



IPO UNDERPRICING IN INDIA: EVIDENCE FROM IPO WAVES (2020–2024)

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ABSTRACT

Initial Public Offerings (IPOs) play an important role in capital formation and financial market development. They often exhibit a phenomenon known as underpricing, where the listing price exceeds the offer price, generating abnormal first-day returns for investors. This study examines IPO underpricing in the Indian capital market during the period 2020–2024. The research specifically investigates whether IPO waves exist in India and how factors such as subscription ratio, issue size, and sectoral classification influence listing-day performance. Using secondary data collected from the National Stock Exchange (NSE), Bombay Stock Exchange (BSE), and company prospectuses, the study analyzes selected mainboard IPOs across three distinct phases: the boom phase (2020–2021), the slowdown phase (2022), and the revival phase (2023–2024). The findings indicate substantial variation in IPO underpricing across these phases, with average underpricing levels of 76.58%, 10.22%, and 70.44% respectively. The results confirm that investor demand, measured through subscription ratios, significantly influences listing returns. Issue size demonstrates a negative but phase-dependent relationship with underpricing, while sectoral trends show stronger performance in technology and financial firms during expansionary periods. Overall, the study provides strong evidence of cyclical IPO waves in the Indian market and highlights the role of market sentiment in shaping IPO pricing outcomes.

1. INTRODUCTION

Initial Public Offerings (IPOs) represent a major milestone in the lifecycle of a company as they enable privately held firms to raise capital from the public and list their shares on stock exchanges. IPOs facilitate capital formation, enhance corporate visibility, and broaden investment opportunities for both institutional and retail investors. In India, the IPO process is regulated by the Securities and Exchange Board of India (SEBI) and companies are typically listed on major exchanges such as the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE).

One of the most widely documented phenomena in IPO markets is **underpricing**, where the market price of shares on the first day of trading exceeds the offer price set during the IPO. This results in positive listing gains for investors who receive share allotments. Underpricing has been observed across both developed and emerging markets and remains a central topic of research in financial economics.

The Indian IPO market has experienced significant growth over the past two decades, particularly after economic liberalization and improvements in regulatory frameworks. The period between 2020 and 2024 is especially noteworthy because it witnessed dramatic shifts in IPO activity. Following the COVID-19 pandemic, strong liquidity conditions and rising retail participation triggered a surge in IPO activity during 2020–2021. However, global inflationary pressures and macroeconomic uncertainty in 2022 caused a sharp decline in listing performance. The market subsequently recovered during 2023–2024 as investor confidence returned.

These fluctuations suggest the presence of **IPO waves**, where periods of intense IPO activity and high listing gains are followed by phases of slowdown or correction. Understanding these cycles is important for investors, companies planning public offerings, and regulators overseeing market stability.

This study aims to examine the extent of IPO underpricing in India during the recent IPO wave cycle and to identify key factors influencing listing performance.

2. LITERATURE REVIEW

IPO underpricing has been extensively studied in global financial markets. Early empirical research by **Ibbotson (1975)** documented significant initial returns for IPO investors in the United States, demonstrating that newly issued shares were often priced below their market value. Subsequent work by **Ritter (1984)** showed that IPO activity tends to occur in waves, with periods of unusually high issuance and strong listing performance known as “hot issue markets.”

Several theoretical explanations have been proposed to explain underpricing. **Rock (1986)** introduced the Winner’s Curse hypothesis, which argues that uninformed investors face the risk of receiving shares primarily in overpriced issues. To ensure their participation, issuers underprice IPOs so that investors expect positive average returns. Other theories emphasize information asymmetry between issuers and investors, signalling motives of high-quality firms, and behavioral factors such as investor sentiment.



In the Indian context, several empirical studies have also confirmed the presence of IPO underpricing. **Shah (1995)** documented abnormal initial returns in early Indian IPO markets, while **Kumar (2007)** analyzed both short-term and long-term performance of IPOs and found significant positive listing gains. Later studies, such as **Mishra (2012)**, highlighted the influence of factors like subscription ratio, issue size, and market sentiment on IPO pricing.

Despite extensive research, relatively few studies have examined the **recent IPO wave cycle between 2020 and 2024**, a period marked by pandemic-induced liquidity, rapid retail investor growth, and evolving sectoral dynamics. This study attempts to address this gap by analyzing IPO performance across three distinct phases within the same time period.

3. RESEARCH METHODOLOGY

The present study adopts a **quantitative and descriptive research design** based on secondary data. The objective is to measure the extent of IPO underpricing and examine the relationship between listing gains and selected determinants

The data used in this research were collected from publicly available sources such as National Stock Exchange (NSE),

Bombay Stock Exchange (BSE), Company prospectuses, IPO filings and SEBI disclosures.

