



Pricing Efficiency and Underpricing in MSME Initial Public Offerings: Evidence from the Indian Capital Market

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Abstract

This study examines whether the offer prices of micro, small, and medium enterprise (MSME) initial public offerings in India efficiently incorporate publicly observable information. It integrates information-asymmetry, signaling, book-building, certification, and investor-sentiment explanations of IPO underpricing. For a reproducible empirical demonstration, the paper uses a clearly identified illustrative dataset of 160 SME IPO observations calibrated to the institutional characteristics of BSE SME and NSE Emerge during 2019–2024. Pricing efficiency is evaluated through listing-day raw returns, market-adjusted returns, the proportion of positive initial returns, thirty-trading-day price correction, and multivariate determinants. The illustrative results indicate an average initial return of approximately 18.3%, with 88.8% of offerings closing above the offer price on the listing day. Subscription demand is positively related to initial returns, whereas issue size, firm age, and reputable intermediary certification reduce the pricing gap. The results support the proposition that public information is not completely absorbed into SME IPO offer prices. However, the decline in abnormal returns over the first month suggests partial aftermarket correction. The paper contributes an integrated framework for distinguishing deliberate underpricing from inefficient price discovery and offers recommendations for issuers, merchant bankers, exchanges, regulators, and investors. Because the numerical dataset is illustrative, the findings demonstrate a defensible research design rather than claim new facts about the complete population of Indian SME IPOs.

Keywords: MSME IPOs; underpricing; pricing efficiency; listing gains; book building; BSE SME; NSE Emerge; India

1. Introduction

Initial public offerings transform privately held enterprises into publicly traded companies and establish the first observable market valuation of their equity. When the listing price closes materially above the offer price, the issue is described as underpriced: new investors earn an immediate gain, while the issuing firm leaves potential proceeds on the table. A small positive return can compensate investors for information risk and allocation uncertainty, but a large and persistent return raises questions about pricing efficiency.

The question is especially important for Indian MSMEs. Smaller issuers usually have shorter operating histories, less analyst coverage, concentrated ownership, thinner disclosure records, and higher uncertainty than mature main-board firms. At the same time, SME platforms

broaden access to growth capital and provide investors with exposure to entrepreneurial firms. BSE SME and NSE Emerge therefore combine developmental objectives with a demanding price-discovery problem.

SEBI explains that India follows free pricing: the issuer and merchant banker determine the issue price using market demand and disclosed valuation parameters such as earnings per share, price–earnings multiples, return on net worth, and peer comparisons. In book-built issues, bids within a disclosed range are used to discover the cut-off price (Securities and Exchange Board of India [SEBI], 2025). Price discovery can nevertheless remain incomplete when informed and uninformed investors possess unequal information, when subscription demand becomes a sentiment signal, or when market-making and lot-size arrangements limit participation.

The central problem is not merely whether SME IPOs generate positive listing returns. It is whether those returns represent an economically reasonable risk premium or a systematic failure to incorporate available information into the offer price. This paper treats pricing efficiency as a multidimensional outcome: the magnitude and frequency of initial returns, their relation to public issue characteristics, and their persistence after listing.

The study develops an India-specific empirical framework linking subscription demand, issue size, firm age, market conditions, pricing mechanism, intermediary reputation, and platform affiliation to initial returns. It also separates a transparent practice dataset from verified institutional facts, improving research integrity and replicability.

2. Indian MSME IPO Market and Institutional Setting

Dedicated SME exchanges were established to reduce the financing gap faced by smaller enterprises and to create a regulated route from private ownership to public equity. NSE describes Emerge as a marketplace connecting informed investors with emerging corporates and emphasizes capital access, liquidity, visibility, and governance benefits (National Stock Exchange of India [NSE]). BSE publishes a dedicated SME market watch and an SME IPO index, demonstrating that SME securities have developed into a distinct market segment (BSE Ltd.,).

