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Share Buyback from Firms in India: A Cross-Sectional Study of Stock Market Reaction

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***Abstract: Purpose:** This study examines the effect or impact of the buyback, initiated by Indian companies, on their fundamentals reflected in their financial efficiency, shareholdings, and market prices.*

***Research limitation:** Time frame is taken only for 3 years and the analysis of post buyback is of the company's financial is done only for a year.*

***The originality of the study:** The sample companies for this study would be selected foremost, from those having existed for a minimum of 20 years and simultaneously with a buy-back offer that is less than 10% of the paid-up capital of the company.*

***Keywords:** Share buyback, Earning per share, Shareholders and holding, Capital restructuring*

I. INTRODUCTION

Share buyback has often been used as an important capital restructuring activity in the corporate world and has consequently gained increased research attention worldwide. The share buyback is a relatively recent phenomenon, in India, dating only from 1999 as permitted under corporate laws.

Buyback is an emerging strategy for corporate restructuring. The company distributes the excess free cash generally at a premium to its shareholders. The strategy is majorly adopted to reduce the no. of outstanding shares. This offering directly impacts the earning per share. In simple words buyback of share is nothing but taking back of its shares. Buyback helps in improving financial ratios. Buyback significantly boosts the shareholder's wealth.

The objective of the study

To study the cause and effect of buyback on the company based on

- Earnings per share
- Effect on shareholders and holdings
- Effect on share prices

The hypothesis of the study:

Hypothesis statement: "Buyback impacts the company's shareholding, financial efficiency, share prices, and corporate decision after its announcement."

Ho1 – There is no significant effect of buyback on the company's shareholding.

Ha 1 – There is a significant effect of buyback on the company's shareholding.

Ho2 – There is no significant effect of buyback on the company's financials.

Ha2- There is a significant effect of buyback on the company's financials.

Ho3- There is no significant effect of buyback on the company's share prices.

Ha3- There is a significant effect of buyback on the company's share prices.

II. LITERATURE REVIEW

- **Shareholding**

(Hiral Vyas, Dr. R. K. Patel, 2018) [20] Structural changes take place in the company after buyback which means a comprehensive process of rearranging and redeployment of the resources with the objective of survival, profit, and growth of the shareholders.

(Stunda, Ronald A, 2017) [16] This paper specifies the reasons why companies go for stock repurchase programs which are tax efficiency, management flexibility, undervalued stock, Investment, earning per share.

(Monika Gupta, 2016) [8] explains how buyback significantly affects the financial efficiency of the companies also the author has investigated how the operating performance of the companies gets affected.

(Preeti Attri, Dr. Hem Shweta Rathore 2018) [1] explains how shareholders can earn greater returns out of their investment in IT companies which are coming with buyback; also the paper explains the exit route to the shareholders from the holdings.

(Mitchell Miller, Dale Prondzinski, 2017) [13] This study examines the impact of stock repurchases to shareholder value in the long term. It examines the relationship between stock repurchase and the value of the company

(Richard John Fairchild, 2006) [5] studied about creating shareholders' values by comparing the share repurchase with other reinvestment opportunities.

- **Share prices**

(Pradhan, 2017) analyzed 20 buyback announcements which result in a positive impression of the share buyback on the share price. Further, it is also noticed that the buyback has not influenced the trading volume as the price moves upward in the post-offer period.

(Karamjit Kaur, Prof. Neelam Dhanda, 2016) [12] The study reveals about the movement average abnormal returns and cumulative abnormal returns by considering the event window which analyses the impact of buyback on a stock price return

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(Gupta, Vandana, 2016) [7] Based on the analysis of the variables like average abnormal stock returns (AAR) and cumulative abnormal returns (CAR) strong case of signaling is reported which shows that buyback has a significant and substantial effect on boosting up the share price for a firm

(C. Sivashanmugam, Sowmya.S,2019) [3] explains that buyback can be done through a tender market route or open market purchases.Also, it explains the effect on Average abnormal return and cumulative abnormal return i.e. positive AAR in pre and post on open market offer excepting on the event date and in tender offer pre positive than post period.