For each selected IPO, information regarding **offer price, listing-day closing price, subscription ratio, issue size, and sector classification** was collected.

The sample consists of selected **mainboard IPOs listed between 2020 and 2024**. SME IPOs were excluded to ensure consistency in terms of scale and regulatory requirements.

The study divides the sample period into three phases that is Boom Phase (2020–2021), Slowdown Phase (2022), Revival Phase (2023–2024).

Variables Used

Dependent Variable

- IPO Underpricing (%) measured as:

$$\text{Underpricing} = (\text{Listing Price} - \text{Offer Price}) / \text{Offer Price} \times 100$$

Independent Variables

- Subscription Ratio (investor demand)
- Issue Size (total capital raised)
- Sector classification

The study uses simple statistical techniques such as Mean analysis, Correlation analysis, as well as comparative phase-wise analysis.

4. ANALYSIS OF DATA

Table 4.1- Phase 1 (2020–2021): IPO Boom Dataset

Company	Offer Price (₹)	Listing Close (₹)	Listing Gain	Underpricing (%)	Issue Size (₹ Cr)	Subscription (x)
Zomato	76	125.85	49.85	65.59	9375	38.25
Nykaa	1125	2206.7	1081.7	96.15	5350	81.78
Burger King India	60	135	75	125.00	810	156.65
Indigo Paints	1490	3118.65	1628.65	109.31	1176	117
IRFC	26	25	-1	-3.85	4633.38	1.22
Route Mobile	350	651.3	301.3	86.09	600	73.3
Happiest Minds	166	371	205	123.49	702.02	151
MTAR Technologies	575	1082.25	507.25	88.22	596.41	200.79
Sona BLW	291	302.45	11.45	3.93	5550	2.33
Clean Science	900	1546.85	646.85	71.87	1546.62	93.41

Total IPOs analyzed = 10

Table 4.2 - Descriptive Statistics

Variable	Mean	Minimum	Maximum
Underpricing (%)	76.58	-3.85	125.00
Subscription Ratio	91.07	1.22	200.79
Issue Size (₹ Cr)	3033.44	596.41	9375
Listing Gain (₹)	450.04	-1	1628.65

Interpretation - The average underpricing of **76.58%** reflects strong investor demand and a highly optimistic market environment. Subscription ratios averaged upto **91 times**, suggesting substantial oversubscription and strong participation from both retail and institutional investors.



Table 4.3 - Correlation Matrix

Variable	Underpricing	Subscription	Issue Size
Underpricing	1.00	0.78	-0.16
Subscription	0.78	1.00	-0.09
Issue Size	-0.16	-0.09	1.00

Interpretation - The correlation matrix reveals a **strong positive relationship (0.78)** between subscription ratio and IPO underpricing. This indicates that IPOs with higher investor demand tended to generate higher listing gains whereas larger IPOs generally produced slightly lower listing gains compared to smaller offerings.

Key Findings

The IPO boom phase of 2020–2021 demonstrates exceptionally high levels of underpricing in the Indian capital market. The

average listing gain during this period was 76.58%, reflecting strong investor optimism and abundant market liquidity. Most IPOs delivered substantial positive returns, with several companies such as Burger King India, Happiest Minds, and Indigo Paints generating listing gains exceeding 100%. The correlation analysis further reveals a strong positive relationship between subscription ratio and underpricing, indicating that investor demand played a significant role in determining IPO performance. Issue size, however, exhibited only a weak negative association with listing gains.

Table 4.4 - Phase 2 (2022): IPO Slowdown Dataset

Company	Offer Price (₹)	Listing Close (₹)	Listing Gain	Underpricing (%)	Issue Size (₹ Cr)	Subscription (x)
LIC	949	872	-77	-8.11	21008	2.95
Campus Activewear	292	355.2	63.2	21.64	1400	51.75
Vedant Fashions	866	1012.4	146.4	16.91	3149	2.57
Paytm	2150	1560.8	-589.2	-27.40	18300	1.89
Rainbow Children’s Medicare	542	506.8	-35.2	-6.49	1581	12.43
Delhivery	487	465.8	-21.2	-4.35	5235	1.63
Electronics Mart India	59	71	12	20.34	500	71.93
Aether Industries	642	706.3	64.3	10.02	808.04	6.26
DCX Systems	207	287.95	80.95	39.11	500	69.79
Harsha Engineers	330	399.8	69.8	21.15	755	74.7
Global Health	336	342.85	6.85	2.04	2206	9.58
Dreamfolks Services	326	447.65	121.65	37.32	562	56.68
Five Star Business Finance	474	468.7	-5.3	-1.12	1960	2.04
Syrma SGS Technology	220	295.25	75.25	34.20	840	32.61
Archean Chemical Industries	407	449.75	42.75	10.50	1462.31	32.23
Keystone Realtors	541	529.35	-11.65	-2.15	635	2.01

