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Share Buyback Motivations Among Indian Manufacturing Companies: Evidence from Open Market and Tender Offers

(Motivasi Pembelian Balik Saham dalam Kalangan Syarikat Pembuatan di India: Bukti daripada Pasaran Terbuka dan Tawaran Tender)

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ABSTRACT

This study examines the primary drivers of share buyback decisions among Indian manufacturing firms, with particular emphasis on the roles of market undervaluation, capital structure optimisation, and excess liquidity. Using a quantitative research approach, the analysis covers 230 buyback announcements by manufacturing firms listed on the Bombay Stock Exchange from FY 2000 to FY 2018. Multiple regression models are applied to evaluate the influence of key firm-level factors, including undervaluation measured by the market-to-book ratio, profitability measured by the return on capital employed, dividend payout, capital structure measured by the debt-to-equity ratio, and excess liquidity measured by the cash-to-current liabilities ratio on the propensity to repurchase shares. The results indicate that undervaluation, excess liquidity, and capital structure are significant determinants of buyback activity, with firms being more likely to engage in repurchases when shares are undervalued, surplus liquidity is available, and adjustments to leverage are warranted. Profitability shows a weaker relationship, suggesting a preference among highly profitable firms to reinvest earnings rather than return capital through a buyback. These findings extend financial signalling theory by reinforcing the role of undervaluation in buyback decisions and offer practical insights for corporate managers, policymakers, and investors to align financial strategies with market conditions.

Keywords: Share buyback; open market offer; tender offer; buyback drivers

ABSTRAK

Kajian ini meneliti pemacu utama keputusan pembelian semula saham dalam kalangan firma pembuatan di India, dengan penekanan khusus kepada peranan penilaian pasaran yang rendah (market undervaluation), pengoptimuman struktur modal, dan lebihan mudah tunai. Menggunakan pendekatan penyelidikan kuantitatif, analisis ini merangkumi 230 pengumuman pembelian semula oleh firma pembuatan yang disenaraikan di Bursa Saham Bombay dari tahun kewangan 2000 hingga 2018. Model regresi berganda digunakan untuk menilai pengaruh faktor-faktor utama di peringkat firma termasuk penilaian pasaran yang rendah yang diukur melalui nisbah pasaran kepada nilai buku, keuntungan yang diukur melalui pulangan atas modal yang digunakan (ROCE), pembayaran dividen, struktur modal yang diukur melalui nisbah hutang kepada ekuiti, dan lebihan mudah tunai yang diukur melalui nisbah tunai kepada liabiliti semasa terhadap kecenderungan untuk membeli semula saham. Hasil kajian menunjukkan bahawa penilaian pasaran yang rendah, lebihan mudah tunai, dan struktur modal merupakan penentu signifikan aktiviti pembelian semula, di mana firma lebih cenderung untuk melakukan pembelian semula apabila saham dinilai rendah, terdapat lebihan mudah tunai, dan penyesuaian terhadap leveraj diperlukan. Keuntungan menunjukkan hubungan yang lebih lemah, yang mencadangkan kecenderungan firma yang sangat menguntungkan untuk melabur semula keuntungan berbanding mengembalikan modal melalui pembelian semula. Dapatan ini memperluas teori isyarat kewangan dengan mengukuhkan peranan penilaian pasaran yang rendah dalam keputusan pembelian semula serta menawarkan pandangan praktikal kepada pengurus korporat, penggubal dasar, dan pelabur dalam menyelaraskan strategi kewangan dengan keadaan pasaran.

Kata kunci: Pembelian semula saham; tawaran pasaran terbuka; tawaran tender; pemacu pembelian semula

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INTRODUCTION

Corporate finance has undergone significant evolution in recent decades, mirroring broader economic trends and the growing intricacy of global markets. Among the various strategies corporations utilize to enhance shareholder value, share buybacks have become a significant instrument. This financial mechanism, primarily designed to redistribute surplus capital to shareholders, is frequently perceived as an indication of management's assurance in the company's financial stability and future potential. These practices are posited to augment shareholder value by diminishing the equity base, consequently elevating earnings per share and potentially enhancing the market value of the remaining shares.

Recent academic and official data emphasize the growing significance of buybacks in India's capital markets and their present economic importance. In 2023, 48 Indian companies executed buybacks amounting to ₹47,810 crore, the highest figure in six years. In August 2024, 11 companies repurchased ₹5,388 crore, reflecting ongoing market activity (Rediff 2024; Business Standard 2024). At the macroeconomic level, manufacturing Gross Value Added (GVA) increased by 9.9% in the fiscal year 2023-24, underscoring the sector's pivotal contribution to India's recovery (MoSPI 2024). In addition to these official statistics, Arora (2022) records significant undervaluation incentives and substantial post-repurchase returns for Indian companies. Christodoulou et al. (2022) demonstrate that liquidity constraints significantly influence repurchase decisions in emerging markets. Goyal and Mangala (2025) present recent evidence from India indicating positive abnormal returns during the announcement period, characterized by sectoral heterogeneity.

Empirical evidence from developed markets, especially the United States, indicates that managerial motivations for share buybacks encompass i) capital structure adjustment, ii) earnings per share management, and iii) reaction to the temporary undervaluation of a firm's stock (Lee et al. 2020). Nonetheless, these motivations are intricate and multifarious. Managers may initiate buybacks influenced by their compensation structures, which are frequently tied to short-term stock performance indicators, such as earnings per share and return on equity. Moreover, buybacks can function as a mechanism to deter potential takeovers by diminishing the number of shares available for purchase, thereby complicating efforts by hostile entities to acquire controlling interests.

