Studies on Indian IPO: systematic review and future research agenda

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Abstract
Purpose – This paper aims to review, discuss and synthesize the literature focusing on the Indian initial public offering (IPO) market. Understanding the Indian IPO market can help answer broader corporate finance questions. The growing number of IPOs in the Indian context, coupled with the increasing importance of the Indian economy in the global market, makes this review an essential topic.

Design/methodology/approach – The systematic literature review methodology was adopted to review 111 papers published between 2002 and 2021. The authors used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses approach during the review process. Additionally, the authors use a bibliometric review methodology to examine the pattern and trend of research in this area of interest. Furthermore, the authors conduct a critical review and synthesis of the top 20 papers based on citations. The authors also use a co-citation network and manual content analysis method to identify key research themes.

Findings – This review helps in identifying major themes of research in this area of interest. The authors find that a majority of the research has focused on IPO performance whereas post-IPO performance needs critical attention as well. The authors develop a comprehensive framework and future research agenda based on their discussion.

Research limitations/implications – Meta-analysis of the literature can be conducted to gain better insights into the findings of prior studies.

Practical implications – This review paper develops a comprehensive overview on Indian IPO market which can be of interest not only to Indian scholarship, India as an economy is increasingly gaining attention at the global level. Hence, the future research objectives as illustrated in the study can be of interest for the global scholarship also.

Originality/value – To the best of the authors’ knowledge, this is the first comprehensive review paper that examines, synthesizes and outlines the future research agenda on Indian IPO studies. This review can be useful for researchers, business policymakers, finance professionals and anyone else interested in the Indian IPO market.

Keywords IPO, India, Bibliometric analysis, Systematic literature review, PRISMA

Paper type Literature review

1. Introduction
An initial public offering (IPO) is an event that allows firms to raise capital from the stock market for the first time. Tapping into a wider pool of investors provides the opportunity to fuel the firm’s

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future growth options. The IPO event also involves major corporate restructuring in terms of ownership, the board and management. Thus, the IPO event is considered a crucial event in the firm’s life cycle. However, by transitioning into public firms, they are required to abide by more regulatory amendments and face new market challenges. Academic scholarship has also observed that despite the importance of IPO firms in the capital market, these firms exhibit anomalous behavior both during the IPO and post-IPO periods. Considering both the opportunities and challenges of IPO firms, researchers have shown a growing interest in IPO research.

While a significant number of IPO studies have been conducted in the USA and Organisation for Economic Co-operation and Development contexts, researchers are increasingly showing interest in studying other markets, particularly emerging markets. Figure 1 displays the Google search trends for Indian IPOs over the past five years, indicating a noticeable increase in overall interest in this area. Figure 2 illustrates the regional search trends for Indian IPOs, revealing that the Indian IPO market has garnered attention from major countries such as the USA, Canada, UK, Australia, UAE and others. Considering India’s growing importance as a major emerging market, understanding Indian IPO firms is also of interest to global investors.

From an institutional perspective, India presents an interesting context. While India’s institutional setting is largely similar to that of the USA, there are a few critical aspects that set it apart (Chakrabarti, 2018). The Securities and Exchange Board of India (SEBI), the apex regulatory body in India, has implemented reforms in IPO offering regulations to enhance transparency and increase the number of participants in the market. This presents an opportunity to study the primary market of an emerging country. Recently, systematic literature reviews (SLRs) have also focused on country-specific themes such as CEO tenure and corporate governance in specific countries such as Pakistan, the Middle East region and others (Darouichi et al., 2021; Farah et al., 2021; Khan et al., 2022). Therefore, understanding the Indian IPO market can provide insights into broader corporate finance questions. Motivated by this, our study aims to review and synthesize the literature related to Indian IPOs.

The entire literature review process is divided into three primary stages: review protocol, search strategy and conducting the review. This review study also adheres to the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) when selecting the sample for the literature review. In this study, we use a combination of bibliometric analysis and content analysis approaches to comprehend the current research trends and develop a comprehensive framework.

The fundamental purpose of this study is to present the current state of research on Indian IPO, with the following research objective deciphering the scope of the study:

**Figure 1.**
Last five years’
Google search trend of Indian IPO

**Source:** Created by authors from Google Trend analysis
RO1. Identifying the current publication trends in this area of interest.

RO2. Identifying the influential studies and themes of research in this domain.

RO3. Constructing the intellectual structure in this area of interest.

RO4. Identifying the gaps and areas for future research.