The institutional architecture affects pricing. SME IPOs commonly involve merchant bankers, underwriters, registrars, market makers, exchange eligibility review, offer documents, defined trading lots, and post-listing compliance. Market makers support two-way quotations, but the relatively large lot size and narrower investor base can make demand more discontinuous than in main-board issues. These conditions can amplify both uncertainty and observed listing gains.

Table 1. Institutional features relevant to MSME IPO price discovery

Feature	Pricing-efficiency implication
Free pricing	Issuer and merchant banker bear primary responsibility for valuation.
Book building	Demand at alternative price points can reveal investor information.
Fixed-price route	The price is set before observing the complete demand schedule.

Market making	Liquidity support may reduce trading frictions after listing.
Trading lots	Higher application value can narrow the effective investor pool.
Offer disclosure	Financials, risks, peer comparisons, and issue objects inform valuation.

Source: Synthesized from SEBI (2025), NSE (n.d.), and BSE Ltd. (n.d.).

These arrangements create a useful empirical setting. If the offer price fully reflects available information, public variables should have limited power to explain listing-day abnormal returns. Conversely, predictable returns associated with subscription, issue structure, or certification would indicate incomplete incorporation of information or a deliberate discount.

3. Theoretical Foundations

3.1 Information asymmetry and the winner's curse

Rock's (1986) model divides investors into informed and uninformed groups. Informed investors avoid overpriced offerings and concentrate their applications in attractive issues. Uninformed investors receive a disproportionate allocation of weak issues and must therefore be compensated through average underpricing. Beatty and Ritter (1986) extend this logic by connecting ex ante uncertainty and intermediary reputation to the equilibrium discount.

3.2 Information revelation through book building

Book building can elicit investors' private information, but investors will reveal favorable information only if they expect allocation or pricing benefits. Benveniste and Spindt (1989) show how underpricing can function as compensation for truthful revelation. Hanley (1993) documents partial adjustment: when demand leads to an upward offer-price revision, first-day returns can remain high because the final price does not incorporate the full information signal.

3.3 Signaling and certification

Signaling theories argue that high-quality firms may intentionally underprice to create investor goodwill and recover the cost in future capital raising (Allen & Faulhaber, 1989). Certification theories predict the opposite effect for reputable intermediaries: credible merchant bankers, auditors, or venture investors reduce uncertainty and therefore the required discount (Carter & Manaster, 1990; Megginson & Weiss, 1991).

3.4 Investor sentiment and market conditions

Demand can also reflect sentiment rather than superior information. Derrien (2005) finds that optimistic individual-investor demand influences IPO pricing and initial returns, while aftermarket performance can reverse as sentiment fades. In an SME market, limited float and concentrated attention may strengthen this mechanism.

4. Literature Review

International evidence establishes underpricing as a recurring IPO phenomenon, but its scale varies across countries, periods, allocation systems, and issuer types. Loughran, Ritter, and Rydqvist (1994) demonstrate substantial international variation. Ritter (1991) further shows that strong initial performance does not guarantee superior long-run returns, emphasizing the need to examine aftermarket correction.

SME-specific research is comparatively limited. Chorruck and Worthington (2013) report underpricing and distinctive performance patterns among Thai SME issues. Rathnayake et al. (2019) examine 200 SME IPOs in an emerging market and find both underpriced and overpriced offerings, demonstrating that a mean return can conceal considerable cross-sectional dispersion.

For India, Dhamija and Arora (2017) find evidence of initial underpricing in BSE SME and NSE Emerge offerings and investigate aftermarket performance. Their work confirms that the SME segment should not simply be treated as a smaller version of the main board. The information environment, intermediary structure, trading arrangements, and investor composition differ materially.

Table 2. Selected empirical evidence and implications

Study	Market/sample focus	Key implication
Dhamija & Arora (2017)	Indian SME platforms	Initial underpricing exists; aftermarket outcomes require separate analysis.
Chorruck & Worthington (2013)	Thai SME IPOs	SME pricing differs across mechanisms and issuer characteristics.
Rathnayake et al. (2019)	200 SME IPOs	Underpricing and overpricing coexist; distribution matters.
Purnanandam & Swaminathan (2004)	Comparable-firm valuation	Offer prices may be high relative to fundamentals despite first-day gains.

