

Post-Listing Performance of Initial Public Offers (IPOs) in the Indian and United States Capital Market (2020–2024)

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Abstract

This study examines the success of Initial Public Offerings (IPOs) across elected sectors—Fintech, E-Commerce, Pharmaceuticals, and Energy & Renewables—in India and the United States, spanning the period from 2020 to 2024. These areas were especially picked due to their rapid growth, robust investor appeal, and heightened market activity during this period. By conducting a comparison analysis between the Indian market (an emerging nation) and the US market (a established economy), this research aims to provide insights into the varying market dynamics, investor behaviors, and overall market maturation. The conclusions of this study aim to aid investors in selecting ideal entry timings for IPO investments, inform market regulators about various sectoral behaviors, and contribute to future research in IPO market dynamics.

Keywords: *IPO Performance, Comparative Analysis, Sectoral Trends, Market Maturity, Emerging vs. Developed Markets, Investor Behavior, Market Volatility*

1. Introduction

The Initial Public Offering (IPO) market continuously receives substantial attention from investors, financial institutions, and pundits owing to its potential for high rewards and associated market hazards. This study analyses IPO success in two different market scenarios: India, a rising economy, and the United States, an established market. The report focuses primarily on four rapidly growing sectors—Fintech, Pharmaceuticals, E-commerce & Consumer Platforms, and Energy & Renewables—from 2020 to 2023. These sectors were deliberately selected due to their accelerated growth patterns, increased investor interest, and substantial market fluctuations throughout this timeframe.

By comparing IPO performance across various sectors in two distinctive economic environments,

the research reveals major distinctions as well as insights into sector-specific dynamics and maturity levels in the market. Furthermore, a fundamental purpose of this study is to determine the ideal investment timing—essentially determining the most opportune intervals to purchase IPO stocks post-listing. Ultimately, the findings aim to improve investor decision-making, offer insights relevant to formulation of policies, and contribute to the broadening body of literature analysing IPO success across varied markets.

2. Literature Review

Shukla & Shaw (2023) in their paper "*Long-run Stock Return of IPO Firms in India: Examining Investment and Profitability Hypothesis*" examined Indian IPO performance using event study methods and the Fama-French Five-Factor model. They found that IPO underperformance varies by sample

and methodology, with firms investing heavily post-issue and profitability aligning with industry norms over time. Smith (2002) in *"An Empirical Investigation of IPO Performance"* analyzed U.S. IPOs (1985-2002) using event study and BHAR methods. The study found strong initial gains, long-term underperformance, and significant price movements around lockup and quiet periods. Industry-based matching was the most effective method for detecting abnormal returns.

Babu & Dsouza (2021) analyzed 52 Indian IPOs (2018–2020) using market-adjusted models and regression analysis. They found an average first-day return of 13.52%, peaking at 14.52% on day three. Over-subscription influenced IPO performance, while issue price, profit after tax, market returns, and promoter holdings did not. The study explored IPO anomalies, including underpricing, information asymmetry, and agency problems. Dhimal (2022) compared IPO performance in India before and after the COVID-19 spike, analyzing IPOs from 2018 (pre-COVID) and 2020 (post-COVID). The study found that IPOs in 2020 performed better, providing higher listing gains than those in 2018. It suggests that investors hold IPO investments for the long term to maximize returns. Khan et al. (2021) analyzed the stock performance of 26 IPOs listed in India in 2016, comparing short-term and long-term returns over three years (2016–2019). The study found that IPO returns fluctuated, with 20 IPOs providing positive listing-day gains. Long-term IPO performance was generally stronger than short-term performance, and overpriced IPOs failed to grow. The study suggests holding investments for over a year for better returns and selling overpriced IPOs on listing day to minimize losses.

Dr. Sanjay Sawant Dessai (2015) analyzed IPOs listed on the Bombay Stock Exchange from July 2010 to June 2013. The study examined sector-wise price appreciation over six to thirty-six months. It highlights IPO growth due to foreign institutional investment but notes challenges from economic slowdown and rising gold prices. The findings assess IPO performance in varying market conditions. G. Sankararaman, S. Suresh, and T.C. Thomas (2023) analyzed 34 Indian IPOs listed

between August 2020 and April 2021. The study categorized IPOs into seven sectors and assessed listing-day and short-term returns. Financial sector IPOs showed negative returns, while IT & Software IPOs outperformed market returns. The findings highlight sectoral variations in IPO performance during COVID-19.

Seshadev Sahoo and Prabina Rajib (2010) analyzed 92 Indian IPOs from 2002–2006, finding 46.55% average underpricing on listing day. Long-run performance, measured using WR and BHAR, showed underperformance in the first year, followed by overperformance. Factors like offer size, leverage, and ex-ante uncertainty significantly influenced underperformance. Investors buying on listing day faced losses in the first year but gained thereafter. Shukla & Shaw (2023), in *"Long-run Stock Return of IPO Firms in India: Examining Investment and Profitability Hypothesis,"* utilized the Fama-French Five-Factor model to study IPO performance. They discovered that IPO underperformance tends to occur predominantly in high-volume issuance years.