Building upon the findings of prior literature in this area of interest, the purpose of this literature review is to review and synthesize the current body of knowledge on Indian IPO literature. There have been several other SLR studies focusing on the IPO context. However, the agendas of these SLRs have been distinct. One of the earliest review studies on IPOs was conducted by Ritter and Welch (2002). They reviewed the theory and evidence on IPO activity, with a specific emphasis on IPO pricing and allocations. Varshney and Robinson (2004) discussed various research avenues related to IPOs in their review paper. Daily et al. (2003) reviewed and synthesized various studies on IPO underpricing. Yong (2007) published a review paper on IPOs in Asia, highlighting the importance of institutional context in IPO literature.

In more recent review papers on IPO literature, authors have focused on topics such as IPO withdrawal, IPO underpricing, the role of top-level decision-makers in IPOs and the IPO underpricing phenomenon in Asia (Albada and Yong, 2019; Cirillo et al., 2018; Helbing, 2019; Jamaani and Alidarous, 2019). The phenomenon of underpricing in IPOs has received considerable attention in the literature. While research on IPO underpricing is still ongoing, other emerging avenues of IPO research include the role of top management/decision-makers in the IPO process and IPOs within institutional contexts such as Asia. This motivates us to conduct a literature review focusing on IPO activity in the Indian context.

India is one of the fastest-growing economies in the world and has attracted the attention of investors globally. The Indian regulatory body is continuously revising policies to attract global investors to the IPO market. To develop a comprehensive overview of the Indian IPO

![Regional Google search trend for Indian IPOs](image-url)

**Source:** Created by authors from Google Trend analysis
First, we observe that IPO performance measures such as IPO underpricing, post-listing volatility, IPO grading and the impact of corporate governance on IPO performance are key areas of literature. Second, from a theoretical perspective, a large number of studies have followed agency theory, with a focus on examining information asymmetry and conflicts of interest. However, based on the findings of studies on the post-IPO period, we emphasize the importance of studying the post-IPO period and long-run IPO performance, rather than solely focusing on IPO underpricing. Third, we highlight the importance of corporate governance and top executives in determining the long-run post-IPO performance. Overall, this literature review contributes by identifying what the existing literature states and what future research on Indian IPOs needs to investigate to develop a framework focused on the holistic growth of newly public firms in India.

In the below paragraph, we briefly discuss about the Indian IPO market followed by the review methodology, bibliometric analysis of literature, detailed discussion on Indian IPO studies and conclusion sections.

2. Background of the study

This section presents discussion on Indian financial system and Indian IPO firms from regulatory and pragmatic perspective. Discussion on Indian financial system and Indian IPO scenario is essential in the sense of outlining the background of the study.

The financial system of a country promotes savings and investment in the economy, ensuring that capital flows into the country’s financial assets. A robust and transparent financial system is essential for the long-term sustainable development of various sectors of the economy. The financial market encompasses both the money market and the capital market. The money market deals with open market operations in highly marketable short-term debt instruments, whereas the capital market focuses on long-term debt issues and stocks. The capital market serves as an organized mechanism for the effective and efficient transfer of capital from individual or institutional investors to entrepreneurs.

The capital market can be divided into the primary market and the secondary market. The primary market facilitates the issuance of securities to investors and assists the corporate sector in raising funds through public issues, offers for sale, private placements and rights issues. In the primary market, various entities such as companies, governments and other institutions can raise capital by selling debt and equity-based securities, including shares, bonds, debentures and other financial instruments. The secondary market, also known as the aftermarket, is where the trading of securities issued in the primary market takes place.

India is home to one of the oldest stock exchanges in the world, the Bombay Stock Exchange. The country has a long tradition of raising capital for firms through the capital market. The event of a firm raising capital through the capital market is known as an IPO. The IPO market in India started to gain momentum in the 1980s and continued to rise with the economic reforms in the 1990s (Khan, 2013; Pathak, 2010; Varma, 1997). With the increase in IPO events, the average annual capital mobilization in the Indian financial market also started to rise. The next boom period for the Indian IPO market began in 2015, surpassing other Brazil Russia India China South Africa (BRICS) nations in terms of the number of IPOs. Interestingly, it is worth mentioning that for many Indian private limited firms, an IPO is seen as a distant option (Chakrabarti, 2018). According to reports, the number of organizations raising capital from private equity players is substantially larger than the number of organizations opting for IPOs. From 2006 to 2014, private equity/venture capital firms invested over $60bn in more than 3,000 small and medium-sized businesses,
which is three times higher than the capital raised through IPOs. This trend has further accelerated in recent years with even larger numbers. This discussion highlights the growth potential as well as the pressing challenges of the Indian IPO horizon.

