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EMPIRICAL ANALYSIS OF THE IMPACT OF THE BUY-BACK ANNOUNCEMENT OF INDIAN IT COMPANIES ON ITS STOCK PRICE, ON THE NIFTY IT AND THE NIFTY 50 INDEX

OM PRAKASH PRASAD[1] and NISHI MALHOTRA[2]

[1]PhD Scholar, Indian Institute of Management, Sambalpur.
E-mail: ephd23omprakashp@iimsambalpur.ac.in
[2]Assistant Professor, Indian Institute of Management, Sambalpur.
E-mail: nishim@iimsambalpur.ac.in

Abstract

Purpose **-** The study investigates the impact of the share buy-back of Indian IT companies on their share prices and the Nifty IT and Nifty 50 indices. The study tests the information signalling hypothesis in the Indian capital market. ***Design/methodology/approach*** **-** The research focuses on the period from January 1, 2013, to December 31, 2023. A 40-day event window is analysed, covering the 20 days leading up to and the 20 days following the buy-back announcement. Applying the market-adjusted model, a 90-day estimation window before the event window is used to calculate abnormal returns during this time. ***Findings*** **-** The study finds that buy-back announcements positively impacted stock prices in 80% of cases—however, the abnormal return phases out in 20 days. Further, the AAR & CAR against NIFTY IT and Nifty 50index have been mixed. ***Originality*** **-** Our study is unique as it studies the impact of share buy-back announcements by Indian IT companies on their share prices and the Nifty IT and Nifty 50 indices. No earlier study has investigated the effect of share buy-back on sectoral index and main index movements. ***Research limitations/implications*** **-** Further work may be done considering the buy-back route, premium, frequency, previous history market sentiments, and capitalisation. ***Practical implications*** **-** Our study will help investors to make suitable investment decisions in a company before, during, and after the buy-back to maximise return and minimise loss. Policymakers can use this information to assess the equity implications of corporate actions like share buy-backs and enact policies to protect the interests of retail investors. Corporations can optimise their timing and communication around buy-backs so that market participants take their actions positively.

Keywords: Share Buy-back, Stock dividend, Event study, Abnormal return, Ordinary Least Square.

JEL classification: G35, M41, G14, G12, C22

Paper Type: Research Paper

INTRODUCTION

A share buy-back, also known as a stock buy-back or share repurchase, happens when a company purchases its shares back from its shareholders. This typically starts with the company publicly announcing a buy-back offer, detailing the terms and conditions, such as the offer price and the timeframe for shareholders to sell their shares back to the company. The offer price for a buy-back is usually higher than the current market price of the shares, giving shareholders a reason to participate. Companies use share buy-backs for various reasons, including boosting shareholder value, reducing the number of shares available, or streamlining their capital structure.

The July 2024 Budget has redefined the taxation of share buy-backs in India by categorising them as deemed dividends under certain conditions, aligning their tax treatment with dividends. This marks a shift from the previous framework where shareholders were paying tax on dividends (post-DDT abolition in 2020), and buy-backs were taxed at the company level since 2013. The change transfers the tax burden to shareholders, prompting companies to reassess financial strategies and weigh buy-backs against dividends, while shareholders, particularly high-net-worth individuals and institutions, face altered tax liabilities and investment returns**.**

This change requires companies and investors to adapt through strategic financial planning and stay informed on regulatory updates. Its long-term impact will shape corporate financial management and investor behaviour, emphasising the need for proactive approaches to optimise capital strategies in the evolving tax environment**.**

According to the Companies Act 2013, buy-backs are regulated, and Section 70 sometimes prohibits buy-backs. SEBI regulations also govern the process for listed shares. Additionally, after introducing the 2020 Budget and the tax implications on shareholder income, buy-backs have become attractive to investors seeking tax benefits. They also increase shareholder value, enhance return on equity, and provide additional value to equity holders. The primary reasons for companies to conduct buy-backs include:

1. **Improving Financial Performance**: The total number of shares decreases due to buy-back, resulting in higher earnings per share (EPS). This enhancement is reflected in key investor metrics like the price-to-earnings ratio.
2. **Boosting Stock Prices**: Investors frequently interpret share buy-backs as an indication of the company's confidence in its intrinsic value, potentially driving stock prices higher.
3. **Utilising Excess Cash**: Companies with surplus funds may opt for buy-backs to efficiently use resources, returning value to shareholders.

(Busch & Obernberger, 2017) observed that between 2004 and 2010, share repurchases emerged as the predominant payout method in the United States, often utilised by companies to repurchase stock when they have surplus cash flows. Share repurchase involves adhering to particular procedures and distributing dividends to shareholders through buy-backs rather than cash payments (Adra et al., 2023). This approach can serve as a strategy to enhance the company's capital structure (Almeida et al., 2016). However, investors should carefully assess the company's performance, investment goals, and associated risks before deciding whether to participate in or continue investing in a company conducting a buy-back. Share repurchases have gained popularity globally. (Aris et al., 2021) examined the relationship between earnings and share repurchases among companies listed on the Malaysian stock exchange. Their study found a substantial inverse relationship between buy-back and dividend per share, which aligned with prior research.

Additionally, the findings demonstrated that earnings per share (EPS) and operating income (OI) positively influence stock repurchase activity. Studies in the Indian context have been limited in assessing the impact of share buy-back on company and index movement. The present study is unique as it has taken a sample of IT companies and the Nifty IT index, which shows that buy-back is more frequent for IT sector companies as they are less capital-intensive and have huge cash and free reserves. Existing Indian studies often focus on shorter timeframes or broader market contexts without delving into sector-specific nuances or long-term patterns.

Furthermore, prior research does not adequately address:

1. Sectoral Variations: The distinct characteristics of capital-light and cash-rich IT companies remain underexplored.
2. Index Dynamics: The interplay between individual stock reactions and broader index performance, such as the Nifty IT and Nifty 50 indices, lacks comprehensive analysis.
3. Temporal Scope: Most studies neglect the evolving regulatory, economic, and market conditions over extended periods.

