ITJ | The International Tax Journal

IPO market trends, sectoral dynamics and determinants of listing gains in India: Evidence from IPOs (2021-2025)

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Abstract---Initial Public Offerings constitute a major mechanism for raising equity capital and creating investment opportunities in capital markets. This study examines the IPO market behaviour in India during the period between the year 2021 and 2025 using a sample of 355 IPOs. The paper analyses trends, sectoral performance, listing gains, subscription demand, issue size dynamics, month-wise issuance patterns and the influence of market conditions. Descriptive statistics, correlation analysis, multiple regression models and ANOVA tests are used to evaluate the determinants of listing gains. The findings indicate that investor subscription demand, particularly demand from qualified institutional buyers (QIBs) is the most significant driver of listing performance. Smaller issues tend to generate higher listing gains, while larger firms with higher market capitalization benefit from strong investor confidence. Sectoral analysis reveals that information technology, chemicals and metals and mining generated relatively higher listing gains during the period. Month- wise analysis suggests clustering of IPO activity in specific period consistent with "hot issue market" phenomenon but IPO month effects on listing gains are not statistically significant. Overall, the results show that IPO performance in India is predominantly demand-driven than timing-driven. The results provide a useful implication for investors, issuing firms and regulators in understanding IPO market dynamics in an emerging market context.

Keywords---IPO underpricing, listing gains, subscription demand, hot issue market, issue size, issue price, hot issue market, Indian capital market.

How to Cite:
Singh, R., Bankapure, D., & Waghulkar, S. (2026). IPO market trends, sectoral dynamics and determinants of listing gains in India: Evidence from IPOs (2021-2025). *The International Tax Journal*, *53*(5), 2037–2060. Retrieved from https://internationaltaxjournal.online/index.php/itj/article/view/733

The International tax journal ISSN: 0097-7314 E-ISSN: 3066-2370 © 2026

Submitted: 27 July 2026 | Revised: 18 August 2026 | Accepted: 09 September 2026

1. Introduction

Initial Public Offerings play very vital role in corporate finance and firms utilize the IPO mechanism to raise capital to meet financial requirements for various purposes such as corporate expansion, innovation, technological upgradation etc. Private firms that satisfy the eligibility criteria prescribed in SEBI regulations and listing requirements of stock exchanges may issue Initial Public Offering and thereby transition from a privately held firm to a publicly listed company. A transparent and efficient IPO environment helps in channelizing household and institutional savings into productive enterprises, broaden ownership and deepen capital markets.

Underpricing is one the most extensively studied phenomenon in IPO market research. It occurs when offer price of an IPO is lower than the market price observed on the first day of trading. As result investors benefit through listing gains, while issuing firm thus transfers part of its value to the successful subscribers. Empirical studies indicate that underpricing is prevalent almost in all IPO markets of the world and India is no exception. The seminal works of Ibbotson (1975), Ritter (1984 and Loughran and Ritter 2004 established underpricing as a persistent global phenomenon, while Rock (1986) provided the "winners curse" explanation for IPO pricing. Pandey and Vaidyanathan (2008) reported a positive correlation between the delay in listing and degree of underpricing. Similarly, Bansal and Khanna (2012) documented an average underpricing of nearly 50 % with ex ante factors exerting significant positive effect on underpricing. Madhusoodanan and Thiripalraju (1997) observed that the premium issues generated significantly short-term lower returns as compared to the par issues. Sreenu et al. found that accounting conservatism in India decreases the IPO underpricing as it lowers information asymmetry between investors and issuers. Rajamadagu and Annapurna (2022) in their empirical study of 144 IPOs listed on BSE from 2014 and 2020 focusing on underpricing and wealth creation and found that IPOs were underpriced to the extent of 18.09%, enabling investors to earn significant excess returns when compared with the market benchmarks. Nigudkar et.al. (2025) analysed Indian IPOs issued between 2016 and 2025 also found significant evidence of underpricing across offerings. Loughran, Ritter and Rydqvist (1994) conducted a comprehensive study on IPOs behaviour across different countries and time periods and found that IPOs almost universally deliver strong short run gains, but the extent of these gains depends on the institutional and regulatory environment of a country. Kundnani, Srivastava and Dubey (2023) highlight the IPO performance during the period between 2014 and 2023 was highly sensitive to market sentiment and sectoral dynamics with sharp fall in IPO numbers in 2022.

The Indian IPO market witnessed a significant surge in listings during the period from 2021 to 2025. The IPO market, as other sectors of economy, has been affected by strong shifts in sentiment driven post pandemic liquidity, geopolitical conflicts, inflationary pressures, global liquidity tightening and evolving risk tolerance levels. Empirical studies such as Banerjee, Rangarajan and Reddy (2011) and Kumar and Singh (2013) point to Indian IPO performance being highly sensitive market sentiment and regulatory reforms. IPO activity closely tracked these macro-economic trends as reflected in India's issuance data. IPO market slowed considerably in 2022 as there were just 39 listings. In year 2025 averaging, there were 108 mainboard listings averaging one IPO every two to three trading sessions.

This study analyses the behaviour of 355 IPOs listed in India between 2021 and 2025. It primarily focuses on year- wise and month-wise issuance trends, sectoral performance, issue size patterns, subscription behaviour, and the econometric determinants of listing gains. It examines how factors such as issue price, issue size, market cap, prevailing market conditions influenced listing day outcomes. The analysis also broadly links IPO activity with market conditions, volatility, regulatory reforms such as application supported by blocked amount (ASBA and the introduction of shorter listing timelines, which have been designed to enhance efficiency and investor confidence in primary market.

2. Review of Literature

Initial public offerings have long been regarded as one of the most important sources of capital by firms and its dynamics have been studied quite extensively across the world. Research scholars have examined wide range of issues pertaining to IPOs including underpricing, short run and long run performance, market sentiment and investor behaviour, regulatory and technological change. Extensive research over several decades in developed and emerging economies have consistently highlighted IPOs as a ground for testing theories of information asymmetry, signaling, investor psychology, behavioural finance aspects. Indian IPO market specifically post liberalisation has attracted particular attention as regulatory reforms and technological facilitation and increased retail investor participation have created unique conditions for deep exploration and investigation. Studies on Indian IPOs confirm the presence of underpricing and distinctive long run performance and also reveal how local institutional structures, merchant bankers' reputation, group affiliation and subscription levels interact with existing literature. The literature on various issues investigated in this research is given below:

2.1 IPO underpricing and listing gains:

The research on underpricing and listing gain mainly focuses on three dimensions that is a) the extent of underpricing and listing gains, b) the determinants of IPO pricing and performance, and c) behavioural as well as institutional factors affecting investor participation. The theoretical explanations for underpricing phenomena include information asymmetry, signaling theory, the winners' curse and the window of opportunity theory. Underpricing refers to the situation where the opening price of an IPO in secondary market, on first day of trading, is more than the offer price, resulting in listing gains for investors. Kevin Rock (1986 provided the "winner's curse" theory to explain the underpricing of their issue by firms. According to this theory, uninformed investors require compensation for the risk of adverse selection and underpricing ensures their participation in IPO market.

Empirical evidence for underpricing has been documented globally by various scholars. Ritter (1998) identified three major anomalies in IPO markets: significant initial underpricing, clustering of IPOs during hot issues markets long run performance of IPO firms. Ritter (1991 in his studies on United States IPOs found that IPOs firms share underperformed when matched with similar already listed firms over a three -year period following listing. Studies on developing economies IPO markets also confirm the prevalence of underpricing. Chan, Wei and Wang (2001) noted extremely high first day returns in Chinese IPOs, while Sohail et al. reported strong evidence of underpricing in Pakistan. Shah (1995) reported exceptionally high underpricing during the post liberalisation period, with listing gains exceeding 100 percent on an average.

Later studies carried out in last two decades suggest that magnitude of underpricing has moderated over time, but still, it gives significant returns to the investors on listing day. Pande and Vaidyanathan (2008) found that underpricing in Indian IPOs. listed between 1999 and 2007, declined over the years, while Rajamadagu and Annapurna (2022) reported underpricing of about 18 percent in Indian IPOs between 2014 and 2020.