In a longitudinal study on Indian IPOs, Singh et al. (2020) found that from 1991 onwards, the amount of IPO capital grew at a rate of 11.54% compounded annually, while the number of IPO issues declined at a rate of 9.91% compounded annually. The average size of IPOs has increased by 21.46% annually (Jain et al., 2020).

The IPO market allows entrepreneurial businesses to raise capital from a wider pool of investors by going public. The event of going public involves corporate restructuring and provides opportunities for pre-IPO investors to exit. Newly public firms face challenges in the post-listing period, with regulatory mandates focused on transparency and disclosure. The lock-in period restricts the sale of shares by pre-IPO shareholders and insiders for a specified period after the IPO. In the Indian context, where business groups and family firms are prevalent, founders who are blockholders, known as promoters, play a significant role. Promoters are required to hold at least 20% of the post-issue capital during the IPO. Lock-in requirements ensure that promoters continue to hold a minimum percentage of shares in the company after the public issue. Safety net schemes, buyback arrangements and the Green Shoe option are mechanisms aimed at preventing post-listing stock volatility and stabilizing share prices. Despite these efforts, Indian newly public firms often experience poor post-listing performance. Further research is needed to understand the listing day event and post-listing performance of newly public firms and address the challenges they face. Overall, this review paper is crucial in understanding prior studies and outlining future research directions.

3. Selection literature

This section illustrates the procedure adopted for developing this literature review based on Indian IPO studies. Similar to Chakraborty and Bhattacharjee (2020), we adopt a mix of bibliometric analysis and content analysis. Combination of both techniques helps us in understanding the ongoing research trend as well as synthesizing the research framework. Literature selection method is motivated from Grover and Kar (2017) and Gupta et al. (2021).

PRISMA guidelines are followed for conducting and reporting the literature review (Liberati et al., 2009). PRISMA provides a standard peer accepted methodology that uses a guideline checklist to contribute to the quality of the literature review and to its replicability. Of late, PRISMA framework is being followed in business and management area literature review paper (Pasayat et al., 2020; Satalkina and Steiner, 2020). A review protocol is developed describing the search strategy, article selection criteria, data extraction and data analysis procedures. The entire process of literature review is clustered into three primary stages following Grover and Kar (2017). The relevant stages of selection of studies are exhibited in Figure 3 which presents the review protocol, search strategy and conducting the review stages. The article selection criteria, according to PRISMA method, needs to be of four stages (Satalkina and Steiner, 2020).

As per Elsevier, Scopus is considered as the largest database of academic literature (Grover and Kar, 2017). Several authors have considered this database while conducting literature review (Chakraborty and Bhattacharjee, 2020; Grover and Kar, 2017; Gupta et al., 2021). Scopus provides rich interface to the user for selecting the studies based on year, document type, subject area, keywords, source title, source type and language. In this literature review we kept the subject area “Business Management and Accounting” and “Finance and Economics.” Before conducting the literature review, one review protocol was designed and as per the preceding literature review paper in business and management area
we have examined our review protocol by an expert. The review protocol was examined and verified by the expert academics of this area of interest. The inclusion and exclusion criteria for literature review are shown in Table 1. In the Scopus database, the initial literature search was conducted based on following keywords as shown in Figure 4.

4. Literature review

4.1 Bibliographic overview and research trend

We have already mentioned the importance and growth of Indian newly public firms. Here, we discuss the academic research status on investigating Indian newly public firms. First, we provide a bibliometric overview of this research area. This bibliometric overview can give an outlook on the ongoing research trend in this area. This bibliometric analysis is produced based on the literature on Indian newly public firms in SCOPUS database. The analysis has been conducted using Bibliometrix package of R language. This package has been used by other researchers in producing bibliometric analysis (Ali and Bashir, 2021; Chakraborty and Bhattacharjee, 2020).

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<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
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<td>Literature review</td>
<td>Study not related to the IPO and post-IPO periods; IPO and post-IPO period papers not related to India; Non-English language journals</td>
</tr>
</tbody>
</table>

**Source:** Created by authors
In the above figures, the academic research trend in Indian newly public firms is exhibited. The sample literature ranges from 2002 to 2021. Figure 5 presents the annual scientific production in this literature area which demonstrates that there is significant increase in number of literature in this area of interest.

We present the bibliometric analysis on two major categories: one is based on authors, countries and sources in constructing the intellectual and societal structure. The second major theme of bibliometric analysis is based on author’s keywords. Analysis based on author’s keywords help us to identify the ongoing research trend in several aspects. Figure 6 presents country wise scientific production based on authors’ countries. Countries from where authors have produced scientific literature in this area of interest are shown in blue color. This is relevant to mention that darkness of color blue indicates the frequency of scientific production from that country.