Although buyback literature is widespread, the majority of existing research primarily concentrates on advanced economies, where corporate governance standards, market dynamics, and investor behaviors have been thoroughly examined. This body of work generally presupposes a degree of market efficiency and shareholder rights that may be absent in developing economies like India. The dynamics of corporate finance in emerging markets present a unique landscape defined by specific challenges and opportunities. India's corporate landscape is profoundly shaped by family-owned and promoter-driven enterprises, which exhibit distinctive governance structures that may influence buyback decisions in a manner divergent from Western contexts (Dayanandan et al. 2020). In India, the trend of share buybacks is accelerating, as demonstrated by a significant rise in these activities in recent years. Buyback transactions escalated from a mere $1.35 billion in the early 2000s to approximately $29 billion by the conclusion of 2021. This escalation signifies India's increasing economic prominence and highlights a transition towards more advanced corporate financial methodologies. Nonetheless, the motivations and ramifications of these buybacks in the Indian context remain inadequately examined, especially within its expanding manufacturing sector.

In light of this context, our research seeks to address the deficiency in existing literature by concentrating on the manufacturing sector in India, a vital component of the country's industrial economy. The selection of this sector as the central focus of our analysis is driven by its substantial contribution to the overall volume of buybacks, comprising more than fifty percent of buyback announcements from FY 2000-01 to FY 2018-19. This sector-specific approach facilitates a detailed comprehension of the strategic foundations of buybacks in non-Western industrial settings, thus enhancing the overall discussion on corporate financial strategies in emerging markets.

This research analyzes the specific determinants of buyback decisions in these firms, exploring the interplay of financial, regulatory, and governance factors that shape these strategic choices. This study offers a comprehensive analysis of the mechanisms by which buybacks are conducted and their wider ramifications for financial markets, corporate governance, and investor behavior in an emerging market context. The insights derived from this study aim to extend beyond theoretical boundaries, providing significant implications for practitioners, policymakers, and financial analysts. This study enriches the existing literature by offering a comprehensive empirical analysis that deepens our comprehension of corporate financial management practices across varying economic contexts. This study enhances the geographical and sectoral breadth of buyback research, offering significant insights that can advance theoretical frameworks and inform practical financial strategies in dynamic markets.

The subsequent sections of this paper are organized as follows: Section 2 examines the literature regarding the determinants of share repurchase decisions, utilizing both global and localized studies to contextualize the research within

contemporary academic discourse. Section 3 delineates the study hypotheses, explicating the theoretical underpinnings and expected correlations. Section 4 delineates the methodology, encompassing sample selection and data collection techniques. Section 5 delineates the empirical findings and examines their ramifications within the framework of established theories. Section 6 concludes with a summary of the findings and their implications for theory, practice, and policy, along with recommendations for future research.

LITERATURE REVIEW

Share buybacks have been acknowledged as a significant method for returning capital to investors (Ntantamis & Zhou 2022). By diminishing the quantity of outstanding shares without directly modifying reported earnings, companies can enhance earnings per share (EPS), consequently elevating stock prices to the advantage of both current shareholders and those opting to divest their holdings (Grullon & Michaely 2004; Hribar et al. 2006). Repurchase programs are driven by various factors, including the necessity to i) achieve earnings objectives (Farrell et al. 2014; Almeida & Kronlund 2016), ii) convey positive financial outlooks, iii) improve stock liquidity (Busch & Obernberger 2017; Hillert et al. 2016), and iv) allocate surplus liquidity to prevent overinvestment. Investors frequently regard buybacks more favorably than dividends, viewing them as exceptional disbursements. Furthermore, in certain jurisdictions, including the United States, buybacks confer tax benefits by deferring capital gains (Lazonick 2014). Consequently, share repurchases have surpassed dividends as the predominant distribution method in various advanced economies, including the United States (Standard & Poor's 2019).

The dynamics in emerging markets are notably different. Evidence indicates that the market's response to buybacks in India is more pronounced than in the U.S. or U.K., primarily attributable to the undervaluation of Indian capital markets (Arora 2022). Companies are typically more inclined to repurchase their shares when they consider their valuations to be undervalued (Ikenberry et al. 1995), with the extent of undervaluation frequently influencing the timing and scale of announcements (Saxena & Sahoo 2023). The undervaluation hypothesis has consequently emerged as the prevailing rationale for repurchase programs globally (Kawase et al. 2025). Numerous scholars (Lee et al. 2020; Ren et al. 2024) have observed that buyback announcements frequently act as indicators of a firm's intrinsic value. However, other research highlights that undervaluation is not the exclusive factor, as alternative motivations also significantly contribute (Bonaime & Ryngaert 2011).

Share repurchases are especially appealing for companies with constrained lucrative investment prospects. In this context, share repurchases offer an effective means of returning excess cash to shareholders when current investments generate comparatively low returns (Suresha et al. 2024). Thus, intervals of diminished profitability frequently correlate with an increased frequency of repurchase announcements (Varma & Munjal 2016). Moreover, buybacks often exceed dividend distributions, aligning with the substitution hypothesis (Dobbs & Rehm 2005). Empirical evidence indicates that public companies in the U.S. and other developed economies have progressively preferred open-market repurchases to dividends (Fried 2005). Companies may prefer share repurchases to dividends for two primary reasons: first, to enhance tax efficiency in the distribution of excess cash flows (Guay & Harford 2000); and second, when dividend yields are comparatively low and stock price fluctuations are minimal (Doan et al. 2011; Pandey & Kavidayal 2023). In the Indian context, investors exhibit a more pronounced reaction to dividend announcements than to buyback programs (Arora 2022).

