Impact of Investors Behaviour on IPO Size: A Structural Equation Modelling (SEM) Analysis in Tier-I Cities of Uttar Pradesh

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ABSTRACT

This study examines the impact of investor behaviour on the size of Initial Public Offerings (IPOs) in Tier-I cities of Uttar Pradesh, with special reference to Lucknow and Noida. Using primary data collected from investors, the study employs Structural Equation Modelling (SEM) to analyse the influence of behavioural and informational factors such as risk aversion, herd behaviour, overconfidence bias, information asymmetry, market sentiment, financial literacy, and media and analyst influence on IPO size decisions. The findings reveal that market sentiment, herd behaviour, and media influence significantly drive IPO size, while risk aversion, information asymmetry, and financial literacy have limited impact. The results highlight that investor psychology, social influence, and market conditions play a dominant role in shaping IPO investment behaviour. The study contributes to behavioural finance literature and provides practical insights for issuers, regulators, and investors in understanding IPO dynamics.

Keywords-- *IPO Size, Investor Behaviour, Herd Behaviour, Market Sentiment, Behavioural Finance.*

1. Introduction

An Initial Public Offering (IPO) is the process through which a private company offers its shares to the public for the first time and becomes a publicly listed entity. IPOs are an important source of capital for companies, as they enable firms to raise funds for expansion, debt repayment, modernization, infrastructure development, and other strategic purposes. At the same time, IPOs provide liquidity to founders, early investors, and existing shareholders, while also enhancing the visibility, credibility, and market reputation of the issuing company. The concept of IPOs has a long history, beginning with the Dutch East India Company in 1602, which is widely regarded as the first company to issue shares to the public. In India, IPO activity gained importance after the economic liberalization of 1991, when capital markets expanded and regulatory reforms by SEBI strengthened transparency and investor protection. Since then, IPOs have become a major financing mechanism for both established firms and emerging businesses. The size of an IPO is a crucial aspect of the issue because it determines the amount of capital to be raised and reflects both company needs and investor demand. IPO size is influenced by multiple factors such as company fundamentals, market conditions, pricing strategy, investor participation, regulatory requirements, and sectoral characteristics. In addition, behavioural factors such as herd behaviour, overconfidence, risk perception, media influence, and market sentiment increasingly shape investor decisions, thereby affecting IPO subscription and issue size.

Investor behaviour differs across regions depending on financial literacy, awareness, income, urbanization, and technological access. In Tier-I cities such as Lucknow and Noida, growing urbanization, increasing disposable income, and the spread of digital trading platforms have encouraged greater

participation in stock markets and IPOs. However, awareness levels, access to information, and behavioural tendencies may vary between these cities, influencing investment decisions in different ways. Therefore, the present study focuses on the impact of investor behaviour in deciding the size of an IPO in the Tier-I cities of Uttar Pradesh, with special reference to Lucknow and Noida. The study aims to examine how behavioural and informational factors influence IPO investment decisions and contribute to a better understanding of IPO dynamics from a behavioural finance perspective.

Significance of the Research

The present study is significant because it examines how investor behaviour influences IPO size in the emerging Tier-I cities of Uttar Pradesh, particularly Lucknow and Noida. As these cities are witnessing growing urbanization, higher disposable income, and increasing participation in equity markets, understanding investor behaviour has become essential for effective IPO planning. The study helps explain how factors such as risk appetite, market sentiment, and investor preferences shape subscription levels and issue size.

The research is important for companies, as it provides insights for designing IPOs that match investor demand and improve the chances of successful subscription. It is also useful for regulators and policymakers, as it highlights the need for investor awareness, transparency, and city-specific financial education initiatives. From an academic perspective, the study contributes to behavioural finance literature by focusing on regional investor behaviour and IPO decision-making in urban Indian markets. Overall, the research offers practical and theoretical value for improving IPO strategies, investor participation, and capital market efficiency.

Scope of the Research

The scope of the study is limited to analysing the impact of investor behaviour on IPO size in the Tier-I cities of Uttar Pradesh, with special reference to Lucknow and Noida. It focuses on individual investors and examines how behavioural and informational factors such as risk perception, herd behaviour, overconfidence, market sentiment, financial literacy, and media influence affect IPO investment decisions. The study also explores differences in investor behaviour between Lucknow and Noida, considering their distinct socio-economic and technological environments. It includes the role of digital platforms, financial awareness, and market exposure in shaping IPO participation. The research is confined to IPO-related investment behaviour and does not cover secondary market trading or institutional investment behaviour in detail. Within this boundary, the study provides useful insights for companies, regulators, and researchers regarding IPO planning, investor response, and regional market dynamics.