Monikar (2023) in his paper *"Assessing the IPO Pricing and Factors Influencing IPO Returns in the Indian Market: A Study of 2021-2022 IPOs"* examines IPO valuation, returns, and investor participation. He finds that 2021 saw high enthusiasm with strong raw returns, while 2022 had lower gains and increased volatility. Smaller IPOs yielded higher short-term returns, whereas larger IPOs outperformed over time. The study also highlights the role of QIB oversubscription in stabilizing long-term returns. Marisetty & Subrahmanyam (2009) in their paper *"Group Affiliation and the Performance of IPOs in the Indian Stock Market"* analyze 2,713 IPOs from 1990 to 2004. They find that business group-affiliated IPOs experience higher underpricing than stand-alone firms, supporting the "tunneling" hypothesis over "certification." Additionally, IPOs show negative long-run performance, and investor overreaction, measured by oversubscription, explains underpricing.

Arora & Singh (2020), in *"The Long-Run Performance of SME IPOs in India: Empirical*

Evidence from the Indian Stock Market," analyzed 375 SME IPOs from 2012 to 2018. Contrary to global trends of IPO underperformance, their findings suggested that SME IPOs in India exhibit long-term overperformance. The study also identified that issue size and oversubscription negatively impact long-run returns, whereas factors such as auditor reputation, underwriter reputation, underpricing, and favorable market conditions positively influence performance. Jaitly (2004) in his paper "Pricing of IPOs and Their After-Issue Performance in the Indian Equity Market" examines the pricing of new issues post-deregulation. He finds that IPO pricing aligns with rational decision-making, with first-day returns averaging 72%. If government restrictions had remained, first-day returns would have been 160%. Madan (2003) in "*Investments in IPOs in the Indian Capital Market*" examines IPO underpricing, where initial offer prices are lower than market prices post-listing. He identifies three key patterns: initial underpricing, cyclical hot issue markets, and long-run underperformance. The study also presents global evidence, with Australia (29.2%) and Germany (21.5%) experiencing significant underpricing.

3. Research Gap

Existing studies on IPO performance primarily focus on individual markets, with limited comparative analysis between India and the USA across specific sectors. While research examines short-term IPO performance, long-term return trends and sectoral variations remain underexplored. Additionally, most studies analyze broad market IPOs rather than sector-specific trends, limiting insights into industry-driven performance. This study aims to bridge these gaps by analyzing sectoral IPO returns in India and the USA from 2020 to 2024, providing deeper insights into market efficiency, risk factors, and investment potential.

4. Research Objectives

1. To analyze and compare the short-term and long-term IPO returns in India and the United States across four prominent sectors: Fintech, Pharmaceuticals, E-commerce & Consumer

Platforms, and Energy & Renewables, within the time frame of 2020–2024.

2. To evaluate sector-specific IPO performance patterns in the Indian and US markets, assessing differences in sectoral maturity, volatility, and return profiles.

3. To understand the relationship between initial IPO-day performance and subsequent medium-to long-term returns (6-month, 12-month, and 24-month returns), thereby identifying ideal timing for investment decisions post-IPO.

4. To quantify and compare volatility patterns across IPOs in India and the US within selected sectors, providing insights on market stability and investor risk exposure.

5. To recommend strategic insights to investors based on empirical findings, helping optimize IPO investment timing and risk management practices.

5. Hypothesis

Hypothesis 1: Comparison of IPO Returns between Indian and US markets

- **H₀:** There is no statistically significant difference between IPO returns in the Indian and US markets across selected sectors (Pharmaceuticals, Energy & Renewables, E-commerce, and Fintech) for IPOs listed between 2020 and 2023.

Hypothesis 2: Sectoral Impact on IPO performance

- **H₀:** Sector-specific factors (Pharmaceuticals, Energy & Renewables, E-commerce, Fintech) have no statistically significant impact on IPO returns in the Indian and US markets during the period of 2020-2023.

Hypothesis 3: Short-term returns and long-term IPO performance

- **H₀:** The first-day IPO returns have no significant correlation with their respective medium- to long-term returns (6-month, 12-month, 24-month returns).

Hypothesis 4: Volatility Comparison

H₀: There is no significant difference in IPO volatility levels between Indian and US markets across selected sectors.

6. Research Methodology

6.1 Research Design and Objective

This study adopts a mixed-methods approach anchored in quantitative research design, with the primary aim of evaluating the post-listing performance of Initial Public Offers (IPOs) in two structurally different financial markets — the Indian and the United States capital markets. The design is intentionally comparative in nature, structured to capture and contrast how IPOs behave post-listing across these two economies, which are distinguished by different levels of development, investor behaviour, regulatory environments, and capital market maturity.

The objective of this study is three-fold. First, it seeks to quantitatively assess the holding period returns of selected IPOs over different investment horizons — specifically, the first trading day, 6 months, 12 months, and 24 months after listing. Second, the study aims to evaluate volatility and consistency of returns within and across sectors by calculating standard deviation of monthly returns, thereby shedding light on the relative risk exposure for investors. Third, it aims to identify behavioural and strategic patterns, such as whether early hype leads to sustainable returns or if deferred entry (after the initial listing period) leads to better long-term outcomes.

A strong emphasis is placed on the sectoral dimension of IPOs, as companies from different industries often exhibit widely varying post-IPO price trajectories. Thus, the research design also examines IPOs by sector — Fintech, E-commerce and Consumer Platforms, Pharmaceuticals, and Energy & Renewables — across both markets, enabling a deeper contextual understanding of post-listing dynamics.