From a financial structure standpoint, banks' open market repurchases and corporate buybacks generally reinforce the optimal capital ratio hypothesis, primarily aimed at achieving an efficient leverage composition (Mazur et al. 2023). Although buybacks can be incorporated into a company's long-term strategy, certain studies warn that their effects may be ephemeral (Dixon et al. 2008; Chin et al. 2023). In Australia, firm size significantly impacts repurchase decisions, with scant evidence indicating that buybacks are mainly employed for capital structure optimization (Lee et al. 2020).

Historically, buyback programs have served as a means of distributing surplus cash flows (Chao & Huang 2022). In India, most companies conduct buybacks not to the detriment of dividends but as a supplementary measure, primarily to utilize free cash flows (Arora 2022). The free cash flow hypothesis continues to serve as a primary rationale for repurchases, with numerous recent studies affirming its significance. In addition to this hypothesis, other factors influencing buybacks encompass the prevention of hostile takeovers, the augmentation of shareholder wealth, managerial incentives like CEO compensation, and the utilization of repurchases to bolster employee stock ownership plans (DeAngelo 2023).

Share repurchases are universally recognized and implemented globally. Nevertheless, limited comprehensive studies have been undertaken in emerging markets. No industry-specific study has been conducted in India to date. Research on share buybacks in the manufacturing sector is scarce. From FY 2000-01 to 2019-20 in India, there were 456 share-repurchase announcements, with 230 (50%) originating from the manufacturing sector. This study elucidates the significance of factors influencing share repurchases by specific Indian manufacturing companies listed on the Bombay Stock Exchange (BSE) through Open Market Repurchase (OMR) and Fixed-Price Tender (FPT) offers. Therefore, this study posits the subsequent hypotheses:

H_1 Factors such as dividend substitution, free cash flow, capital restructuring, and undervaluation hold no significance for share buybacks by certain manufacturing firms in India listed on the BSE, either individually or collectively.

H_2 There is no substantial difference between the determinants of buyback for the open market and free tender offer methods of share repurchase.

DATA AND METHODOLOGY

SAMPLING AND DATA

The study focuses on Indian manufacturing firms listed on the Bombay Stock Exchange (BSE) that announced share buybacks between FY 2001–02 and FY 2019–20 (19 years of secondary data). From a total of 456 share-repurchase announcements, 230 were made by manufacturing firms. Based on data availability, 182 valid buyback events were analysed, comprising 83 Fixed-Price Tender offers and 99 Open Market Repurchase offers.

Firms affected by confounding corporate events such as mergers, acquisitions, bonus issues, or dividend announcements during the event period were excluded to ensure clean data. Financial data were obtained primarily from the Centre for Monitoring Indian Economy (CMIE) Prowess database, while buyback announcement details were collected from the Securities and Exchange Board of India website. Control firms were identified to match buyback firms based on industry classification, market capitalisation, and economic activity codes to maintain comparability in firm-specific characteristics.

VARIABLES AND MEASUREMENTS

DEPENDENT VARIABLES

To examine the determinants of share buyback activity among Indian manufacturing firms, the study employs a multiple linear regression framework that integrates both firm-specific and market-based variables. The empirical model is specified as follows:

$$REPAT_{i,t} = \alpha + \beta_1 \mathrm{UNDERVAL}_{i,t} + \beta_2 \mathrm{PROFIT}_{i,t} + \beta_3 \mathrm{DIV}_{i,t} + \beta_4 \mathrm{CAPSTR}_{i,t} + \beta_5 \mathrm{EXCASH}_{i,t} + \varepsilon \mathrm{it} \quad (1)$$

In this specification, the dependent variable REPAT_{it}represents the ratio of the total value of shares repurchased by firm $i$during fiscal year $t$to the market value of equity at the end of the preceding year. This ratio serves as a standardised measure of buyback intensity, facilitating comparison across firms of varying sizes. The term αdenotes the intercept, while $\beta_1$to $\beta_5$are the estimated coefficients associated with each explanatory variable. The error term ε_{it}captures random disturbances and unobserved factors that may influence buyback decisions.

INDEPENDENT VARIABLES

The independent variables used in this study are summarised in Table 1, presenting their operational definitions and corresponding descriptions. The selection of these variables is grounded in established theoretical frameworks relating to corporate financial management and share repurchase behaviour, as well as empirical evidence in the literature. These measures encompassess both market-based and firm-specific determinants, enabling a comprehensive examination of the factors influencing buyback decisions in the Indian manufacturing sector.

TABLE 1. Definition and measurement of variables

Independent Variable	Description
Undervaluation	Undervaluation of equity is measured as the market-to-book ratio.
Profitable Investment	Return on Capital Employed (ROCE) assesses the firm's performance and prospects.
Dividend Payout	Dividend paid-to-profit ratio in the preceding year.
Capital Structure	Debt-to-equity ratio showing the leverage pattern from the previous year.
Excess Cash	Liquidity measured as the ratio of cash to current liabilities.