Addressing the Gap

This study bridges these gaps by analysing 10 years of buy-back announcements in the Indian IT sector, focusing on stock-specific and index-wide impacts. Using event study methodology, it explores abnormal returns within a defined event window, offering insights into how Indian IT companies influence broader market dynamics. The article is organised into sections like the introduction, a literature review, the study's objectives, rationale and methodology, limitations, implications and conclusions.

OBJECTIVE OF THE STUDY

Our research employs the event study methodology to analyse how the market responds to buy-back announcements in Indian IT companies, which are components of the Nifty IT and the Nifty 50 index.

LITERATURE REVIEW

Theoretically, share buy-backs are expected to enhance stock price performance, but empirical findings suggest this is not always true. Several studies based on the US, the UK, and European countries found that buy-back is positive information for the market; hence, a significant positive reaction is observed when the announcement is made. However, there is a possibility of negative results; this could be when the shares are overvalued, when it is done to benefit the executives only, or when the buy-back is financed through borrowed money. The existing literature shows mixed results of share buy-back announcements. Some studies show a positive reaction, some show a negative, while some have no effect on the share price post-share buy-back.

Positive Reaction to Share Buy-back:

(Dann, 1981; Ikenberry et al., 2000) studies the effect of the buy-back of equity shares on the values of the firm's debt, preferred stock, and common stock and identifies the underlying factors which cause a change in these values. His evidence suggests a significant increase in the firm values when measured on the next day of the event announcement date. Further, he states that the positive returns result from the information signal from the repurchasing firm. Globally, (Manconi et al., 2019) analysed 9,034 buy-back announcements in 31 non-U.S. markets between 1998 and 2010, finding significant positive short-term and long-term excess returns. However, (Albaity and Said, 2016) found no evidence of long-term abnormal earnings for Malaysian companies engaging in open market share repurchases when using a calendar-time portfolio method. In China (Gan et al., 2017), the market tends to respond positively to repurchases by high-growth, undervalued companies.(Chavali & Shemeem, 2011) investigated the 75 share buy-back announcements from 2000 to 2010 for the companies listed on NSE India using a random sampling method. In the event window of 41 days, they found a positive market reaction, evident from the positive average abnormal return. The average abnormal return observed on the announcement day is 1.07%, with a cumulative abnormal return of 1.59%.

(Sivashanmugam & Sowmya, 2019) study the manufacturing companies listed on BSE India from 2001 to 2019. They consider S&P Sensex a benchmark index to calculate the market return and find that the market reacts positively in India for manufacturing companies. (Chang et al., 2010) This study examines whether prior announcements of share buy-back influence market movements after buy-back announcements. The findings reveal that stock market reactions to repurchase announcements have historically been positive. Additionally, firms

with prior repurchase announcement experience demonstrate stronger stock performance, which results in a favourable market response. The study concludes that previous repurchase announcement experience significantly shapes the market's assessment of subsequent announcements.

(Chi et al., 2010) This study focuses on companies listed in Taiwan's stock market and compares the electric industry with other industries. The findings reveal that cumulative abnormal returns are higher in non-electric industries compared to the electric industry, both before and after repurchase announcements. Additionally, companies that repurchase shares to maintain stockholders' equity and corporate credit exhibit higher average cumulative abnormal returns than those repurchasing shares for employee stock transfers.(Stankevičienė & Akelaitis, 2014) examined if a relation between stock prices and price changes can be observed after public announcements by companies listed at the Vilnius stock exchange. They showed that a more remarkable reaction was observed with good news sentiment. Their results proved that the type and category of public announcement do not play any role; higher average abnormal returns were observed for positive content news than for negative content.(Kumar Pradhan & Kasilingam, 2016) examined how buy-back announcements affect share prices and found no significant overall impact on the industry level. However, a company-specific analysis revealed a partial influence on share prices, with most companies experiencing positive and cumulative abnormal returns in the short and long term. The study spanned seven years, from January 1, 2005, to December 31, 2012

(Dayanandan et al., 2020) observed that firms with higher promoter ownership experience more pronounced market reactions, and their repurchase announcements are generally well-received by the market. According to (Attri and Rathore, 2018), Share repurchases positively impacted the share prices of IT companies listed on the NSE between 2016 and 2018, with share prices increasing following repurchase announcements.(Bhullar et al., 2018) analysed data from 2006 to 2016 and identified a statistically significant difference in firm value before and after share buy-backs on the BSE. (Hyderabad, 2009) 68 Indian buy-back announcements and observed positive abnormal returns. The study concluded that market reactions to share buy-backs are notably stronger in India, where markets are often perceived as undervalued compared to those in the United States and the United Kingdom.(Manconi et al., 2019) analysed more than 9,000 open market share repurchase announcements across 31 non-US countries over 12 years. The findings indicated significantly positive returns on announcement days across 19 countries, including India. The study concluded that share repurchases in non-US markets are connected with favourable short-term and long-term returns.

Negative Reaction to Share Buy-back:

(Ikenberry et al., 2000) explored this phenomenon in Canadian firms by analysing 1,060 repurchase observations from the 1990s. Their results show a negligible market reaction to the share buy-back announcement, as abnormal returns are less than 1% following the month of the announcement. This result suggests that the market underprices performance at the time of the announcement, a pattern consistent with reactions seen in the US market. (Kaur & Dhandha, 2016) analysed pre and post-performance of buy-backs and their impact using the market model and found a negative impact post-announcement. It showed no significant difference between pre-and post-performance abnormal returns. Similarly, (Agarwalla et al., 2013) suggested that Indian companies should increase the frequency of disclosures related to repurchase activities. In the Indian context, initial overreactions to repurchase announcements were observed, but no long-term benefits were evident. Additionally, open market repurchases were associated with declining operational performance.