2.2 Determinants of IPO underpricing

Several studies have examined the factors influencing the degree of underpricing in different markets worldwide. Firm specific factors, issue related attributes, prevailing market conditions, macroeconomic indicators and market sentiments are commonly identified as important determinants.

Jain and Padmavathi (2012) found that oversubscription was one of the most influential determinants of IPO underpricing in India. Their study also reported a negative relationship between issue size and underpricing, indicating larger IPOs tend to show lower listing gains. Bansal and Khanna (2012) examined 550 IPOs listed on Bombay Stock Exchange (BSE) between 2000 and 2011 and found underpricing within the range of 50 percent. The results of their study indicated that ex- ante

information significantly influenced the initial returns, including the larger IPOs tend to exhibit lower listing gains.

Krishna et al. (2023), in their study on book-built IPOs revisited the determinants of underpricing and confirmed that issue size interacts with market momentum, influencing the degree of underpricing. Larger issues tended to moderate underpricing compared to smaller ones.
Some studies highlight the role of uncertainty and firm characteristics in pricing of the issue. Ghosh (2005) found that uncertainty play a key role in explaining the underpricing g in Indian economy. Similarly, study by Podedworna-Tarnowska (2023) showed that the firm fundamentals such as profitability and leverage significantly influence IPO underpricing.
In addition, underwriter reputation and corporate governance factors may influence the IPO underpricing. Adiputra, Hanlim, and Yulianto (2025) found that underwriter reputation had a significant negative effect on underpricing in Indonesian IPOs, suggesting that the reputed underwriters reduce information asymmetry between issuers and investors.

2.3 Subscription Behaviour

IPO subscription, reflected through investor demand, is widely regarded as a key indicator of IPO performance**.** Babu and Dsouza (2021) found a positive relationship between subscription rates and listing gains in India. Wang, Tang and Chen (2017) observed that subscription demand disclosures can trigger herd behaviour among investors, leading to higher initial returns in highly subscribed IPOs. Research by Neupane and Poshakwale (2012) demonstrated that retail investors often follow the behaviour of institutional investors. Institutional investors, particularly qualified institutional buyers (QIBs) are considered informed participants whose bidding patterns serve as signal for other investors.

This behaviour supports the information cascade hypothesis given by Bikhchandani, Hirshleifer and Welch (1992), where investors base their decisions on the observed actions of others rather than on independent evaluation of information. Consequently, high QIB subscription often attracts additional demand from high net worth and retail investors. Taken together, these studies highlight that subscription behaviour not only reflects investor demand but also amplifies IPO anomalies, as herd dynamics and information cascades reinforce short term listing gains and speculative participation.

2.4 Investor Sentiment and Behavioural Factors

A substantial body of research has examined the behavioural dimensions underlying IPO pricing anomalies. Baker and Wurgler (2007) developed a framework linking investor sentiment to stock market mispricing. According to their analysis, investor optimism can lead to overvaluation of speculative stocks, particularly during hot market periods. Cornelli, Goldreich and Ljungqvist (2006) demonstrated that retail investor sentiment, reflected in grey market trading activity before IPO listing, significantly influences IPO pricing and short run returns. Consistent with these findings, several other studies also highlight that retail investors are strongly motivated by the expectation of short- term listing gains. The findings of studies of Joshi and Chawla (2019) and Kumar and Balamurugan (2022) highlighted the influence of promoter reputation, company fundamentals and expected listing gains in shaping investors decisions. Collectively, all these research works underscore the influence of sentiment driven behaviour in explaining IPO pricing anomalies, particularly in markets characterised by speculative fervor and retail participation.

2.5 Sectoral and Time trends in IPO Markets

IPO activity generally follows cyclical patterns linked to market conditions and shifts in investor sentiment. Ritter (1998) documented the clustering of IPOs during “hot issue” markets, when favourable market conditions encourage firms time their IPOs to exploit periods of high market valuations. These temporal cycles highlight the tendency of issuers to exploit the window of optimisms in capital markets.

Sectoral dynamics also influence IPO performance. Kundnani, Srivastava and Dubey (2024) observed that technology and pharmaceutical companies often outperform other sectors in IPO markets, reflecting investor enthusiasm for innovation - driven industries. Nigudkar et al. (2025) also reported that technology, financial services and consumer-oriented firms dominate the recent Indian IPOs landscape. All these findings suggest that both cyclical timing and sectoral positioning are central to understanding IPO trends, with the issuers leveraging favourable market conditions and industry specific preferences to maximise outcomes.

2.6 Theoretical Framework

Several scholars have sought to address puzzle of underpricing, listing gains and other anomalies relating to IPOs and proposed theoretical models to explain these phenomena. **Primarily this study is anchored in the following five major theoretical explanations which are discussed below.**

Information asymmetry theory as articulated in George Akerlof's (1970) seminal work suggests that issuers and investors possess unequal information regarding firm value, leading to conservative pricing of IPOs. To mitigate adverse effects of this asymmetry, IPOs are often underpriced to generate adequate subscription, reduce valuation uncertainty and issue failure risk, and to attract participation from less informed investors. Building on this, the "winner's curse" theory" by Kevin Rock (1986) explains underpricing to compensate uninformed investors facing adverse selection as informed investors disproportionately subscribe to high quality offerings. This mechanism ensures the continued participation in uninformed investors in IPO markets. The window of opportunity theory associated with Ritter's work on hot issue markets suggests that firms strategically time their IPOs during favourable market conditions to maximise valuations and investor demand. Further, the signaling theory proposed by Allen and Faulhaber (1989), argues that high quality firms deliberately underprice their IPOs to signal their intrinsic value and credibility, with the expectation of recouping value in subsequent seasoned offerings. Additionally, Benveniste and Spindt (1989) proposed market feedback hypothesis which posits that underpricing serves as reward to institutional investors who reveal private information during book building, thereby improving price discovery and so, the IPO pricing.

Together, these frameworks explain that IPO underpricing and related anomalies are multifaceted phenomena, driven by both rational mechanisms such as information asymmetry and incentive alignment and behavioural dynamics arising from issuers and investors within varying market conditions.

2.8 Research gap

Although there is substantial literature on IPO underpricing in India, relatively few studies provide and integrated analysis of the recent 2021-2025 period combining year wise trends, sectoral dynamics, subscription structure, market capitalisation, month- wise issuance patterns, correlation and regression-based determinants. The present study attempts to bridge this gap by offering a recent and comprehensive analysis of Indian IPO performance.

3. Objectives of the study

The study has been undertaken to achieve the following objectives:

1. To analyse year- wise IPO trends in India during 2021-2025, with particular focus on the patten and distribution of IPO listing gains.
2. To evaluate sector wise IPO activity and assess sectoral variation in listing performance.
3. To examine the relationship between issue size, issue price, market cap, and listing gains.
4. To assess the impact of qualified institutional buyers, high net worth investors and retail investors along with overall subscription rates on listing gains.
5. To study month- wise IPO issuance patterns and identify evidence hot issue markets.
6. To estimate the determinants of listing gains using descriptive and econometric tools.

4. Hypotheses of the study

The study tests the following hypotheses:

H1: IPO listing gains differ significantly across years and months, reflecting changing market conditions.

H2: IPO listing gains vary significantly across sectors.

H3: Issue characteristics namely issue size, issue price and market capitalisation have a significant relationship with IPO listing gains.

H4: Overall subscription demand has a significant positive effect on IPO listing gains.

H5: QIB subscription exerts a stronger influence on IPO listing gains compared to HNI and retail subscription.

H6: IPO issuance exhibits clustering consistent with hot issue market hypotheses.

