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Understanding the Factors Influencing Pricing and Performance of Initial Public Offering: A Literature Review

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ABSTRACT
The Initial Public Offering (IPO) is remarkably discussed as the most powerful capital market instrument for investors and issuers. The objective of the paper is to review the literary work conducted on pricing and performance of initial public offerings to investigate important factors and prevailing themes of IPO pricing and performance. The focused keywords are 'IPO Performance, Initial Public Offerings Performance, Post-IPO Performance, and IPO Initial Returns'. A simple descriptive approach to statistics and network, coupling and cluster approaches of bibliometric techniques are used in data description and analysis. It is observed that the underpricing and performance of IPO depend on important factors such as the strategic decision of the firm, management linkage, duration between allotment and listing of an IPO, investor relation, risk, leverage, earnings management, venture capital syndicate, management board, distinct signaling effects, political connection, group affiliation, institutional investors, agency problems, corporate governance and so forth. IPO performance gained prominence among scholars since 2008 which need to address the gaps as an opportunity for future research.

JEL Code: G11, G12, F32

Keywords: IPO Performance, IPO Return, IPO Underpricing, Systematic Review of IPO.

1. INTRODUCTION

The Initial Public Offering is one of the important and largest sources of funding for any company. When a company issue shares for the first time to the public, it is known as an Initial Public Offering. Researchers in this field have observed two phenomena, one related to pricing and the other related to performance. The price of IPO is either underpriced, overpriced, or fairly priced; while IPO performance is either underperformed or overperformed. When the opening price of an IPO on the day of listing is higher than the issue price, it is known as underpricing, otherwise overpricing, and if the issue price is equal to the listing price it becomes fairly priced. When an IPO is underpriced, the investor gets positive returns, and if it is overpriced, they lose money. The IPO performance is a price trend that starts after the end of listing process. If the price trend is higher than the listing price, it is known as over-performance otherwise under-performance. The overperformance or underperformance condition depends on fundamental and technical indicators of the firm. Thus, the IPO price is determined at the time of listing only, while the determination of IPO performance starts after the end of listing process and continues till the survival of the firm.

Researchers found that the majority of the IPO underperformed majorly due to short-run or long-run causes, the same condition was found in Istanbul (Kiymaz 2000), with long-term underperformance dominated over short-run underperformance across the European market except Italy, France, and Germany, where short-run and long-run underperformance was observed (Gino et al., 2018). Similar indicators were found in Asian markets (Moshirian et al., 2010; Sentis, 2009; Chorruk and Worthington, 2013; Yan and Wang 2021). The performance analysis becomes a quick guide for new researchers to learn from past research (Pandey et al., 2023). One research article was found on bibliometric analysis of IPO pricing and not even on IPO performance (Joshipura et al., 2022). The non-availability of an exact study on 'Systematic Review of IPO Pricing and Performance' rationalizes the usefulness of the title to conducting proposed research work. The objective of the proposed study is to find out important factors and prevailing themes of the Pricing and Performance of IPO and explore future scope of study from the current database using descriptive, network, coupling, and cluster approaches. The important factors observed from individual and mapped publications influencing the pricing and performance of IPO are quite similar among them.

2. METHODOLOGY

The systematic reviews of important literature related to IPO pricing and performance, followed by description and analysis of data followed by interpretation of results using descriptive, network, coupling and cluster approaches are the main aspects of this research. The publications, citations, cited publications, non-cited publications, citation value,

countries, and sources are used as primary elements of data descriptions. The productivity and influence of country, authors, sources, co-occurrence of author's keyword, co-citations of authors, coupling of sources, and coupling of countries are important parameters for the data descriptions. To attain the defined objective, the absolute and relative values of elements are examined with the help of a descriptive approach to describe the quantitative data. The network, coupling and cluster approach is used with the help of Vos-Viewer software for the description of data in relational forms. The possible keywords used in data extraction are "IPO performance" OR "IPO Underpricing" OR "Performance of IPOs" OR "IPO Initial Returns" OR "Initial Public Offerings Performance" OR "Post-IPO Performance" OR "IPO Returns" OR "Initial Public Offering Returns". Further, the database is limited to articles from research journals in areas of "Economics, Econometrics and Finance" or "Business, Management and Accounting" or "Social Sciences". One hundred thirty-five articles extracted from the Scopus database (see Table 1) are retrieved from Elsevier, Springer, Tailor and Francis, Emerald, Wiley and other sources indexed with Scopus (based on search keywords). Out of 135 articles, 43 documents describe the main theme and sub-themes of pricing and performance of IPO. Further, only 12 documentsare found and classified into six clusters that describe the most important factors/themes influencing pricing and performance of IPO (Table 3).