Indifferent to Share Buy-back:

(Purohit et al., 2012) examine the firms listed on S&P CNX 500 indexes for 2006-2010 in India using event study methodology with a 61-day window. The study finds no evidence of returns that could be associated with the buy-back announcements.

Though the market reacts positively, buy-back is found insignificant in the case of an open offer. (Kumar et al., 2019) studied 42 buy-back events in 2017 by Indian firms using event study methodology. Their results show that most buy-back announcements do not produce any significant returns in India, and they find that the market is efficient during the buy-back announcement. (Chatterjee & Mukherjee, 2015) analysed the Indian market from 2008 to 2012 and observed an abnormal return trend associated with share buy-backs.

However, their findings do not support the notion that buy-backs enhance shareholder value. First, cumulative abnormal returns following buy-back announcements reflect no evidence of increased share prices. Second, smaller businesses tend to engage in buy-backs more frequently than larger firms. The study concludes that investors do not derive meaningful insights from such corporate activities. In the Indian context, the findings suggest that buy-back programs are often utilised to strengthen the shareholding position of promoters.

The study also suggests that although buy-backs offer short-term gains to investors, their long-term impact on the Indian market remains uncertain. The results of a study (Bhargava & Agrawal, 2015) revealed that average abnormal returns were not significant for companies listed on the national stock exchange as news was already reflected in the share prices. It showed that India's stock market is becoming mature and efficient; thus, investors looking for abnormal returns do not gain much.

Recent research (Lindgren & Sjöberg, 2018) suggests that the market reaction to share repurchases is not always pronounced. For instance, the S&P 500 Buy-back Index, which monitors the performance of the top 100 stocks with the highest buy-back ratios, reported a return of just 1.3% in 2018, significantly lagging behind the S&P 500's return of 3.2% during the same period.(Pandey et al., 2020) examined buy-back announcements from 136 Indian companies from 2012 to 2018 and observed that the market often reacts to repurchase information before the official announcement, reducing the likelihood of significant gains thereafter.

The prominent pre-announcement gains could be linked to insider trading, indicating that Indian markets demonstrate semi-efficient behaviour, as evidenced by the lack of notable returns following the announcement. (Shaw & Rakshit, 2017) conducted a detailed analysis of financial restructuring through share buy-backs in India.

Their findings indicated no evidence to support the idea that share buy-backs enhance a company's value, nor did they observe any positive effects on stock prices resulting from such buy-backs.

The existing literature does not adequately address the Sectoral Variations of buy-back announcements and the interplay between individual stock reactions and broader index performance, such as the Nifty IT and Nifty 50 indices.

Our study aims to bridge these gaps by analysing 10 years of buy-back announcements in the Indian IT sector, focusing on stock-specific and index-wide impacts. Using event study methodology, it explores abnormal returns within a defined event window, offering insights into how Indian IT companies influence broader market dynamics.

Research Problem

- The IT industry is significant to the Indian economy and shares market, where 6 IT companies form part of the Nifty 50, having a combined weightage of 14.37 %. Therefore, any price movement in the IT industry also affects the Nifty level.
- These IT companies do frequent Buy-back in India, which has significant volatility in the prices of these stocks and on indexes.
- The objective of this study is to determine how the buy-back announcements of Indian It companies affect the individual stock prices, Nifty IT and Nifty 50 index prices so that small retail investors can decide whether he/she should tender their shares in the buy-back or sell open market or hold the shares without tendering the shares in the buy-back process.

Hypothesis

The study is based on the following hypothesis:

Null Hypothesis (H0): There is no significant impact of the buy-back announcement of a particular company on its share price, on the Nifty IT index and the Nifty 50 Index.

Alternative Hypothesis (Ha): There is a significant impact of the buy-back announcement of a particular company on its share price, on the Nifty IT Index and the Nifty 50 Index.

For testing the hypothesis, the "OLS" test is computed on MS Excel to reject or accept the Null Hypothesis.

THEORETICAL BACKGROUND

Share buy-backs are widely favoured by companies globally. Research suggests that their popularity stems from the ability to shape investors' perceptions of a company's performance and earnings

A. Signalling Hypothesis or Information Asymmetry

This study follows the theory that the company's management can estimate the company's actual value better than the shareholders. (Vermaelen, 1981), In a study, buy-backs are believed to signal that managers have insider knowledge about the company and that the company's current value is undervalued. Theoretically, the best time to use buy-back is after a recession (McNally et al., 2006). This is when the stock can be purchased at a discount to its asset value. (Wansley et al., 1989) highlighted that signalling a firm's current and future intentions is the primary motivation for share buy-backs. However, (Rau and Vermaelen, 2002) argued that open-market buy-backs are ineffective signalling mechanisms. They noted that the market often disregards the information conveyed by such buy-backs due to the lack of costliness associated with credible signals, no obligation to buy back shares, and failure to strongly indicate the firm's undervaluation.

Companies often resort to buy-backs to send strong signals to the market. According to the signalling theory, managers may initiate repurchases to indicate dissatisfaction with the current market valuation, often through high-priced repurchase declarations. (Bhama, 2021) applied the Tobit model to analyse share repurchases from 2012 to 2018, concluding that undervaluation or low stock valuations are the primary motivations behind these actions. Similarly, (Anwar et al., 2016) studied the signalling effect of share repurchases among BSE 500 index companies and found compelling evidence supporting positive market signalling associated with repurchase announcements.

(Karstens, 2021) examined the short-term effect of share repurchase announcements on the stock prices of Dutch firms through event study methodology and regression analyses, taking 77 buy-back announcements from 2015 to 2019. The study finds that buy-back announcements positively affect share prices, acting as a signal of firm value. However, the magnitude of the effect varies based on firm-specific and market conditions.