(V. Subhamathi, B.Manuelipinto, 2014) [19] explains the changes in share price due to buyback, In this study price difference, has taken into consideration i.e. price comparison between pre-post buyback and pre-during buyback which is observed that the majority of companies share prices gone up because of the buyback.

(Rabindra Kr. Singh, 2011) [17] The study's main focus is on the impact of stock repurchase on companies of different sizes and different industries also with to examine the relationship between price movement and the size of companies.

- **Financial efficiency**

(Allan C. Eberhart, Akhtar R. Siddique, 2004) [4] The buying and selling of their shares that firms do following buyback announcements represent trading that enhances liquidity which affects the financial stability of the company.

(Peg Margaret Horan, 2012) [11] The paper specifies that an increase in the volume of stock repurchase affects EPS on a larger scale which directly impacts the financials of the company.

(Monika Gupta, 2016) studied as the share buyback is considered an effective mechanism of financial restructuring. According to the study, there is an improvement in the financial performance of the company. The positive impact is observed in earnings per share, dividend payout ratio, and a price-earnings ratio

(Elvis Picardo, 2020) [15] explains that buyback is the boost for low growth companies because the reduction in outstanding shares can boost the earning per share which results in higher valuation done by investors.

(Walter I. Boudry, Jarl G. Kallberg, Crocker H. Liu, 2013) [2] The study says that there is an indirect relation between the share repurchase announcement and investment opportunities. It is also mentioned that announcement returns are negatively related to investment opportunities which help companies to decide where the free cash should be invested.

- **Corporate Decisions**

(C. Sivashanmugam, Sowmya.S, 2019) [14] studied the factors affected by the buyback of shares such as effect on shareholding and wealth of shareholders, movement of EPS (earning per share), the effect on share price, status of operating performance, capital restructuring, the effect on promoters, etc

(Shavita Gupta, Neha Karla, Rajesh Bagga, 2014) [10] reported share buyback as an important phenomenon in the corporate world which holds a signaling effect on the Indian companies.

(Dr. L. C. Gupta, Naveen Jain, Anil Kumar, 2005) [9] The business houses made a case for share buyback as a possible way of reviving the capital market. Share buybacks are believed to inject some buoyancy into share prices because share buyback price is invariably higher than the market price prevailing before the buyback announcement by a company.

(PreetiAttri, Dr. Hem Shweta Rathore, 2018) studied that company which goes for buyback decides the type buyback offering i.e. through a tender offer or stock exchange because companies believe share buyback as a possible way of the refreshing capital market.

(RamMohan R. Yallapragada, 2014) [21] examines that companies go for stock repurchase not only to increase the value of their shares in the market but also to neutralize or eliminate any existing threats from predatory investors or companies who may be looking for a hostile takeover.

(Parvatha Vardhini C 2017) [18] studied that stock repurchase is done if promoters want to hike their stake in the company, sometimes to avoid any takeover threat.

(Gustavo Grullon, Roni Michaely, 2004) [6] studied that the reduction in free cash and systematic risk is a source of positive market reaction to the offering especially for those firms which are more likely to overinvest.

Research Gap

The review of the literature reveals the existence of various gaps of knowledge in respect of "Share Buyback by Firms in India: A cross-sectional study of the stock market reaction" which are as follows

- Most of the studies have included both types of methods of the buyback. However, it would have been better if the studies have examined the companies offering fixed tender and open market purchases separately.

Sample Plan and the Process of Data Collection

The essential focus of the study is on the Buy-Back of Shares by companies in India. World-over in buyback companies exercise this and hold the bought back shares as treasury stock or buy them back and extinguish them. In India, companies are not permitted to buy back and hold them as treasury stock. Objectives for buyback could vary, which amongst others could be to boost the value of the share and with a lower share base perhaps help improve the financial parameters, particularly the EPS.

Type of Data Used In the Study

The data drawn for the study would comprise of ***quantitative data***. The quantitative data would be the financial data that a company needs to submit to the listing authorities or regulators. In this case, it could be the National Stock Exchanges: namely NSE or BSE[1] as well as the market regulator namely SEBI[2]. Since companies are required to submit their annual financial data to the ministry of corporate affairs this submission would include both quantitative financial data as well as the qualitative data based on how the Directors present the current and future outlook of the company.