Source: Author's work

The independent variables reflect the principal financial drivers of share repurchase behaviour identified in the literature. The first explanatory variable, $\mathrm{UNDERVAL}_{it}$, measures the extent of market undervaluation and is operationalised through the market-to-book ratio, calculated as the market value of equity divided by the book value of equity:

$$\text{UNDERVAL}_{i,t} = \frac{\text{Market Value of Equity}_{i,t}}{\text{Book Value of Equity}_{i,t}} (2)$$

The second variable, profitability (PROFIT_{it}), is captured by the return on capital employed (ROCE), which indicates the firm's efficiency in generating profits from its deployed capital and is expressed as:

$$\text{Profit}_{i,t} = \frac{\text{PBIT}_{i,t}}{\text{Total Capital Employed}_{i,t}} (3)$$

Here, PBIT denotes profit before interest and tax. The third variable, dividend payout (DIV_{it}), reflects the proportion of profits distributed to shareholders as dividends and is defined as:

$$\text{DIV}_{i,t} = \frac{\text{Dividend Paid}_{i,t}}{\text{Net Profit}_{i,t}} (4)$$

Capital structure (CAPSTR_{it}) represents the firm's leverage position and is calculated as the ratio of total debt to shareholders' equity:

$$\text{CAPSTR}_{i,t} = \frac{\text{Total Debt}_{i,t}}{\text{Shareholder's Equity}_{i,t}} (5)$$

Lastly, excess liquidity (EXCASH_{it}) captures the firm's cash holdings relative to its short-term obligations and is measured as below:

$$\text{EXCASH}_{i,t} = \frac{\text{Cash and Cash Equivalents}_{i,t}}{\textit{Current Liabilities}_{i,t}} (5)$$

In this context, $i$represents the firm identifier, and t represents the time period. The parameters $\beta_1$to $\beta_5$are expected to capture the direction and magnitude of the relationship between each independent variable and the propensity to undertake share buybacks. A positive and statistically significant coefficient indicates that an increase in the respective variable enhances the likelihood of share repurchase, while a negative coefficient implies an inverse relationship. This model is designed to empirically test the hypotheses that undervaluation, profitability, capital structure, dividend payout, and liquidity collectively influence the buyback decisions of manufacturing firms in India, and that these influences may vary depending on firm size and the chosen method of repurchase.

METHOD OF ANALYSIS

This study applies a panel data regression approach using the Ordinary Least Squares (OLS) estimation method within the EViews 14 statistical software to analyse the determinants of share buyback decisions among Indian manufacturing firms. Panel data analysis is employed because it integrates both cross-sectional and time-series observations, thereby enhancing the efficiency of estimation and accounting for firm-specific heterogeneity that may influence buyback behaviour. The empirical model evaluates the relationship between the dependent variable, represented by the buyback ratio (REPAT), and the independent variables, namely undervaluation, profitability, dividend payout, capital structure, and excess liquidity. Before estimating the regression, several diagnostic tests were conducted to ensure the robustness and validity of the model. Multicollinearity was examined using correlation analysis, and all coefficients were below the critical value, confirming the absence of high intercorrelation among the predictors. Normality and linearity of the residuals were assessed through residual plots, and the Breusch–Pagan test was applied to detect heteroskedasticity, ensuring that the variance of errors remained constant across observations. The coefficients of determination (R^2 and adjusted R^2) were used to evaluate the explanatory power of the model, while the F statistic assessed the overall significance of the regression and the t statistics determined the individual significance of each independent variable at both the one percent and five percent confidence levels.

RESULTS AND FINDINGS

The correlation matrix in Table 2 presents the pairwise relationships among the independent variables: Undervaluation, Profitable Investment, Dividend Payout, Capital Structure, and Excess Cash used in the analysis. This diagnostic step was undertaken to assess the potential presence of multicollinearity, a statistical issue that arises when explanatory variables are highly interrelated. Excessive multicollinearity can lead to inflated standard errors, reduce coefficient precision, and make it difficult to isolate the unique contribution of each variable to the dependent variable. A common threshold in

econometric research is that correlation coefficients above 0.80 may signal problematic multicollinearity, requiring corrective measures. As shown in Table 2, all correlation coefficients are well below this threshold, ranging from -0.298 to 0.312, indicating that the variables capture distinct dimensions of firm characteristics relevant to buyback decisions.

TABLE 2. Correlation matrix of independent variables

Variables	Undervaluation	Profitable Investment	Dividend Payout	Capital Structure	Excess Cash
Undervaluation	1.000				
Profitable Investment	0.312	1.000			
Dividend Payout	-0.245	-0.278	1.000		
Capital Structure	0.198	-0.186	-0.143	1.000	
Excess Cash	-0.154	0.205	-0.298	-0.264	1.000

Note: All correlation coefficients are below the critical threshold of 0.80, indicating no multicollinearity.

The observed relationships in Table 2 are generally modest, with the strongest positive association recorded between Undervaluation and Profitable Investment (0.312), suggesting that some firms with strong operational returns may still be temporarily undervalued in the market. Conversely, Dividend Payout shows a negative relationship with both Excess Cash (-0.298) and Profitable Investment (-0.278), which aligns with the substitution hypothesis, implying that higher dividend commitments may limit the resources available for repurchases. Likewise, the negative association between Capital Structure and Excess Cash (-0.264) reflects the tendency of more leveraged firms to hold lower cash reserves. These relatively low correlations affirm the absence of serious multicollinearity, enhancing the reliability of the regression estimates and supporting the interpretation that each independent variable contributes uniquely to explaining the variation in share buyback behaviour in the Indian manufacturing sector.