5. Research Methodology:

The study adopts a quantitative and analytical research design, combining descriptive statistics with correlation analysis, multiple regression estimation and ANOVA to explain IPO market behaviour in India. The analysis is based on secondary data pertaining to IPOs issued during the period 2021 - 2025, collected from multiple financial market databases including IPO Central, IPO Watch, Chittorgarh, IPO Platform, Trendlyne, the National Stock Exchange (NSE) and the Securities and Exchange Board of India (SEBI). The follow-on public offers (FPOs) and Real Estate investment Trust (REITs) have been excluded to maintain sample homogeneity. The final dataset comprises of 355 IPOs issued during the study period. Natural logarithmic transformation of issue size (ln Issue Size) and market capitalisation (ln Market cap) has been applied to reduce skewness, stabilise variance and improve model estimation.

5.1 Variables used in the study

Dependent variable

Measured as the percentage change between issue price and listing price, representing IPO underpricing.

Listing Gain % (LG) = (Listing Day Opening Price – Issue Price)/ Issue Price * 100

Independent variables

Subscription variables: QIB, HNI and retail subscription rate.

Issue characteristics: Issue size (Rs. crores), transformed as ln (issue size), issue price (Rs.)

Firm characteristics: Market Capitalisation (Rs. Crores), transformed as ln (market cap)

Categorical variables: sector classification, year and month of issue. Sector and IPO months have been converted into dummy variables (k-1 approach) to avoid dummy trap.

5.2 Correlation analysis

Karl Pearson correlation coefficient has been used to examine linear relationship between variables.

Regression specifications:

To examine the determinants of listing gains, we have estimated the following regression models:

Model 1: Full model (investor categories)

$$LGi = \beta 0 + \beta 1 QIBi + \beta 2 HNIi + \beta 3 Retaili + \beta 4 \ln(IssueSizei) + \beta 5 IssuePricei + \beta 6 \ln(MarketCapi) + \sum_{k=1}^{K-1} \beta k \text{ Sector Dummyik} + \varepsilon i$$

Model 2: Total subscription model

$$Gi = \beta 0 + \beta 1 \text{ Total Subscriptioni} + \beta 2 \ln(\text{Issue Sizei}) + \beta 3 \text{ Issue Pricei} + \beta 4 \ln(\text{Market Capi}) + \sum_{k=1}^{K-1} \beta k \text{ Sector Dummyik} + \varepsilon_i$$

Model 3: Month effect model for checking seasonality effect. This is just a supplementary month dummy specification to test whether listing gains exhibit calendar month.

$$LGi = \beta 0 + \sum_{m=1}^{11} \beta m \text{ Month Dummyim} + \varepsilon_i$$

Where as

LGi = Listing gain % of IPO I, dependent variable.
Q I B i = QIB subscription rate
HNIi = HNI subscription rate
Retail I = Retail subscription rate
Total Subscriptioni= Total subscription rate
Ln (Issue Size i) = Natural log of issue size
Issue Price i = Issue price.
Ln (Market Cap i) = Natural log of market capitalisation
Sector Dummy k= Sector dummy variables (with one base category)
Month Dummym = IPO month dummy variable
ε_i = Error term
To examine the determinants of IPO underpricing/ listing gains, we conduct multiple regression model whereby listing gain is regressed on investor subscription variables (QIB, HNI, Retail), issue characteristics (Issue size, issue price and market capitalisation), sectoral and IPO month dummy variables. Issue size and market capitalisation are transformed using natural logarithms to address skewness and improve model fit. Sector effects are captured through dummy variables with financial services sector treated as the reference category.

5.3 ANOVA (Analysis of Variance)
A one-way analysis of variance (ANOVA was conducted to test whether mean listing gains differ significantly across temporal dimension that years and months and sectoral dimensions. This approach is useful for the identification of systematic variations in average listing performance across categorical groupings**.**
The ANOVA test statistics is defined as under:
F= Between the- group variance / within the group variance
Hypothesis structure
For testing whether listing gains vary across years, months and sectors, following hypothesis structure has been used:
Say the H1 above: for this, null hypothesis and alternate hypothesis are defined as under
Ho: Mean listing gains are equal across groups
H1 at least one group mean differs.
Decision rule
We have followed standard significance levels to interpret the results which are given below:
Reject Ho if ANOVA p- value is less than 0.05, that is 5 % level of significance
Fail to reject Ho if p -value is greater than or equal to 0.05 (5% level of significance)

5.4 Significance levels.
We have used the standard significance levels that is at 1 % level of confidence (α= 0.01) implying highly significant and 5 % level of confidence (α= 0.05) implying statistically significant.

5.5 Limitations of Methodology
i. Correlation does not imply causality.
ii. ANOVA does not identify which specific groups differ.
iii. Market sentiment are limited to subscription data.

6. Results and Discussion

6.1 Year wise IPO Trends and Listing Gains
The Indian IPO market showed a significant variation across the study period reflecting changing macroeconomic and financial conditions. IPO issuance remained strong in year 2021, declined in 2022 and recovered in 2023 before expanding significantly in 2024 and 2025, as seen from **Table -1** below. The weak performance in 2022 can be attributed to adverse macroeconomic conditions including

inflation, geo political tensions, tightening liquidity and weaker global risk sentiment. The revival thereafter reflects renewed investor confidence and strong domestic market participation. The total capital raised during the period 2021-2025 amounted to Rs. 568158.4 crores with the highest mobilisation recorded in 2025 (Rs. 176198.2 crores) and the lowest in 2023 (Rs. 49891 crores). IPO activity in 2025 increased by approximately 65 % compared to 2021.

Mean listing gains (**Table -2**) also varied considerably during this period. IPOs in year 2022 recorded the lowest mean listing gain (10.87%), reflecting subdued market conditions and adverse macroeconomic conditions, while 2021 IPOs gave the highest average listing gains (32.19%), indicating strong investor enthusiasm and favourable market sentiment. This aligns with earlier empirical findings of **Pande and Vaidyanathan (2008) and Dhamija and Arora (2017)** which highlight the sensitivity of IPO performance to macroeconomic conditions.

Table -1: IPOs with Capital Raised Year Wise

Sr. No.	Year	No. of IPOs	Capital Raised (Rs. Crores)	Mean (Rs. Crores)	Median (Rs. Crores)	Std. Dev. (Rs. Crores)
1	2021	63	1,19,881.00	1902.90	963.30	2872.40
2	2022	38	60,155.60	1583.00	781.40	3397.10
3	2023	59	49,891.60	845.60	593.00	781.40
4	2024	91	1,62,032.00	1780.60	640.00	3451.90
5	2025	104	1,76,198.20	1694.20	722.50	2694.70
Total/ Overall	2021-2025	355	5,68,158.40	1600.45	-	-

IPO activity was highest in year 2025, but lowest listing gains (9.24%) and reduced positive listings (68.27%) and 12 IPOs opened at zero gain. The overall standard deviation of listing gains is 34.34, which indicates significant variability in IPO performance and there are highly underpriced IPOs and negatively performing IPOs as well. This may be due to market saturation or cautious investor behaviour and heightened volatility, consistent with the view that excessive IPO supply reducing underpricing benefits. The results are consistent broadly with the prior studies, including **Chakrabarti and Sarkar (2005) and Bansal and Khanna (2012),** with an exception of low listing gains with maximum issuances in 2025. The market exhibited strong recovery in year 2023 and 2024 with almost 80% and 78 % of IPOs recording positive listing gains respectively, however listing gains were not as good as 2021. This suggests that even when average returns moderate, the breadth of positive performance remains strong, reinforcing the attractiveness of IPOs as investment avenue.