2. Literature Review

The review of literature provides a comprehensive understanding of previous studies related to IPO behaviour, investor psychology, and market dynamics. It highlights the role of behavioural and informational factors in shaping IPO outcomes and establishes the foundation for the present study. Several recent studies have emphasized the importance of interdisciplinary and behavioural approaches in analysing IPO markets. Aldana et al. (2025) proposed a transdisciplinary engineering framework to analyse IPO financial behaviour, highlighting that both technical and behavioural factors jointly influence IPO outcomes. Similarly, Pasanen (2025) examined IPO valuation methods and concluded that pricing is not only driven by financial fundamentals but also significantly influenced by market behaviour and investor perception.

Research on IPO pricing and performance has also evolved with a behavioural perspective. Siwach et al. (2025) explored IPO pricing and performance and suggested that behavioural factors and information asymmetry play a critical role in determining IPO outcomes. In a similar context, Agustina et al. (2025) found

that IPO initial performance is largely influenced by market sentiment and investor demand, particularly in emerging markets. Adrianto et al. (2025) further analysed IPO under-pricing and observed that investor demand and sentiment contribute significantly to the phenomenon of "leaving money on the table."

A number of studies have focused specifically on investor demand and behavioural influences. Mehmood et al. (2024) conducted a literature review and identified investor sentiment, media influence, and psychological biases as key determinants of IPO demand. Likewise, Timalsena et al. (2024) examined IPO investment practices among students and found that peer influence and limited financial knowledge significantly shape investment behaviour.

The role of investor beliefs and sentiment has been widely documented in recent literature. Albada et al. (2023) found that divergence of investor beliefs and demand significantly impacts IPO returns. Guo et al. (2023) demonstrated that investor sentiment strongly influences IPO investment decisions, reinforcing the importance of psychological factors in financial markets. Additionally, Wang et al. (2023) highlighted that corporate policies such as pre-IPO dividends can affect investor perception and reduce information asymmetry.

Studies on IPO returns and market behaviour further support the behavioural perspective. Filipovic et al. (2023) analysed IPO returns and concluded that market conditions and investor behaviour jointly determine performance. Earlier research by Brycz et al. (2017) indicated that issuer success does not necessarily guarantee investor success, emphasizing the importance of investor timing and behaviour.

Behavioural finance literature provides strong theoretical support for these findings. Mehraj (2021) found that psychological biases such as overconfidence and herd behaviour significantly influence investment decisions. Similarly, Quaicoe et al. (2021) highlighted that emotions, heuristics, and social influence play a critical role in shaping investor behaviour in stock markets.

Further insights into IPO market dynamics are provided by studies on institutional behaviour and regulatory aspects. Zameni et al. (2017) examined shareholder trading behaviour around lock-up expiry and found its impact on stock price movements and investor confidence. Abdul-Rahim et al. (2015) proposed a two-dimensional approach to analyse IPO behaviour in the aftermarket, emphasizing the combined influence of investor demand and market conditions. Likewise, Che-Yahya et al. (2015) found that institutional investors and lock-up provisions play an important role in stabilizing IPO markets and reducing speculative trading.

Overall, the literature clearly indicates that IPO markets are significantly influenced by behavioural factors such as investor sentiment, herd behaviour, and media influence, along with informational aspects like disclosure and valuation. However, most existing studies focus on developed or international markets, with limited attention to Tier-I cities in India. Therefore, the present study aims to bridge this gap by analysing the impact of investor behaviour on IPO size in Lucknow and Noida, contributing to both academic literature and practical understanding of IPO dynamics.

3. Research Methodology

The present study adopts a descriptive and analytical research design to examine the impact of investor behavioural and informational determinants on IPO size decisions. The descriptive aspect helps in understanding investor demographics and behavioural patterns, while the analytical component evaluates relationships among variables and tests hypotheses derived from behavioural finance theory. A cross-sectional research design is employed, as data are collected at a single point in time, capturing prevailing investor perceptions and behaviour. The study is conducted in Tier-I cities of Uttar Pradesh, namely Lucknow and Noida, selected due to their economic importance, active investor base, and growing participation in capital markets. These cities provide a balanced representation of traditional and modern urban investment environments. A quantitative research method is used, supported by primary data

collected through a structured questionnaire based on a five-point Likert scale. This enables measurement of investor attitudes, perceptions, and behavioural tendencies in numerical form. The population comprises individual investors with prior IPO investment experience. A total sample of 400 respondents is selected using purposive sampling, ensuring that only relevant and informed participants are included, while institutional investors are excluded. The study includes independent variables such as Risk Aversion (RAV), Herd Behaviour (HBE), Overconfidence Bias (OBI), Information Asymmetry (IAS), Market Sentiment (MSE), Financial Literacy (FLI), and Media & Analyst Influence (MAN), while the dependent variable is Size of IPO investment (SIP). Each construct is measured using multiple indicators adapted from established literature to ensure validity. Data analysis is carried out using descriptive statistics, correlation analysis, regression analysis, and Structural Equation Modelling (SEM) with SPSS and AMOS software. SEM is particularly used to test both measurement and structural models, assess construct reliability and validity, and identify causal relationships among variables.