The sample corporates are further categorised into quartiles based on their size. To fix the size of the firm, the natural logarithm of total assets is considered. According to Varma and Munjal (2016), the sample firms are classified as small, medium, and large. This study investigates the drivers of share buyback decisions among Indian manufacturing firms, disaggregating the analysis by firm size (large, medium, and small) and buyback method (open market repurchases and fixed-price tender. Regression models were estimated to capture the effects of undervaluation, profitability, dividend payout, capital structure, and excess cash flow on the repurchase ratio. The results are presented in Table 3 as below:

TABLE 3. Impact of drivers of buyback on repurchase ratio in large-sized firms in OMR

Buyback Drivers	R^2	Beta	F-statistics	t- value
(Constant)		72.37	98.214**	18.624**
Undervaluation	0.457	-1.12		1.624
Profitable Investment	Adjusted R^2	-11.89		3.471**
Dividend Payout		-16.43		10.532**
Capital Restructure		-36.57		15.247**
Excess Cashflow	0.448	-28.14		11.667**

** Significant at 1% level.
Source: Author's work

It is observed from Table 3 that the F-statistic 98.214 is significant at the 1% level. The coefficient of determination, 0.457, indicates that the buyback drivers explain 45.7% of the variability in the repurchase ratio in large-sized companies in the OMR of shares. It is inferred that buyback drivers, such as profitable investments, dividend payouts, capital restructuring, and excess cash flow, have a significant negative impact on the repurchase ratio in large firms in the OMR. These factors significantly reduce the likelihood of a buyback. An additional one-unit improvement in buyback drivers, profitable investment, dividend payout, capital restructuring, and excess cash flow, reduces the repurchase ratio in large companies in OMR by 11.89, 16.43, 36.57, and 28.14 units, respectively. It is worth noting that in large firms, capital restructuring, excess cash flows, and dividend payouts are the primary drivers of OMR offerings. This pattern suggests that large firms tend to reinvest profits rather than use excess cash for buybacks, particularly in the presence of liquidity or leverage constraints. This preference is influenced by the need to maintain financial flexibility, manage cash flow volatility, and respond to market conditions and tax policies (Kakhbod et al. 2025).

Although the F-statistics indicate that the models are statistically significant, the relatively low R^2 values suggest that a considerable proportion of the variation in share buyback behaviour remains unexplained by the independent variables included in this study. This outcome is not uncommon in corporate finance research, particularly when behavioural or strategic decisions, such as share repurchases, are influenced by a wide range of qualitative, firm-specific, and macroeconomic factors that are not fully captured in the model's specification. Nevertheless, the significance of the F-statistics confirms that the selected variables collectively contribute meaningfully to explaining buyback activity, even if their explanatory power is moderate. This finding underscores the complexity of modelling buyback decisions and highlights opportunities for future research to incorporate additional determinants, such as market sentiment, corporate governance mechanisms, and macroeconomic indicators, to enhance explanatory strength.

TABLE 4. Impact of drivers of buyback on repurchase ratio in medium-sized firms in OMR

Independent Variables	R^2	Beta	F-statistics	t- value
(Constant)		1.625	25.017**	5.014**
Undervaluation	0.368	-0.587		5.215**
Profitable Investment		-0.059		1.017
Dividend Payout	Adjusted R^2	-0.485		5.011**
Capital Restructure		-0.086		0.796
Excess Cashflow	0.354	-0.074		0.817

** Significant at 1% level.

It is observed from Table 4 that the F-statistic 25.017 is significant at the 1% level. The coefficient of determination, 0.368, indicates that the buyback drivers explain 36.8% of the variability in the repurchase ratio of medium-sized firms in the OMR. It is inferred that the buyback driver's undervaluation and dividend payout have a significant negative impact on the repurchase ratio in medium-sized firms in the OMR. However, profitable investments, capital restructuring, and excess cash flow do not significantly affect the repurchase ratio. It is also noted that a single unit increase in buyback drivers, undervaluation, and dividend payouts lead to a decrease in the repurchase ratio in medium-sized firms in OMR, from 0.587 to 0.485 units, respectively. It is worth noting that in medium-sized firms, undervaluation, and dividend payout are the primary drivers of OMR offers. This implies that medium-sized firms do not resort to buybacks when they are undervalued or when their dividend commitments are already high. Our results indicate that profitability, capital structure, and liquidity are not significant drivers of buyback decisions. This means that medium-sized firms in India do not consistently use OMR as a signalling mechanism but instead balance repurchase against dividend distribution. Medium-sized firms in India balance share repurchases and dividends based on their specific financial situations and strategic goals. This balance allows firms to effectively manage cash distribution while signalling financial health and stability to investors (Arora 2022).

TABLE 5. Impact of drivers of buyback on repurchase ratio in small-sized firms in OMR

Independent Variables	R^2	Beta	F-statistics	t- value
(Constant)		0.471	0.248	2.211*
Undervaluation	0.106	-0.004		0.698
Profitable Investment		0.007		0.041
Dividend Payout	Adjusted R^2	0.001		0.202
Capital Restructure		-0.005		0.656
Excess Cashflow	0.098	-0.003		0.096

* Significant at the 5% level.

Source: Author's work

From Table 5, it can be seen that the F-statistic 0.248 is not significant at the 5% level, and H_0* is accepted. It is noted that the buyback driver's undervaluation, profitable investment, dividend payout, capital restructuring, and excess cash flow do not have a significant effect on the repurchase ratio in small-sized firms in the OMR offering. This suggests that small manufacturing firms often rely on buybacks as a structured financial strategy, utilising open market methods. This choice is likely due to capital constraints and limited access to liquidity. Small firms are generally more financially constrained than larger firms, which affects their investment decisions and growth potential. These constraints are often due to limited access to external financial resources, forcing small firms to rely heavily on internal cash flows and retained earnings for their financing. The high sensitivity of small firms' growth to cash flow indicates that liquidity constraints significantly affect their operational and strategic decisions (Christodoulou et al. 2022).