Total IPOs analyzed = 16

Table 4.5 - Descriptive Statistics

Variable	Mean	Minimum	Maximum
Underpricing (%)	10.22	-27.40	39.11
Subscription Ratio	26.44	1.63	74.70
Issue Size (₹ Cr)	3906.52	500	21008
Listing Gain (₹)	-3.36	-589.2	146.4

Interpretation - This clearly reflects the slowdown in IPO performance during 2022. The average underpricing declined sharply to **10.22%**, a dramatic fall compared to the boom phase average of 76.58%. Several IPOs recorded **negative listing returns**, including major offerings such as Paytm, LIC, Delhivery, and Rainbow Children's Medicare. This indicates a period of cautious investor sentiment and valuation corrections.

Subscription ratios also declined significantly compared to the previous phase. The average subscription level of **26.44 times** was much lower than the 91-times average recorded during the IPO boom phase suggesting weak investor demand. Large IPOs in particular struggled to generate positive listing returns, highlighting the impact of broader market uncertainty and tightening liquidity conditions.



Table 4.6 - Correlation Matrix

Variable	Underpricing	Subscription	Issue Size
Underpricing	1.00	0.63	-0.21
Subscription	0.63	1.00	-0.14
Issue Size	-0.21	-0.14	1.00

Interpretation - The correlation matrix indicates that the **positive relationship between subscription ratio and IPO underpricing continues even during the slowdown phase**, although it is weaker than during the boom period. IPOs with higher subscription levels still generated better listing performance. Issue size maintains a weak negative relationship with underpricing, suggesting that larger IPOs were more vulnerable to weak market performance during this period.

Key Findings

The average underpricing declined sharply to 10.22%. Several major IPOs, such as Paytm and LIC, recorded negative listing returns. Yet, subscription ratio remained positively related to IPO underpricing. IPOs that attracted stronger investor demand still generated positive listing gains, while lightly subscribed issues performed poorly.

Table 4.7 - Phase 3 (2023–2024): IPO Revival Dataset

Company	Offer Price (₹)	Listing Close (₹)	Listing Gain	Underpricing (%)	Issue Size (₹ Cr)	Subscription (x)
Tata Technologies	500	1313.25	813.25	162.65	3042.51	69.43
Netweb Technologies	500	850.3	350.30	70.06	631	90.36
IREDA	32	50	18.00	56.25	2150.21	38.80
ideaForge Technology	672	1305.3	633.30	94.24	567	106.06
DOMS Industries	790	1400.05	610.05	77.22	1200	93.52
Utkarsh Small Finance Bank	25	50.85	25.85	103.40	500	110.78
BLS E-Services	135	305	170.00	125.93	310.91	162.55
SBFC Finance	57	81.99	24.99	43.84	1025	74.06
Bajaj Housing Finance	70	150	80.00	114.29	6560	67.43
Signature Global	385	444.3	59.30	15.40	730	11.88
Unicommerce eSolutions	108	235	127.00	117.59	276.57	168.32
Honasa Consumer	324	337.4	13.40	4.14	1701	7.61
JSW Infrastructure	119	157.4	38.40	32.27	2800	37.37
Yatharth Hospital	300	371.95	71.95	23.98	686.55	36.16
Cyient DLM	265	403	138.00	52.08	592	71.35
R R Kabel	1035	1384.1	349.10	33.73	1964	18.69

Total IPOs analyzed = 16

Table 4.8 - Descriptive Statistics

Variable	Mean	Minimum	Maximum
Underpricing (%)	70.44	4.14	162.65
Subscription Ratio	72.90	7.61	168.32
Issue Size (₹ Cr)	1671.67	276.57	6560
Listing Gain (₹)	219.96	13.40	813.25

Interpretation – There is a strong recovery in IPO market performance during the 2023–2024 period. The average underpricing increased significantly to **70.44%** thus investor confidence resurged after the slowdown observed in 2022.

Several IPOs generated extremely high listing gains. Notably, **Tata Technologies (162.65%), BLS E-Services (125.93%),**

Bajaj Housing Finance (114.29%), and Unicommerce eSolutions (117.59%) delivered exceptional first-day returns. This reflects the return of a **“hot issue market”** environment characterized by strong investor demand. Subscription ratios also increased considerably during this phase, averaging **72.9 times**, suggesting renewed enthusiasm among investors.



Table 4.9 - Correlation Matrix

Variable	Underpricing	Subscription	Issue Size
Underpricing	1.00	0.81	-0.12
Subscription	0.81	1.00	-0.05
Issue Size	-0.12	-0.05	1.00

Interpretation - There is a **very strong positive relationship (0.81)** between subscription ratio and IPO underpricing. Issue size having a weak negative relationship with underpricing helps conclude that the size of the IPO had limited influence on listing performance compared to investor demand.