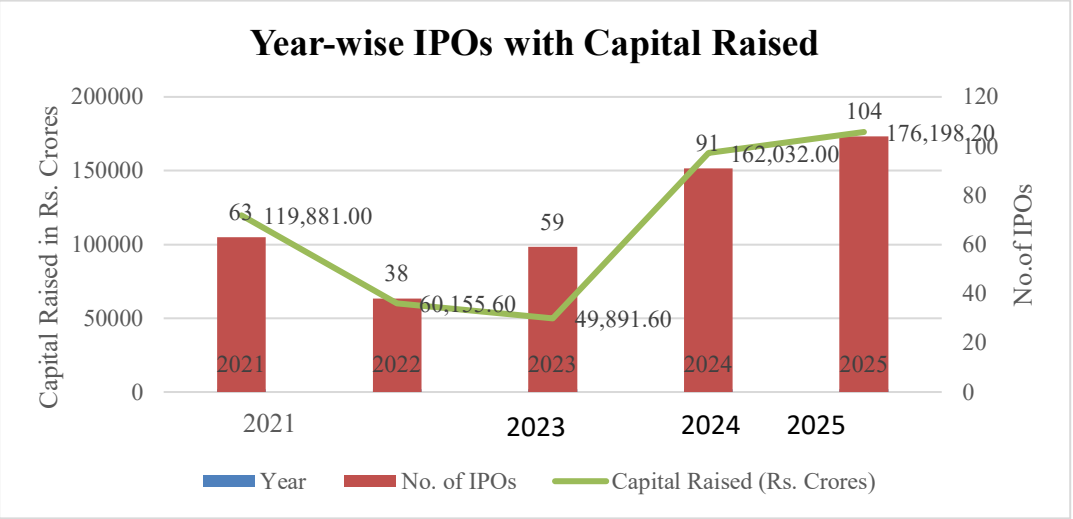

Figure-A: Graphical representation of Year wise No. of IPOs with Capital Raised

The overall listing gains during the period under study is 21.23%, indicating moderate underpricing in Indian IPO market. About 73.88% of the entire sample of 355 IPOs generated positive listing gains while only 20.28 % resulted in negative returns. This finding supports classical theories of IPO underpricing such **as information asymmetry (Akerlof, 1970).** In the IPO context, this asymmetry manifests through the "**winner's curse" framework proposed by Rock (1986),** where issuers deliberately underprice IPO to attract uninformed investors and ensure successful subscription. The observed variation in IPO performance across years indicates the extent of underpricing is not constant and influenced by market condition, investor sentiment and risk perception.

Table – 2: Year wise IPO Listing Gains and distribution in India (2021-2025)

Sr. No.	Year	No. of IPOs	Mean Listing Gain (%)	Std. Deviation	Positive Listing Gain	Negative Listing Gain	Zero Gain	% Positive	% Negative
1	2021	63	32.19	59.86	45	18	0	71.43	28.57
2	2022	38	10.87	24.41	28	10	0	73.68	26.32
3	2023	59	26.26	34.72	47	7	5	79.66	11.86
4	2024	91	28.42	41.53	71	16	4	78.02	17.58
5	2025	104	9.24	19.88	71	21	12	68.27	20.19
6	Total (2021–2025)	355	21.23	34.34*	262	72	21	73.80	20.28

Note:

1. The overall mean listing gain (21.23) is a weighted average based on number of IPOs in each year.
2. Percentages are calculated with respect to total IPOs in each year.
3. The overall standard deviation is computed using IPO level listing gain for the full sample of 355 IPOs; hence it captures the true dispersion of listing performance across the study period.)

6.2 Sectoral Dynamics and IPO Performance

The sector- wise analysis (**Table -3)** shows considerable heterogeneity in IPO performance across industries during the study period. Sectors such as information technology, chemical, capital goods and

metal and mining consistently recorded higher listing gains particularly in 2021 and 2023, indicating favourable investor optimism or positive market sentiments towards growth oriented and cyclic sectors. These sectors are typically associated with higher growth potential, innovation driven valuation premiums and stronger investor optimism. In contrast sectors such as financial services, infrastructure and real estate exhibited relatively lower or inconsistent listing gains, reflecting more stable business models and relatively efficient. These findings are in line with earlier study undertaken by Chakrabarti and Sarkar (2005) who documented that industry and macroeconomic cycles significantly influence the IPO pricing and listing gains in Indian context. Similarly, Pande and Vaidyanathan argued that sectors with lower information asymmetry and higher investor familiarity tend to exhibit lower underpricing for example financial and Banking sector.

Services, financial services and capital goods accounted for substantial proportion in IPO volume across all years but did not generate highest listing gains proportionately. This suggests higher pricing efficiency in these sectors, possibly due to better information availability and established business models. Similar findings were documented by Pande and Vaidyanathan (2008) who argued that lower information asymmetry and higher market familiarity reduce the extent of underpricing. The sectoral variation in listing gains as well as the quantum of IPOs can also be interpreted by signaling and firm quality differences. Studies by Marisetty and Subrahmanyam (2010) highlight that firm affiliation and perceived quality influence the IPO outcomes. The stronger performance of high growth sectors in the present study aligns with the findings oh Panda and Deb (2025) suggesting that firms perceived as high quality or growth oriented tend to attract greater investor demand and valuation premiums.

Table- 3: Sector-wise IPO Performance with Weighted Averages (2021–2025)

Sector	2021 IPOs	Mean LG (%)	2022 IPOs	Mean LG (%)	2023 IPOs	Mean LG (%)	2024 IPOs	Mean LG (%)	2025 IPOs	Mean LG (%)
Financial Services	10	4.43	7	-1.80	6	23.53	12	23.26	11	5.85
Information Technology	5	66.90	3	22.37	3	76.47	3	55.53	4	3.05
Healthcare	8	22.00	2	6.75	8	13.09	9	21.74	11	14.62
Consumer	4	29.42	6	17.70	6	23.10	7	26.66	10	9.01
Capital Goods	5	44.80	5	17.12	11	34.35	10	41.30	14	15.88
Automobile	3	13.10	1	-6.90	2	12.55	5	-2.16	3	3.30
Chemicals	11	62.26	3	8.37	1	76.30	5	10.68	3	16.60
Metals & Mining	2	45.20	2	21.70	1	25.70	4	70.20	6	7.10
Energy	0	—	1	-7.70	2	25.40	4	44.08	11	5.77
Infrastructure	2	-0.70	0	—	1	-14.30	5	8.94	8	8.64
Services	11	15.25	7	13.81	16	24.01	25	30.14	21	7.50
Real Estate	2	-15.00	1	2.60	2	4.85	2	23.60	2	9.35

Overall, the findings indicate that sectoral characteristics materially influence the IPO outcomes. Growth sectors tend to attract higher demand and more optimistic valuations, while mature and regulated sectors demonstrate moderate listing gains. These findings support broader theoretical and empirical literature suggesting that investor sentiment, information asymmetry and industry specific growth prospects are key drivers of IPO pricing dynamics.

6.3 Subscription Demand and Listing Gains

The sector wise analysis of IPO subscription pattern and listing gains in **Table- 4** reveals a robust and consistent positive relationship between the investor demand and IPO performance during the entire study period (2021-2025). Sectors attracting higher subscription levels particularly from institutional investors (QIBs), show significantly superior listing performance. For instance, the information technology sector recorded a high mean total subscription of 83.77 times and the highest mean listing gains of 44.99%, while metals and mining sectors recorded the highest mean total subscription (87.97 times) exhibited strong average listing gains (44.99%).

Table-4: Sector -wise Mean Subscription Rates and Mean Listing Gains

Sector	No. of IPOs	Mean QIB (X)	Mean HNI (X)	Mean Retail (X)	Mean Total (X)	Mean Listing Gain (%)
Financial Services	46	52.75	35.50	13.42	29.32	11.23
Information Technology	18	97.76	154.58	34.53	83.77	44.99
Healthcare	38	67.79	55.17	20.74	41.04	17.12
Consumer	33	75.61	68.62	21.22	48.85	19.40
Capital Goods	45	107.83	138.59	37.59	71.51	29.39
Automobile	14	59.55	34.21	9.49	29.61	4.04
Chemicals	23	79.14	113.12	20.04	64.38	38.69
Metals & Mining	15	108.87	112.95	18.83	87.97	32.19
Energy	18	78.81	38.71	12.02	37.23	15.72
Infrastructure	16	68.16	50.38	11.54	54.66	6.13
Services	80	58.20	67.43	28.19	47.00	21.74
Real Estate	9	41.90	40.07	10.74	24.59	5.36

Note:

1. Mean listing gain are computed using IPO data for all companies within each sector over the study period,
2. Mean subscription rates are calculated sector wise as weighted across the period 2021-2025, using the number of IPOs in each sector as weights.
3. Mean total subscription rate represents the actual aggregate subscription level and is not a simple arithmetic average of QIB, HNI and Retail subscription rates.)