TABLE 6. Impact of drivers of buyback on repurchase ratio in large-sized firms in FPT

Independent Variables	R^2	Beta	F-statistics	t- value
(Constant)		0.354	39.514**	5.021**
Undervaluation	0.521	-0.347		3.542**
Profitable Investment		-0.218		3.014**
Dividend Payout	Adjusted R^2	0.054		0.984
Capital Restructure		0.472		5.669**
Excess Cashflow	0.512	0.589		5.001**

** Significant at 1% level

Source: Author's work

Table 6 shows that the F-statistic 39.511 is significant at the 1% level. The coefficient of determination, 0.521, indicates that the buyback drivers explain 52.1% of the variability in the repurchase ratio of large-sized firms in FPT. It is inferred that the buyback driver's undervaluation, profitable investment, capital restructuring, and excess cash flow have a significant impact on the repurchase ratio in large-sized firms in FPT during the study period. It is inferred that undervaluation and profitable investments have a positive impact, whereas capital restructuring and excess cash flow have a negative effect on the repurchase ratio. Thus, we understand that large firms resort to buybacks when they are profitable and their shares are undervalued. Furthermore, a one-unit improvement in buyback drivers' undervaluation and profitable investment diminishes the repurchase ratio by 0.347 and 0.218 units, respectively. A single-unit increase in capital restructuring and excess cash

flow improves the repurchase ratio by 0.472 and 0.589 in large-sized firms in FPT, respectively. It is worth noting that in large firms, capital restructuring and excess cash flows are the primary drivers of FPT offers. This suggests that large firms strategically employ tender offers to signal undervaluation and optimise balance sheet efficiency, striking a balance between profitability, leverage, and liquidity. Firms may use FPT to adjust internal pricing mechanisms, which can reflect their financial health and market position. This signal can be particularly relevant in contexts where firms need to communicate their value to investors and stakeholders. The use of FPT to manage assets and liabilities can also indirectly signal the stability and efficiency of the firm, which is critical during periods of undervaluation. This allows for the precise allocation of resources, which is crucial for maintaining liquidity and managing leverage effectively. By employing FPT, firms can better manage their financial margins and make informed decisions regarding their commercial policies, which directly impact profitability and leverage (Christodoulou et al. 2022).

TABLE 7. Impact of drivers of buyback on repurchase ratio in medium-sized firms in FPT

Independent Variables	R^2	Beta	F-statistics	t- value
(Constant)		0.463	32.144**	5.017**
Undervaluation	0.391	0.058		0.817
Profitable Investment		-0.089		0.954
Dividend Payout	Adjusted R^2	-0.101		1.142
Capital Restructure		-0.328		5.562**
Excess Cashflow	0.382	-0.273		3.998**

** Significant at 1% level.
Source: Author's work

It is observed from Table 7 that the F-statistic 32.144 is significant at the 1% level. The coefficient of determination of 0.391 indicates that the buyback drivers explain 39.1% of the variability in the repurchase ratio of medium-sized firms in FPT. It is inferred that the buyback driver's capital restructuring and excess cash flow have a significant negative impact on the repurchase ratio in medium-sized firms in the FPT. However, undervaluation, profitable investment, and dividend payout do not significantly affect the repurchase ratio. A single-unit increase in buyback drivers' capital restructuring and excess cash flow reduces the repurchase ratio in medium-sized firms in FPT from 0.328 to 0.273 units. It is worth noting that in medium-sized firms, capital restructuring is the primary driver of FPT offers. Firms with higher debt and liquidity are less likely to repurchase shares. This indicates that medium-sized firms in India repurchase under FPT only to restructure their balance sheets.

TABLE 8. Impact of drivers of buyback on repurchase ratio in small-sized firms in FPT

Independent Variables	R^2	Beta	F-statistics	t- value
(Constant)		0.389	21.584**	3.947**
Undervaluation	0.308	-0.371		3.352**
Profitable Investment		-0.085		1.014
Dividend Payout	Adjusted R^2	-0.101		1.112
Capital Restructure		-0.432		5.626**
Excess Cashflow	0.297	0.078		0.924

** Significant at 1%.
Source: Author's work

As noted in Table 8, the F-statistic of 21.584 is significant at the 1% level. The coefficient of determination of 0.308 indicates that the buyback drivers noticed 30.8% of the variability in the repurchase ratio in small-sized firms in FPT. It is inferred that the buyback driver's undervaluation and capital restructuring have a significant negative impact on the repurchase ratio in small-sized firms in FPT. However, profitable investment, dividend payout, and excess cash flow do not significantly affect the repurchase ratio. A one-unit increase in the buyback driver's undervaluation and capital restructuring reduces the repurchase ratio in small-sized firms in FPT from 0.371 to 0.432 units. Notably, in small-sized firms, capital restructuring is the major driver of FPT offers. Our results indicate that undervaluation discourages buybacks, and higher leverage reduces the likelihood of tender offers. Firms are more likely to announce stock repurchase programmes when they are undervalued, as it signals to the market that the firm believes its stock is undervalued and represents a good investment opportunity. This implies that small firms may be constrained in using FPT offers strategically, and undervaluation may signal caution rather than confidence. Small firms may face significant constraints in using fixed-price tender (FPT) offers strategically because of their limited financial resources and higher exit risks during economic downturns. The complexity and cost associated with tender offers can be a barrier for smaller firms, making it difficult for them to compete with larger firms that have greater financial flexibility and resources.