6.2 Data Collection and Sources

The data used in this study is entirely secondary in nature, drawn from reliable, publicly available financial platforms and databases. The sources used were selected based on their data accuracy, accessibility, and frequency of updates. Monthly adjusted closing prices — which factor in corporate

actions like stock splits, dividends, and bonus issues — were sourced primarily from:

- Yahoo Finance for U.S. listed IPOs,
- NSE India and BSE India for Indian IPO data,
- Screener.in, a widely used financial data aggregator in India,
- Official red herring prospectuses (RHPs) and exchange filings for IPO issue prices and listing dates.

Each IPO's adjusted monthly price history was compiled starting from the month of listing and extending up to 24 months post-listing, or until April 2024, whichever came earlier. In cases where inconsistencies were observed between two sources (e.g., Yahoo Finance vs. exchange filings), preference was given to exchange-based data, and each record was double-verified to ensure accuracy.

Data was also enriched by including listing day closing price, issue price, and sectoral classification. This provided a multi-dimensional dataset that enabled both return and risk-based analysis.

6.3 Sample Selection Criteria

To ensure a balanced and representative sample, the study includes 28 IPOs in total, split evenly across the Indian and U.S. capital markets — with 14 from each. The selection process followed specific inclusion and exclusion criteria to maintain analytical consistency and focus. Only IPOs listed between January 2020 and April 2024 were considered, as this period reflects recent market behaviour, including the effects of post-pandemic economic recovery, interest rate volatility, and investor sentiment shifts.

Key inclusion criteria were:

- The IPO must belong to one of four sectors — Fintech, E-commerce and Consumer Platforms, Pharmaceuticals, or Energy & Renewables. These sectors were deliberately chosen due to their high visibility in the capital markets and diverse return-volatility behaviour.
- A minimum of 12 months of available price data post-listing was required to ensure meaningful return and volatility analysis.

- The IPO should have had a widely reported listing, preferably with media or analyst coverage, to confirm investor attention and post-listing price discovery activity.

Care was taken to include both large-cap IPOs (such as Paytm and Airbnb) and mid-sized listings (like Supriya Lifescience or Vaxxinity) to capture a full spectrum of post-listing behavior.

6.4 Method of Return Calculation

To evaluate the financial performance of the selected IPOs over time, multiple return metrics were calculated. All returns were computed using adjusted closing prices to ensure consistency and accuracy, especially in accounting for corporate actions such as stock splits or dividend payouts. The key return measures are explained below:

6.4.1 First-Day Return (%)

The first-day return captures the immediate gain or loss for an investor who buys the stock at the issue price and sells it at the closing price on the day of listing. It is calculated using the formula:

First-Day Return (%)

$$= (\text{Listing Day Close} / \text{Issue Price}) - 1$$

This return reflects market sentiment and pricing efficiency on the day of listing. A high positive return often signals strong investor demand, while a negative return may indicate overpricing or weak sentiment.

6.4.2 Monthly Return (%)

Monthly returns measure the stock's percentage change in adjusted closing prices from one month to the next. These returns form the foundation for calculating long-term holding period returns and volatility.

$$\text{Monthly Return (\%)} = (\text{Adjusted Close in Current Month} / \text{Adjusted Close in Previous Month}) - 1$$

Monthly returns were calculated starting from the second month post-listing, since the first month lacks a prior reference point. This calculation was repeated across all IPOs in the dataset for a maximum of 24 months.

6.4.3 Compounded Holding Period Return (6M, 12M, 24M)

To measure how much an investor would have earned by holding the stock continuously for a fixed period (6, 12, or 24 months), compounded holding period returns were computed. This method accounts for the effect of compounding, rather than just summing up returns.

$$\text{Compounded Return} = \text{PRODUCT}(1 + \text{Monthly Returns}) - 1$$

For example, the 6-month return is calculated by multiplying $(1 + \text{monthly return})$ for each of the 6 months and then subtracting 1 from the result. This formula was applied using Excel's PRODUCT() function, filtering only numeric monthly returns with ISNUMBER() to avoid blank or text cells.

$$\text{Sample Excel formula for a 6-month return:} = \text{PRODUCT}(\text{FILTER}(1 + \text{B2:B7}, \text{ISNUMBER}(\text{B2:B7}))) - 1$$

This formula was adjusted for 12-month and 24-month calculations by expanding the range accordingly.

6.5 Volatility and Risk Measurement

Understanding the level of risk associated with IPO investments is essential for any investor, and this was addressed by calculating volatility for each IPO based on its monthly returns. Volatility in this study is measured as the standard deviation of monthly returns, which indicates how widely the returns deviate from their mean.

Volatility (Standard Deviation)

$$= \text{STDEV}(\text{Monthly Returns})$$

This was computed using Excel's built-in STDEV() function, which calculates the spread of the monthly returns. A higher value indicates more unpredictable price behaviour, and thus greater risk.

$$\text{For example: } =\text{STDEV}(\text{B2:B13})$$

Where B2:B13 refers to the range of monthly returns for a given IPO.

Once individual IPO volatilities were calculated, they were grouped by sector and country to allow

comparative analysis. This enabled the identification of sectors that were more stable (such as Indian Pharmaceuticals) versus those that were high-risk and high-reward (such as Indian Energy & Renewables or U.S. E-commerce).

6.6 Correlation Analysis

To explore the relationship between listing-day performance and long-term returns, the study conducted a correlation analysis. This sought to test the hypothesis that a strong listing-day return either supports or undermines subsequent price performance.

The correlation coefficient was calculated between the first-day return and the 6-month and 12-month compounded returns for each IPO. The expectation was to examine whether initial market optimism (or pessimism) translated into sustained investor sentiment or if it was a symptom of short-term speculation.

