticals Industries Ltd and a set of companies which have never undertaken share buy backs (popularly termed as control companies) namely Dabur India Ltd, Nestle India Ltd and Aurobindo Pharma Ltd.

III. Objectives of the study

The present study seeks to address the following objectives:-

1. To empirically examine whether financial restructuring through share buyback helps in improving the financial performance of a company with the help of some traditional as well as modern techniques.
2. To empirically examine whether financial restructuring through share repurchase plays any role in creating value for a company and for shareholders.

IV. Database and Methodology

The present study is exclusively based on data collected from secondary data source. Relevant financial data has been collected from the published annual reports of the selected companies. 'Capitaline -2000' data base package has been used here. For the empirical research, the study has considered three Indian companies, namely, Hindustan Unilever Ltd, Britannia Industries Ltd and Sun Pharmaceuticals Industries Ltd. In addition with the selected sample companies, three other domestic companies namely Dabur India Ltd, Nestle India Ltd and Aurobindo Pharma Ltd selected as control companies. The control companies are included because the value of the financial parameters of the sample companies under study may enhance in the post buyback period not only because of the effect of share buyback but also other factors may have caused such increase. Thus, it is necessary to know whether the increase in the value of those parameters is a result of share buyback. Thus, with a view to enquire the above fact, the movement of the financial parameters of the buyback company should be compared with a non-buyback company (or control company). From such a comparison it would be possible to draw valid inferences. The selection control companies are done after taking into consideration two important aspects. First, both the buyback company as well as corresponding control company belongs to the same industry. The reason behind selection of control company from the same industry type is to neutralize the impact of industry specific factors on financial parameters under study. Secondly, the control companies have been selected on the basis of turnover. Finally, the list of buyback as well as control companies is as follows:-

List of Buyback and Control Companies

Table: 1

BUYBACK COMPANIES	CONTROL COMPANIES	INDUSTRY	YEAR OF BUYBACK
Britannia Industries Ltd	Nestle India Ltd	Food and dairy products	2004-05
Sun Pharmaceuticals Industries Ltd	Aurobindo Pharma Ltd	Pharmaceuticals Indian Bulk Drug	2003-04
Hindustan Unilever Ltd	Dabur India Ltd	Personal Products	2007-08

The study has used Return on Capital Employed (ROCE), Earning per Share (EPS) as a traditional tool for performance appraisal. On the other hand, Economic value added (EVA) and Market Value Added (MVA) have been used as modern techniques of performance appraisal. The study has considered both immediate and sustainable impact of share buyback on financial performance of the companies by analyzing the movement of the value of those four financial parameters (i.e. ROCE, EPS, EVA and MVA).

1. ***Earnings per Share* (*EPS*):**

It is an important parameter of financial performance appraisal, especially from the angles of shareholders. It shows the earnings available to equity shareholders on a per share basis. It is calculated as follows:

Net profit after interest, tax and preference dividend ÷ No. of equity shares outstanding.

Higher the ratio better is the earnings of shareholders. Moreover, a comparison between the earnings of the company for two different years indicates the increase or decrease in earnings per share.

2. *Return on Capital Employed (ROCE):*

This ratio is one of the most important ratios used for measuring the overall efficiency of a firm. ROCE is considered in the performance appraisal because it is recognized as one of the best traditional tools since it reflects four important aspects of financial performance i.e. liquidity, profitability, capital structure and turnover position. This ratio is computed as follows:

Net profit before interest and tax ÷ Net capital employed.

This ratio is of great importance to the present and prospective shareholders as well as management of the company. As the ratio reveals how well the resources of the firm are being used, higher the ratio better the performance.

3. Economic Value Added (EVA) :

EVA^{TM} is a registered trademark of Stern and Stewart Company. It is defined as any profit earned over and above the cost of capital and it reflects the true economic profit of a firm. EVA has been computed as follows:-

EVA= NOPAT-(WACC×CE)

Where NOPAT represents Net Operating Profit after Tax, WACC stands for Weighted Average Cost of Capital, and CE denotes Capital Employed.