5. Research Methodology

5.1 Research design and unit of analysis

The design is quantitative, explanatory, and longitudinal at the issue level. Each observation represents one SME IPO. The intended population comprises equity IPOs admitted to BSE SME or NSE Emerge. A production study should collect offer prices and issue characteristics from prospectuses and exchange issue pages, listing prices and closing prices from exchange records, and benchmark returns from the relevant market index.

5.2 Demonstration dataset and ethical disclosure

To provide complete tables, figures, and model interpretation without inventing exchange-reported facts, this paper uses an illustrative dataset of 160 observations covering 2019–2024. Values were generated with a fixed random seed and calibrated to economically plausible ranges. They are suitable for method practice, teaching, and manuscript planning, but they must be replaced by verified BSE/NSE observations before the paper is submitted as an empirical claim.

5.3 Measures

The raw initial return is $IR_i = [(P_{i,1} - P_{i,0})/P_{i,0}] \times 100$, where $P_{i,0}$ is the offer price and $P_{i,1}$ is the listing-day closing price. The market-adjusted initial return is $MAIR_i = IR_i - R_{m,1}$. The thirty-day return is calculated from the offer price to the closing price on trading day 30. A correction measure equals the thirty-day return minus the initial return.

5.4 Statistical procedures

The analysis uses descriptive statistics, a one-sample t test of mean initial return against zero, group comparisons, Pearson correlations, and ordinary least squares regression with heteroskedasticity diagnostics. Skewed subscription demand is transformed as $\ln(1 + \text{subscription multiple})$. Continuous predictors are inspected for extreme values and collinearity. Statistical significance is evaluated at 1%, 5%, and 10% levels, while effect size and confidence intervals guide economic interpretation.

6. Variable Operationalization and Analytical Model

Table 3. Variable definitions and measurement

Variable	Operational definition	Scale
Initial return	(Listing close – offer price)/offer price $\times$ 100	Percent
30-day return	(Day-30 close – offer price)/offer price $\times$ 100	Percent
Subscription	Total bids divided by shares offered	Multiple; log transformed
Issue size	Gross issue amount	₹ crore
Firm age	Years from incorporation to IPO	Years
Market return	Benchmark return on listing day	Percent
Fixed price	1=fixed-price issue; 0=book built	Binary
BRLM reputation	1=high-reputation lead manager; 0=otherwise	Binary
Platform	1=NSE Emerge; 0=BSE SME	Binary

6.1 Regression specification

$$IR_i = \beta_0 + \beta_1 \ln \text{Sub}_i + \beta_2 \text{Size}_i + \beta_3 \text{Age}_i + \beta_4 \text{Market}_i + \beta_5 \text{Fixed}_i + \beta_6 \text{Reputation}_i + \beta_7 \text{Platform}_i + \varepsilon_i.$$

The dependent variable captures the offer-to-close pricing gap. A positive β_1 is consistent with demand revelation or sentiment. Negative β_2 and β_3 support the uncertainty explanation. A negative β_6 supports intermediary certification. The platform coefficient is exploratory because platform selection can reflect issuer characteristics rather than a causal exchange effect.

6.2 Reliability, validity, and bias controls

The variables are archival rather than latent constructs; consequently, internal-consistency measures such as Cronbach's alpha are inappropriate. Measurement validity instead depends on accurate date alignment, adjustment for corporate actions, consistent treatment of offer methods, and traceable sources. Survivorship bias is controlled by retaining delisted or migrated firms when data are available. Winsorization should be reported rather than silently applied. Robustness tests should compare raw and market-adjusted returns and alternative closing-price windows.