4. Result and Discussion

This Section presents the analysis of primary data collected from 415 investors in Lucknow and Noida to examine the impact of investor behaviour on IPO size decisions. The chapter is divided into two sections. Section A deals with the demographic profile of respondents, while Section B focuses on behavioural factors influencing IPO size. The analysis provides the empirical foundation for interpretation, hypothesis testing, and discussion.

Demographic Information: This section explains the demographic and investment profile of the respondents. The sample is almost equally distributed between Lucknow (49.25%) and Noida (50.75%), ensuring balanced city representation. Gender distribution is also diverse, with male, female, and other respondents participating almost equally. Age-wise, the highest participation is from investors below 25 years, though all age groups are fairly represented. Educational background is varied, including higher secondary, graduate, postgraduate, professional, and other categories. Occupationally, respondents belong to different groups such as salaried employees, businesspersons, professionals, government employees, retirees, students, and others, showing a balanced composition. Income levels are also evenly spread, with the largest share in the ₹25,001–₹50,000 category. In terms of investment experience, both new and highly experienced investors are included, with the highest share having more than 10 years of experience. Further, High Net-Worth Individuals form the largest investor category, followed by institutional/professional and retail investors. Most respondents invest in IPOs occasionally, while investment amounts are mainly concentrated in the ₹50,001–₹1,00,000 range. Social media, online forums, friends, and company prospectus emerge as major information sources. The main investment objective of respondents is portfolio diversification, followed by short-term gains and long-term wealth creation.

Investor Behavioural and Informational Determinants Influencing IPO Size: Section B analyses the key behavioural and informational factors influencing investors' decisions regarding IPO investment size. The study focuses on constructs such as risk aversion, herd behaviour, overconfidence bias, information asymmetry, market sentiment, and financial literacy, using statistical tools and SEM to evaluate their impact. The results indicate low risk aversion among investors. A majority of respondents do not prefer low-risk IPOs, avoid uncertain financial performance, or reduce investment due to market volatility. Most investors also do not carefully evaluate risk before deciding investment size and are willing to invest larger amounts for higher returns. This reflects a higher risk-taking attitude, encouraging stronger IPO demand. In terms of herd behaviour, findings show low self-reported influence of others. Most investors disagreed that they are influenced by market participation, subscription levels, peers, or oversubscription. Although investors perceive themselves as independent, herd effects may still operate indirectly through overall market sentiment. The analysis of overconfidence bias reveals that investors generally do not exhibit strong overconfidence. Most

respondents do not believe they can predict IPO performance or rely solely on personal judgment. They also do not associate past success or confidence with investment size, indicating a cautious and realistic approach. Regarding information asymmetry, the influence is moderate. Some investors acknowledge that limited or insufficient information affects their decisions and creates caution. Prospectus details are moderately important, but many investors face difficulty understanding technical IPO information. This highlights the need for better disclosure and investor awareness. The findings on market sentiment show a moderate impact. Bullish markets, economic conditions, and positive sentiment encourage larger investments, while bearish trends have a limited effect. Investors tend to respond selectively to market conditions rather than uniformly. Finally, financial literacy is moderate to high. Many investors understand IPO pricing and are aware of associated risks, although a significant proportion still lacks complete knowledge. Overall, the results suggest that IPO investment size decisions are influenced more by market sentiment and moderate financial awareness, rather than strong risk aversion, herd behaviour, or overconfidence.

Factor Analysis: Factor analysis through Structural Equation Modelling (SEM) was used to examine the relationship between investor behavioural factors and IPO size decisions. The model included major constructs such as Risk Aversion, Herd Behaviour, Overconfidence Bias, Information Asymmetry, Market Sentiment, Financial Literacy, Media and Analyst Influence, and Size of IPO. The factor loadings for most indicators were satisfactory, showing good reliability and convergent validity of the constructs. The SEM results reveal that Market Sentiment and Financial Literacy have the strongest positive influence on IPO size decisions. In contrast, Risk Aversion and Overconfidence Bias show relatively weak effects. This indicates that investors' decisions regarding IPO size are influenced more by market mood and financial understanding than by personal bias alone. The model is statistically over-identified, with 707 degrees of freedom, and achieved proper convergence, indicating stability of estimation. Although the chi-square value was significant, this is common in large and complex SEM models, and therefore the model fit should be judged along with other fit indices.