In computing WACC, cost of equity and cost of debt has been computed separately. Cost of debt (K_d) has been computed using the formula: Rate of interest × (1-tax rate). Cost of equity (K_e), as per Stern Stewart's recommendation, has been ascertained by using Capital Assets Pricing Model (CAPM). As per this model $K_e = R_f + \beta (R_m - R_f)$, where K_e is the cost of equity, R_f is the risk free rate of return, R_m represents market return and β denotes systematic risk. In computing risk free rate, as mentioned by RBI 10-year treasury gold bond rates (which is around 9% p.a.) have been used. The daily market return has been computed using the following formula:-

Daily market return= (today's closing Sensex- previous day's closing Sensex)/previous days closing Sensex × 100. The daily market return has been multiplied with number of trading days (which is around 250 days) in order to compute annualized daily market return. Similarly, share price return has been computed using the following formula:-

Share price return= (today's closing share price- previous day's closing share price)/previous day's closing share price × 100.

Beta (β):- Beta(β) is the slope of the regression line. It is the responsiveness of security return in response to market return. It is actually used as risk indicator and is calculated using the following formula:-

$B_{im} = cov_{im}/var(m)$;

Where cov_{im} represents covariance of return of individual share with market return m and var(m) represents variance of market return.

However, instead of examining just the EVA of sample companies as an absolute measure, it is better to consider EVA as a relative measure. Hence, EVA has been expressed in terms of a percentage of the capital employed (denoted as EVACE) and that EVACE has been used for analysis.

4. ***Market Value Added*** (MVA):

Stern Stewart (1991) has defined Market Value Added as the excess of market value of a firm's capital (both equity as well as debt) over its book value. The positive value of MVA indicates creation of wealth for the company. Accordingly, MVA is computed as:

$MVA_t= MC_t- MC_{(t-1)}$;

Where MVA_t represents market value addition at period't'.

MC_t denotes market capitalization at period't' and

$MC_{(t-1)}$ stands for market capitalization at period '(t-1)'.

This definition, however, can be applied subject to the fulfillment of the condition that the number of outstanding shares of a company remains same between period 't' and '(t-1)'. Thus, necessary adjustments has been made in respect of bonus issue, right issue, share repurchases, stock split, conversion of preference shares or debentures into preference shares etc.

5. ***Methods of measuring Pre-buyback and Post-buyback period's Share Price Growth Rates***

The study has applied 'Kinked Exponential Model' for measuring sub-period's growth rate (following Boyce, 1987; Vakulabharanam, 2004). The equation that is used to estimate the kinked exponential growth rates is as follows:

$LnY_t= a + b_1D_1t+b_2D_2t$,

where Y_t is the dependent variable, a is the common intercept at the breakpoint between the two periods; D_1 is a dummy variable that takes on a value of 1 in the first sub-period and a value of 0 in the second sub-period; D_2 is a dummy variable that takes on a value of

1 in the second sub-period and a value of 0 in the first sub-period; t is renormalized so that it is 0 at the break point; b_1 is the growth rate during the first sub-period; and b_2 is the growth rate during the second sub-period. In this study the sub-periods are pre-buyback period and post-buyback period and both of them having a period of one month. The trend break here denotes the date of buyback announcement. The sub-periods growth rates have been estimated for all the buyback companies, control companies, and also for the market index (Nifty) corresponding to the study period with the aim of conducting a comparative analysis between them.

V. **Major Findings of the Study**

The major findings of the study are presented below:

Earnings per Share (EPS)

Table 2.1: Earnings per Share (EPS) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in Rs.)	After buyback year (in Rs.)	Average three years pre-buyback period (in Rs.)	Average three years post-buyback period (in Rs.)
Britannia Industries Ltd	45.92	59.19	52.88	59.53
Nestle India Ltd	22.88	29.10	22.83	38.26

Table 2.1 reveals that Britannia Industries Ltd has substantially enhanced its average EPS in post-buyback period (Rs. 59.53) in comparison to pre-buyback period (Rs. 52.88). Moreover, a clear upward trend (both in terms of immediate and long-term impact) in EPS has been observed in the post buyback period over the pre-buyback period. However similar results were also observed for its corresponding control company Nestle India Ltd, which registered a substantial upward trend in average EPS in post-buyback period (Rs. 38.26) from that of pre-buyback period (Rs. 22.83). Therefore, no definite inferences can be made in respect of positive impact of buyback on EPS on the sample company.