These findings clearly indicate that higher investor demand, especially from qualified institutional buyers, leads to greater underpricing and stronger listing day performance. These findings are in line with the study of Aggarwal (2000), which showed that institutional investor demand plays a crucial role in IPO pricing and allocation decisions. Similarly, Hanley (1993) found that strong demand during the book building process leads to positive price adjustments and higher listing gains. Benveniste and Spindt (1989) also highlighted that institutional investors possess superior information and influence IPO pricing through their bidding.

Conversely, sectors such as financial services and automobiles experienced relatively low subscription levels and reported subdued listing gains with automobile sector recording the lowest average listing gains. This inverse pattern also reinforces the demand-driven pricing mechanism in IPO performance. Positive association between subscription and listing gains is consistent with Ljungqvist (2007), who documented that investor demand and information asymmetry are central determinants of IPO underpricing across markets. Other studies such as by Udasi et al. (2021 and Neupane and Poshakwale (2012) highlight positive relationship between institutional participation and IPO underpricing and interdependence between institutional and retail demand respectively. Clarke et al. (2016) documented that unmet demand from non-institutional investors contributes significantly to initial returns.

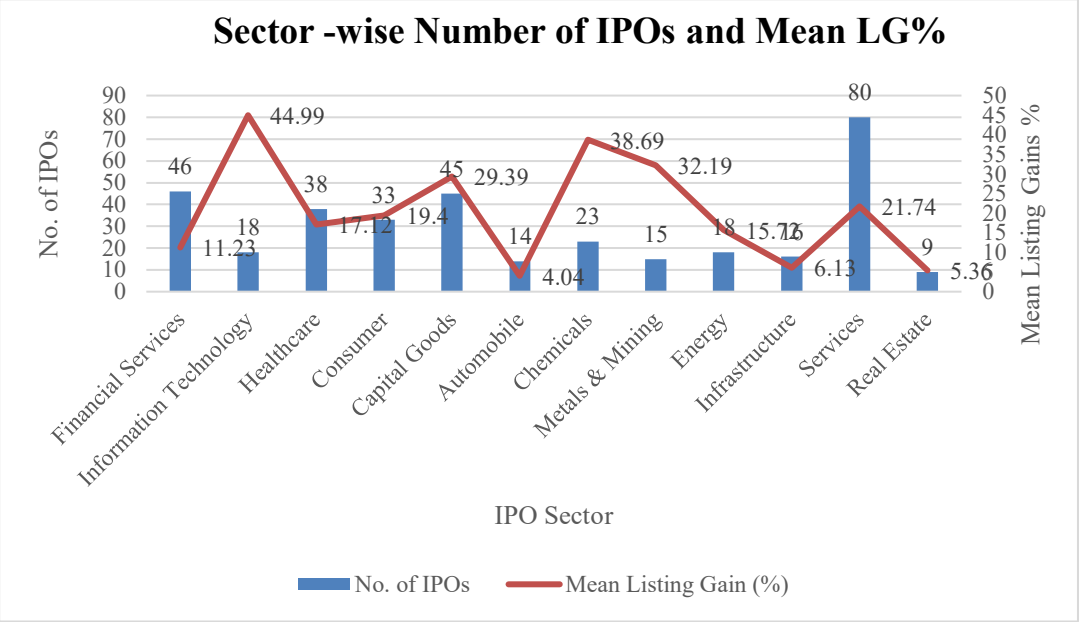

Figure -2 Sector- wise Mean Listing Gains % (2021-2025)

Although HNI (high net worth individual investors) subscription levels are often quite high, but their lower weight in allocation implies that the total subscription rate is largely driven by QIBs demand. This reinforces the role of QIBs as price setters in the IPO market.

From the theoretical perspective, the results support the information asymmetry hypothesis and "winner's curse" framework. Higher subscription levels specially form informed investors such as QIBs, act as a positive signal and leads to higher listing gains.

From the foregoing analysis, it becomes evident that QIB subscription emerges as a practical and reliable predictor of IPO listing performance followed by total subscription. From a theoretical perspective, the results support the information asymmetry and "winner's curse" frameworks..

6.4 Issue Size, Capital Raised and Listing Gains:

The classification of IPOs based on issue size reveals an important insight into the relationship between capital mobilisation, investor demand and listing performance. IPOs in Rs. 1000-5000 crores category account for the largest share of total capital raised during the study period. However, these issues exhibit only moderate levels of subscription (30.27 times) and listing gains (17.75%) suggesting relatively balanced pricing and demand conditions.

In contrast, IPOs with the issue size of below Rs. 1000 crores constitute the largest proportion in terms of number of issues and attract the highest subscription levels (63.21).

Table-5: Issue Size – Wise Distribution of Capital Raised, subscription Demand and Listing Gains (2021-2025)

Issue Size (₹ Crores)	No. of IPOs	Capital Raised (₹ Crores)	Mean Subscription (X)	Mean Listing Gain (%)
Up to 1000	226	1,11,082.32	63.21	22.98
1000–5000	106	2,25,745.34	30.27	17.75
5000–10000	15	1,02,603.20	24.61	25.82
Above 10000	8	1,28,727.58	15.34	9.16
Total	355	5,68,158.44	---	---

These smaller issues also generate relatively higher listing gains, indicating that investor interest is driven by underpricing potential. On the other hand, large IPOs of issue size of above Rs. 10000 crores despite of contributing significantly to the total capital raised, exhibit lower subscription levels and comparatively subdued listing gains, indicating more efficient pricing relative to smaller IPOs.

These findings are consistent with the ex -ante uncertainty hypothesis proposed by Beatty and Ritter (1986) which suggests that smaller issues have higher uncertainty, require greater underpricing to attract investors. The results also align with findings of study by Ghosh (2005) which recorded that larger IPOs tend to exhibit lower underpricing. Similar studies by Pandey and Pattanayak (2018) emphasise the importance of firm specific characteristics in determining IPO performance. While Udasi et al. (2012) in their study report weaker size effects, this study based on recent dataset (2021-2025) provides stronger evidence of a negative relationship between the issue size and listing gains. Overall, these results show that there exists an inverse relationship between the issue size and both subscription levels and listing gains, thereby supporting the underpricing and information asymmetry hypothesis.

6.5 IPO Month, Clustering and Hot Issue Market

The month-wise analysis (**Table -6 and table- 7)** of issuance and listing gains across the study period (2021-2025) reveals a clear clustering of IPO activity during specific periods, particularly in the months of September, November and December with December recording 57 IPOs, followed by September and November (49 each), indicating the presence of distinct "hot issue periods". However, these periods are not associated with significantly higher market returns, as reflected by NIFTY 50 index performance. Notably, in several instances, high IPO activity and strong listing gains are observed even during the month with low or negative market returns.

July month shows highest listing gains (34.01%) and subscription rate of 61 times and 8.45% of total IPOs issued during the period.