The results of this analysis were then interpreted both statistically and qualitatively. In the Indian market, a weak to negative correlation was observed — IPOs with very high listing gains often underperformed over time, possibly due to overvaluation and subsequent corrections. In contrast, the U.S. market showed more variability, with some IPOs like Airbnb maintaining gains post-listing, while others like Robinhood and Rent the Runway experienced significant losses.

This layer of analysis added a behavioural finance dimension to the study and helped determine the validity of popular investor beliefs regarding “buying on the listing day.”

7. Data Analysis and Findings

This section presents a detailed quantitative evaluation of IPO performance across the Indian and United States capital markets over the period 2020 to 2024. The analysis is based on holding period returns (HPR), average monthly returns, and volatility metrics calculated from adjusted monthly closing prices. The aim is to understand the return behaviour of IPOs over time and across sectors and geographies, while also identifying trends in risk and post-listing price stability.

7.1 Market-Wide Performance Overview

The performance of IPOs in India and the United States reveals distinct contrasts in investor behaviour, return patterns, and market maturity. IPOs listed in the United States generally tend to witness sharp price appreciations on the day of listing, with the average first-day return standing at approximately 97.4 percent. This points to a strong element of listing-day speculation and investor exuberance. However, these early gains are often unsustainable. Over a 6-month holding period, the average return across U.S. IPOs declines to -17.2 percent, and this trend continues over longer durations, with 12-month and 24-month average returns falling to -21.1 percent and -33.5 percent respectively.

In contrast, Indian IPOs display a more conservative listing behaviour. The average first-day return across the Indian sample is about 17 percent — significantly lower than the U.S. market. However, over time, Indian IPOs tend to deliver better performance. The average 6-month return is modestly negative at -6.6 percent but turns positive after 12 months at 7.6 percent and continues to improve to approximately 24.7 percent after 24 months. This suggests that while Indian IPOs may initially underwhelm, their long-term performance can offer more consistent and sustainable gains.

7.2 Sector-Wise Performance Insights

The Indian Energy and Renewables sector emerged as the top-performing segment in terms of long-term returns. IPOs in this category generated an average 24-month return of over 200 percent, albeit with exceptionally high volatility. This performance was driven by IPOs such as Inox Green, which delivered strong month-on-month returns following its listing. However, the high returns in this sector came with considerable risk, as evidenced by its volatility metric of over 280 percent, the highest among all sectors in the dataset.

The Pharmaceuticals sector in India, on the other hand, delivered more stable and predictable returns. With an average 24-month return of around 91 percent and low volatility near 25 percent, this sector proved to be the most consistent performer in terms

of risk-adjusted returns. These IPOs often showed small but steady monthly gains and were less sensitive to broader market volatility.

On the other end of the spectrum, Indian Fintech IPOs significantly underperformed. With a 24-month average return of approximately –57.7 percent and moderate-to-high volatility, this sector was impacted by post-listing overvaluation, regulatory uncertainty, and weak earnings visibility. Similarly, Indian E-commerce and Consumer Platform IPOs delivered a slightly negative 24-

month return of around –11.3 percent, although with lower volatility than Fintech.

In the United States, the overall performance across sectors was disappointing. U.S.-listed Energy IPOs showed an average 24-month return of –33.5 percent, while E-commerce and Pharmaceutical IPOs returned –4.6 percent and –50.0 percent respectively. Despite these low returns, volatility remained high, particularly in E-commerce IPOs, which exhibited large month-on-month fluctuations driven by speculative trading and macroeconomic headwinds.