Table 2.2: Earnings per Share (EPS) of the buyback and control company

Company	Immediate Impact		Long-term Impact	
	Before buyback year (in Rs.)	After buyback year (in Rs.)	Average three years pre-buyback period (in Rs.)	Average three years post-buyback period (in Rs.)
Sun Pharma. Industries Ltd	24.18	15.94	24.27	23.86
Aurobindo Pharma Ltd	43.92	6.84	36.93	10.72

From Table 2.2 it can be seen that the buyback company Sun Pharmaceutical Industries Ltd has experienced a reduction in average EPS in the post-buyback period (Rs. 23.86) over its pre-buyback period (Rs. 24.27). Its matching control company Aurobindo Pharma Ltd has also registered a decline on its average EPS in for the same period (the average EPS value of Rs. 10.72 in post-buyback period as compared to Rs. 36.93 in the pre-buyback period). In general, there is a downward moving trend in EPS over the study period. However, a close observation revealed the fact that, the buyback company i.e. Sun Pharmaceuticals Industries Ltd have experienced a decline of 18.49% of its average EPS after the buyback operation took place, where its matching control company i.e. Aurobindo Pharma Ltd has endured a substantial decline of 70.42%. So, it can be concluded that the Sun Pharmaceuticals Industries Ltd has escaped a huge decline of its EPS by means of adopting share buyback.

Table 2.3: Earnings per Share (EPS) of the buyback and control company

Company	Immediate Impact		Long-term Impact	
	Before buyback year (in Rs.)	After buyback year (in Rs.)	Average three years pre-buyback period (in Rs.)	Average three years post-buyback period (in Rs.)
Hindustan Unilever Ltd	7.57	8.14	6.01	8.92
Dabur India Ltd	2.72	4.02	3.53	3.73

Table 2.3 depicts that the average EPS of Hindustan Unilever Ltd. in post-buyback period (Rs. 8.92) is found to be 50% more to that of pre-buyback period (Rs. 6.01). An overall increase in EPS is evident for the company over the study period. On the other side, its corresponding control company Dabur India Ltd has registered a slight increase (i.e. 5.67%) in average EPS in post-buyback period (Rs. 3.73) from that of pre-buyback period (Rs. 3.53). Such an extra increase in EPS of the buyback company in comparison to the control company may be attributed to the positive impact of share buyback on EPS of the company under study.

Return on Capital Employed (ROCE)

Table 3.1: Return on Capital Employed (ROCE) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Britannia Industries Ltd	34.69	42.96	28.21	33.03
Nestle India Ltd	116.05	124.35	105.45	149.94

Table 3.1 shows that Britannia Industries Ltd reported an increase in average ROCE in the post-buyback period (33.03%) from that of pre-buyback period (28.21%). Similarly, the

control company Nestle India Ltd has also reported a substantial increase in average ROCE for the same period (from 105.45% in pre- buyback period to 149.94% in post-buyback period). Moreover, an increasing trend has been observed (both in terms of immediate and long-term impact) in ROCE in the post buyback period over the pre-buyback period. While analyzing the immediate impact of share repurchase it is found that the announcement of buyback has increased the ROCE of Britannia Industries Ltd by 23.84% whereas, the control company (i.e. Nestle India Ltd) has experienced a meager increase of 7.15% in its ROCE. However, an evaluation of the long-term impact revealed a quite opposite picture. The results suggest that while the buyback company has experienced an increase of 17.08% in its average ROCE in the post-buyback period over the pre-buyback period, the control company on the other hand, has witnessed a significant increase of 42.19% in its average ROCE for the same period. Therefore, no valid inferences can be made about positive impact of share buyback on ROCE of the concerned company.