(Van Holder et al., 2015) analysed the effects of share repurchases in Belgium and the Netherlands. Their research found that announcements about share repurchases tend to result in positive abnormal returns. Markets often interpret buy-backs as a sign that a company may be undervalued or have a strong financial standing. However, the outcomes can differ depending on the firm's specific characteristics and the market.

(Andres et al., 2018) studied open market share repurchases in Germany using a conditional event study approach. They find positive abnormal returns due to buy-back announcements with stronger effects in undervalued firms with higher liquidity. The study highlights the signalling and undervaluation motives driving repurchases in the German market.

B. Substitution Effect (Dividends vs Share prices)

Share buy-backs are often viewed as an alternative to cash dividends, though their impact on shareholder wealth maximisation differs. Dividend substitution is frequently cited as a key rationale for share repurchases globally, as repurchases offer greater flexibility than dividend payments. (Dickson, 2018), Aggregating financial analysts' opinions from 1998 to 2015, it was concluded that dividends and share repurchases are generally perceived as interchangeable.

(C. Brown et al., 2015) examine the Dividend Substitution Hypothesis using Australian data. Their study shows that firms adjust buy-backs and dividends as interchangeable mechanisms for distributing excess cash to shareholders. The study highlights tax policy's influence on corporate payout decisions, with buy-backs becoming a preferred alternative under favourable tax conditions.

RESEARCH METHOD

Data collection

This study uses secondary data from the Moneycontrol and Investing.com websites. To assess the impact, it analyses share prices 20 days before and after buy-back announcements of individual companies, along with the Nifty IT and Nifty 50 indices.

This study has been conducted to study the impact of buy-backs in the IT industry and its impact on the IT index and Nifty. There are 10 stocks in the Nifty It index, of which six are in Nifty, carrying 14.37 %. Weightage (Refer Table 1). The seven companies selected from the Nifty IT index have come out with buy-backs in the last 10 years, i.e., from 01.01.2013 till 31.12.2023. (Refer to Table 2 (a) to (g) for the buy-back history of stocks in the period of study.

Research methods

The study employed standard event study methodologies, as outlined by (S. J. Brown & Warner, 1985) and (Fama, 1991), to investigate abnormal returns surrounding share buy-back announcements. Event study methodology is a common approach for analysing how specific events, such as corporate actions, influence share prices. Market mode has been used to assess the impact of share buy-backs. This model was selected due to its effectiveness in identifying abnormal returns, simplicity, and applicability across different scenarios.

(Arora et al., 2015) utilised an event study methodology to analyse the cumulative abnormal returns associated with Mahindra and Mahindra Ltd. following the announcement of the Mahindra e2o launch, employing the Market Model Method. Treating the launch as the event, their findings indicated a positive cumulative abnormal return of 9.24%. This result demonstrated that the Mahindra e2o launch positively influenced the company's share prices.

The study uses methods like abnormal return analysis, cumulative abnormal return (CAR) analysis, and Ordinary Least Squares (OLS) regression to examine how result announcements influence stock prices. The event window is structured with the announcement day marked as day 0, the pre-announcement phase covering days -20 to 0, and the post-announcement phase spanning days 0 to 20. Abnormal returns during this period are calculated using a market-adjusted model. Additionally, a 90-day estimation period begins at T-20.

$$Stock\ Return\ =\ (Current\ market\ price\ -Yesterday\ price)/\ yesterday\ price$$

$$Expected\ return\ =\ Regressing\ the\ market\ return\ Nifty\ IT\ and\ Nifty\ 50\ with\ stock\ return\ for\ t-21\ till\ T-111\ day.$$

$$Abnormal\ return\ =\ Stock\ return\ -\ Expected\ Return$$

$$Cumulative\ Abnormal\ Return\ =\ Sum\ of\ Abnormal\ Returns\ up\ to\ the\ date\ of\ calculation.$$

Intercept: It has been calculated using stock return and the market return (both for Nifty IT and Nifty Index separately) for the estimation window, i.e. T-21 till T-111 Days (90 days or one quarter)

Slope: It has been calculated using stock return and the market return (both for Nifty IT and Nifty Index separately) for the estimation window, i.e. T-21 till T-111 Days (90 days or one quarter)

$R^{2:}$ It has been calculated using stock return and the market return (both for Nifty IT and Nifty Index separately) for the estimation window, i.e. T-21 till T-111 Days (90 days or one quarter)

Standard Error: It has been calculated using stock return and the market return (both for Nifty IT and Nifty Index separately) for the estimation window, i.e. T-21 till T-111 Days (90 days or one quarter)

Standard Deviation: It has been calculated using stock return and the market return (both for Nifty IT and Nifty Index separately) for the estimation window, i.e. T-21 till T-111 Days (90 days or one quarter)

$$Expected\ Return: Intercept\ +\ (Slope\ *\ market\ return)$$

$$T\ stat\ of\ Abnormal\ returns: Abnormal\ Return\ /Standard\ Error$$

$$T\ Stat\ of\ Cumulative\ Abnormal\ Returns: CAR/(Standard\ Deviation * n)\text{^}(1/2)$$

RESULTS AND DISCUSSION

Effect of Buy-back Result Announcements on Share Prices:

The announcement of a share buy-back can significantly affect stock prices and shareholder wealth. It also has an impact on the company's balance sheet. Business owners are particularly interested in understanding how such announcements affect their returns. They can refine their strategies by analysing the outcomes to optimise returns and enhance their business models.

Table 1

Company	Nifty IT weightage	Nifty 50 Weightage
Infosys	26.82	6.01 %
TCS	25.63	4.04 %
HCL Tech	10.03	1.49 %
LTI Mindtree	8.76	1.23 %
Tech Mahindra	8.11	0.86 %
Wipro	7	0.74 %
Persistent System	4.71	0
Coforge	4.56	0
Mphasis	2.66	0
LTTS	1.73	0

Source: www.nseindia.com

Table 1 explains the average abnormal returns of the company against the Nifty IT index and the Nifty 50 Index for 20 days after the buy-back announcement date. The Table shows that AAR and CAR against the Nifty IT index are positive in 12 out of 20 instances. AAR and CAR against the Nifty 50 index are positive in 10 out of 20 instances and negative in 10 out of 20. While the AAR both against Nifty IT and Nifty 50 ranges between -1 to +1, CAR against the Nifty IT index is positive by more than 10 % in only two instances out of 20 instances, CAR against the Nifty 50 index is positive by more than 10 % in only three instances out of 20 instances and negative by more than 10 % in one instance.