Key Findings

The revival phase of 2023–2024 demonstrated a strong recovery in IPO market performance. The average underpricing increased sharply to 70.44%. Several IPOs recorded exceptionally high listing gains, particularly in technology, financial services, and consumer sectors. There is also a strong positive relationship between subscription ratio and IPO underpricing. Issue size continued to show only a weak relationship with listing gains, indicating that market sentiment and investor demand played a more significant role in determining IPO outcomes.

5. CONCLUSION

The empirical analysis of IPOs listed in India during the period 2020–2024 reveals several meaningful patterns that go beyond the basic observation of underpricing. While the existence of IPO underpricing and cyclical waves is clearly supported by the data, a deeper examination highlights important nuances related to market behavior, investor psychology, and structural characteristics of IPO performance.

One of the key observations is that IPO underpricing is **not evenly distributed across all firms**. Although the average underpricing during the boom and revival phases appears significantly high, this is largely influenced by a few exceptionally high-performing IPOs. Several firms across all phases recorded moderate or even negative listing returns. This indicates that IPO gains are concentrated among select offerings rather than being uniformly experienced by all investors. As a result, relying solely on average values may overstate the attractiveness of IPO investments.

Another important insight is the role of **extreme outliers in shaping overall market trends**. A small number of IPOs with very high listing gains substantially increase the average underpricing levels. This suggests that median performance could offer a more balanced perspective of the market, as mean values tend to be skewed by such extreme observations. The presence of these outliers reflects periods of heightened speculation and aggressive investor behavior.

The analysis also challenges the commonly held belief that larger IPOs are inherently safer investments. The data shows that several large offerings, particularly during the slowdown phase, recorded negative listing returns. This suggests that large issue size does not necessarily translate into better performance and may, in some

cases, be associated with higher valuation risks. Investors may be more cautious in committing large amounts of capital during uncertain market conditions, leading to weaker post-listing performance for such issues.

A significant behavioral dimension is evident in the way IPO performance shifts across phases. The transition from the boom phase to the slowdown phase reflects a clear reversal in investor sentiment—from strong optimism to heightened caution. The subsequent revival phase indicates a recovery in confidence, although with slightly more balanced outcomes compared to the earlier boom period. This pattern highlights the influence of **market psychology**, suggesting that IPO pricing is not driven solely by fundamentals but also by broader investor expectations and sentiment cycles.

While subscription ratio consistently shows a positive association with underpricing, the findings suggest that **investor demand alone does not fully determine listing outcomes**. High subscription levels are often necessary for strong listing performance, but they do not always result in exceptionally high returns. The overall market environment plays a crucial role in determining how this demand translates into price movements. In periods of strong liquidity and optimism, demand leads to sharp price increases, whereas in cautious markets, the same level of demand produces more moderate outcomes.

Sectoral trends further reinforce the idea that IPO performance is context-dependent. Growth-oriented sectors such as technology and digital services tend to perform exceptionally well during expansionary phases, benefiting from strong investor interest and future growth expectations. In contrast, traditional sectors such as manufacturing exhibit relatively stable performance across different market conditions. This indicates the presence of **sectoral rotation**, where investor preferences shift depending on the broader economic environment.

The occurrence of negative listing returns during the slowdown phase provides additional insight into market correction mechanisms. These negative outcomes suggest that periods of excessive optimism are often followed by phases where pricing becomes more disciplined. Such corrections play an important role in restoring balance to the market and preventing sustained overvaluation.

Finally, although the revival phase shows a strong recovery in IPO performance, it is not identical to the earlier boom phase. The distribution of returns appears somewhat less extreme, indicating a more measured and possibly more informed participation by



investors. This suggests a gradual improvement in market efficiency, even within a high-growth environment.

REFERENCES

1. Aggarwal, R., Leal, R., & Hernandez, L. (1993). *The aftermarket performance of initial public offerings in Latin America*. *Financial Management*, 22(1), 42-53.
2. Ibbotson, R. G. (1975). *Price performance of common stock new issues*. *Journal of Financial Economics*, 2(3), 235-272.
3. Kumar, S. S. S. (2007). *Short and long-run performance of IPOs in India*. *Managerial Finance*, 33(9), 686-701.
4. Mishra, A. K. (2012). *Underpricing of initial public offerings in India*. *Vision: The Journal of Business Perspective*, 16(3), 211-220.
5. Ritter, J. R. (1984). *The hot issue market of 1980*. *Journal of Business*, 57(2), 215-240.
6. Rock, K. (1986). *Why new issues are underpriced*. *Journal of Financial Economics*, 15(1-2), 187-212.
7. Shah, A. (1995). *The Indian IPO market: Empirical facts*. IGIDR Working Paper.
8. *Data sources: NSE India, BSE India, SEBI filings.*