Table 3.2: Return on Capital Employed (ROCE) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Sun Pharma. Industries Ltd	40.89	16.37	37.01	17.33
Aurobindo Pharma Ltd	20.68	5.54	23.25	8.68

From Table 3.2 it can be clearly seen that both the buyback company i.e. Sun Pharmaceutical Industries Ltd and the control company i.e. Aurobindo Pharma have witnessed significant decline over the study period. However, a detailed analysis in terms of both immediate and long-term impact revealed that the magnitude of decline in ROCE is higher for control company compared to the buyback company. From that one may conclude that by adopting share buyback strategy, Sun Pharmaceutical Industries Ltd prevented a significant decline in ROCE.

Table 3.3: Return on Capital Employed (ROCE) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Hindustan Unilever Ltd	71.32	120.74	56.8	109.41
Dabur India Ltd	69.37	62.66	57.7	57.49

Table 3.3 revealed the fact that Hindustan Unilever Ltd has reported a significant increase in its average ROCE from post-buyback period (56.80%) over the pre-buyback period (109.41%) whereas, its control company Dabur India Ltd has experienced a slight decline in average ROCE for the same period (from 57.70% in pre-buyback period to 57.49% in post-buyback period. Identical results were also observed while measuring the immediate impact of share buyback. Therefore, it can be concluded that share buyback has a positive impact of on ROCE of the concerned company.

Economic Value Added (EVA)

Table 4.1: EVACE of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Britannia Industries Ltd	16.4	16.57	19.55	12.67
Nestle India Ltd	66.71	67.64	60.95	86

From Table 4.1 it can be seen that the average EVACE of Britannia Industries Ltd has drastically reduced from pre-buyback period (19.55%) to post-buyback period (12.67%). On the other hand, its control company Nestle India Ltd has registered a remarkable improvement in average EVACE in post-buyback period (86%) in comparison to pre-buyback period (60.95%). Therefore, no significant impact of buyback has been noticed in the buyback company's EVACE.

Table 4.2: EVACE of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Sun Pharma. Industries Ltd	20.87	5.89	19.12	8.01
Aurobindo Pharma Ltd	3.24	-4.55	3.56	-1.06

From Table 4.2 it can be seen that the buyback company Sun Pharmaceuticals Industries Ltd and its corresponding control company Aurobindo Pharma Ltd have revealed an identical picture with regard to EVACE. Both of them have experienced a downward moving trend in EVACE during the period of study. However, the magnitude of such decline in EVACE is more severe for the control company than the buyback company. From that it may be concluded that by adopting share buyback strategy, Sun Pharmaceutical Industries Ltd prevented a significant decline in EVACE.

Table 4.3: EVACE of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (in %)	After buyback year (in %)	Average three years pre-buyback period (in %)	Average three years post-buyback period (in %)
Hindustan Unilever Ltd	53.76	90.01	42.63	72.59
Dabur India Ltd	47.56	31.97	34.32	30.23

Table 4.3 depicts that the buyback company Hindustan Unilever Ltd has recorded a remarkable improvement in its average EVACE in post-buyback period (72.59%) from that of pre-buyback period (42.63%). On the other hand, its matching control company Dabur India Ltd has experienced a reduction in average EVACE for the same period (from 34.32% in pre-buyback period to 30.23 in post-buyback period). Similar results were also observed while measuring the immediate impact of share repurchase. Therefore, such significant increase of EVACE of the buyback company in comparison to its control company may be attributed to the positive impact of share buyback on EVACE.

Market Value Added (MVA)

Table 5.1: Market Value Added (MVA) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (Rs. in Crores)	After buyback year (Rs. in Crores)	Average three years pre-buyback period (Rs. in Crores)	Average three years post-buyback period (Rs. in Crores)
Britannia Industries Ltd	274.25	2149.5	-117.61	370.65
Nestle India Ltd	-1010.48	1930.81	220.8	1660.19

Table 5.1 reflects a general upward trend in the MVA values (both in terms of immediate and long-term impact) during the study period. Britannia Industries Ltd has reported significant increase in average MVA in the post-buyback period (Rs. 370.65 Crores) from that of pre-buyback period (Rs. -117.61 Crores). However, an identical scenario has also been noticed for its matching control company Nestle India Ltd, which enhanced its average MVA in post-buyback period (Rs. 1660.19 Crores) from that of pre-buyback period (Rs. 220.80 Crores). Therefore, no significant impact of buyback has been noticed in the buyback company's MVA.