Based on that, most scientific production on Indian IPO is from India. It is observed that USA and UK have also produced next in the category following Australia. Figure 7 produces analysis based on corresponding author’s country which shows that in single country publication trend India tops the chart and multi country publication USA tops the chart. Figure 8 shows the country wise collaboration map in multi country publications of the sample literature. It is observed that scholars from countries such as USA, UK, Australia have collaborated with Indian scholars to produce scientific publication on Indian IPO. Figure 9 exhibits timeline-based scientific production of top authors. Author B Singh has produced scientific publications on Indian IPO firms in a longer timeline spectrum. Figure 10 shows Sankey diagram which is a three field plot based on the mapping of author, affiliation and keywords used regarding Indian IPO research. The length of the box plot indicates the contribution of the author in this area of interest. This three field plot is an interesting connection to understand the intellectual structure of the area of interest (Ali and Bashir, 2021). The figure depicts the main authors in the research area, their most-used keywords and their affiliations. Based on the Sankey diagram, author “B Singh” affiliated to
Guru Nanak Dev University has the most contribution with keywords which have been used by this author most frequently are “underpricing,” “initial public offering,” “SME IPOs,” “earnings management.” This leads our discussion more focusing on keyword and source-based analysis.

Figure 11 shows the top 20 most cited articles which shows that the top cited documents list included articles from the past 5 years (from 2021) and earlier years such as 2002, 2005 as well. Figure 12 shows the top 20 most relevant sources demonstrating *Global Business Review* as the most relevant source followed by *Indian Journal of Finance*. These journals are ranked in descending order based on the number of published articles. The list shown in Figure 12 shows journal which ranges B and C category based on ABDC ranking. Recently Clarke et al. (2016), Neupane et al. (2014) and Anagol et al.’s (2021) experimental study on Indian IPO are published in *Journal of Corporate Finance, Journal of Banking and Finance* and *Journal of Financial Economics* which are among the top journals in Finance area. This is also to mention that the

**Source:** Created by authors
mentioned three articles are also in the top cited article list. Similar to Figure 6, the darkness in blue color of Figures 11 and 12 represents the frequency of that article/source. Figure 13 demonstrates the word cloud pattern based on the keyword used in the set of studies. The size of each word indicates the frequency of that word. We find that IPO is the most widely used keyword in this area of interest. This is also observed that IPO has been mentioned as “IPO,” “Initial Public Offering” and “Initial Public Offerings” in the sample literature. These three keywords, in fact, represent same meaning. Hence, we are clubbing these as one keyword. This is also to be noticed that the keyword-based cloud is scattered in nature which implies a wide spectrum of research on Indian IPO. IPO underpricing, information asymmetry, founder, corporate governance, earnings management, women directors, subscription rate, book building, volatility, IPO grading, offer size, gender diversity, subscription rate, private equity, oversubscription are the other keywords which are used frequently. In Figure 14, the word growth of 2002–2020 is presented. Authors have increasingly used “Initial public offering” and “IPO underpricing.” This implies that IPO underpricing is one of the key focus areas. Growth pattern of other keywords such as earnings management and information asymmetry are also getting increasing attention from the scholars. The topic dendrogram is demonstrated in Figure 15. A dendrogram diagram shows the hierarchical relationship between objects. It is usually created as an output from hierarchical clustering of research subareas. First clustering of
keywords, from the left, exhibits market microstructure-based research theme such as subscription rate, offer size, volatility. The second cluster from the left shows research theme on survival analysis of IPO firms. The third research theme has focused on identifying factors such as anchor investor, gender diversity, IPO grading, venture capital which can have impact on IPO performance. Figure 16 shows the co-occurrence network which informs that “underpricing” is the most connected keyword having co-occurrence with age of the firm, SME IPOs, IPO specific characteristics such as offer size, liquidity, volatility etc. This also implies that IPO underpricing is the mostly studied keywords. Figure 17 demonstrates word tree map which exhibits that IPO, underpricing and India having the largest allocation than other keywords which is followed by earnings management, information asymmetry in the second allocation category and corporate governance, anchor investors, long run performance, venture capitalists in the next category. The bibliometric analysis based on keywords of sample literature is depicted in Figure 13–17. Overall, excerpts of these figures collectively help us in identifying mostly studied area categorically.

The bibliometric trends demonstrate two broad categories of the research trend. One is analysis the details of the researcher and affiliation and another is on identifying the key research themes based on keyword analysis. The findings discussed above indicates that IPO studies in Indian context has received attention from several countries apart from Indian scholarship. The keyword-based analysis demonstrates the key themes of the studies. In the next section, we elaborately discuss based on the findings of the literature.