3. DATA DESCRIPTION AND REVIEW

3.1 DESCRIPTIVE APPROACH

The productive and influential nations in the field of IPO pricing and performance are those who have minimum scholarly benchmark i.e. "publication of 2 articles with 10 citations each". Publications measure productivity and citationscore indicates influence (Pandey et al., 2023). From the database of 1996-2023 related to IPO performance, the descriptive approach tries to find four important benchmark results described here.

3.1.1 Description of Publication and Citation of Data:

The descriptive database is exhibited in Table 1, the average publication, average citation, average cited publication, and average non-cited publication are 5.19, 147.69, 4.50, and 0.69 respectively. The ratio of total citation to total publication is 28.44:1, and total citation to total cited publication is 32.82:1. The mean value of total citation to total publication is 60.14, and the mean value of total citation to total cited publication is 60.53. The publication trend was 1-2 from 1996 to 2007, which increased to 3-16 from 2008 to 2023. After 2007, this research field started gaining popularity amongst researchers as can be seen from the fact that only 12 (9 per cent) articles were published from 1996-2007 and 123 (91 per cent) between 2008 and 2023. It could be because of various reasons that many researchers were keen to understand the behaviour of IPO pricing and performance. There were 632 (57 per cent) citations from 11 documents (excluding 1541 citations of 01 publication in 2004) from 1996 to 2007, while 1667 citations for 123 documents for the remaining periods; which may be due to the higher number of publications available for researchers to cite after 2008. This surge in IPO Performance-related publications has been particularly prominent after the financial crisis of 2008. It can be observed that the quantity of non-cited publications was higher during 2021 to 2023, the ratio of total NCP during the period was 15 out of 18 which was 83 per cent for entire period.

Table 2: IPO Performance Details Based on "Publication and Citation"

Year	P	C	CP	NCP	C/P	C/CP	>200	100-200	50-100	20-50	10-20	5-10	1-5
1996	1	40	1	0	40.00	40.00	0	0	0	1	0	0	0
1998	1	160	1	0	160.00	160.00	0	1	0	0	0	0	0
2000	1	50	1	0	50.00	50.00	0	0	1	0	0	0	0
2001	1	17	1	0	17.00	17.00	0	0	0	0	1	0	0
2002	1	0	0	1	0.00	0.00	0	0	0	0	0	0	0
2003	1	7	1	0	7.00	7.00	0	0	0	0	0	1	0
2004	3	1746	3	0	582.00	582.00	1	1	0	1	0	0	0
2005	1	135	1	0	135.00	135.00	0	1	0	0	0	0	0
2006	1	6	1	0	6.00	6.00	0	0	0	0	0	1	0
2007	1	12	1	0	12.00	12.00	0	0	0	0	1	0	0
2008	3	10	3	0	3.33	3.33	0	0	0	0	0	3	0
2009	4	126	4	0	31.50	31.50	0	1	0	0	1	0	2
2010	4	146	4	0	36.50	36.50	0	0	2	1	1	0	0
2011	3	130	3	0	43.33	43.33	0	1	0	0	2	0	0
2012	8	216	7	1	27.00	30.86	0	0	2	2	1	1	1

