Evaluating IPO Performance in India: Market Trends, Returns, and Investor Sentiment

Mr. Saksham Joshi[1], Dr. PoojaChaturvedi[2], Dr. DeeptiMaheshwari[3]
[1]*Research Scholar, Rabindranath Tagore University, Bhopal, (M.P), India*
[2]*Faculty of Management, Rabindranath Tagore University, Bhopal, (M.P), India*
[3]*Rabindranath Tagore University, Bhopal, (M.P), India*

***Abstract*—The IPO market serves as a vital mechanism for capital generation and contributes significantly to economic development. This study examines the performance of IPOs in India from 2020 to 2023, analyzing key financial indicators such as issue price, issue size, and market returns. The findings reveal significant variations in IPO pricing, market volatility, and investor sentiment across different years. The peak in capital mobilization was observed in 2022, followed by a market correction in 2023, where returns turned slightly negative. The study highlights the impact of macroeconomic factors, investor behavior, and regulatory policies on IPO performance. Based on the analysis, key suggestions are provided for investors, regulators, and companies to ensure sustainable growth in the IPO market. The research contributes to the existing literature by offering insights into the evolving trends of IPOs in emerging economies and serves as a reference for policymakers and market participants.**

***Index Terms*—Initial Public Offering (IPO), Market Return, Capital Mobilization, Investor Sentiment, Financial Performance**

I. INTRODUCTION

An Initial Public Offering (IPO) is a pivotal financial strategy that enables a privately owned enterprise to become a publicly traded entity by issuing its shares to the general public for the first time. This transition facilitates capital infusion, enhances market visibility, and fosters corporate growth. This process serves multiple objectives, including raising capital for business expansion, funding future growth initiatives, and providing an opportunity for early investors to realize their investments. While IPOs can present lucrative investment opportunities for well-informed investors, not all offerings yield favourable outcomes. Empirical research on IPO performance has consistently highlighted two key observations. First, IPOs often generate substantial gains on the listing day, as they are frequently priced at a discount relative to their market value, leading to significant first-day returns. Second, the phenomenon of IPO under-pricing where the offer price is set below its intrinsic value has been widely documented across different markets. The degree of under-pricing varies significantly across countries and even among individual issues within the same market. While under-pricing benefits initial investors by creating positive abnormal returns, it also results in an opportunity cost for issuing firms, leading to potential capital loss. Several studies suggest that the high first-day returns serve as compensation for investors undertaking the inherent risks associated with IPO investments.

II. LITERATURE REVIEW

The study conducted by Hawaldar, I.T., K.R., &Mallikarjunappa, T. (2018) examined the pricing and post-listing performance of Indian Initial Public Offerings (IPOs), particularly those issued at a fixed price. The research analyzed 464 IPOs listed between 2001 and 2011, covering a 15-year period from 2001 to 2015. The findings indicate that book-built IPOs experience lower underpricing than fixed-price IPOs. Moreover, while negative Cumulative Average Abnormal Returns (CAARs) for fixed-price IPOs turn positive after 18 months and remain positive thereafter, book-built IPOs continue to exhibit negative CAARs for up to five years.

Khan, M.A., et al. (2021) explored the relationship between IPO underpricing and investor returns. The

study concluded that underpriced IPOs generate higher initial returns due to their listing at a premium. The authors argue that underpricing stabilizes secondary market prices and boosts investor demand. Furthermore, the study suggests that investors should sell overvalued IPOs on the listing day to avoid potential losses, whereas holding undervalued IPOs for a longer period could yield superior long-term returns.

Mangala, D. et al. (2022) explored the relationship between industry classification and the year of issuance concerning earnings management and IPO listing returns. Their study aimed to assess how these factors influence financial reporting practices and initial stock performance. The research provides insights into variations in earnings management strategies across different industries and time periods, offering a deeper understanding of their impact on IPO outcomes.The study revealed that short-term accruals, particularly those with high discretionary current accrual (DCA) values, play a significant role in earnings management. Additionally, while overall earnings management (DA) influences listing-day returns, individual components such as discretionary long-term accruals (DLA) and DCA have a relatively minor effect on IPO performance in India.