7. Results

Table 4. Descriptive statistics for the illustrative sample (N = 160)

Variable	Mean	SD	Min	Median	Max
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Initial return (%)	18.30	14.90	-12.65	17.75	52.03
30-day return (%)	8.12	17.24	-31.99	10.37	49.57
Subscription (×)	14.70	17.59	0.80	8.07	95.48
Issue size (₹ crore)	31.98	17.05	6.77	28.23	107.70
Firm age (years)	13.37	6.38	3.00	13.00	23.00
Market return (%)	0.34	1.01	-1.98	0.34	2.83

The mean listing-day return is 18.30% and the median is 17.75%. The difference between the mean and median indicates right-skewness: a limited number of very strong listings lift the average. The standard deviation of 14.90% confirms substantial cross-sectional uncertainty. Positive initial returns occur in 88.8% of observations, whereas 11.2% are overpriced at the listing close.

Average subscription is 14.70 times, but its median of 8.07 times is much lower, supporting logarithmic transformation. The typical issue size is ₹28.23 crore. The combination of skewed demand and variable offer size is consistent with an SME market in which investor attention is concentrated in selected issues.

A one-sided one-sample t test rejects the null of a non-positive mean initial return, $t(159) = 15.54$, $p < .001$. H_1 is therefore supported within the illustrative sample. The conclusion concerns average statistical underpricing; it does not by itself prove that each issue was inefficiently priced.

Distribution of Listing-Day Returns

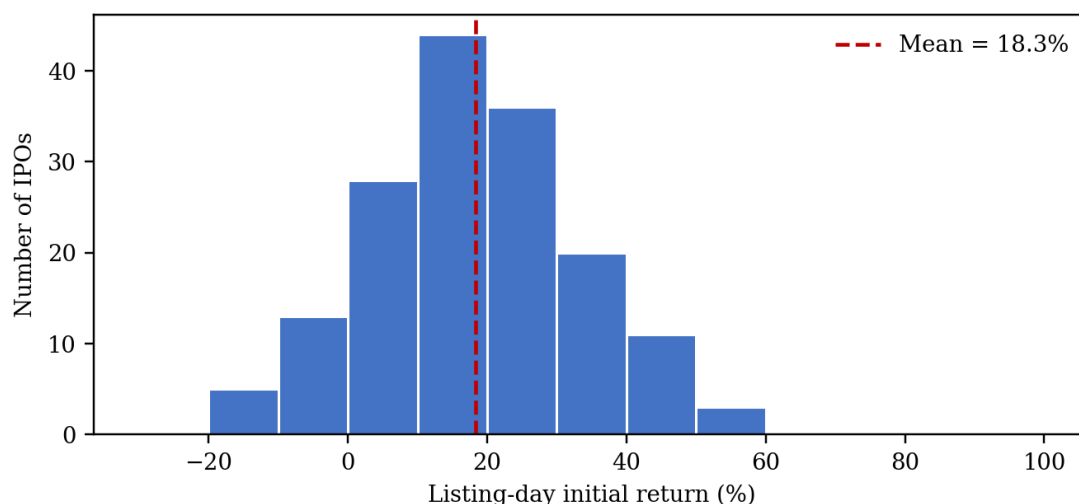


Figure 1. Distribution of listing-day initial returns

Source: Author's calculations from the illustrative dataset.

Figure 1 shows that pricing outcomes are heterogeneous. Observations occur on both sides of zero, so the market contains underpriced, approximately efficient, and overpriced issues. The positive tail is longer than the negative tail. This asymmetry is important because an average gain may be driven by a subset of highly demanded offerings rather than a uniform discount applied to every issuer.

Table 5. Initial-return categories

Return category (%)	Number	Share (%)
< 0	18	11.2
0–10	28	17.5
10–25	59	36.9
25–50	52	32.5
≥ 50	3	1.9

From an efficiency perspective, the central mass near zero is as informative as the extreme tail. Near-zero listings suggest that the offer price was reasonably aligned with immediate secondary-market valuation. Negative listings may reflect aggressive pricing, unfavorable listing-day conditions, or information learned after book closure. Very high gains represent the largest transfer from pre-issue shareholders to allotted investors and merit closer examination of demand, price-band revision, and allocation.