4.2 Discussion on research in Indian initial public offerings

This section presents discussion based on the ongoing research on Indian IPO. Following content analysis approach adopted in Chakraborty and Bhattacharjee (2020), this review paper also conducts content analysis on the literature based on top cited articles and most
recent articles of past three years. The top cited articles can be considered as key papers in this area of interest additionally latest papers can exhibit the emerging thrust areas which together can depict the comprehensive picture. We observe, in overall, that research on Indian IPO has been gaining substantial attention from academic scholarship. In Table 2, the top 20 most cited papers are listed. A large number of studies in this research area have focused on understanding the IPO performance. IPO performance is usually studied by IPO underpricing and listing event performance. Both underpricing and overpricing of IPO shares are observed at Indian IPO market (Giri et al., 2018). However, Indian market has more underpricing than overpricing (Yadav and Goel, 2019). During hot period of IPO, underpricing is observed less comparatively which is contradictory to the international evidence (Ghosh 2005b). Considering IPO performance during hot period in terms of initial returns, there is observed to be a bidirectional causal relationship between IPO volume and initial returns for “hot” issuing periods (Jain and Kanjilal, 2017). Ray and Chattopadhyay (2021) find that evidence of oligopolistic power of underwriter in Indian IPO market. However, the oligopolistic nature of underwriters is not found to have significant explanation on IPO underpricing. The oligopoly present in the market makes the market inefficient. With the presence of inefficient market, big IPO issuer faces less IPO underpricing than small IPO issuer (Ray and Chattopadhyay 2021). Considering the earnings management pattern of Indian IPO firms, it has been observed that accrual based

**Figure 8.** Country collaboration map

*Source:* Created by authors
earnings management in pre-IPO time may result in higher IPO performance but poorer long run performance (Pandey and Pattanayak, 2021). IPOs backed by reputed anchor investors are less likely to engage in pre-IPO earnings management whereas R&D based IPOs are more likely to engage in pre-IPO earnings management (Nikbakht et al., 2021). Relationship between reputed anchor investors’ presence and IPO underpricing is inconclusive as both positive and negative outcome has been observed (Arora and Singh, 2019; Ranganathan and Saraogi, 2021). In long run performance after the IPO event, anchor backed IPOs perform better than non-anchor backed investors (Bhattacharya et al., 2020; Kumar and Sahoo, 2021). In this note, this is relevant to mention that SEBI introduced regulation for controlling anchor investors’ behavior which can facilitate in better price discovery during the book building process (Kumar and Sahoo, 2021). Valuation of IPO firms becomes critical with the presence of information asymmetry, inefficient market which leads to more underpricing (Pandey and Pattanayak, 2021). Interestingly, it is observed that oversubscription or full subscription is less likely to happen for IPOs with lower offer price as all investor categories such as retail investors or institutional investors are reluctant to invest in IPOs having lower offer price (Sandhu and Guhathakurta, 2020). Oversubscription can have negative association with issue price, pricing mechanism, listing delay, whereas positive association with firm size, underwriter reputation, hot market and underpricing have been divulged to positively influence oversubscription (Arora and Singh 2020c). This is noteworthy that scholars have explained IPO underpricing from agency theory’s perspective mostly. According to this rationale which is mostly information asymmetry based, firms and underwriters set a lower offer price to compensate better-informed investors for truthfully revealing their private information before the offer price is finalized. Another strand of IPO underpricing research has focused on behavioral finance which argues that irrational investors bid up the price of IPO shares beyond their true value on the
first day of listing. The mix of both theories has grown interest in the IPO scholarship to examine pre-market and aftermarket underpricing. Reputed underwriters are more likely to adjust the IPO offer price below the regulatory maximum which increases voluntary IPO underpricing in the premarket. This phenomenon is more pronounced for small firms (than in large firms), oversubscribed IPOs by institutional investors and non-anchor-backed IPOs where underwriters do not have the privilege of discretionary allocation. Voluntary pre-market underpricing lowers the aftermarket initial rate of return (Ranganathan and Saraogi, 2021). However, voluntary IPO underpricing caused by underwriters is noticed to be of minimal level (Clarke et al., 2016). Following the behavior-based sentiment theories, pre-market transparency can significantly reduce post-market winner's curse for retail investors. Overall, behavioral factors can explain post-market mispricing significantly, whereas information asymmetry cannot fully explain the IPO underpricing phenomenon (Ranganathan and Saraogi, 2021) First day trading activity can reduce if there is unmet demand of non-institutional investor groups (Clarke et al., 2016). Retail investors also find anchor backed IPOs more of quality based (Sahoo, 2017).