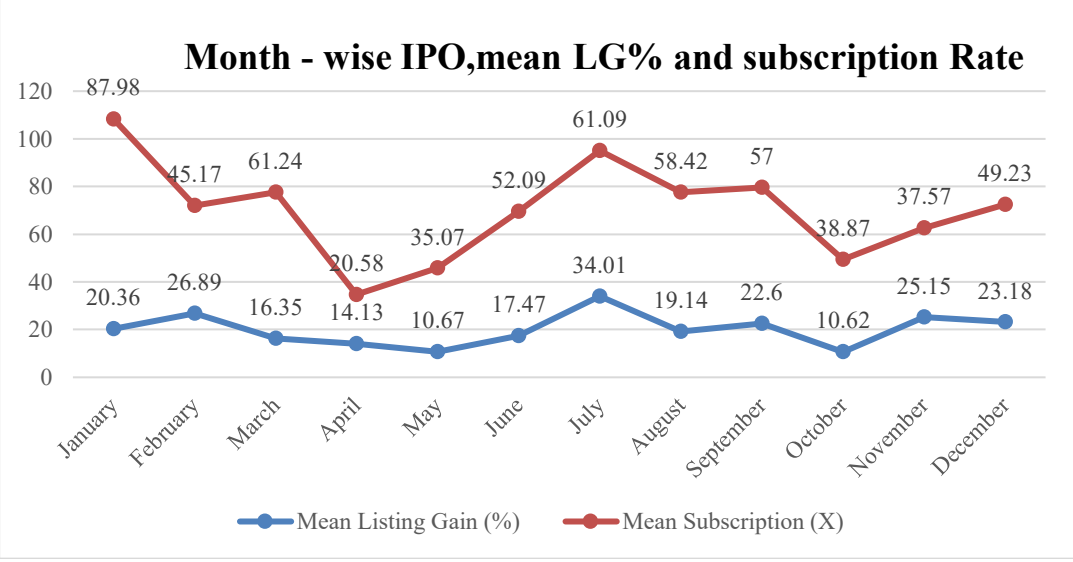

Figure -3: Month Mean Listing Gains % Along with Total Subscription Rates (2021-2025)

Listing performance does not strictly follow issuance intensity. For instance, while December has the highest IPO activity and the highest listing gain performance is observed in July (34.01%), suggesting that excessive clustering may dilute listing gains due to demand dispersion. This indicates that IPO clustering in India is not driven by prevailing market conditions and is instead influenced by structural and institutional factors such as issuer timing, regulatory process and investor demand dynamics.

The findings, therefore, find limited support for **Hot Issue Market Hypothesis**, which posits that IPO activity is positively correlated with favourable market conditions**.** Based on these results, it can be argued that IPO markets in India exhibit seasonality that is largely independent of short-term market movement.

Classical literature on IPOs, including Ritter's IPO framework and Loughran and Ritter (1995) presents IPO waves as common feature across markets, while the results of this study support the hot issue market hypothesis partially. In the Indian context, Shah (1995) documented time- series variation in IPO activity, while Ghosh (2005) found that underpricing may actually be lower during high- volume periods, an observation that aligns with the present study results. Some other studies such as by Tran and Jeon (2011) emphasise that IPO timing is influenced by macroeconomic conditions and institutional factors rather than short term market returns. In view of above, it is clear that IPO clustering in India is more driven by issuer timing decision and market readiness, rather than immediate market performance.

Table -6: Month-wise IPO Activity and Performance (2021–2025)

Sr. No.	Month	No. of IPOs	Total Capital Raised (₹ Crores)	Mean Listing Gain (%)	Mean Subscription (X)
1	January	17	13,543.50	20.36	87.98
2	February	18	29,120.00	26.89	45.17
3	March	19	11,806.80	16.35	61.24
4	April	10	9,328.65	14.13	20.58
5	May	17	51,111.12	10.67	35.07
6	June	18	21,870.14	17.47	52.09
7	July	30	47,241.70	34.01	61.09
8	August	38	51,509.00	19.14	58.42
9	September	49	43,058.24	22.60	57.00
10	October	33	82,230.88	10.62	38.87
11	November	49	1,27,849.76	25.15	37.57
12	December	57	79,488.65	23.18	49.23
	Total	355	5,68,158.44		

We computed the correlation coefficient applying the Pearson coefficient formula and the results are given below:

Table- 7: Month-wise IPO Activity and Market Performance (2021–2025)

Month	Number of IPOs	% of Total IPOs	Mean Listing Gain (%)	Avg. NIFTY 50 Return (%)
January	17	4.79	20.36	-0.78
February	18	5.07	26.89	-0.66
March	19	5.35	16.35	2.66
April	10	2.82	14.13	1.26
May	17	4.79	10.67	1.49
June	18	5.07	17.47	1.85
July	30	8.45	34.01	2.58
August	38	10.70	19.14	1.88
September	49	13.80	22.60	0.82
October	33	9.30	10.62	0.22
November	49	13.80	25.15	1.47

Month	Number of IPOs	% of Total IPOs	Mean Listing Gain (%)	Avg. NIFTY 50 Return (%)
December	57	16.06	23.18	0.87
Total	355	100.00		

The correlation between IPO listing gains and NIFTY 50 monthly returns was computed using Pearson Correlation Coefficient method and it is found to be positive but extremely weak (r= +0.045) and statistically insignificant (p= 0.733). This indicates that IPO listing gains do not move in tandem with broader market returns. Hence, the Hot Issue Market Hypothesis is not supported in the Indian IPO market during the study period.

Correlation Results:

Pearson correlation output

Correlation (r) = 0.045

P value = 0.733

It shows that correlation is extremely weak and practically no linear relationship statistically not significant as p = 0.733 (greater than 0.05).

6.6 Correlation Analysis:

Pearson correlation coefficient has been used to examine the linear relationship between IPO listing gains and key explanatory variables. The analysis includes variables such as issue size, market capitalisation, subscription rate etc. Sector and IPO months are incorporated through dummy variables.

The correlation matrix in table -8 provides clear evidence on the determinants of IPO listing gains in India during the period from 2021-2025 and the investor demand is found as the most significant factor influencing IPO performance. The results exhibit strong positive correlation between listing gains and subscription rates across all investor categories, with the highest correlation observed for QIB subscription (0.58), followed by HNI (0.57) and retail (0.47). indicating that IPO s attracting higher levels of oversubscription tend to generate superior listing gains. The relatively stronger relationship with institutional investors underscores their critical role in price discovery process.

This result is consistent with empirical evidence from the studies of Babu and Dsouza (2021 and Udasi et al. (2012) who have documented a strong positive relationship with subscription levels and IPO returns in Indian market.

Table- 8: Correlation Matrix of IPO Listing Gains and Determinants

Variables	(1) Listing Gain (%)	(2) QIB	(3) HNI	(4) Retail	(5) Issue Price	(6) Log Issue Size	(7) Log Market Cap
(1) Listing Gain (%)	1.00	0.58	0.57	0.47	0.02	-0.12	0.05
(2) QIB Subscription	0.58	1.00	0.71	0.63	-0.04	-0.07	-0.01
(3) HNI Subscription	0.57	0.71	1.00	0.67	-0.09	-0.15	-0.21
(4) Retail Subscription	0.47	0.63	0.67	1.00	-0.13	-0.21	-0.37
(5) Issue Price	0.02	-0.04	-0.09	-0.13	1.00	0.36	0.42
(6) Log Issue Size	-0.12	-0.07	-0.15	-0.21	0.36	1.00	0.88
(7) Log Market Cap	0.05	-0.01	-0.21	-0.37	0.42	0.88	1.00

Note:

Sector dummy variable analysis indicates that sectors such as information technology and chemical exhibit relatively higher listing gains, while automobile, infrastructure and real estate sectors exhibit comparatively lower performance. The overall magnitude of sectoral correlations remains moderate)

Similarly, Neupane and Poshakwale (2012) highlighted the signalling role of institutional participation, indicating that higher institutional participation enhances investor confidence and contributes to higher listing gains.

The inter- relationship among various investor categories is also strong, suggesting that successful IPOs attract broad based participation across all investor segments. This reflects a convergence of positive investors sentiment and reinforces the demand-driven nature of IPO pricing and corroborates the behavioural perspective of IPO markets, as discussed by Baker and Wurgler (2007), where heightened optimism leads to increased participation across all investor groups.

IPO month effects analysis suggests relatively higher listing gains in months such as July and November, while months like September exhibit weaker performance and October month exhibits negative correlation. However, these effects are inconsistent and statistically weak demonstrating IPO timing does not systematically influence listing gains and that observed clustering is not enough to establish a seasonal pattern. This provides limited support for the 'hot issue market" hypothesis originally discussed by Jay R. Ritter

The negative correlation between the listing gains and log issue size (-0.12) confirms the presence of the size effect, where smaller sized IPOs exhibit higher underpricing and vice versa. This is consistent with the theoretical expectations that smaller issues are often priced conservatively to ensure successful subscription. The results are in line with the uncertainty hypothesis proposed by Beatty and Ritter (1986) and Ghosh (2005). Ghosh (2005 also pointed to underpricing patterns in India do not strictly follow the hot market dynamics.)