Buy-back History:

Table 2 (a): Infosys

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2017	13000	1150	17.08.2017	19.08.2017	01.11.2017	30.11.2017	14.12.2017
2019	8260	800	08.01.2019	11.01.2019			
2021 (open)	9200	1750	11.04.2021	14.04.2021		25.06.2021	08.09.2021
2022 (open market)	9300	1850	10.10.2022	13.10.2022		07.12.2022	13.02.2023

Source: www.nseindia.com

Table 2 (b): TCS

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2017	16000	2850	15.02.2017	20.02.2017	08.05.2017	18.05.2017	31.05.2017
2019	16000	2100	12.06.2018	15.06.2018	28.08.2018	06.09.2018	21.09.2018
2021	16000	3000	04.10.2020	07.10.2020	28.11.2020	18.12.2020	01.01.2021
2022 (tender)	18000	4500	07.1.2022	12.01.2022	23.02.2022	09.03.2022	23.03.2022
2023 (Tender)	17000	4150	06.10.2023	11.10.2023	25.11.2023	01.12.2023	7-12-2023

Source: www.nseindia.com

Table 2 (c): Wipro

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2016	2500	625	12.04.2016	20.04.2016	06.05.2016	17.06.2016	30.06.2016
2017	11000	320	14.07.2017	20.07.2017	15.09.2017	29.11.2017	13.12.2017
2019	10500	325	10.04.2019	16.04.2019	21.06.2019	14.08.2019	28.08.2019
2020	9500	400	07.10.2020	13.10.2020	11.12.2020	29.12.2020	11.01.2021
2023	12000	445	24.04.2023	27.04.2023	16.06.2023	22.06.2023	30.06.2023

Source: www.nseindia.com

Table 2 (d): HCL tech

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2017	3500	1000	15.03.2017	20.03.2017	25.05.2017	12.06.2017	23.06.2017
2018	4000	1100	09.07.2018	12.07.2018	31.08.2018	18.09.2018	03.10.2018

Source: www.nseindia.com

Table 2 (e): Tech Manindra

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2019	1956	950	16.02.2019	21.02.2019	06.03.2019	25.03.2019	04.05.2019

Source: www.nseindia.com

Table 2 (f): Mphasis

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2017	1103	635	25.01.2017	31.03.2017	31.03.2017	12.05.2017	25.05.2017
2018	988.27	1350	02.08.2018	07.08.2018	25.10.2018	07.12.2018	20.12.2018

Source: www.nseindia.com

Table 2 (g): Coforge

Year	Size	Buy-back Price	Date of announcement	Date of Board Meeting	Record Date	Issue open	Issue Close
2020	337.46	1725	16.12.2019	23.12.2019	`12.03.2020	26.05.2020	11.06.2020

Source: www.nseindia.com

Table 2 explains the Average price movement of the company's pre- and post-buy-back announcement date. The Table highlights the following patterns in stock returns surrounding the announcement date:

- In 15 out of 20 instances, stocks showed positive returns during the 20 days following the announcement.
- Similarly, 15 out of 20 cases recorded positive returns in the 10 days prior to the announcement.
- On the day before the announcement, 14 out of 20 cases experienced positive returns.
- On the announcement date, 12 out of 20 cases reported positive returns.
- The day following the announcement, 16 out of 20 instances displayed positive returns.
- Over the 10 days after the announcement, 15 out of 20 cases showed positive returns.
- Lastly, 20 days after the announcement, 12 out of 20 cases reported positive returns.

As seen from the above Table, there is a positive AAR in the event window between t0 and t+1, i.e. 16 out of 20 times (80% of the time).

A similar pattern can be found even one day before the announcement date, i.e. during the event from t-1 to t0.

The AARs from t-1 to t-0 were positive 14 out of 20 times (70% of the time). The stock price increased on the announcement date (t0) and after the announcement, but the stock price returned to normal within 20 days of the acquisition announcement.

The acquisition announcement positively impacted stock prices, confirming the consensus view. This highlights the importance of well-informed marketing campaigns (so-called buy-backs).

The null hypothesis (H0) is rejected, as the returns before the announcement date lack clarity, whereas post-announcement returns are predominantly positive, indicating a favourable reaction in stock prices.

Table 3: The Table below explains the average abnormal returns of the company against the Nifty IT index and the Nifty 50 Index for 20 days after the buy-back announcement date.

Sl no	Company	Average Abnormal Return (AAR) % against Nifty IT (From T+1 to T+20 Days)	Cumulative AAR % (From T+1 to T+20 Days)	Average Abnormal Return (AAR) % against Nifty (From T+1 to T+20 Days)	Cumulative AAR % (From T+1 to T+20 Days)
1	TCS 2017	0.03%	0.64%	0.18%	3.66%
2	TCS 2019	0.01%	0.19%	-0.04%	-0.87%
3	TCS 2021	0.21%	4.21%	0.15%	2.97%
4	TCS 2022	0.30%	5.95%	-0.02%	-0.49%
5	TCS 2023	-0.06%	-1.16%	-0.27%	-5.32%
6	Wipro 2016	-0.14%	-2.87%	-0.26%	-5.18%
7	Wipro 2017	0.60%	12.02%	0.92%	18.30%
8	Wipro 2019	0.11%	2.22%	0.20%	4.04%
9	Wipro 2020	0.08%	1.60%	-0.22%	-4.45%
10	Wipro 2023	-0.08%	-1.51%	0.18%	3.68%
11	Infosys 2017	-0.45%	-9.00%	-0.51%	-10.27%
12	Infosys 2019	0.11%	2.24%	0.56%	11.10%
13	Infosys 2021	-0.19%	-3.75%	-0.44%	-8.80%
14	Infosys 2022	-0.15%	-2.99%	0.14%	2.72%
15	HCL tech 2017	0.11%	2.15%	-0.25%	-5.09%
16	HCL Tech (2018).	-0.09%	-1.86%	-0.09%	-1.85%
17	Tech Mahindra 2019	0.09%	1.78%	-0.32%	-6.38%
18	Mphasis 2017	0.30%	5.90%	0.27%	5.40%
19	Mphasis 2018	-0.09%	-1.70%	0.00%	0.07%
20	Coforge 2020	0.95%	19.02%	0.86%	17.29%