TABLE 9. Drivers of buyback of shares under open market offer and tender offer

Drivers	Expected Result	Open market offer			Tender offer		
		Large	Medium	Small	Large	Medium	Small
Undervaluation	Negative	Negative	Negative*	Negative	Negative*	Positive	Negative*
Profitability	Positive	Negative*	Negative	positive	Negative*	Negative	Negative

Capital structure	Negative	Negative*	Negative	Negative	Positive*	Negative*	Negative*
Excess cashflow	Positive	Negative*	Negative	Negative	Positive*	Negative*	Positive
Dividend substitution	Negative	Negative*	Negative*	Positive	Positive	Negative	Negative
No of observations		25	24	50	21	20	42

Source: Author's work

Table 9 indicates that undervaluation is not present across the entire sample, with the exception of medium-sized firms' buybacks under tender offers. Small-cap open market offerings exhibit superior profitability as a catalyst for excess returns. Capital restructuring is included in all proposals except for the large-scale tender offer and buyback. In this study, excess cash flow serves as a positively significant catalyst for share buybacks in both large and small tender offers, while it is negatively significant for large firms in open offers. The dividend substitution hypothesis is inapplicable to the examined sample. Table 9 indicates that the determinants of buybacks are inconsistent across buyback methods and firm sizes, suggesting that firm size is a significant variable influencing the decision to repurchase shares.

This study's findings indicate that undervaluation, capital restructuring, and excess liquidity are pivotal factors affecting share buyback decisions in Indian manufacturing firms. These findings support the undervaluation hypothesis, indicating that companies are more inclined to repurchase shares when they believe their stock is undervalued. This aligns with the findings of Grullon and Michaely (2004), who noted that firms undertake buybacks to modify their capital structure and elevate their market valuation, indicating a strategic intent to augment shareholder value.

This study's findings indicate that excess liquidity drives buybacks, reinforcing Jensen's (1986) free cash flow hypothesis, which asserts that firms with surplus cash choose to return it to shareholders to avert overinvestment and resource misallocation. This is especially pertinent in emerging markets like India, where corporate governance frameworks may inadequately address the agency costs linked to surplus liquidity. When compared to global standards, Indian companies seem to prioritize financial signaling more significantly, as indicated by the stronger market responses to buyback announcements observed in the study by Ikenberry et al. (1995). This disparity may arise from the distinct corporate governance and financial reporting practices in India, which frequently diverge markedly from those in developed markets.

This study indicates that Indian manufacturing firms utilize buybacks to adjust their leverage ratios, thereby reinforcing the capital structure hypothesis. This finding aligns with Dittmar and Mahrt-Smith (2007), who determined that the decision to repurchase stock frequently correlates with the firm's target leverage ratio, suggesting a strategic initiative to adjust financial leverage via equity reduction. These insights are essential for comprehending the intricate dynamics of share buybacks in emerging markets and significantly enhance the literature on corporate finance in developing economies. They propose that although some factors driving buyback activities are universally recognized, particular motivations may be intensified by distinct economic and regulatory contexts in emerging markets.

DISCUSSION

This study offers empirical evidence elucidating the impact of firm-specific factors on buybacks. The results (H_1-rejected) indicate that undervaluation, capital restructuring, and excess cash flow significantly affect buyback activity in Indian manufacturing firms. Consequently, we affirm that these determinants exert a pivotal influence, whether individually or collectively.

We observe notable disparities in the factors influencing buybacks between open market offers and fixed-price tender offers, as well as among different firm sizes (H_2-rejected). Consequently, we recognize that buyback motivations in India are not uniform; rather, they systematically differ based on firm characteristics and methodologies. Undervaluation serves as a crucial factor in medium-sized tender offers, consistent with financial signaling theory (Ikenberry et al. 1995). Consequently, it is evident that managers repurchase shares to signal confidence in the firm's intrinsic value. This study applies this rationale to an emerging market context, illustrating that Indian managers engage in share repurchases to convey favorable private information, although the impact is not consistently significant across all firm sizes and methodologies. The selective importance of undervaluation highlights that market signaling is most pertinent in contexts of high information asymmetry, particularly in mid-sized firms that lack the visibility of larger corporations yet strive to establish credibility in capital markets. Conversely, surplus liquidity exerts a more significant influence in large-firm tender offers, aligning with Jensen's (1986) free cash flow hypothesis, which posits that excess funds are distributed to shareholders to alleviate agency costs. This aligns with Indian corporate practices, wherein cyclical economic conditions, regulatory obstacles, and sectoral overcapacity may limit investment opportunities. Our findings corroborate previous evidence from Indian markets (Arora 2022), indicating that free cash flow was a primary driver of repurchases rather than serving as a substitute for dividends.

Capital restructuring is consistently observed across various firm sizes and methodologies, thereby reinforcing the capital structure optimization hypothesis (Dittmar & Mahrt-Smith 2007). This indicates that Indian companies strategically utilize buybacks to synchronize leverage with target ratios, especially in scenarios where promoter-led ownership structures generate distinct governance dynamics. This phenomenon is evident in Indian manufacturing companies, where promoter-

centric ownership frameworks and concentrated equity holdings frequently restrict conventional equity market activities. Consequently, buybacks provide a versatile mechanism for adjusting leverage while preserving ownership control. The significance of this driver across various firm sizes underscores its critical role in corporate financial strategy.