Market capitalisation shows a weak positive correlation (0.05) which indicates that firm size marginally contributes to listing performance. This observation is consistent with the findings of Bhatia and Singh 2012 and Goergen et al. (2007) which record that firm size contributes to long run performance and its role in short- term IPO underpricing remains limited. Similarly issue price exhibits a negligible (0,02), suggesting that the investors respond to the valuations and demand conditions rather than nominal issue price, consistent with the findings of Pandey and Pattanayak (2018)

Sectoral and temporal that is IPO month effect is present, but play relatively limited role. Sector -wise differences indicate that certain industries perform better than others as discussed above in **part 6.3,** under sectoral dynamics, however the overall magnitude of these effects is moderate, IPO timings show some variation across months, but lacks consistency which suggests that timing does not systematically influence listing gains. When these findings are analysed alongside the market performance indicators, such as the NIFTY 50, it becomes clear that IPO performance is not strongly linked to short term market movements. This provides limited support to "hot issue market" hypothesis.

Overall, the results demonstrate that the Indian IPO market is demand-driven, with investor participation, particularly institutional investors playing the dominant role. Sectoral and timing effects exist but are secondary and inconsistent, reinforcing the conclusion that IPO listing gains are largely independent of short- term market conditions.

6.7 Regression and ANOVA test- results and interpretation

Ordinary least square method (OLS) method is employed as the primary estimation technique for multiple linear regression analysis. As reported in **Table- 9 and Table- 10,** ANOVA results in **Table-11, Table-12 and Table- 13,** the regression results provide robust empirical evidence on the determinants of IPO listing gains in India during the period 2021-2025. The results positively indicate that investor demand is the primary driver of IPO performance.

The full model, represented by investor category, shows that subscription rates across all investor categories viz., QIB, HNI, and Retail have positive and statistically significant effects on listing gains.

Table -9: Regression results of IPO Listing Gains
Model 1: investor category model

Variable	Coefficient	t-statistic	p-value	Significance
Intercept	-42.741	-3.785	0.000	***
QIB Subscription	0.154	7.273	0.000	***
HNI Subscription	0.055	3.611	0.000	***
Retail Subscription	0.214	5.036	0.000	***
Log Issue Size	-2.592	-0.917	0.360	—
Issue Price	-0.002	-0.384	0.701	—
Log Market Cap	6.627	3.625	0.000	***
Chemicals	20.385	3.139	0.002	***
Information Technology	19.279	2.779	0.006	***
Services	10.183	2.193	0.029	**

Model Summary
R^2 = 0.517 | Adjusted R^2 = 0.493 | F-statistic = 21.257 | Prob > F = 0.000

Table-10: Regression results of IPO Listing Gains
Model 2: Total subscription model

Variable	Coefficient	t-statistic	p-value	Significance
Intercept	-36.335	-3.311	0.001	***
Total Subscription	0.392	15.156	0.000	***
Log Issue Size	-2.603	-0.930	0.353	—
Issue Price	-0.002	-0.344	0.731	—
Log Market Cap	6.090	3.276	0.001	***
Chemicals	18.278	2.856	0.005	***
Information Technology	15.340	2.224	0.027	**
Services	8.470	1.826	0.069	*

Model Summary:
R^2 = **0.518** | Adjusted R^2 = **0.497** | F-statistic = **24.306** | Prob > F = **0.000**

Among the issue characteristics, market capitalisation emerges as a significant positive determinant, suggesting that larger firms benefit from greater credibility, visibility and investor confidence, which can be interpreted through signaling and firm quality perspectives, supported by Panda and Deb (2025) and Bansal and Khanna (2012) which emphasise credibility and governance effects. In contrast, issue size, although negatively related to listing gain as predicted by underpricing theory, does not show statistical significance. Similarly, issue price has no meaningful impact on listing performance, indicating that investors focus on valuation and demand factors rather than nominal pricing. These results are highly consistent with findings studies of Udasi et al. (2012), Neupane and Poshakwale (2012) and Clarke et al. (2016), all of which have highlighted the significance of investor participation in IPO pricing.

ANOVA results given below clearly show that year and sector effects are statistically significant, while months effects are not significant, point to IPO performance varies across economic cycles and industries, but is not driven by seasonal timing. Overall, the regression and ANOVA results establish a clear hierarchy of determinants.

Primary drivers: Investor demand (especially institutional participation)
Secondary factors: Firm characteristics (market cap, sector)
Weak factors: Timing variables (IPO month)

Table- 11: ANOVA Results for Regression
Model 1: Investor Category Model

Source	Sum of Squares	df	Mean Square	F	p-value	Inference
Sector	15,852.795	11	1,441.163	2.421	0.007	Significant
QIB Subscription	29,977.908	1	29,977.908	50.775	0.000	Significant
HNI Subscription	7,830.194	1	7,830.194	13.042	0.000	Significant
Retail Subscription	14,508.158	1	14,508.158	25.365	0.000	Significant
Log Issue Size	503.244	1	503.244	0.842	0.360	Not Significant
Issue Price	88.519	1	88.519	0.148	0.701	Not Significant
Log Market Cap	7,568.989	1	7,568.989	13.142	0.000	Significant
Residual	201,431.803	337	597.422	—	—	—

Table -12: ANOVA Results for Regression
Model 2: Total Subscription Model

Source	Sum of Squares	df	Mean Square	F	p-value	Inference
Sector	13,060.201	11	1,187.291	1.987	0.028	Significant
Total Subscription	140,282.448	1	140,282.448	230.648	0.000	Significant
Log Issue Size	513.694	1	513.694	0.860	0.353	Not Significant
Issue Price	70.459	1	70.459	0.118	0.731	Not Significant
Log Market Cap	6,406.993	1	6,406.993	10.727	0.001	Significant
Residual	201,123.398	341	589.811	—	—	—

Table 13 One -way ANOVA (Year, Month and Sector Effect)

Factor	F-value	p-value	Inference
Year	7.462	0.000	Significant
Month	1.045	0.406	Not Significant
Sector	3.118	0.001	Significant

This confirms that IPO pricing in India is fundamentally demand – driven rather than time driven, consistent with both theoretical and empirical literature.

The regression results provide strong multivariate evidence on the determinants of IPO listing gains. Both model specification confirm that investor demand is the most significant driver of IPO performance. All investor c categories viz. QIB, HNI, and retail have positive and statistically significant effects on listing gains which supports the book building mechanism, where informed investors contribute to efficient price recovery, consistent with Benveniste and Spindt (1989) and the information asymmetry framework of Akerlof.

Furthermore, when considered alongside market performance indicators such as the NIFTY 50, the results provide limited support for the" Hot issue market" hypothesis. Although IPO clustering is observed during certain periods. It is not significantly explained by contemporaneous market returns or timing effects.

Overall, the ANOVA results establish a clear hierarchy of determinants:

Investor demand > Firm characteristics> Sector effects > Timing effects

To sum up, the empirical evidence demonstrates that IPO listing gains in India are primarily determined by investor demand, particularly institutional participation, while temporal factors such as IPO month and short-term market conditions exert minimal influence.

6.8 Hypothesis testing and Decisions

The final decisions on the hypotheses formulated to examine the determinants of IPO listing gains in India during the period 2021-2025 are presented in this section. The decisions are based on results from OLS regression analysis and ANOVA tests.

1. H1: IPO listing gains differ significantly across years and months, reflecting changing market conditions.

The ANOVA results indicate that listing gains differ significantly across years, **(p = 0.000), table -12),** suggesting that IPO performance is influenced by changing macroeconomic and market conditions over time. However, the month-wise effect is not statistically significant **(p = 0.406, table 12**), indicating the absence of systematic seasonal variation in IPO performance and hence this hypothesis is partially accepted.