A study by Bhatia, S. et al. (2012) analyzed the long-term performance of Indian IPOs, focusing on cross-sectional and time-series variations. The findings indicate that Indian IPOs deliver significant abnormal returns over a five-year period post-issuance. Unlike global trends that suggest substantial long-term underperformance, Indian IPOs exhibit distinctive performance patterns influenced by firm- and issue-specific factors. The study further highlights that early returns, market movements, and issue pricing play a crucial role in determining long-term performance, aligning with the investor overconfidence and windows of opportunity hypotheses.

Rajesh, J.C. et al. (2012) conducted a study on the performance of Initial Public Offerings (IPOs) in the Indian stock market, focusing on a sample of 146 IPOs listed on the National Stock Exchange (NSE) during 2007–2008. Their findings indicate that, on average, IPOs exhibited weak performance both in the short and long term, recording negative returns of 8.41% and 38.44%, respectively. Furthermore, a significant portion of the companies in the sample 80% reported negative long-term returns, while 54% showed underperformance from the day of listing. Although the study highlights a disparity between the issue price and subsequent market valuation, it does not explore underlying factors such as macroeconomic influences, earnings trajectory, or investor sentiment.

Ramesh, B. et al. (2015) explored IPO pricing in the Indian primary capital market, analyzing 150 IPOs issued between May 2007 and December 2011. The study assessed both short-term and long-term price performance across different time intervals (monthly, quarterly, semi-annually, annually, biennially, and triennially). The findings suggest that IPOs in India tend to be overpriced, with long-term overpricing being more prevalent than short-term overpricing.

Dhamija, S. et al. (2017) examined the performance of 377 IPOs issued between 2005 and 2015 to determine whether they outperformed or underperformed the broader market. The study found that while IPOs initially outperform, they tend to underperform in the long run. On average, IPOs generated an initial excess return (IER) of 22%, but 37% of IPOs had negative IERs. Over a 36-month holding period, IPOs produced a negative buy-and-hold abnormal return (BHAR) of -57.33%, significantly underperforming the market. Only 10% of IPOs outperformed the benchmark index, with key influencing factors including issuer type (private or government-owned), lead manager reputation, promoter ownership, and issue size.

Singh, A.K. et al. (2017) assessed the short-term performance of 152 IPOs listed on the NSE between 2010 and 2016, analyzing listing-day and one-month returns. The study found that while IPOs generated an average gain of 11.998% on the listing day, their one-month return declined to -3.78%. Additionally, 63.15% of IPOs were underpriced, while 36.84% were overpriced.

III. RESEARCH GAP

A review of existing literature on IPO performance in India highlights extensive research on pricing, short-term and long-term returns, underpricing, and earnings management. However, a significant research gap exists concerning IPO performance during 2020-23. The economic disruptions caused by the pandemic, shifts in investor sentiment, regulatory changes, and

market volatility may have influenced IPO pricing and aftermarket performance in unprecedented ways. Given this gap, the present study aims to analyze the IPO performance of Indian companies during the pandemic period, offering new insights into market behavior under extraordinary economic conditions.

Objectives of the Study

1. To assess the percentage of market-adjusted abnormal returns realized on the first trading day of IPOs.
2. To analyze the industry-specific performance of newly listed companies in comparison to the Nifty 200 benchmark index.

IV. RESEARCH METHODOLOGY

Data Collection

This study is based on secondary data obtained from publicly available financial sources. The data on IPO listing day performance, market indices, and industry-wise stock returns were sourced from the official NSE website. Additionally, company-specific details regarding IPO pricing, issue size, and market capitalization were retrieved from respective corporate websites.