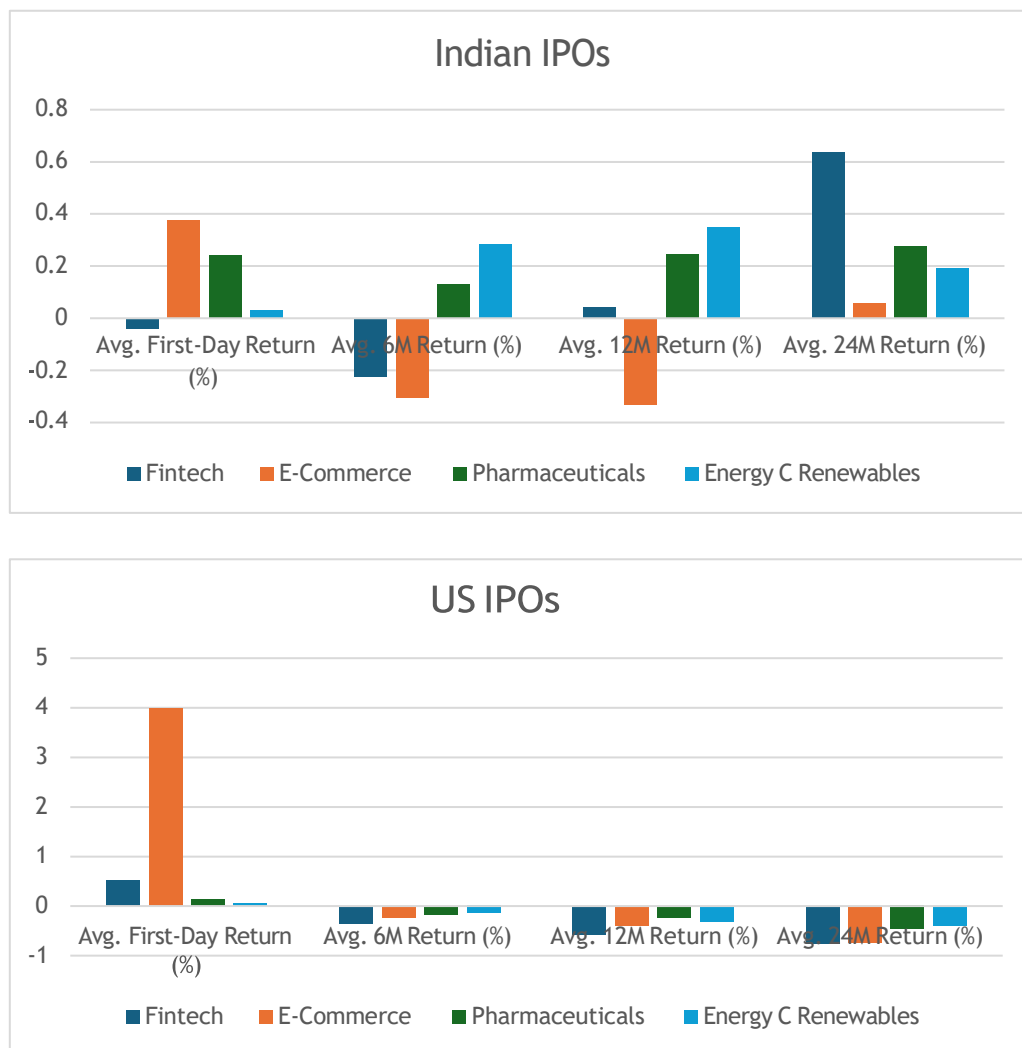


Fig. 1 – Overall performance across sectors in India and United States

7.3 Volatility and Risk Analysis

A sectoral breakdown of volatility highlights the considerable variation in investor risk exposure. In India, the Energy and Renewables sector reported an average standard deviation of monthly returns exceeding 280 percent, making it by far the most volatile sector in the sample. This aligns with its extremely high 24-month returns but also indicates that investments in this sector come with significant downside risk and unpredictability.

The Indian Fintech sector also showed relatively high volatility at around 48 percent, further compounding its weak long-term performance. Indian Pharmaceuticals, by contrast, stood out for its stability, with an average volatility of just over 25

percent — the lowest among all sectors — while still delivering a strong 24-month return. E-commerce IPOs in India demonstrated moderate volatility and modest underperformance.

In the United States, E-commerce IPOs were the most volatile, with standard deviations exceeding 100 percent. This high volatility contributed to the sector's underperformance and signalled investor uncertainty and fluctuating post-listing sentiment. The U.S. Energy sector showed negative performance, while its volatility remained relatively moderate. U.S. Pharmaceuticals had mixed volatility levels, but the sector as a whole delivered consistently poor long-term returns.

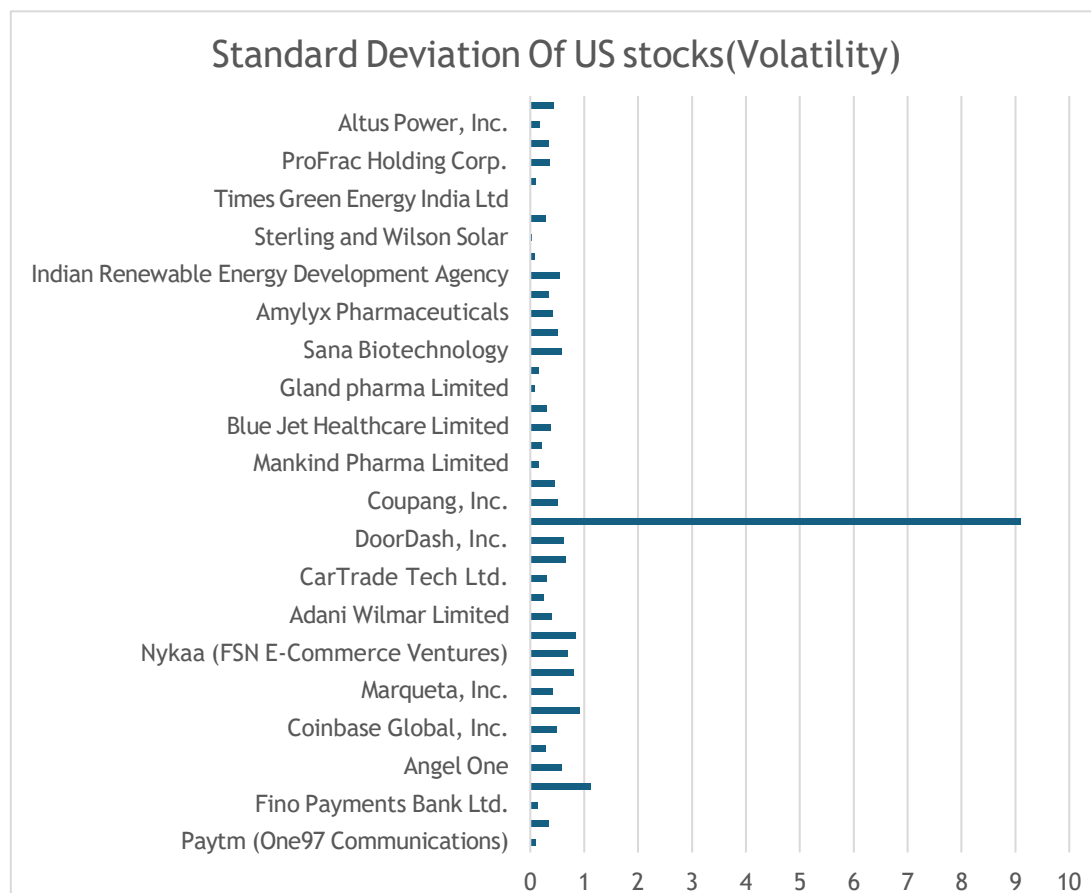


Fig. 2 – Standard Deviation of US Stocks (Volatility)