Source: Authors' calculation

The above Table shows that AAR and CAR against the Nifty IT index are positive in 12 out of 20 instances.

Table 3 summarises the percentage return of the stock for different days up to and from the announcement date.

The Table shows that in 15 out of 20 instances, the stock return was positive on the announcement date, which increased to 16 on the next day. The stock gave more than 10 % return only 2 times up to 10 days and only 3 times up to 20 days on a cumulative basis.

Table 4: The Table below Table explains the Average price movement of the company's pre- and post-buy-back announcement date

Company-wise Changes in Stock Prices up to 20 days of Buy-back Announcement (Figures in Percentage)							
Company	**Minus 20th day**	**Minus 10th day**	**Minus 1st day**	**0th Day**	**Plus 1st day**	**Plus 10th day**	**Plus 20th day**
TCS 2017	7%	7.76%	-0.33%	0.31%	1.41%	3.75%	5%
TCS 2019	2%	-0.05%	0.15%	1.79%	2.42%	4.02%	5%
TCS 2021	10%	2.84%	1.25%	0	7.23%	9.43%	6%
TCS 2022	6%	3.92%	-1.39%	1.21%	0.68%	-0.43%	-2%
TCS 2023	5%	-0.44%	1.46%	0.89%	0.47%	-3.51%	-7%
Wipro 2016	6%	1.79%	2.95%	0.67%	2.70%	-2.36%	-5%
Wipro 2017	3%	1.92%	0.10%	-1.59%	2.69%	10.88%	11%
Wipro 2019	6%	7.24%	3.83%	2.63%	0.11%	4.87%	1%
Wipro 2020	17%	5.98%	-1.17%	1.59%	7.20%	3.03%	3%
Wipro 2023	0%	-0.38%	1.43%	2.69%	-0.61%	1.20%	5%
Infosys 2017	-1%	-3.02%	-0.64%	4.68%	-9.56%	-9.65%	-11%
Infosys 2019	-1%	3.91%	1.61%	-0.25%	0.90%	10.21%	12%
Infosys 2021	7%	6.35%	0.08%	0	-1.06%	-6.56%	-8%
Infosys 2022	-1%	5.98%	-0.27%	0.79%	-2.66%	3.83%	3%
HCL tech 2017	3%	1.64%	0.86%	-1.25%	1.48%	4.12%	-4%
HCL tech 2018	2%	4.28%	1.38%	1.87%	1.87%	4.50%	0%
Tech Mahindra 2019	12%	7.19%	-0.78%	0	0.48%	4.02%	-1%
Mphasis 2017	-3%	-0.87%	0.07%	1.70%	4.12%	4.97%	9%
Mphasis 2018	11%	6.22%	4.61%	-2.17%	1.79%	0.82%	6%
Coforge 2020	-3%	0.13%	0.43%	-1.15%	8.93%	8.01%	21%

Source: Authors' calculation

Impact of Buy-back Announcement on Nifty IT Index Prices- Company-Wise Analysis

The Table below evaluates the effect of buy-back announcements on the returns of the Nifty IT index. Across all cases, the findings reveal a value lower than 1.96 (p-value at the 5% significance level), suggesting that the buy-back announcements by these companies do not exert a statistically significant impact on the returns of the Nifty IT index. The Null hypothesis (H0) gets accepted as the buy-back announcement does not significantly affect the Nifty IT index.

Table 5: The Table below summarises the percentage return of the stock for different days up to and from the announcement date.

Summary of Stock Returns from 1st day to 20th Day of Announcement							
Return in %age	**Minus 20th day**	**Minus 10th day**	**Minus 1st day**	**0th Day**	**Plus 1st day**	**Plus 10th day**	**Plus 20th day**
Less than minus 10	0	0	0	0	0	0	1
minus 10 to Zero	5	5	6	5	4	5	7
0 to 10	12	15	14	15	16	13	9
Greater than 10	3	0	0	0	0	2	3
Total	20	20	20	20	20	20	20

Source: Authors' calculation

Impact of Buy-back Announcement on Nifty 50 Index Prices- Industry-Wise Analysis the Table below illustrates the effect of buy-back announcements on the returns of the Nifty 50 index. In all cases, the significant value is below 1.96 (the p-value threshold at the 5% level of

significance), indicating that the buy-back announcements by the companies analysed do not have a meaningful impact on the Nifty 50 index's returns.

Table 6

Sl No	Company	Nifty IT CAR T value
1	TCS 2017	0.01
2	TCS 2019	0.00
3	TCS 2021	0.07
4	TCS 2022	0.12
5	TCS 2023	-0.03
6	Wipro 2016	-0.06
7	Wipro 2017	0.18
8	Wipro 2019	0.04
9	Wipro 2020	0.03
10	Wipro 2023	-0.04
11	Infosys 2017	-0.20
12	Infosys 2019	0.04
13	Infosys 2021	-0.07
14	Infosys 2022	-0.05
15	HCL tech 2017	0.04
16	HCL tech 2018	-0.03
17	Tech Mahindra 2019	0.03
18	Mphasis 2017	0.11
19	Mphasis 2018	-0.03
20	Coforge 2020	0.35

Source: Authors' calculation

The Table shows the impact of the buy-back announcement on the return of the Nifty IT index

Impact of Buy-back Announcement on Nifty 50 Index Prices- Industry-Wise Analysis

The Table below explains the impact of the buy-back announcement on the return of the Nifty 50 index.