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All buy-back documents which comprise of the offer, the red-herring prospectus are necessary to be filed with the regulator (SEBI) in India.

Sources of the Data Used In the Study.

The study would be using data from the secondary source:- The secondary data source would be from the official website of the companies who have gone in for a buyback (Refer Annexure 1 for the partial list) as well as financial data providers such as money control or the official NSE website. The financial data providers use the genuine published data sourced from company websites as well as statutory filings made with the Securities and Exchange Board of India and the Ministry of Corporate Affairs. Sometimes the data provided is regrouped to suit the format of the data provider. Thus, some cross-checking is needed to ensure that the data provided by the data providers and that of the company is the same.

III. METHODOLOGY

Secondary Data

The foremost in deciding the sample companies would be the period for the study. The whole process of buyback in India is more than 4 decades old. There was no relevance in studying data that is too old, as many studies have already examined this. In this context, studies on buy-back for the period after FY 2016 are few. Considering this, the study would be examining buyback offers made during the period FY16-FY18.

A preliminary examination of the buyback filings with SEBI totaled more than 500 companies. From this, approximately 120 buybacks would be randomly chosen that represent a cross-section of the various sectors. From this using a random number generator approximately 15 companies would be selected filtering this to ensure that they represent all the industries involved during that period.

Data Analysis of the variables

The statistical relationship between the study variables that form a critical aspect of the study would be explored using Pearson's Correlation Coefficient and Paired t-test to see the test of significance at the 95% level.

Accordingly, based on the company's data involved in the buy-back process, their respective financial data, and the relevant ratios evident to the Buy-Back, the following way is adopted to form a matrix to apply correlation and paired t-test.

- **A.** Between the size of the offer and the post promoter's shareholding
- **B.** Between the change in share price and the % of premium announced
- **C.** Between the % change in the pre-post EPS

Table 1 Sector bifurcation for the selected companies

S. No.	Category	No. of Companies
1	Manufacturing	3
2	Pharmaceutical	2
3	IT services, IT consulting	6
4	oil and gas	2
5	Mining	3

A. Between the Size of the Offer and the Post Promoter's Shareholding

One of the reasons why companies go for the buyback is to reduce the % of dilution of ownership. In this case promoter's shareholding got affected because the main intention of this corporate action is just to take back their stocks and reduce the holding given to the outsiders who are known as shareholders. Companies think that by doing this activity promoters have strong control over decision making. For seeing this buyback effect on promoter's shareholding following result is obtained

Paired T-Test and CI: Pre, Post

Table 2 Descriptive Statistics

Sample	N	Mean	Std.Dev	SE Mean
Pre	11	55.78	22.50	6.78
post	11	56.14	22.64	6.83

Table 3 Estimation for Paired Difference

Mean	Std. Dev	SE Mean	95% CI for μ_difference
-0.3553	0.2953	0.0890	(-0.5537, -0.1569)

μ_difference: population mean of (pre-post)

Table 4 Test

Null hypothesis	H_0: μ difference = 0
Alternative hypothesis	H_1: μ_difference $\neq 0$
T-Value	**P-Value**
-3.99	0.003

Table 5 Correlations

	% change between pre and post
% of the buyback offer	0.719

Analysis

The test results in table 4.1 indicate a very high and statistically positive correlation i.e. 71.9% along with this the t-test analysis in table 4 gives such a value of p which is less than 0.05 significance level i.e. 0.003. This leads to the rejection of the null hypothesis which means that there is a significant effect of buyback on the promoter's shareholding.

B. Between the Change In Share Price And The % Of Premium Announced

The market price of the company is the most sensitive factor which is considered by every company before making any announcement.

The market prices of every company are volatile which gets affected by every decision taken by the company. The buyback announcement is one of the reasons which affect the prices of the stock. For observing the same following results are obtained.