Correlation analysis further supports the findings. Media and Analyst Influence and Herd Behaviour show the strongest positive association with IPO size, followed by Market Sentiment. On the other hand, Information Asymmetry and Financial Literacy show weaker simple correlations with IPO size. Overall, the factor analysis suggests that IPO size decisions are shaped mainly by social influence, media effect, and market sentiment, while purely individual and informational factors play a comparatively smaller role.
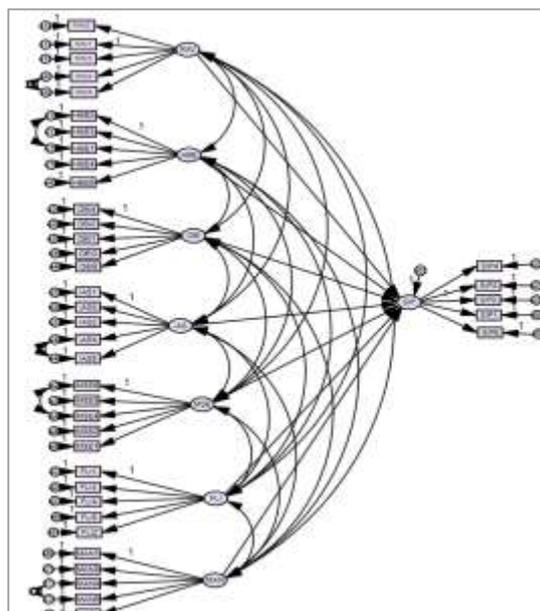

Fig. 1. Structural Equation Model (SEM) Examining the Impact of Investor Behavioural Factors on The Size of IPO

The figure illustrates the final Structural Equation Model (SEM) examining the impact of investor behavioural factors on the Size of IPO (SIP). The model consists of eight exogenous latent constructs Risk Aversion (RAV), Herd Behaviour (HBE), Overconfidence Bias (OBI), Information Asymmetry (IAS), Market Sentiment (MSE), Financial Literacy (FLI), and Media & Analyst Influence (MAN) each measured through multiple observed indicators with associated error terms. All behavioural constructs are allowed to intercorrelate, reflecting the interdependent nature of investor psychology. Direct structural paths from each behavioural construct to SIP indicate their influence on IPO size decisions. The clustering of arrows toward SIP highlights the cumulative behavioural impact on investment size determination. The model structure confirms that IPO sizing is not driven by a single factor but by a complex interaction of psychological, informational, and sentiment-based influences, providing strong empirical support for the behavioural finance framework applied in this study. The Structural Equation Model (SEM) shows good reliability, with all constructs having strong factor loadings (≈0.61–0.89). The results indicate that social and sentiment-based factors play a dominant role in determining IPO size, while informational and rational factors have weaker influence.

Table 1: Structural Path Results (Impact on IPO Size – SIP)

Factor	Beta (β)	Significance	Impact
Herd Behaviour (HBE)	0.271	Significant	Strong
Market Sentiment (MSE)	0.194	Significant	Strong
Media & Analyst Influence (MAN)	0.422	Significant	Very Strong
Overconfidence Bias (OBI)	0.101	Significant	Moderate
Financial Literacy (FLI)	0.227	Not Significant	Weak
Information Asymmetry (IAS)	0.007	Not Significant	Negligible
Risk Aversion (RAV)	0.001	Not Significant	Negligible

Table 2: Model Fit Indices

Index	Value	Interpretation
χ^2 (CMIN)	944.972	Significant (large sample effect)
DF	707	Over-identified model
CMIN/DF	1.337	Good fit (<3)
RMR	0.036	Good fit (<0.05)
GFI	0.897	Acceptable
AGFI	0.880	Good
PGFI	0.773	Good parsimony

The model demonstrates a good overall fit. Results confirm that Media influence, Herd behaviour, and Market sentiment are the strongest drivers of IPO size decisions, while risk aversion, information asymmetry, and financial literacy have minimal direct impact.

5. Conclusion and Future Scope

The study concludes that IPO size decisions are largely influenced by behavioural and sentiment-based factors rather than purely financial or rational considerations. Market sentiment, herd behaviour, and media influence emerged as the most significant drivers, encouraging higher investor participation and larger IPO sizes. In contrast, factors such as risk aversion, information asymmetry, and financial literacy showed minimal direct impact. Overall, the findings highlight that investor psychology, social influence, and market mood play a dominant role in shaping IPO dynamics in Tier-I cities like Lucknow and Noida.

Future research can extend this study by examining the long-term performance of IPOs, conducting cross-sector or cross-country comparisons, and incorporating digital media and social media influence. Further studies may also explore moderating factors such as age, income, and investor experience, and apply advanced techniques like machine learning or sentiment analysis to better understand evolving investor behaviour.

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