Table 7

Sl No	Company	Nifty 50 CAR T value
1	TCS 2017	0.07
2	TCS 2019	-0.02
3	TCS 2021	0.05
4	TCS 2022	-0.01
5	TCS 2023	-0.13
6	Wipro 2016	0.08
7	Wipro 2017	0.28
8	Wipro 2019	0.08
9	Wipro 2020	-0.07
10	Wipro 2023	0.08
11	Infosys 2017	-0.24
12	Infosys 2019	0.21
13	Infosys 2021	-0.17
14	Infosys 2022	0.05
15	HCL tech 2017	-0.10
16	HCL tech 2018	-0.03
17	Tech Mahindra 2019	-0.11
18	Mphasis 2017	0.10
19	Mphasis 2018	0.00
20	Coforge 2020	0.32

Source: Authors' calculation

The Table shows the impact of the buy-back announcement on the return of the Nifty 50 index. As a result, the null hypothesis (H0) is accepted, confirming that buy-back announcements do not significantly affect the Nifty 50 index.

This study is based on the signalling hypothesis or information asymmetry theory, which suggests that a company's management, having access to insider knowledge, can better assess the firm's actual value compared to shareholders. Managers may perceive the company's current valuation as undervalued.

However, our study found that the market often disregards the information such buy-backs convey and fails to strongly indicate the firm's undervaluation. The results suggest semi-strong market efficiency in the Indian context. Our study found that stocks like TCS and Infosys, which have a high weight in both the Nifty IT and Nifty 50 index, could not impact its movement. Therefore, traders and hedgers involved in index trading must remember this impact while making their positions.

RESEARCH LIMITATION

Although the authors have tried to do comprehensive research, the paper still has some limitations. The buy-back route has not been considered like tender or open market routes. The buy-back size, acceptance ratio, and premium of the buy-back price over the current market price as of the announcement date have also not been considered. The company's market cap and the impact of the COVID-19 pandemic have not been considered. Further, the buy-back timing, market sentiments, frequency, and previous history of buy-back for the same company have not been considered.

IMPLICATIONS & CONCLUSION

This study explores how share buy-back announcements influence a company's stock prices, focusing on the periods before and after the announcement. It also investigates how the returns of the corresponding index are influenced when its constituent companies announce buy-backs.

The study looks into the performance of seven IT companies that are part of the Nifty IT and Nifty 50 indices, covering the period from January 2013 to December 2023. The Average Abnormal Returns (AAR) and Cumulative Average Abnormal Returns (CAAR) are calculated using the event study methodology.

The findings suggest that buy-back announcements did not significantly impact abnormal returns for any IT companies analysed in the sample. This finding contradicts the previous studies conducted in the USA and other European countries, including the United Kingdom. However, in the context of the Indian market, this result is consistent with Purohit et al. (2012). This implies that the Indian market is efficient and that the buy-back announcement is quickly subsumed in the stock prices.

Further, buy-back announcements of IT companies do not significantly influence the NIFTY 50 index, likely due to the underperformance of other sectoral indexes that have significant weight in NIFTY 50, like banks, auto, FMCG, and oil and gas.

The study also found that the impact on the NIFTY IT index is also not significant, which might be due to the underperformance of other stocks in the IT index and the overall market conditions, keeping the impact of the buy-back announcement as stock-specific.

References

1) Adra, S., Gao, Y., Huang, J., & Yuan, J. (2023). Geopolitical risk and corporate payout policy. *International Review of Financial Analysis*, *87*, 102613.

2) Agarwalla, S. K., Jacob, J., & Vasudevan, E. V. (2013). Market timing ability of indian firms in open market repurchases. *Indian Institute of Management Ahmedabad Working Paper*, *2013–11*, 10.

3) Albaity, M., & Said, D. S. (2016). Impact of Open-Market Share Repurchases on Long-Term Stock Returns: Evidence from the Malaysian Market. *Sage Open*, *6*(4),

4) Almeida, H., Fos, V., & Kronlund, M. (2016). The actual effects of share repurchases. *Journal of Financial Economics*, *119*(1), 168–185.

5) Andres, C., Betzer, A., Doumet, M., & Theissen, E. (2018). Open Market Share Repurchases in Germany: A Conditional Event Study Approach. *Abacus*, *54*(4), 417–444.

6) Anwar, S., Singh, S., & Jain, P. (2016). Signaling mechanism of corporate payout policy: A case of Indian firms. *Accounting*, *2*(2), 53–66.

7) Aris, N. M., Aidi, M. A., Jais, M., & Anuar, R. (2021). The effects of earnings on share repurchase: Evidence in Malaysia. *International Journal of Academic Research in Accounting Finance and Management Sciences*, *10*(4), 22–39.

8) Arora, S., Patel, J., & Ubeja, S. (2015). Event Study on Mahindra and Mahindra Ltd. Stock Prices: A Study on Launch of Mahindra e2o. *FIIB Business Review*, *4*(4), 71–77.

9) Attri, P., & Rathore, H. S. (2018). Announcement effects of share buy-back: Study of IT companies listed on NSE. *International Journal of Engineering Research and Management (IJERM)*, *5*.

10) Bhama, V. (2021). Understanding equity repurchase motives for different firm set-up: Indian evidence. *Investment Management and Financial Innovations*, *18*(1), 90–100.

11) Bhargava, S., & Agrawal, P. (2015). Announcement effect of share buy-back on share price at National Stock Exchange: An empirical investigation. *Annual Research Journal of Symbiosis Centre of Management Studies*, *3*(1), 89–105.