2013	5	138	5	0	27.60	27.60	0	0	2	0	2	1	0
2014	8	190	8	0	23.75	23.75	0	0	1	2	3	2	0
2015	4	22	4	0	5.50	5.50	0	0	0	0	0	3	1
2016	10	106	9	1	10.60	11.78	0	0	0	1	3	4	1
2017	11	120	11	0	10.91	10.91	0	0	0	1	5	2	3
2018	9	203	9	0	22.56	22.56	0	1	0	3	1	2	2
2019	9	63	9	0	7.00	7.00	0	0	0	0	2	4	3
2020	8	82	8	0	10.25	10.25	0	0	0	1	2	3	2
2021	12	79	9	3	6.58	8.78	0	0	0	1	2	1	5
2022	16	18	8	8	1.13	2.25	0	0	0	0	0	1	7
2023	9	18	5	4	2.00	3.60	0	0	0	0	1	0	4
Total	135	3840	117	18	1563.54	1573.50	1	6	8	14	28	29	31
Mean	5.19	147.69	4.50	0.69	60.14	60.52	0.04	0.23	0.31	0.54	1.08	1.12	1.19

Absolute and Relative Value	Formula	Value	Absolute and Relative Value	Formula	Value
No of Years / Count	∑N	26	Average of NCP	∑NCP/N	0.69
Total Publication	∑P	135	Total Citation to TP Ratio	∑C/∑P	28.44
Total Citation	∑C	3840	Total Citation to TCP Ratio	∑C/∑CP	32.82
Total Citated Publication	∑CP	117	Mean of TC/TP	(∑C/P)/N	60.14
Total Non-Cited Publication	∑NCP	18	Mean of TC/TCP	(∑C/CP)/N	60.53
Average Total Publication	∑P/N	5.19	TCP Shares in TP	CP/P*100	87 %
Average Total Citation	∑C/N	147.69	NCP Shares in TP	NCP/P*100	13%
Average of TCP	∑CP/N	4.50	Ratio of TCP and NCP	CP: NCP	87:13

Source: Authors' elaborations and compilation.

3.1.2 Country with High Scholarly Credits:

Table 2 exhibits the top countries having significant research contributions in the area of finance. The USA has the highest publications and Hong Kong has the highest citation score. Lebanon, Austria and Belgium are in the top ten citation list but not under productivity. Similarly, India, Taiwan, and France are in the top ten publication list but not in the citation list. The USA, China and the UK are in the top three lists of publications, and Hong Kong, the USA, and the UK are in the top three lists of citations.

Table 2: Country and Source with Highest Rank

Country - Documents and Citations						Source - Documents and Citations				
Country	D	DR	C	CR		Source Title	D	DR	C	CR
USA	48	1	1102	2		Journal of Corporate Finance	8	1	539	1
China	19	2	329	4		Research in International Business and Finance	5	2	65	6
UK	17	3	489	3		Pacific Basin Finance Journal	4	3	269	2
Malaysia	12	4	239	5		Applied Financial Economics	3	10	16	-
India	10	5	67	-		China Journal of Accounting Research	3	6	44	7
Hong Kong	9	6	1883	1		Emerging Markets Finance and Trade	3	-	11	-
Taiwan	7	7	40	-		International Review of Economics and Finance	3	9	21	-

Australia	6	9	103	9		Journal of Business Research	3	7	39	9
Canada	6	8	171	7		Journal of Business Venturing	3	4	96	4
France	6	10	53	-		Journal of Multinational Financial Management	3	5	84	5
Lebanon	5	-	209	6		Review of Quantitative Finance and Accounting	3	8	36	10
Belgium	3	-	73	10		Journal of Banking and Finance	2	-	114	3
Austria	2	-	148	8		International Review of Financial Analysis	2	-	44	8

D-Document, R-Rank, C-Citation, DR-Document Rank, CR- Citation Rank.
Source: Authors Compilation and Elaboration.

3.1.3 Journals with high Scholarly Credits:
The performance of journals is based on their "Productivity-P and Influence-C", which is shown in Table 2. This productive and influential rate defines the significance of journals for research in the area of Finance and business. The Journal of Corporate Finance ranked 1st in terms of productivity and impact with 8 documents and 539 citations, followed by Research in International Business with 2nd rank in publication, and Finance and Pacific Basin Finance Journal with 2nd rank in impactful and 3rd in productivity.