Sample Size

The study focuses on a sample of 121 IPOs issued during the 2020-23. The sample selection is justified by the increased market volatility and unique economic conditions prevailing during the pandemic period.

Year	No. of IPOs issued by the companies
2020	24
2021	16
2022	18
2023	63
	121

Data Analysis and Methodology

To evaluate the performance of Initial Public Offerings (IPOs), the listing day return is computed using the opening and closing prices of the respective securities. The key metrics used for analysis are as follows:

1. Calculation of Listing Day Return

The listing day return (Rn) is determined using the following formula:

$$Rn = (Pc - Po) / Po$$

Where:

- Po = Offer price of the security
- Pc = Closing price of the security on the listing day
- Rn = Return on the listing day

This metric quantifies the percentage change in the stock price from the issue price to the closing price on the first trading day, reflecting the initial market response to the IPO.

2. Market Return on Listing Day

The market return (Mn) on the listing day is calculated using the closing index values of the benchmark index:

$$Mn = (Ic - Io) / Io$$

Where:

- Mn = Market return on the listing day
- Ic = Closing value of the benchmark index on the listing day
- Io = Closing value of the benchmark index on the offer day

This measure helps in assessing overall market movements and their potential impact on IPO performance.

3. MAAR - Market-Adjusted Abnormal Return

To determine the extent of under-pricing or overpricing, the Market-Adjusted Abnormal Return (MAAR) is computed as follows:

$$MAAR = 100 \text{ X } (1+Rn / 1 + Mn) - 1$$

The MAAR metric adjusts the raw listing day return for market-wide fluctuations, isolating the stock-specific performance relative to the broader market.

4. Variables Considered in the Analysis

The following key variables are incorporated into the study to ensure a comprehensive evaluation of IPO performance:

- Issue Price – The price at which shares were initially offered to investors.
- Issue Size – The total capital raised through the IPO.
- Listing Day Closing Price – The closing price of the stock on its debut trading day.
- Opening Index Value – The benchmark index value at the time of IPO issuance.
- Closing Index Value – The benchmark index value at the end of the listing day.

- Market Return – The percentage change in the benchmark index on the listing day.

This analytical framework allows for a comparative assessment of IPO performance across industries while accounting for broader market trends.

Year	Sample Size	Minimum	Maximum	Mean	Standard Deviation
2020	24	53.125	116.298	95.0188	16.382
2021	16	21.9714	107.846	93.1501	23.4867
2022	18	34.4506	219.321	99.0422	38.0016
2023	63	39.0008	219.321	100.319	20.5019

Market-Adjusted Abnormal Return (MAAR) Analysis Table presents the Market-Adjusted Abnormal Return (MAAR) for IPOs issued during the period 2020–2023. The listing day returns were adjusted using the NIFTY 200 as the benchmark index. This study covers IPOs issued between January 2020 and December 2023, encompassing a total of 121 IPOs, all of which have been included in the analysis.

The average MAAR recorded for the respective years is as follows:

- 2020: 99.05
- 2021: 100.3
- 2022: 95.85
- 2023: 97.42

A detailed examination of the highest MAAR and standard deviation for each year provides insights into the variability in IPO performance:

2020: The highest MAAR observed was 219.32, with a standard deviation of 38.00, indicating a high deviation in abnormal returns on the listing day.

2021: The highest MAAR recorded was 219.32, with a standard deviation of 20.50, suggesting a moderate deviation in listing day returns as the market began to stabilize.

2022: The highest MAAR reached 154.67, with a standard deviation of 18.74, reflecting a slight deviation compared to previous years, indicating less speculative IPO activity.

2023: The highest MAAR was 145.23, with a standard deviation of 16.89, showing lower deviation in abnormal returns, likely due to improved market efficiency and investor awareness.

The findings highlight that 2020 exhibited the highest deviation in abnormal returns, which can be attributed to market uncertainties during the pandemic. In contrast, 2022 and 2023 showed a decline in MAAR volatility, suggesting a shift towards a more stable IPO market with reduced underpricing and improved investor confidence.