12) Bhullar, P. S., Bhatnagar, D., & Gupta, P. K. (2018). *Impact of buy-back of shares on firm value: Empirical evidence from India*.

13) Brown, C., Handley, J., & O'Day, J. (2015). The Dividend Substitution Hypothesis: Australian Evidence. *Abacus*, *51*(1), 37–62.

14) Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, *14*(1), 3–31.

15) Busch, P., & Obernberger, S. (2017). Actual share repurchases, price efficiency, and the information content of stock prices. *The Review of Financial Studies*, *30*(1), 324–362.

16) Chang, S.-C., Chen, S.-S., & Chen, L.-Y. (2010). Does prior record matter in the wealth effect of open-market share repurchase announcements? *International Review of Economics & Finance*, *19*(3), 427–435.

17) Chatterjee, C., & Mukherjee, P. (2015). Price Behaviour around Share Buy-back in the Indian Equity Market. *Global Business Review*, *16*(3), 425–438.

18) Chavali, K., & Shemeem, S. (2011). Impact of buy-backs on the share price performance of companies in the Indian context. *European Journal of Finance and Banking Research*, *4*(4), 23.

19) Chi, D.-J., Lu, H.-T., & Tsai, Z.-R. (2010). Does stock repurchase declaration affect stock price? Differences between the electrics industry and other industries. *Expert Systems with Applications*, *37*(1), 640–646.

20) Dann, L. Y. (1981). Common stock repurchases: An analysis of returns to bondholders and stockholders. *Journal of Financial Economics*, *9*(2), 113–138.

21) Dayanandan, A., Donker, H., Kuntluru, S., & Nofsinger, J. (2020). Share buy-backs in India. *Research in International Business and Finance*, *54*, 101296.

22) Dickson, A. C. (2018). *Are dividends and share repurchases substitutes?: Evidence from the reaction of financial analysts* [PhD Thesis]. University of Missouri–Columbia.

23) Fama, E. F. (1991). Efficient Capital Markets: II. *The Journal of Finance*, *46*(5), 1575–1617.

24) Gan, C., Bian, C., Wu, D., & Cohen, D. A. (2017). *Determinants of share returns following repurchase announcements in China*.

25) Hyderabad, R. L. (2009). Price Performance following Share Buy-back Announcements in India. *Vision: The Journal of Business Perspective*, *13*(1), 59–78.

26) Ikenberry, D., Lakonishok, J., & Vermaelen, T. (2000). Stock Repurchases in Canada: Performance and Strategic Trading. *The Journal of Finance*, *55*(5), 2373–2397.

27) Karstens, H. A. C. (2021). *The effect of share repurchase announcements on the share price for Dutch firms* [Master's Thesis, University of Twente].

28) Kaur, K., & Dhandha, N. (2016). Buy back of shares in India: Impact on Stock Price Returns. *EPRA International Journal of Economic and Business Review*, *4*(7), 94–95.

29) Kumar Pradhan, S., & Kasilingam, R. (2016). Impact of buy-back announcement on share price: A company and industry wise analysis. *International Journal of Management and Business Research*, *6*(1), 13–21.

30) Kumar, R., Kumar, P., & Firoz, M. (2019). How Do Indian Stock Market React to Repurchase of Shares Announcement? An Event Study Methodology. *Wealth: International Journal of Money, Banking & Finance*, *8*(1).

31) Lindgren, D., & Sjöberg, P. (2018). *Long-term Abnormal Returns Following Share Repurchase Announcements: Do repurchasing firms outperform the market?*

32) Manconi, A., Peyer, U., & Vermaelen, T. (2019). Are buy-backs good for long-term shareholder value? Evidence from buy-backs around the world. *Journal of Financial and Quantitative Analysis*, *54*(5), 1899–1935.

33) McNally, W. J., Smith, B. F., & Barnes, T. (2006). The Price Impacts of Open Market Repurchase Trades. *Journal of Business Finance & Accounting*, *33*(5–6), 735–752.

34) Pandey, A., Bhama, V., & Mohapatra, A. K. (2020). Trading strategy using share buy-backs: Evidence from India. *Investment Management and Financial Innovations*, *17*(2), 169–182.

35) Purohit, H., Satija, V. D., & Chhatwal, H. S. (2012). Market Reaction Around the Buy-back Announcements: An Empirical Analysis of Informational Efficiency of Indian Stock Market. *International Journal of Management, IT and Engineering*, *2*(7), 30–52.

36) Rau, P. R., & Vermaelen, T. (2002). Regulation, Taxes, and Share Repurchases in the United Kingdom. *The Journal of Business*, *75*(2), 245–282.

37) Shaw, S., & Rakshit, D. (2017). Share repurchase as a tool of financial restructuring: A case study. *International Journal of Research in Finance and Marketing*, *7*(2), 103–111.

38) Sivashanmugam, C., & Sowmya, S. (2019). Market reaction to buy-back announcement: Evidences from select Indian Manufacturing Companies. *International Journal of Recent Technology and Engineering (IJRTE)*, *8*(4), 9342–9353.

39) Stankevičienė, J., & Akelaitis, S. (2014). Impact of public announcements on stock prices: Relation between values of stock prices and the price changes in Lithuanian stock market. *Procedia-Social and Behavioral Sciences*, *156*, 538–542.

40) Van Holder, T., Van de Kerckhove, J., & Heyman, D. (2015). The effect of share repurchases in Belgium and the Netherlands. *Unpublished Master Thesis, University of Ghent*.

41) Vermaelen, T. (1981). Common stock repurchases and market signalling: An empirical study. *Journal of Financial Economics*, *9*(2), 139–183.

42) Wansley, J. W., Lane, W. R., & Sarkar, S. (1989). Managements' view on share repurchase and tender offer premiums. *Financial Management*, 97–110.