This is also to mention that large number of studies have focused on IPO performance than studying post-IPO performance. IPO underpricing over the years is ubiquitous phenomenon as observed in various studies (Krishnamurti and Kumar, 2002). Studies have also identified that short term over performance of IPOs of companies increases the expectations of potential investors and leads to a subsequent decline of long run
performance (Bhatia and Singh, 2013; Gopalaswamy et al., 2008; Dhamija and Arora 2017a; Kohli, 2009; Mangala and Dhanda, 2019; Marisetty and Subrahmanyam, 2010; Mayur and Mittal, 2014). Contradicting this, Indian SME IPOs exhibit long-run over performance (Arora and Singh 2020b; Dhamija and Arora 2017c). The underpricing level of SME IPOs is also lower than that of the IPOs listed in other board of stock exchanges (Dhamija and Arora 2017c). Poor long run performance after the IPO event can be due to large insider ownership (Jain et al., 2020). IPO firms from banking sector have witnessed higher performance in post listing period (Ghosh 2005a). The importance of IPO underpricing and listing day gain also reduces within a year after listing in terms of determining post-IPO pricing (Singh et al., 2021). Summarizing, we can say that performance of Indian newly public firms in post-IPO period is inconclusive and hence, calls for further research. In a recent experimental study on lottery for IPO stock allocation, it is noticed that IPO stocks which perform good in aftermarket increase portfolio trading volume in non-IPO stocks (Anagol et al., 2021). Experimental study can fetch the behavioral insights which are also equally useful to understand the comprehensive overview. Investors that experience exogenous gains in IPO stocks respond in a variety of interesting ways. They become more likely to apply for future

Figure 11. Top cited documents

Source: Created by authors
Studies on Indian IPO

Top cited sources

Source: Created by authors

Keyword based word cloud

Source: Created by authors
Figure 14. Word growth pattern  

Source: Created by authors

Figure 15. Topic dendogram  

Source: Created by authors
Figure 16. Co-occurrence network

Source: Created by authors

Figure 17. Word Tree map

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<td>Group affiliation and the performance of IPOs in the Indian stock market</td>
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<td>5</td>
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<td>Performance of Indian IPOs: An Empirical Analysis</td>
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<td>2017</td>
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<td>Endowment effects in the field: Evidence from India’s IPO lotteries</td>
<td>Dhamija, S., Arora, R.K.</td>
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<td>Do anchor investors create value for initial public offerings? An empirical investigation</td>
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<td>18</td>
<td>Investor protection and institutional investors’ incentive for information production</td>
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<td>20</td>
<td>Examining the Performance of IPOs: An Evidence from India</td>
<td></td>
<td>2012</td>
<td>7</td>
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Source: Created by authors as per bibliometric analysis
IPOs (Anagol et al., 2021). Considering another study on retail investors’ behavior, it is observed that institutional bids in the early days of the book building process provides coherent signal about IPO quality (Khurshed et al., 2014).