3.2 NETWORK APPROACH
The network approach is used to show the linkage among authors, keywords, subject-limited words, and country (Cumming et al., 2022; Donthu et al., 2021). The network technique shows past performances, present trends, and future scope of study. In network analysis collaborated articles with the collaboration of two to four authors having productivity and influence on IPO performance are discussed. The ownership structure, venture capital, initial returns, asymmetric information, and other twenty-four keywords cooccurred with authors' keywords linked with each other. Ritter, J. R., & Welch, I. (2002) have the highest influential work on pricing and performance of IPO, followed by Loughran and Ritter (2002). The bibliometric coupling happens when two or more articles refer to the same source, indicating a similarity in their intellectual content (Kessler, 1963), and two publications with uniform references (Weinberg, 1974), the details exhibited in Figure 1 through 4.

3.2.1 Authors' Keyword Co-Occurrence:
The keyword occurrence analysis examines articles, and actual content, using words taken from authors' keywords, titles, and abstracts as its basis (Donthu et al., 2021). When keywords often appear together, it starts connections between themes and outlines a conceptual framework of literature (Baier-Fuentes et al., 2019). We use the criteria of occurrence of authors' keywords to be a minimum of 3 keywords, after the cooccurrence these 3 keywords have formed 28 keywords; further, these 28 keywords formed 6 clusters. All the clusters focused on IPO performance and linked this phenomenon to other variables such as ownership structure, corporate governance, lock-up period, etc. The "Authors Keyword Co-Occurrence" is exhibited in Figure 1. The underpricing, IPO, and initial public offering as the most occurred keywords and are highly connected with ownership structure, venture capital, initial returns, information asymmetry, etc.

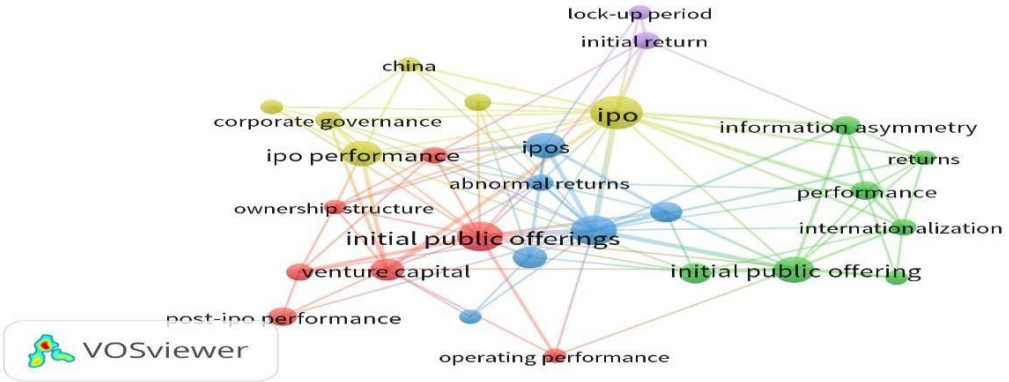

Figure-1: Co-Occurrence of Author's Keyword

3.2.2. Authors' Co-Citation:
The "Co-citation of articles happens when multiple papers are cited commonly in other papers". Co-citation analysis is a way to spot related works in a particular field by noting how often different researchers cite them together. This method

uncovers links and patterns in the research literature and can be handy for pinpointing important references and emerging research directions. Co-citation analysis helps to understand how articles share similar themes, which helps to identify the most influential authors and sources having at least 40 citations. This criterion limited our study of authors to 23. Ritter, J. R., & Welch, I. (2002) have the highest citations and link strength of over 367 and 4638 respectively, followed by Loughran and Ritter (2002) who have 161 and 114 documents with 2275 and 1690 link strength respectively, the "co-citation results of authors" is exhibited in Figure 2.