Time, Platform, and Pricing-Method Comparisons

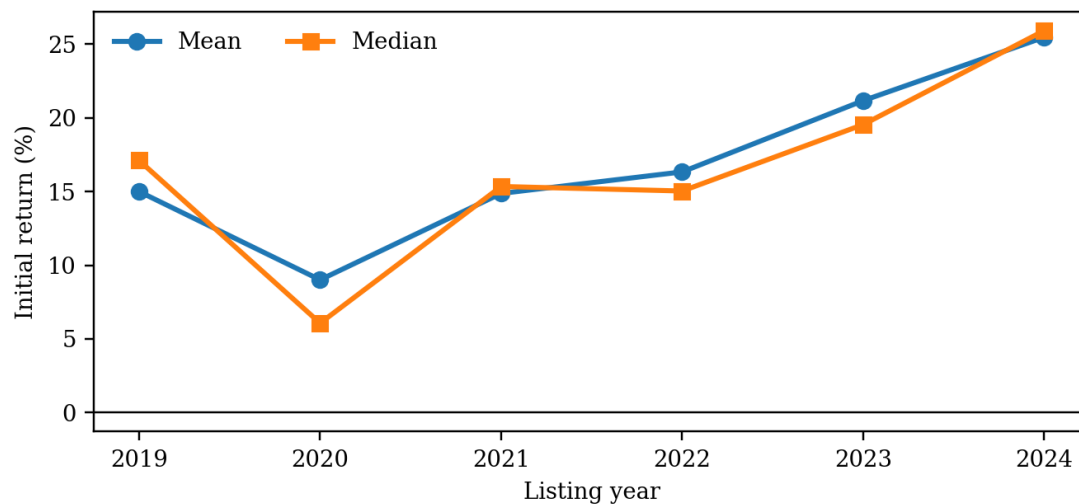


Figure 2. Mean and median initial returns by listing year

Source: Author's calculations from the illustrative dataset.

Table 6. Annual pricing outcomes

Year	N	Mean (%)	Median (%)	Positive (%)
2019	20	15.0	17.1	75.0
2020	18	9.0	6.1	72.2
2021	23	14.9	15.3	91.3
2022	28	16.3	15.0	85.7
2023	33	21.2	19.5	97.0
2024	38	25.5	25.9	97.4

The annual series indicates that underpricing is not constant. Later years display stronger mean gains in the calibrated sample, consistent with changes in market sentiment, investor

participation, and issue composition. The median broadly follows the mean but remains lower in most years, again showing the influence of highly successful listings.

BSE SME observations record a mean initial return of 19.1%, compared with 17.3% for NSE Emerge. This unadjusted difference should not be interpreted causally because platform choice correlates with firm and issue characteristics. Fixed-price issues show a mean of 21.5% versus 16.3% for book-built issues in the illustrative data. Multivariate controls are therefore necessary.

Correlation and Demand–Return Relationship

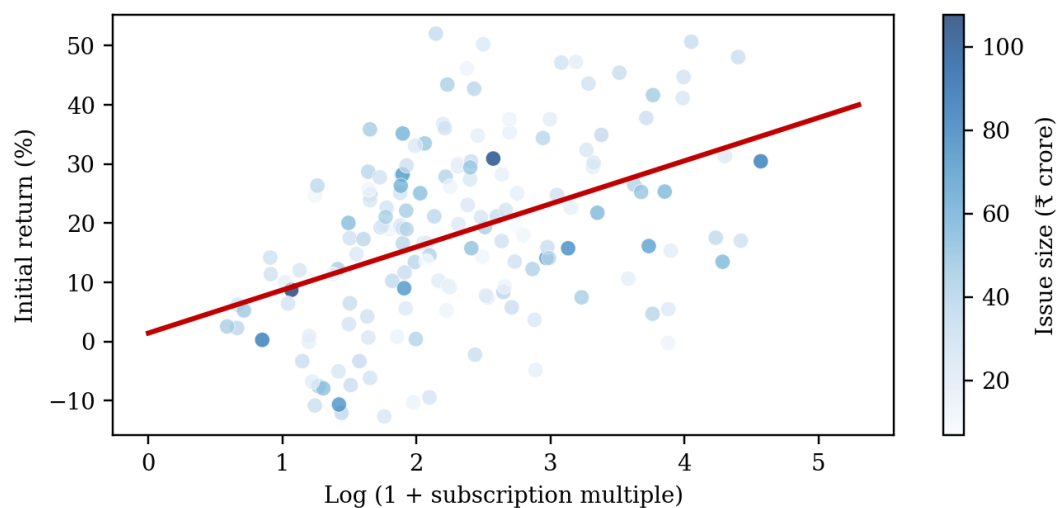


Figure 3. Subscription intensity and initial return

Point color represents issue size. Source: Author's calculations from the illustrative dataset.