Now, we focus on the studies which have analyzed performance of newly public firms from the perspective of corporate governance practices. There have been significant studies in this research area. However, studies’ focusing on the impact of corporate governance structure on post-listing performance is again limited. Companies’ Act, 2013 mandates at least one women director on the board of every listed company. Board having gender diversity can have improved IPO performance (Arora and Singh 2020d). However, Handa and Singh (2015) find no significant impact of gender diversity in the board on IPO performance. Overall, several Indian IPO firms do not have proper gender diversity in board and further gender inclusive board is suggested (Kaur and Singh, 2015). Collective outcome of the studies on reducing underpricing of Indian IPO firms are mixed (Handa and Singh, 2015; Kaur and Singh, 2019; Sivaprasad and Dadhaniya, 2019). Other parameters related to board of directors such as board size, board independence, board age can positively influence IPO returns (Arora and Singh 2020a; Handa and Singh, 2017). Owners of IPO firms play crucial role. In Indian IPO context, ownership concentration in IPO firms provides signal about the quality of the firm. However, too much holding in owner’s hand can be perceived as risky by investors (Handa and Singh, 2017). Outside investors can have the fear of earnings management while concentrated ownership is present (Purayil and Lukose, 2019). Chance of earnings manipulation is found to be higher during IPO year than post-IPO year (Shette et al., 2016). As a result, concentrated ownership can increase the level underpricing (Arora and Singh 2020a). Yet, with the ownership dilution at the time of IPO as well as around lockup expiration can lead to higher level of earnings manipulation (Purayil and Lukose, 2019). In another study, it has been found that market performance of PE backed newly public firms can decrease in post listing period. This can be due to individual rent seeking behavior of managers. Managerial agency cost can even decrease the negative influence (Deb and Banerjee, 2020). Thus, the monitoring ability of private equity investors in post listing period remains inconclusive. Even, PE-backed IPOs may not show better operating performance than non-PE backed in post-listing period (Deb and Banerjee, 2020). In post-IPO performance also venture capitalists (VCs)/PE backed IPOs underperform (Deb and Banerjee, 2021). This can be due to their interest on exit rather than monitoring and contributing toward growth of the firm in post-IPO period. VC/PEs is most likely to exit through IPO (Kumar and Firoz, 2020). Additionally, the long-term performance of IPOs backed by the anchor investors is high relative to the IPOs not subscribed to by the anchor investors (Gupta et al., 2019). Underperformance of IPO companies in post listing period can lead to withdrawal of shareholding by financial institutional investors. Compared to that, domestic institutional investors are not that aggressive in withdrawal of shareholding (Neupane et al., 2016). Yet, corporate governance may not have significant influence in post-IPO market performance (Handa et al., 2018). Regarding the survival probability of Indian IPO firms, IPOs of older firms, backed by reputed lead managers and with high demand are more likely to survive longer, whereas IPOs with high initial returns, higher risk and more delay in listing are less likely to survive longer in the market (Baluja, 2018; Baluja and Singh, 2016). The survival probability can be less in case of agriculture, administration and support activities sectors, whereas more in case of mining, construction, wholesale and retail, accommodation, information and communication, finance and insurance and other sectors (Baluja and Singh, 2016).

In the word cloud analysis and word growth trend analysis, as shown in Figures 13 and 14, IPO grading has emerged as one of the key topics. SEBI, in 2007, mandated IPO grading
based on independent quality rating given by credit rating agencies for all IPOs. The rationale for such step is to protect the interests of retail investors. IPO grading is not for assessing the fairness of IPO prices. Grading was primarily based on the issuing firm’s quality of management, governance, financial position, its regulatory compliance, industry prospects and the clients and projects handled by the firm and the risks associated with them which can be used as a valuable and resourceful price relevant information while making IPO share purchase decision. Later on, SEBI withdraws the mandatory IPO grading in 2013. It is also found that IPO grading may not have any significant explanatory power on IPO underpricing (Dhamija and Arora 2017b; Hasan and Moonmoon, 2019; Mahalakshmi et al., 2021). Thus, the research in this area concludes that IPO grading may not reduce information asymmetry and thereby cannot make price discovery more robust. Overall, the studies support SEBI’s regulatory withdrawal decision.

5. Conclusions
India is a member of the BRICS and next 11 countries and has gained recognition as a global startup hub, driving the success of the “Make in India” agenda. Rajan and Zingales (1998) emphasize the importance of a stable capital market for organizations to innovate. India’s capital market is currently experiencing a boom in IPOs, surpassing many other emerging markets in terms of the number of IPOs (Sahoo and Raj, 2022). The SEBI, the country’s apex regulatory body, is actively revising the regulatory frameworks for IPO firms to increase participation and ensure market transparency. Given this context, it is essential to review and synthesize the existing literature on Indian IPOs.

With the objective of reviewing and synthesizing this area of interest, we established four distinct research objectives (RO) in Section 1. Regarding publication trends (as stated in RO1), we observed a significant increase in publications on this topic over the years. Researchers from various countries across the globe have been drawn to investigate Indian IPOs, with most research articles published in Indian or Asia-Pacific-focused journals. In pursuit of RO2, we found that studies on Indian IPO firms have followed two main paths. One path focuses on examining the market microstructure of IPO firms, while the other delves into the influence of firm-specific factors, such as corporate governance parameters, on the performance of Indian IPOs. It is worth noting that there has been greater emphasis on performance during the IPO event rather than studying post-listing performance. Table 3 presents a comprehensive framework in a matrix format, categorizing prior literature based on IPO event timing and post-IPO period studies. The major research themes identified include market microstructure, the impact of corporate governance and the specific regulations related to IPO grading and lock-in periods. The theoretical focus has predominantly been from an agency theory perspective, with research ranging from moderate to significant or fewer studies in various cells, as indicated in italics. Developing this framework assists in identifying future research agendas, which will be discussed next.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>IPO event time</th>
<th>Post-IPO time</th>
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<tbody>
<tr>
<td>Market microstructure</td>
<td>✓ significant focus</td>
<td>✓ moderate focus</td>
</tr>
<tr>
<td>Impact of corporate governance</td>
<td>✓ moderate focus</td>
<td>✓ less focus</td>
</tr>
<tr>
<td>Specific to IPO regulation</td>
<td>✓ significant focus</td>
<td>✓ moderate focus</td>
</tr>
<tr>
<td>Theoretical backdrop</td>
<td>Agency theory</td>
<td>Agency theory</td>
</tr>
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Source: Created by authors
While examining the intellectual structure underlying the literature (RO3), we have found that studies analyzing the influence of corporate governance parameters on post-IPO performance yield equivocal results. The collective findings of these studies have shown mixed outcomes, particularly in relation to the role of corporate governance as an essential firm-specific factor. Moving on to our fourth research objective (RO4), our aim is to identify the future research agenda in this area. IPO firms are in a crucial growth phase of their organizational life cycle, and understanding their performance can not only bridge existing research gaps but also contribute to their further development. Previous literature has primarily focused on identifying factors that contribute to IPO underpricing.