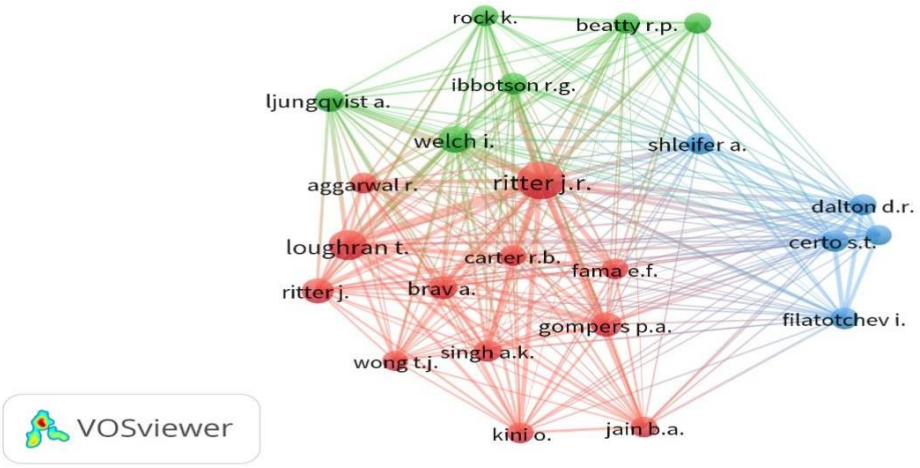

Figure 2: Co-Citation of Authors

3.3 COUPLING APPROACH

The coupling happens when two or more articles refer to the same source, indicating a similarity in their intellectual content (Kessler, 1963). The bibliometric coupling is used for authors' affiliated countries, and sources.

3.3.1. Coupling of Authors' Affiliated Countries:

Coupling is used for authors' affiliated countries, and sources, the "bibliometric coupling of authors' affiliated countries" is exhibited in Figure 3. The minimum criteria for publication of two documents and ten citations is a must. Twenty-one countries met the criteria and formed the Bibliometric couple. The condition categorized data into six clusters, based on the number of documents. The USA has the highest documents and link strength, followed by China, the UK, Malaysia, and India. Hong Kong has the highest number of citations. The USA has links with the UK, China, Malaysia, etc., and India has links with the USA, Australia, Malaysia, & Finland.

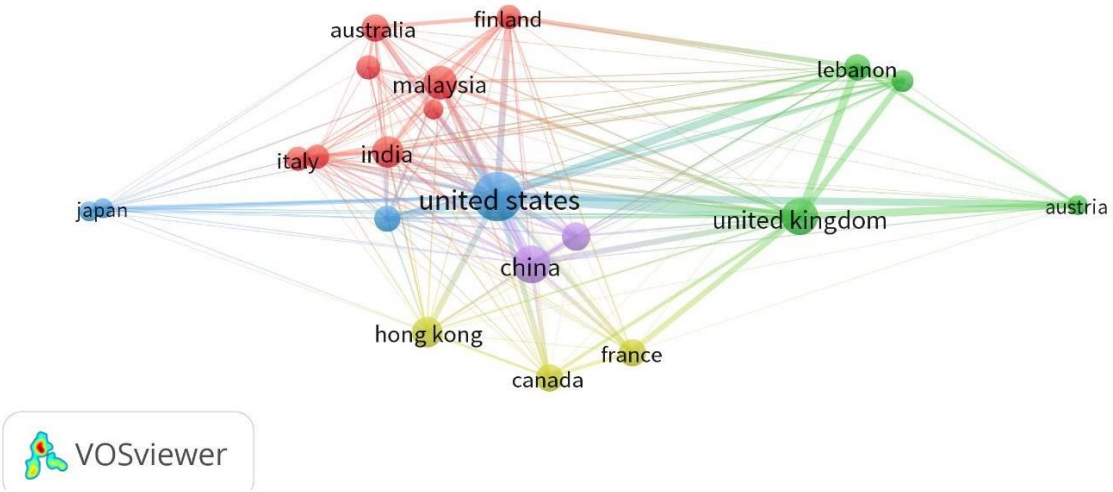

Figure 3: Coupling of Authors' Affiliated Countries

3.3.2. Coupling of the Sources:

The criteria of a minimum of two documents and ten citations per source are considered under this approach, exhibited in Figure 4. Around nineteen sources met the criteria and formed the bibliometric couple. The condition categorized the data into six clusters, based on the number of documents. The "Journal of Corporate Finance" has the highest number of publications and citations, followed by "Research in International Business and Finance, and Pacific Basin Finance

Journal". The "Pacific Basin Finance Journal" has the highest link strength, followed by "Applied Financial Economics" which shows that though this journal does not have many citations, but highly linked with other journals. The "Journal of Corporate Finance" has links with "Pacific Basin Finance, Applied Financial Economics", etc. "Pacific Basin Finance" has links with "Journal of Business Venturing, Managerial Finance, and Borsa Istanbul Review".