Table 5.2: Market Value Added (MVA) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (Rs. in Crores)	After buyback year (Rs. in Crores)	Average three years pre-buyback period (Rs. in Crores)	Average three years post-buyback period (Rs. in Crores)
Sun Pharma. Industries Ltd	-609.95	2718.24	840.53	4755.52
Aurobindo Pharma Ltd	48.72	-456.26	164.03	569.39

The same picture has been found in analyzing MVA of Sun Pharmaceutical Industries Ltd and its control company Aurobindo Pharma Ltd (Table 5.2). Since the increasing trend in MVA over the study period is prevalent for both the buyback as well as control companies, the increase in MVA of the buyback companies should not be presumed to be the sole impact of share buyback on market value of the concerned companies.

Table 5.3: Market Value Added (MVA) of the buyback and control company

Company	Immediate Impact		Long- term Impact	
	Before buyback year (Rs. in Crores)	After buyback year (Rs. in Crores)	Average three years pre-buyback period (Rs. in Crores)	Average three years post-buyback period (Rs. in Crores)
Hindustan Unilever Ltd	-609.95	2718.24	909.18	3427.32
Dabur India Ltd	48.72	-456.26	1980.5	2408.02

Similarly, it is observed from Table 5.3 that Hindustan Unilever Ltd has remarkably increased its average MVA in post-buyback period (Rs.3427.32) from just Rs.909.18 Crores in pre-buyback period. Its control company Dabur India Ltd has also depicted a similar picture. Therefore, no valid inferences can be made about positive impact of share buyback on MVA of the concerned company.

Analysis of pre-buyback and post buyback periods growth rates

Table 6.1: Estimated statistical results related to Britannia Industries Ltd, Nestle India Ltd and Market

Britannia Industries Ltd				Nestle India Ltd				Market (Sensex)			
VAR	COEF	t STAT	P-VALUE	VAR	COEF	t STAT	P-VALUE	VAR	COEF	t STAT	P-VALUE
const	4.789	881.0	<0.00001***	const	6.328	1299	<0.00001***	const	8.457	1117	<0.00001***
d1t	0.001	3.163	0.0025***	d1t	-0.001	-2.571	0.0127**	d1t	-0.004	-8.713	<0.00001***
d2t	0.002	5.059	<0.00001***	d2t	-0.003	-9.388	<0.00001***	d2t	0.003	5.451	<0.00001***

Notes: VAR=Variable, COEF=Coefficient, t Test= t Statistic, P-Value= Probability Value
*** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level

Source: Author's calculation is based on gretl (version 1.7.7)

From Table 6.1 it can be seen that the exponential growth rate of the market index i.e. Sensex has improved in post-buyback period (0.003) from a negative growth rate in pre-buyback period (-0.004) and these are significant at 1% level. The buyback company i.e. Britannia Industries Ltd. has also witnessed an increase in growth rate in post- buyback period (0.002) from pre-buyback period (0.001), which are statistically significant at 1% level. However, an opposite scenario has been observed for the control company Nestle India Ltd., which experienced a further decline in the compound exponential growth rate in post-buyback period (-0.003) from negative growth rate in pre-buyback period (-0.001) and both of these growth rates are statistically significant at 1% and 5% level respectively. Though the buyback company i.e. Britannia Industries Ltd. has experienced an increase in growth rate of share price in comparison to its control company Nestle India Ltd., this should not be attributed to the event of share buyback since the market index Sensex has also revealed an identical picture.