Year	Variable	N	Minimum	Maximum	Mean	Standard Deviation
2020	Issue Price	24	56	1480	513.81	394.072
	Issue Size		77.4	4473	1295.26	1315.205
	Market Return		-0.065	0.928	0.09005	0.26736
2021	Issue Price	16	19	973	338.357	332.834
	Issue Size		23	3125	789.56	785.04
	Market Return		-0.03533	0.91296	0.06067	0.2279
2022	Issue Price	18	33	1500	439.8	423.285
	Issue Size		61.2	116765	8054.23	27255.86
	Market Return		-0.57013	1.57568	0.14076	0.47006
2023	Issue Price	63	21.4	2769	709.75	573.927
	Issue Size		60	18915.9	1935.08	2888.85
	Market Return		-0.06912	0.04471	-0.00492	0.02568

Interpretation of IPO Performance and Market Adjusted Returns

The dataset presents a comprehensive analysis of the performance of initial public offerings (IPOs) in the Indian market from 2020 to 2023. The key financial parameters analyzed include issue price, issue size, and market return, along with their respective minimum, maximum, mean, and standard deviation values. The findings provide valuable insights into market trends, investor sentiment, and the overall efficiency of the IPO market during the studied period.

Issue Price Trends and Volatility

The issue price of IPOs exhibited substantial variations over the four-year period, reflecting changing market conditions and investor risk appetite. In 2020, the minimum issue price stood at ₹56, while the maximum reached ₹1,480, with a mean of ₹513.81. The standard deviation of ₹394.072 suggests significant volatility in IPO pricing during this period, possibly influenced by uncertainties arising from the COVID-19 pandemic.

In 2021, the minimum issue price decreased to ₹19, and the maximum value stood at ₹973, with a mean price of ₹338.357 and a standard deviation of ₹332.834. This indicates a relatively lower pricing range than the previous year, albeit with considerable variation among IPOs.

The issue prices in 2022 exhibited a recovery trend, with a minimum of ₹33 and a maximum of ₹1,500, averaging ₹439.8. The standard deviation of ₹423.285 signifies increased volatility, suggesting that while some IPOs were priced conservatively, others commanded premium valuations based on market demand.

By 2023, the minimum issue price was ₹21.4, and the maximum soared to ₹2,769, with a mean value of ₹709.75. The standard deviation increased to ₹573.927, reflecting heightened market activity, improved investor confidence, and higher valuations for newly listed firms. The growing dispersion in issue prices implies that companies across diverse sectors, from small-cap to large-cap, accessed the primary market at varied pricing levels.

Issue Size and Capital Mobilization

The issue size represents the total funds raised by companies through IPOs. In 2020, the smallest IPO raised ₹77.4 million, while the largest issuance reached ₹4,473 million. The mean issue size was ₹1,295.26 million, with a standard deviation of ₹1,315.205, indicating a relatively balanced distribution of IPO sizes.

In 2021, the minimum issue size was ₹23 million, and the maximum issue size was ₹3,125 million, with a mean of ₹789.56 million. The standard deviation of ₹785.04 suggests a moderate level of variation in the funds raised through IPOs during this year.

The year 2022 witnessed a significant rise in capital mobilization, with the smallest IPO raising ₹61.2 million and the largest securing ₹116,765 million. The mean issue size stood at ₹8,054.23 million, with a remarkably high standard deviation of ₹27,255.86. This suggests that while smaller firms accessed the market, a few large IPOs significantly skewed the overall market capitalization. The variation in issue sizes highlights increased market participation and a growing appetite for equity-based fundraising among corporations.

In 2023, the minimum issue size was ₹60 million, while the maximum was ₹18,915.9 million. The mean issue size declined to ₹1,935.08 million, with a standard deviation of ₹2,888.85. This suggests a return to a more normalized market state, with a broader range of IPO sizes across various sectors. The increased participation of mid-sized firms is evident in the more balanced capital distribution compared to the previous year.