7.4 Monthly Return Trends

The inclusion of monthly return tracking for each IPO provided deeper insight into behavioural patterns during the post-listing period. In India, Paytm (One97 Communications) recorded negative returns in 10 out of its first 12 months post-listing, reflecting a steep post-IPO correction and lack of investor confidence. PB Fintech exhibited a similar trajectory, with frequent monthly losses and a downward trend in its stock price.

In contrast, Inox Green, a renewable energy firm, showcased one of the most impressive turnarounds. While its early months post-listing were volatile, it posted a streak of six consecutive positive monthly returns beginning around Month 7, with individual monthly gains reaching as high as 18 percent. This recovery was pivotal in boosting its 24-month performance.

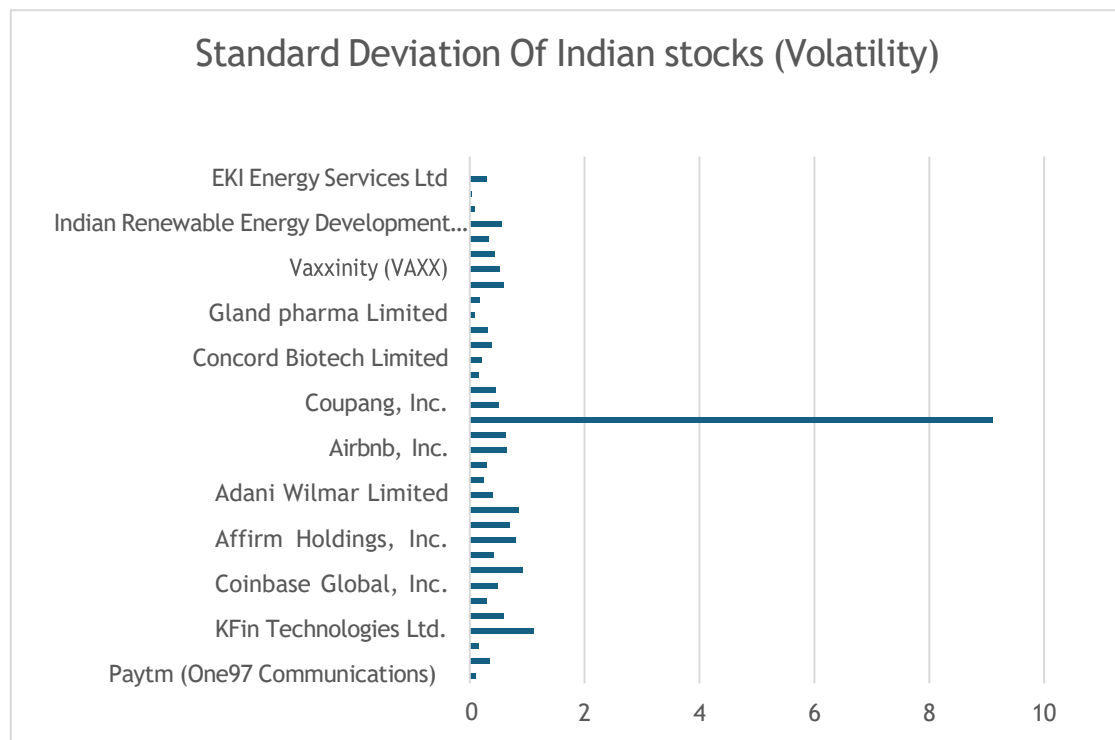


Fig. 3 – Standard Deviation of Indian Stocks (Volatility)

The Pharmaceuticals sector in India, represented by IPOs like Supriya Lifescience, showed consistent low-volatility growth. These stocks often posted mid-single-digit monthly gains and fewer negative months overall, suggesting steady institutional interest and strong fundamentals.

In the U.S. market, Robinhood's IPO recorded a sharp early rise — gaining over 26 percent in Month 2 — followed by a series of negative months where returns fell by more than 10 percent consecutively. This points to the short-term speculative nature of

investor sentiment. Rent the Runway exhibited consistently negative performance over the first 18 months, affirming its status as one of the worst-performing IPOs in the dataset. Airbnb stood out in contrast; although it experienced some early correction, its monthly return path stabilized, reflecting sustained market confidence in the brand.

7.5 Correlation Insights

The relationship between first-day returns and long-term performance was also analysed. In the Indian

market, a weak-to-negative correlation was observed. IPOs that delivered large listing gains often underperformed in the long run. A notable example is Nykaa, which posted a 96.6 percent return on its listing day but went on to decline by more than 60 percent over the following 12 months. This trend suggests that listing-day euphoria often leads to overpricing, followed by market correction once rational valuations are re-established. In the United States, the correlation between first-day and long-term returns appeared less predictable. Some IPOs that gained strongly on Day 1 retained value, while others did not. Airbnb, for instance, managed to maintain its market position and brand credibility even after a strong initial surge, pointing to the maturity of investor behaviour and institutional support in the U.S. markets.