Table 6.2: Estimated statistical results related to Sun Pharma. Industries Ltd, Aurobindo Pharma Ltd and Market

Sun Pharma. Industries Ltd				**Aurobindo Pharma Ltd**				**Market (Sensex)**			
VAR	**COEF**	**t STAT**	**P-VALUE**	**VAR**	**COEF**	**t STAT**	**P-VALUE**	**VAR**	**COEF**	**t STAT**	**P-VALUE**
const	3.400	396.1	<0.00001***	const	3.811	248.1	<0.00001***	const	8.702	1722	<0.00001***
d1t	-0.002	-2.774	0.0074***	d1t	0.003	13.19	<0.00001***	d1t	0.007	20.96	<0.00001***
d2t	0.003	6.107	<0.00001***	d2t	-0.007	-6.908	<0.00001***	d2t	-0.001	-3.128	<0.00001***

Table 6.2 reveals that the exponential growth rate of the market index i.e. Sensex has declined in the post-buyback period (-0.001) from growth rate in pre-buyback period (0.007) and these are statistically significant at 1% level. An identical picture has been observed for Aurobindo Pharmaceuticals Ltd., which experienced a substantial decline in exponential growth rate of share prices in post-buyback period (-0.007) from that of pre-buyback period and these are also statistically significant at 1% level. Sun Pharmaceutical Industries Ltd., the buyback company, on the other hand, has revealed an opposite picture. The company has experienced a significant improvement in the exponential growth rate of its share prices in the post-buyback period (0.003) from that of pre-buyback period (-0.002), which are statistically significant at 1% level. Such increase in growth rate of share

prices of Sun Pharmaceutical Industries Ltd. can be viewed as a positive impact of share buyback on share prices.

Table 6.3: Estimated statistical results related to Hindustan Unilever Ltd, Dabur India Ltd and Market

Hindustan Unilever Ltd				Dabur India Ltd				Market (Sensex)			
VAR	COEF	t STAT	P-VALUE	VAR	COEF	t STAT	P-VALUE	VAR	COEF	t STAT	P-VALUE
const	5.422	822.3	<0.00001***	const	3.983	856.5	<0.00001***	const	9.778	1453	<0.00001***
d1t	0.004	10.35	<0.00001***	d1t	0.002	8.326	<0.00001***	d1t	0.007	17.36	<0.00001***
d2t	-0.005	-11.90	<0.00001***	d2t	-0.001	-2.437	0.0179**	d2t	0.004	9.203	<0.00001***

From Table 6.3 it can be found that the exponential growth rate of the market index i.e. Sensex has diminished in the post-buyback period (0.004) from that of pre-buyback period (0.007) and these statistically significant at 1% level. Similar results were also observed for the control company i.e. Dabur India Ltd. which reported a decline in the growth rate of its share prices in the post-buyback period (-0.001) from that of pre-buyback period (0.002) and these are statistically significant at 1% and 5% level respectively. The buyback company i.e. Hindustan Unilever Ltd. has also reported a substantial decline in the exponential growth rate of its share prices in the post-buyback period (-0.005) from that of pre-buyback period (0.004), which are statistically significant at 1% level. Therefore, it can be said that the decline in exponential growth rate of the buyback company Hindustan Unilever Ltd. may not be the effect of share buyback, since the growth rate of the share prices of the control company Dabur India Ltd. and market index Sensex has also declined during the study period. Naturally, when the overall market is declining, the share prices of the buyback company may also decline resulting into negative stock price growth rate.

VI. Conclusion

The present paper made an attempt to empirically examine the impact of financial restructuring through share buybacks on corporate financial performance and also to investigate whether financial restructuring through share buybacks facilitates in shareholders' value creation. The findings of the study have revealed the fact that buyback of shares has a positive impact on the EPS and in few cases on Return on Capital Employed (i.e. for Sun Pharmaceutical Industries Ltd. and Hindustan Unilever Ltd.). But such positive impact is not prevalent in all the cases as it is presumed theoretically. The impact of Share buyback to enhance companies economic and market value is found to have mixed effect. An analysis of EVA and MVA brings out the fact that buyback of shares is able to create economic as well as market value for certain sample companies but for most of the companies such impact is insignificant. The analysis of share price growth rate has revealed a positive impact of share buyback on stock prices only in case of Sun Pharmaceuticals Industries Ltd. However, the empirical findings of the study do not support the positive impact of share repurchases on companies' performance in all cases as is popularly claimed from theoretical perspective.

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