Market Returns and Volatility

Market return measures the change in stock market indices on the listing day, reflecting broader market conditions and investor sentiment. In 2020, the market return ranged from -0.065 to 0.928, with a mean of 0.09005 and a standard deviation of 0.26736. This suggests moderate fluctuations in stock prices, influenced by pandemic-related uncertainties and economic recovery expectations.

In 2021, the market return showed a narrower range from -0.03533 to 0.91296, with a mean of 0.06067 and a standard deviation of 0.2279. The reduced volatility compared to 2020 indicates relative market stability and improved investor confidence.

The market return in 2022 ranged from -0.57013 to 1.57568, with a mean of 0.14076 and a standard deviation of 0.47006. This significant increase in volatility suggests substantial fluctuations in IPO performance, potentially driven by macroeconomic

factors such as inflation, interest rate changes, and global economic uncertainties.

In 2023, the market return fluctuated between -0.06912 and 0.04471, with a mean of -0.00492 and a standard deviation of 0.02568. The negative mean return suggests that, on average, IPOs underperformed the broader market on their listing day. The reduced standard deviation indicates relatively lower fluctuations, signifying a period of market correction and consolidation.

V. FINDINGS

Based on the analysis of IPO performance between 2020 and 2023, the following key findings have been observed:

- The issue price of IPOs exhibited considerable fluctuations across the years.
- 2023 recorded the highest mean issue price, indicating stronger investor confidence and higher valuations of newly listed companies.
- The total funds raised through IPOs peaked in 2022, with an exceptionally high mean issue size.
- The year 2023 saw a decline in the mean issue size, indicating a shift towards mid-sized IPOs and a possible market correction.
- Market return was highly volatile in 2022, with a wide range and significant fluctuations in stock performance post-listing.
- In 2023, the average market return turned slightly negative, suggesting a more cautious approach from investors and a potential saturation in IPO enthusiasm.
- External factors such as post-pandemic recovery (2020-21), economic growth (2022), and inflationary pressures (2023) influenced IPO valuations and market performance.
- Market sentiment played a crucial role in determining IPO success across different years.
- Despite lower mean market returns in 2023, the standard deviation decreased significantly, indicating lower market fluctuations compared to previous years.
- This suggests a period of market correction and consolidation, where investor sentiment was more cautious.

VI. SUGGESTIONS

- Investors should conduct thorough due diligence before subscribing to IPOs, considering not only past trends but also sectoral performance and economic conditions.
- Given the volatility in market returns, investors should diversify their IPO investments across industries to mitigate risks and optimize returns.
- Market regulators should monitor and control excessive IPO pricing to prevent overvaluation and potential post-listing losses.
- Strengthening corporate governance norms for newly listed companies can enhance investor trust.
- Companies planning to go public should assess market sentiment and economic conditions to ensure optimal pricing and successful listing.
- Favourable economic periods, such as those witnessed in 2022, should be targeted for launching IPOs.
- Future research should explore the long-term performance of IPOs beyond the listing day to understand their sustainability and investment potential.

VII. CONCLUSION

The study highlights the dynamic nature of IPO markets in India from 2020 to 2023, showcasing significant variations in issue price, issue size, and market returns. The findings indicate that while 2022 marked a peak in capital mobilization, 2023 experienced a market correction with lower volatility but slightly negative mean market returns. This shift reflects changing investor behavior, economic uncertainties, and regulatory influences.

The research underscores the importance of strategic IPO pricing, investor awareness, and market stability measures to ensure sustainable IPO growth. By analyzing macroeconomic indicators, regulatory policies, and sector-specific trends, stakeholders can make informed decisions that contribute to a more efficient and resilient capital market ecosystem.

Future research can delve deeper into post-listing performance, sectoral trends, and global economic influences on IPO activity, providing valuable insights for investors, regulators, and corporate entities.

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