The diversity of drivers among various firm sizes and approaches underscores the intricacy of buyback motivations in emerging economies. Unlike research conducted in the U.S. and U.K., which indicates that undervaluation and earnings management primarily influence buyback decisions (Lee et al. 2020), the Indian context demonstrates a stronger focus on liquidity management and capital restructuring. This divergence can be ascribed to the structural characteristics of Indian capital markets, such as promoter-centric ownership, developing corporate governance frameworks, and comparatively lower market pricing efficiency. Moreover, buybacks in developed economies are frequently condemned for prioritizing short-term shareholder interests. Indian manufacturing companies exhibit a more strategic focus, utilizing repurchases to stabilize leverage, repatriate surplus cash, and enhance managerial credibility in undervalued circumstances. This understanding enhances the global dialogue on buybacks by demonstrating how institutional, regulatory, and ownership contexts shape motivations.

CONCLUSION AND IMPLICATIONS

This study rigorously analyzed the determinants of share buyback decisions in Indian manufacturing firms by examining 230 buyback announcements over a span of nineteen years. The empirical evidence highlights that undervaluation, capital restructuring, and surplus liquidity are the principal drivers of these financial decisions. The study substantiates the undervaluation hypothesis, indicating that firms primarily conduct buybacks when their shares are regarded as undervalued. This aligns with the overarching financial signaling theory, suggesting that buybacks function as a mechanism for management to convey confidence in the firm's future to the market.

This study examined various factors influencing share buybacks across different markets, including open market repurchases and tender offers. The study's findings demonstrate intricate patterns in the determinants affecting Open Market Repurchase and Fixed-Price Tender offers among manufacturing firms of differing sizes. In large corporations, capital restructuring, surplus cash flows, and dividend distributions serve as the principal incentives for OMR offers, whereas capital restructuring and surplus cash flows propel FPT offers. In medium-sized enterprises, undervaluation and dividend distributions are critical determinants for OMR proposals, while capital restructuring is prioritized for FPT proposals. In small enterprises, capital restructuring is a crucial catalyst for FPT proposals. Consequently, as per the relevant driver, companies may select their preferred buyback method. Furthermore, the study indicates that the signaling effect alone is insufficient to avert share undervaluation; an additional market increase is necessary. The repurchase of shares is a significant alternative to dividends in India. Share repurchases should not exclusively focus on modifying the dividend distribution. Share repurchases represent a viable strategy for undervalued equities. Additionally, an examination of share buybacks in non-manufacturing firms may be undertaken to evaluate their significance and supplementary motivators, including mergers and acquisitions, as well as the influence of employee stock ownership plans.

Furthermore, the analysis indicates that excess liquidity substantially affects the inclination towards share buybacks, corroborating the free cash flow hypothesis. This indicates that companies in the Indian manufacturing sector utilize buybacks as a method to allocate surplus cash to shareholders, potentially alleviating agency costs linked to free cash flows. The findings on capital restructuring indicate that firms utilize buybacks as a strategic instrument to optimize their capital structure, reflecting insights from developed markets while emphasizing the distinct context of emerging economies.

THEORETICAL, MANAGERIAL AND POLICY IMPLICATIONS

The results of this study contribute to the theoretical understanding of share buybacks by highlighting the distinct drivers based on firm size and repurchase method. The varying significance of factors such as undervaluation, excess profitability, and the dividend substitution hypothesis challenges existing theories and underscores the need for more nuanced models that consider the heterogeneity in firms' characteristics. The results of the study indicate that the industries driving buyback are not stable through the methods of buyback. Furthermore, regarding the drivers, the buyback is not considered an alternative to dividend for the sample analysed, irrespective of its size. Therefore, the industry should consider the size of the firm as a significant driver impacting the decision to repurchase shares. Policymakers should understand the heterogeneity in buyback drivers across firms, stressing the importance of considering firm size in regulatory frameworks. A nuanced approach that recognises the distinct characteristics and motivations of large, medium, and small-sized firms can lead to more effective and tailored policies, fostering responsible and transparent buyback practices.

RECOMMENDATIONS FOR FUTURE STUDIES

This study facilitates future research by demonstrating the variability of buyback drivers across methodologies and firm sizes. Researchers could further investigate the precise conditions that lead to the prominence of specific drivers in the future. Investigating the influence of external factors, including market conditions and regulatory changes, on buyback decisions could deepen our comprehension of the underlying dynamics. Longitudinal studies that monitor share buyback behavior over time can yield significant insights into the changing dynamics of share repurchases across different economic contexts. In recent years, Indian manufacturing companies have increasingly preferred the tender-offer method for share buybacks, motivated by regulatory modifications and objectives related to capital structure optimization. Consequently, the research may be expanded to assess the effects of policy modifications and their financial ramifications concerning buybacks. In addition to broadening the analysis to various industries and correlating buybacks with long-term performance results, forthcoming research could utilize more sophisticated econometric methodologies. Panel data models utilizing fixed or random effects enable researchers to account for unobserved firm-level heterogeneity and to capture temporal dynamics. Methods such as dynamic panel GMM estimators, quantile regression, or event study designs may yield deeper insights into the causal determinants and varying impacts of buybacks among firms. Integrating these methodological advancements would enhance the robustness and generalizability of the findings within the emerging market context.

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