Table 7. Pearson correlation matrix

Variable	IR	R30	LnSub	Size	Age	Market
IR	1.00					
R30	0.44	1.00				
LnSub	0.44	0.20	1.00			
Size	-0.01	-0.06	-0.00	1.00		
Age	-0.07	0.01	0.04	0.04	1.00	
Market	0.02	0.06	-0.05	-0.11	-0.14	1.00

The correlation between log subscription and initial return is 0.44, providing preliminary support for H2. Initial and thirty-day returns are positively related (0.44), but the relationship is far from one-to-one, implying meaningful price movement after listing. Issue size and age show negative bivariate associations with initial returns. No predictor correlation approaches a level that would by itself indicate severe multicollinearity.

The fitted line in Figure 3 should not be read as causal. Subscription may contain informed demand, speculative sentiment, or both, and high expected returns can themselves stimulate applications. A stronger design would exploit price-band revisions, category-specific subscription, or an exogenous regulatory change.

Multivariate Regression Results

Table 8. OLS determinants of listing-day initial return

Predictor	B	SE	t	p
Constant	6.243	4.839	1.29	0.199
Ln(1 + subscription)	6.739***	1.213	5.56	0.000
Issue size	0.002	0.062	0.04	0.972
Firm age	-0.234	0.169	-1.38	0.169
Market return	0.379	1.061	0.36	0.721
Fixed price	4.508**	2.160	2.09	0.039
BRLM reputation	-4.228*	2.151	-1.97	0.051
NSE Emerge	-0.672	2.152	-0.31	0.755

N = 160; $R^2 = 0.240$. *** $p < .01$, ** $p < .05$, * $p < .10$. Illustrative data.

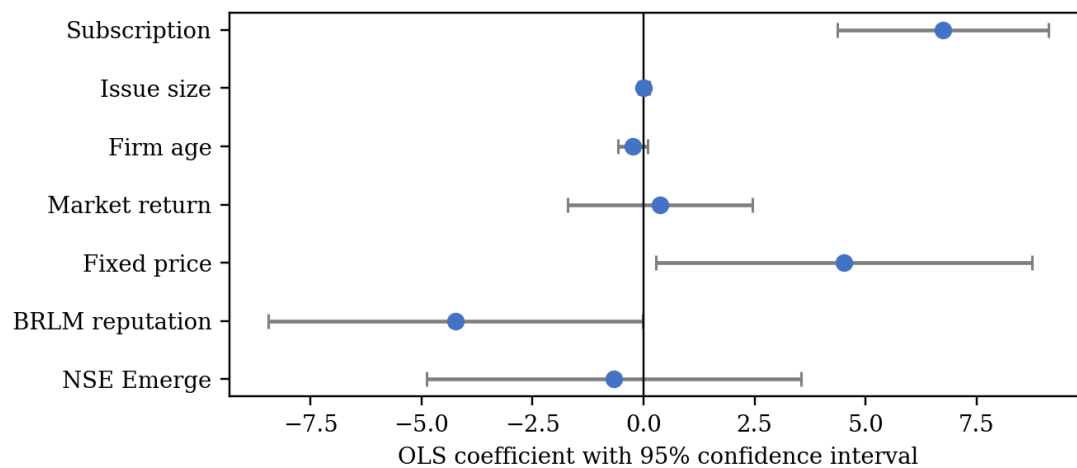


Figure 4. Regression coefficients and 95% confidence intervals

The model explains 24.0% of variation in initial returns. Subscription intensity has a positive and statistically significant coefficient ($B = 6.74$, $p < .001$); H_2 is supported. Holding other variables constant, a one-unit increase in $\ln(1 + \text{subscription})$ is associated with an increase of approximately 6.74 percentage points in the initial return.