7.6 Strategic Investment Implications

Based on the performance patterns and volatility insights, the optimal investment strategies differ by geography. In India, a strategy of deferred entry — that is, investing in IPOs 6 to 12 months after listing — is strongly supported by the data. This approach allows time for early price discovery to stabilize and

for overhyped valuations to correct. Several Indian IPOs, including Inox Green and Supriya Life science, demonstrated strong long-term performance after an initial period of volatility or correction. In the United States, however, the picture is more complex. While many IPOs decline sharply after the initial listing, a few high-quality listings such as Airbnb have sustained value. Therefore, a strategy of selective early entry may work in the U.S. market, but it requires rigorous due diligence, strong brand conviction, and awareness of market timing.

8. Conclusion

This study sought to evaluate and compare the post-listing performance of IPOs in the Indian and U.S. capital markets between 2020 and 2024. Through extensive quantitative analysis of first-day returns, medium- and long-term holding period returns, monthly return trends, and volatility metrics, several key conclusions have emerged. These findings offer significant implications for investors, market analysts, and policy-makers, while also contributing to the broader academic discourse on IPO pricing efficiency and market behavior.

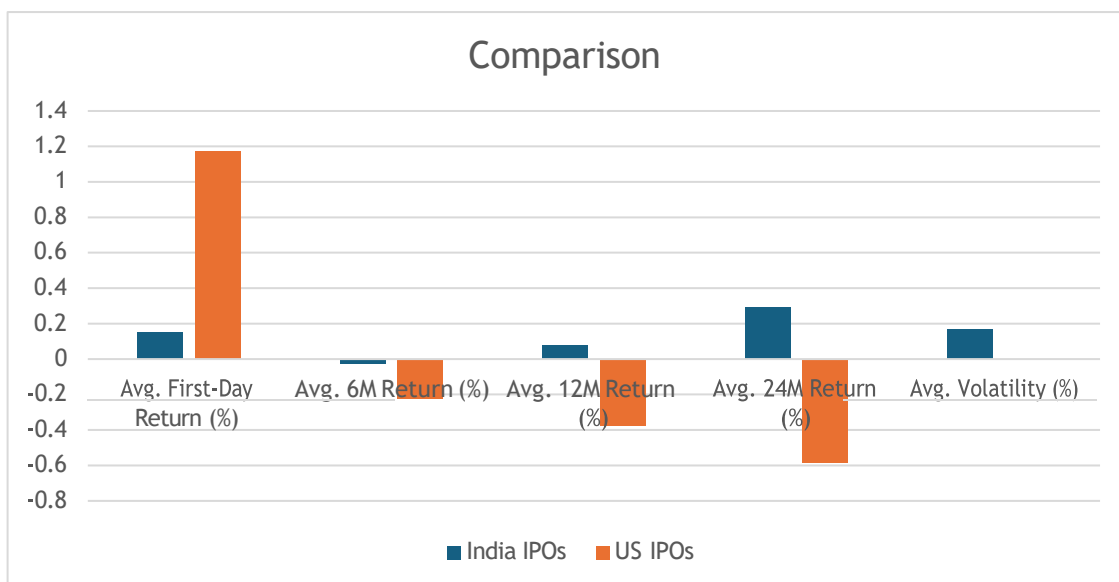


Fig.4 – Comparison of Performance of US and Indian Stocks

8.1 First-Day Returns

A clear divergence exists between the Indian and U.S. IPO markets when it comes to listing day performance. U.S. IPOs, on average, posted a first-day return of approximately 97.43%, indicating a high level of under-pricing and aggressive investor enthusiasm at the time of listing. This is likely driven by a combination of pre-IPO hype, institutional bidding strategies, and market speculation. In comparison, Indian IPOs recorded a more modest average first-day return of around 16.98%, suggesting a relatively more rational or regulated approach to IPO pricing and initial investor behavior. The stark contrast between the two markets reflects fundamental differences in market maturity, price discovery mechanisms, and investor sentiment.

8.2 Medium- and Long-Term Returns

While U.S. IPOs exhibit strong short-term listing gains, this performance does not persist over time. The average 6-month return for U.S. IPOs stands at -17.22%, which further deteriorates to -21.12% at 12 months and -33.49% at 24 months. These figures highlight that, for most U.S.-listed IPOs, early optimism is not supported by long-term fundamentals, resulting in substantial value erosion over time. In contrast, Indian IPOs demonstrate a more resilient return trajectory. Although the average 6-month return is slightly negative at -6.64%, returns turn positive over longer horizons — improving to 7.63% after 12 months, and 24.73% after 24 months. This suggests that Indian IPOs, while conservative at listing, tend to generate more sustainable investor value in the long run. The delayed upward momentum supports the hypothesis that a deferred entry strategy is often more effective in the Indian market.

8.3 Volatility and Risk

The volatility of returns further reinforces the differing nature of both markets. U.S. IPOs were significantly more volatile, with an average standard deviation of 29.09%, indicating high price fluctuations and increased risk exposure. This is particularly evident in sectors like E-commerce, where excessive speculation post-listing led to

unpredictable price behavior. On the other hand, Indian IPOs were far more stable, averaging a volatility of just 6.44%. Sectors like Pharmaceuticals in India exhibited not only consistent long-term returns but also the lowest volatility, making them attractive for long-term, risk-averse investors. The data clearly illustrates that lower volatility in India is a contributing factor to its more sustainable long-term performance.