IPO listing gains vary significantly across years but not across months. This reflects the influence of macro-economic conditions rather than seasonal timings, consistent with Ritter (1991)

2. H2: IPO listing gains vary significantly across sectors

The one – way ANOVA results (**Table -13)** show that sector wise differences in IPO listing gains are statistically significant (p = 0.001) but secondary in explanatory power. This suggests that industry characteristics influence IPO performance. However, regression results indicate that the significance of sectoral effects weakens after controlling for investor demand and firm specific variables.

The hypothesis is accepted.

3. H3: Issue characteristics namely issue size; issue price and market capitalisation have a significant relationship with IPO listing gains.

Regression results (**Table -10**) indicate that market capitalisation has a positive and statistically significant relationship with IPO listing gains (p = 0.001). In contrast issue size is 0.339 and issue price (p = 0.731) do not show statistical significance and therefore this hypothesis is partially accepted. Only market capitalisation significantly influences IPO listing gains, while log issue size and issue price do not have any significant effect.

4. H4: Overall subscription demand has a significant positive effect on IPO listing gains.

The results in **Table -10** clearly show that total subscription has a strong positive and statistically significant effect on IPO listing gains (coefficient= 0.392, p= 0.000), indicating that higher investor demand leads to better listing performance and hence the hypothesis is accepted. Investor demand is a key determinant of IPO listing gains.

5. H5: QIB subscription exerts a stronger influence on IPO listing gains compared to HNI and retail subscription

The regression results (**Table- 9**) indicate that QIB, HNI and Retail subscriptions, all have positive and statistically significant effects on IPO listing gains. However, since the analysis is based on unstandardised coefficients, the relative magnitude of influence across investor categories cannot be directly compared and therefore the hypothesis is partially accepted

All investor categories significantly influence IPO listing gains, but no definitive conclusion can be drawn regarding the strongest influence.

6. H6: IPO issuance exhibits clustering consistent with hot issue market hypothesis.
The analysis indicates (**Table – 6 and 7**) the presence of IPO clustering during certain periods. However, the relationship between IPO activity and market performance (proxied by market indices) is not statistically significant.

7. Implications of the Study

The findings of the present study carry important implications for investors, issuing firms, merchant bankers and market regulators. For investors, the results show that subscription demand, particularly QIB subscription is strong practical indicator for likely listing gains. This suggests that subscription data may be used as useful screening parameter while evaluating short term IPO opportunities. The weak role of issue price and inconsistent month effects also indicate that investors should avoid relying on nominal pricing or seasonal patterns.

Second, for issuing firms, the study highlights the importance of investor demand in determining the listing performance. Firms planning IPOs may benefit from strong institutional participation, improved disclosures and credible issue structuring, as these factors generally enhance market confidence and listing outcomes. The negative relationship between the issue size and listing gains also suggests larger issues may require more careful pricing and expectation management.

Third, for intermediaries for lead managers and book runners, the findings reinforce the significance of that book building mechanism and the informational role of institutional investors. The significant positive relationship between subscription demand, particularly from QIBS and listing gains indicates that the subscription process serves as effective channel for aggregating market information and investor sentiment.

Fourth, for regulators, the results indicate that the Indian IPO market remains predominantly demand-driven rather than timing-driven and institutional participation shaping the outcomes underscores the need for continued focus on disclosure standards, transparency, investor protection and efficient market mechanisms, while the underpricing persisting, warrants attention to pricing efficiency.
From academic perspective, the study contributes recent evidence from Indian IPO market (2021-2025), demonstrating that investor demand especially institutional demand plays more significant role than timing of issue and thereby improving the understanding of underpricing in emerging markets and providing a foundation for future research.

8. Conclusion

The study examined IPO market trends, sectoral dynamics and determinants of listing gains in India using a sample of 355 mainboard IPOs issued during 2021-2025.The statistical tools used for the analysis included descriptive statistics, sectoral and month- wise examination, correlation analysis, multiple regression models and ANOVA tests to evaluate the behaviour of IPO listing gains in the Indian primary market.

The results confirm that IPO underpricing continues to persist, although the magnitude varies significantly across years, sectors and issue characteristics. Year-wise analysis shows that IPO activity expanded sharply in 2024 and 2025, while average listing gains were strongest in 2021 and weakest in 2025 suggesting that g=higher issuance volume does not necessarily translate into higher listing gains. Sectoral analysis reveals meaningful heterogeneity across industries, with sectors such as information technology, chemicals, capital goods and metals and mining showing relatively stronger listing performance than several mature or capital-intensive sectors.

Investor demand emerges as strongest determinant of listing gains. Subscription rates across QIB, HNI and retail categories show strong positive association with listing gains. The regression analysis confirms that investor participation exerts the most significant positive influence on IPO performance. Among these, QIB demand appears particularly important in the pricing and discovery process, reinforcing the prime role of institutional investors in the Indian IPO market.

The study also finds that issue size is negatively associated with listing gains, although the effect is not statistically significant in the regression models. Market capitalisation is found to have positive and significant relationship with listing gains. Issue price, on the other hand, dose not materially explain the listing performance. Month-wise analysis reveals clustering of IPO activity in certain periods, but the relationship between IPO month and listing gains is weak and statistically insignificant. Thus, the study provides only limited support to the "hot issue market" hypothesis in the Indian context during the study period.

Overall, the evidence suggests that the Indian IPO market during 2021-2025 was primarily demand - driven. Investor participation, especially institutional demand, played the dominant role in explaining listing gains, whereas sectoral effects were moderate and timing effects remained weak. The study therefore supports the view that IPO pricing in India is shaped more by information, demand and firm specific characteristics than by short term market tings.

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Appendix -!
Correlation Matrix of Sector Effects (2021–2025)

Table-13

Sector	Correlation
Information Technology	0.16
Chemicals	0.13
Capital Goods	0.09
Metals & Mining	0.07
Services	0.01
Consumer	-0.02
Healthcare	-0.04
Energy	-0.04
Real Estate	-0.07
Infrastructure	-0.10
Automobile	-0.10

Correlation Matrix of IPO Month Effects (2021–2025)

Month	Correlation	Interpretation
July	0.11	Highest positive
November	0.05	Mild positive
February	0.04	Weak
December	0.02	Weak
September	0.02	Weak
August	-0.02	Weak negative
June	-0.03	Weak negative
March	-0.03	Weak negative
April	-0.04	Negative
May	-0.07	Negative
October	-0.10	Lowest

Table -14 Sector-wise Classification of Industries for IPO Analysis (2021-2025)

Sr. No.	Sector	Industries Included
1	Financial Services	Banking, Non-Banking Financial Companies (NBFCs), insurance, asset management, FinTech, housing finance, microfinance, payment banks
2	Information Technology	IT services, software-as-a-service (SaaS), data analytics, IT hardware, digital platforms, e-governance solutions
3	Healthcare	Pharmaceuticals, biotechnology, hospitals, diagnostics, active pharmaceutical ingredients (APIs), healthcare services, personal healthcare products
4	Consumer	Fast-moving consumer goods (FMCG), textiles, apparel, jewellery, footwear, retail, lifestyle products, consumer durables
5	Capital Goods	Engineering, heavy machinery, electrical equipment, cables and wires, industrial manufacturing, EPC (non-

		infrastructure)
6	Automobile	Automobile manufacturers, auto components, electric vehicles (EVs), automotive engineering, forging and casting
7	Chemicals	Specialty chemicals, agrochemicals, fertilizers, pesticides, petrochemicals, paints, adhesives
8	Metals & Mining	Steel, iron, aluminium, metal processing, mining, minerals, tubes and pipes
9	Energy	Oil and gas, power generation, renewable energy (solar and wind), energy systems
10	Infrastructure	Construction, engineering procurement and construction (EPC) for roads, railways and ports, cement, urban infrastructure
11	Services	Logistics, quick service restaurants (QSR), hotels, travel and tourism, education technology (EdTech), corporate services, facility management, online platforms
12	Real Estate	Residential and commercial real estate development