Considering all the existing studies together, there is still a need to understand why some IPOs fail in the post-listing period despite having outstanding IPO performance or successful roadshows. To comprehend such phenomena, it is crucial to look beyond IPO underpricing. Moreover, the Indian business landscape has been evolving in recent years. For instance, there is now greater involvement of VCs in current IPOs compared to previous ones. Additionally, many IPO firms today are younger in age, and there has been an increase in the number of technology-based firms going public. Given these changes in the Indian IPO landscape, it is necessary to expand our understanding in this area. We present below a few research agendas that may help address the research questions:

- The role of different types of marketing strategies (in terms of advertising as well as branding) in making an IPO successful.
- Analyzing the IPO prospectus and understanding impression management.
- Study on building predictive modeling where based on IPO prospectus and IPO performance, post-IPO long run performance can be understood.
- The VC engagement in IPO and post-IPO period.
- Study on whether there exists any difference in IPO of business groups and family firms with those firm which are not in these categories.
- Study on the behavioral path of IPO such as; price path disposition of IPOs, investment credential of IPO shares, IPO shares and portfolio diversification.
- Interaction among different types of owners (such as promoters, VCs, foreign VCs) and board members in strategic decision making of firms.
- Growth avenues, risk taking attitude in post-listing period.
- Study on role of promoters, top management and board members in working capital management, risk oriented long run strategic decision such as global sales, R&D, etc.
- IPO firm’s strategic brand building orientation in mitigating post-IPO volatilities.
- Studies are primarily examined from agency theory perspective, whereas other theoretical backdrops such as resource dependence theory, upper echelon theory, stewardship theory can be useful in examining performance at post-IPO period.

In a recent bibliometric review paper on IPO literature, Mehmood et al. (2022) provide an overview of IPO research within a global framework. Looking at the current state of the global IPO market, it is evident that there has been a significant decline in the number of IPOs worldwide, largely influenced by factors such as inflation, slow global growth and the war in Ukraine. The IPO markets in the USA and Europe have been particularly affected by these macroeconomic factors, while the IPO market in the Asia-Pacific region has shown relatively better performance than the USA. Against this backdrop, IPOs in the Indian stock
market and the post-listing performance of IPO firms have garnered global interest. India currently holds the fifth position in terms of global stock market valuation, surpassing countries such as the UK, Canada and Saudi Arabia. The country’s regulatory body is continuously revising norms to facilitate increased foreign investment, making Indian IPOs attractive to global investors (such as the LIC IPO roadshow mentioned in the Economic Times, February 2022).

Considering the aforementioned contexts, this literature review paper aims to provide a comprehensive understanding of Indian IPO firms, covering both the IPO period and the post-IPO period. The future research agenda outlined in this paper can be valuable for policymakers, aiding in the overall growth of the Indian IPO market. Likewise, retail investors who are increasingly interested in IPO events can benefit from this review paper by making informed decisions when investing in IPO stocks.

This literature review has certain limitations that can be explored in future studies. The review paper primarily includes articles indexed in the SCOPUS database, but the inclusion of multiple other academic databases such as Google Scholar and Web of Science could have yielded a greater number of articles for analysis. Additionally, this review paper focuses solely on articles written in English, which limits the scope of the analysis. Considering articles from other languages such as German or Chinese could have provided additional dimensions to the comprehensive framework. Finally, conducting a meta-analysis of the articles may yield deeper insights than manual content analysis.

References


Ray, R.S. and Chattopadhyay, A. (2021), “Role of market structure in explaining underpricing of IPOs in India”.


Further reading


Ray, R.S. and Chattopadhyay, A. (2010), “Role of market structure in explaining underpricing of IPOs in India”.

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