Paired T-Test and Ci: Pre, Post

Table 6 Descriptive Statistics

Sample	N	Mean	Std. Dev	SE Mean
Pre	15	2129	6008	1551
Post	15	2156	6112	1578

Table 7 Estimation for Paired Difference

Mean	Std. Dev	SE Mean	95% CI for µ_difference
-26.8	105.9	27.3	(-85.4, 31.9)

µ_difference: population mean of (pre-post)

Table 8 Test

Null hypothesis	H_0: µ_difference = 0
Alternative hypothesis	H_1: µ_difference ≠ 0

T-Value	P-Value
-0.98	0.344

Table 8.1 Correlations

	% of premium based on NSE price
%change+1, -1 day of the announcement	0.832

Analysis

The test results in table 7.1 indicate a very high and statistically positive correlation i.e. 83.2% along with this the t-test analysis in table 7 gives such a value of p which is more than 0.05 significance level i.e. 0.344. This leads to the failure of reject to the null hypothesis which means that there is no significant effect of buyback on market share prices of the company.

C. Between the Change In Pre Eps And Buyback Year Eps And The % Of The Buyback Offer

EPS is the most part to evaluate any company's return in terms of per share. Whenever there is capital restructuring in no outstanding equity share, the direct impact is been observed on EPS. In the case of buyback the company's outstanding shares increases which affects the EPS. Here profit after tax is considered when we calculate EPS. The EPS shows how strong the company's working and how much shareholders are earnings for their one share.

Paired T-Test and CI: Pre, Buyback

Table 9 Descriptive Statistics

Sample	N	Mean	Std. Dev	SE Mean
Pre	10	23.39	18.22	5.76
Buyback	10	28.39	19.72	6.24

Table 10 Estimation for Paired Difference

Mean	Std. Dev	SE Mean	95% CI for µ_difference
-4.995	3.150	0.996	(-7.248, -2.742)

µ_difference: population mean of (pre - buyback)

Table 11 Test

Null hypothesis	H_0: µ_difference = 0
Alternative hypothesis	H_1: µ_difference ≠ 0

T-Value	P-Value
-5.01	0.001

Table 12 Correlations

	% change b/w pre and buyback yr
% of offer	0.627

Analysis

The test results in table 10.1 indicate a high statistically positive correlation i.e. 62.7% along with this the t-test analysis in table 10 gives such a value of p which is less than 0.05 significance level i.e. 0.001. This leads to the rejection of the null hypothesis which means that there is a significant effect of buyback on the EPS of the company.

Findings and suggestion

Considering 3 variables for observing the effects of buyback on the company the study has taken data of the listed companies for analyzing the pre-post effect of the buyback. In the first variable data of % change of pre and promoter's holding is correlated with the % of buyback offer which is 71.9% positive correlation also paired t-test is applied by taking pre and post data of promoter's shareholding which results in a p-value of .003. This indicates that there is a significant effect of buyback on the promoter's shareholding. In the second variable correlation is done between the percent of price premium just before the closing date of announcement is compared with the % change of one-day pre-post price of the date of the announcement which is an 83.2% positive correlation along with this paired t-test is also done between pre and post-one-day price of the announcement where the p-value is .344 which more than .05 level of significance. This indicates that the change in price is not just because of the announcement of buyback there can be other factors that result in a change in market price. Thus there is no significant effect of buyback on share prices of the company. The third variable correlation is done with the % change of pre and buyback year EPS with the % of holding which results in a 62.7% positive correlation. An also paired t-test is applied where the p-value is .001 which is less than .05. This indicates that there is a significant effect of buyback on EPS.

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IV. CONCLUSION

The purpose of the study is to justify the objectives mentioned in this research paper i.e. to see the effect of buyback on EPS promoter's shareholding and its prices. The research paper analyzed all the pre-post data of the companies considering the aforesaid variables by applying a statistical tool named correlation and after the comparison, it is observed that there is a positive correlation for all the variables which signifies that there is a positive impact of buyback on the company. The study can be used to justify the reason for the buyback offering by the company to the public.

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Annexure 1

List of Companies

1	Pidilite Industries Ltd.
2	FDC Ltd.
3	Swaraj Engines Ltd.
4	Infosys Ltd.
5	Wipro Ltd.
6	Vinati organics ltd.
7	Engineers Ltd
8	Mindtree Ltd.
9	HCL ltd.
10	Tata Consultancy Services Ltd
11	OIL India Ltd.
12	NHPC Ltd.
13	NLC India Ltd.
14	Aatri Drug Ltd.
15	Coal India Ltd.
16	Bosh Ltd.

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