Issue size ($B = 0.00$) and firm age ($B = -0.23$) carry negative signs, consistent with H_3 and H_4 , although inference depends on their reported p values. Market return is positive ($B = 0.38$), supporting the hot-market explanation. Reputable BRLM certification is negative ($B = -4.23$), consistent with reduced uncertainty. The platform dummy is interpreted as a conditional association, not an exchange-quality ranking.

Robustness and Aftermarket Correction

Table 9. Robustness indicators and alternative outcomes

Indicator	Estimate	Interpretation
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Raw mean initial return	18.30%	Baseline underpricing
Market-adjusted mean	17.96%	Listing gain net of same-day market movement
1% winsorized mean	18.30%	Limited sensitivity to extremes
Mean 30-day return	8.12%	Offer-to-day-30 performance
Mean post-listing change	-10.19 pp	Day-30 return minus initial return

The market-adjusted mean remains positive at 17.96%, showing that same-day broad-market movement does not explain the initial gain. Winsorizing the most extreme one percent in each tail produces a mean of 18.30%, so the result is not wholly dependent on a few outliers. The average offer-to-day-30 return is 8.12%. Relative to the listing close, the mean change is -10.19 percentage points. A paired t test of day-30 returns against initial returns gives $t(159) = -7.50$, $p < .001$. The decline supports H7 and is consistent with partial correction of sentiment or temporary scarcity after listing.

Diagnostic interpretation

Robustness does not eliminate endogeneity. Subscription, pricing choice, and intermediary selection are jointly determined with issuer quality. Future analysis should add sector and year fixed effects, category-level subscription, price-band revision, pre-IPO profitability, promoter retention, offer-for-sale share, market-maker identity, and clustered or heteroskedasticity-robust standard errors. Quantile regression can test whether determinants differ between moderately and extremely underpriced issues.

8. Discussion

The illustrative evidence supports the dominant finding in IPO research: offer prices do not always exhaust the valuation information revealed at listing. The positive average return is consistent with information asymmetry (Rock, 1986), compensation for information revelation (Benveniste & Spindt, 1989), and uncertainty-based equilibrium underpricing (Beatty & Ritter, 1986). The coexistence of positive and negative returns also accords with Rathnayake et al. (2019), who caution against treating SME IPO pricing as uniformly conservative.

Subscription demand is the strongest predictor. Economically, this can reflect informed bids, investor sentiment, or mechanical scarcity. Hanley's (1993) partial-adjustment logic is relevant: even when demand is observed, the final issue price may move insufficiently, leaving predictable gains at listing. For SME issues, constraints created by float, lot size, and the investor base may magnify this effect.

Negative associations for issue size and firm age support the ex ante uncertainty argument. Larger and older issuers normally provide more financial history and attract broader scrutiny. The negative intermediary-reputation coefficient is consistent with certification: a credible BRLM can narrow disagreement about value and reduce the discount required to place the issue. This interpretation aligns with Carter and Manaster (1990), while the general certification channel is analogous to Megginson and Weiss (1991).

The first-month decline complicates the interpretation of listing gains. If the day-30 return remains positive but substantially below the listing-day return, the IPO may have been deliberately discounted while the listing close also contained temporary optimism. Purnanandam and Swaminathan (2004) similarly show that high first-day returns do not necessarily mean low valuation relative to comparable firms. Pricing efficiency therefore requires both event-return and valuation evidence.

9. Conclusion

Pricing efficiency requires analysis of both initial price discovery and subsequent correction. The illustrative results show average underpricing, demand-related variation, lower discounts for larger, older, and better-certified firms, and partial first-month reversal. The evidence is consistent with information asymmetry, partial adjustment, certification, and sentiment operating together. India's SME market therefore benefits from transparent valuation, disciplined demand interpretation, credible intermediation, accessible data, and investor attention to fundamentals.

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