8.4 Best and Worst Performing IPOs

Among the sample, the best-performing Indian IPO was Inox Green Energy Services Limited, which showed exceptional 24-month returns supported by a streak of positive monthly performance post-Volatility Phase 1. In the U.S. market, Airbnb, Inc. emerged as the strongest performer, displaying relatively stable monthly trends even after an initial surge. Conversely, Paytm (One97 Communications) was the worst-performing IPO in India, with persistent negative returns and post-listing value erosion. In the U.S., Rent the Runway, Inc. recorded the sharpest and most sustained decline, highlighting the risks of speculative overvaluation. These examples illustrate that while both markets have standout winners and underperformers, the distribution and sustainability of success differ significantly.

8.5 Ideal Investment Strategy

Based on the analysis of return trajectories, volatility levels, and sectoral trends, it becomes clear that the ideal investment strategy differs significantly between Indian and U.S. IPO markets. In the Indian market, a deferred entry strategy is most appropriate. Given the relatively conservative first-day returns and evidence of long-term value creation, investors are likely to benefit by entering IPOs 6 to 12 months post-listing, once initial price volatility subsides and the stock begins to reflect fundamentals more accurately. This approach minimizes exposure to post-listing corrections while allowing participation in sustainable growth, particularly in sectors like Pharmaceuticals and Energy.

Conversely, in the U.S. market, a short-term trading strategy may prove more effective. The data indicates that many U.S. IPOs experience sharp

price spikes on listing day, often driven by speculative demand rather than long-term value. Investors aiming to capitalize on this initial momentum must act quickly and exit positions within days or weeks. However, caution is warranted, as long-term holding often leads to significant capital erosion, especially in volatile sectors like E-commerce.

In summary, long-term investing suits Indian IPOs, while opportunistic short-term trading may be better suited to U.S. listings, provided that risk is actively managed and supported by research-based conviction.

8.6 Implications and Theoretical Insights

The findings from this study yield several key implications for investment strategy and academic theory:

- The Indian IPO market appears to prioritize sustainable value creation, as evidenced by moderate first-day returns and steadily improving long-term performance. This may be attributed to stronger regulatory oversight (e.g., SEBI regulations), a predominantly retail investor base, and conservative pricing strategies by issuers.
- The U.S. IPO market, by contrast, demonstrates a bias toward short-term speculative behavior, where excessive first-day enthusiasm often gives way to post-listing disappointment. This pattern aligns with existing literature that critiques the long-term underperformance of IPOs in developed markets.
- From a practical standpoint, the results strongly suggest that short-term speculative trades may be more suitable in the U.S., particularly for institutional or high-frequency traders looking to capitalize on listing-day pops. In contrast, a long-term buy-and-hold strategy may yield better outcomes in the Indian market, particularly when investors enter after the first 6–12 months post-listing.
- Finally, the study challenges the commonly held belief that higher first-day returns are a sign of IPO success. Instead, it lends support to the view that moderate initial pricing and lower

volatility are more reliable indicators of long-term value. These conclusions resonate with the efficient market hypothesis in emerging markets and with behavioural finance theory in developed markets.

9. Limitations

1. The selected period (2019–2023) may not fully capture long-term IPO performance trends across different economic cycles. Market conditions during this period were influenced by unique events such as the COVID-19 pandemic and rising inflation, which may distort the comparability of IPO returns across sectors and countries.
2. The Indian and USA IPO markets operate under distinct regulatory environments, investor behaviors, and listing mechanisms. Variations in listing norms, lock-in periods, and institutional investor participation could impact the comparability of IPO returns, making it difficult to generalize findings across both markets.
3. IPO pricing is influenced by multiple factors, including demand-supply dynamics, investment banking strategies, and macroeconomic conditions. Differences in these elements between India and the USA may affect underpricing levels and post-listing performance, limiting direct comparability.
4. The study focuses on four sectors—Pharma, Tech, Consumer, and Fintech—but IPO trends in other industries could offer additional insights. A limited sectoral focus might not fully reflect broader IPO performance patterns across both markets.
5. The research primarily compares IPO returns within a specific time frame, which may not fully capture long-term performance trends. Many IPOs exhibit volatility in early trading periods, and their true value may emerge over several years, beyond the study's scope.
6. Access to complete and reliable post-IPO performance data, especially for delisted or underperforming firms, may be limited. This could introduce survivorship bias, as the study may inadvertently focus on successful IPOs

while excluding those with poor long-term performance.

10. Future Scope

1. Future studies can expand the analysis beyond 2019–2023 to include multiple economic cycles, capturing long-term IPO performance trends. A broader dataset would help assess whether short-term anomalies, such as post-pandemic recovery, impact IPO returns over extended periods.
2. Expanding the research to include additional sectors such as energy, infrastructure, and financial services could provide a more comprehensive understanding of IPO performance across different industries and market conditions.
3. Further research can explore IPO performance across multiple emerging and developed markets, comparing India and the USA with economies like China, the UK, and Brazil. This would provide deeper insights into how regional factors influence IPO returns.
4. Analyzing the effects of macroeconomic factors such as interest rates, inflation, GDP growth, and monetary policies on IPO returns can help refine investment strategies and improve forecasting models for post-IPO performance.
5. Future research can incorporate investor sentiment, media coverage, and institutional investor participation to understand how psychological and behavioral factors influence IPO pricing, underpricing, and long-term performance.
6. Applying machine learning and AI-driven predictive models can enhance the accuracy of IPO performance forecasts. Alternative models, such as event studies and sentiment analysis, could be integrated for a more data-driven approach.

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