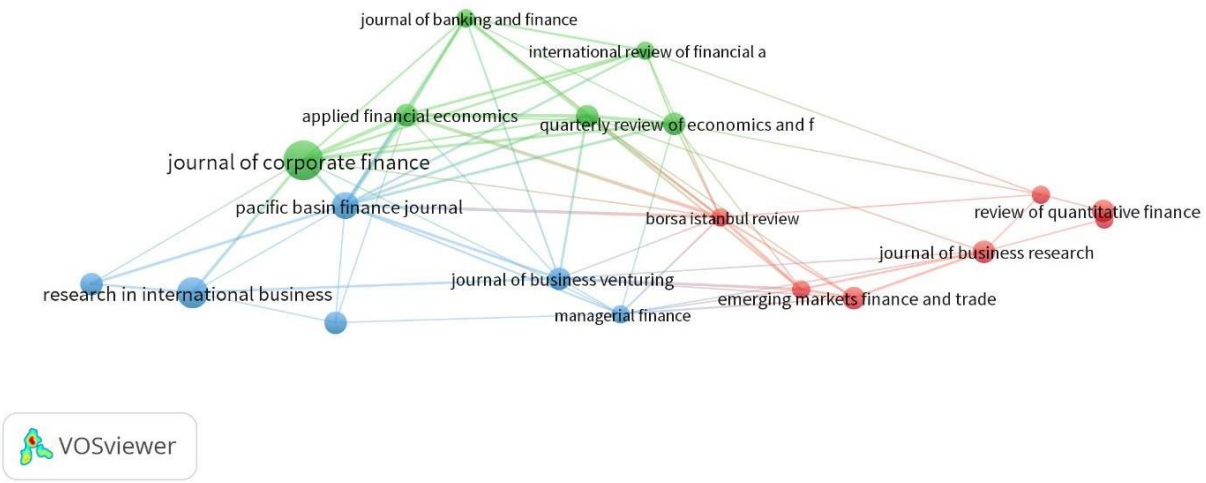

Figure 4: Coupling of the Sources

3.4 CLUSTER APPROACH

When two articles refer same sources and theme are bibliographically coupled" (Kessler, 1963). The criterion is that a document must have at least ten citations and forty-nine articles fulfilling the criterion are divided into six clusters, reflecting similar thinking (Bhaskar and Bansal, 2022; Pattnaik et al., 2020). Clusters are based on cited data and commonly used words**.** In this research, six clusters are positioned around IPO performance, while the main theme is clear within each cluster with a mix of various aspects of corporate finance. Table 3 represents the main themes/factors of clusters and related details.

Table 3: Clusters Description based on "Coupling of Articles"

Theme	P	C	C/P	Authors	Author citation	Year	Source
1, Initial and After-Market performance, Investor Relation	12	228	19	"Kiymaz H. (2000)"	50	2000	"Journal of Multinational Financial Management"
				"Chahine S.; Colak G.; Hasan I.; Mazboudi M. (2020)"	36	2020	"Review of Accounting Studies"
2, Risk, Leverage, and Earning Management	9	489	54.3	"Eckbo B.E.; Norli O. (2005)"	135	2005	"Journal of Corporate Finance"
				"Ahmad-Zaluki N.A.; Campbell K.; Goodacre A. (2011)"	109	2011	"International Journal of Accounting"
3, Venture Capital Syndicate; and Effects of Management Board	8	242	30.25	"Chahine S.; Arthurs J.D.; Filatotchev I.; Hoskisson R.E. (2012)"	75	2012	"Journal of Corporate Finance"
				"Chahine S.; Goergen M. (2013)"	52	2013	"Journal of Corporate Finance"
4, Distinct signaling effects of R&D and Non-R&D Subsidy, and	7	280	40	"Chen J.; Heng C.S.; Tan B.C.Y.; Lin Z (2018)"	102	2018	"Research Policy"

influence of lock-up provisions on IPO Return				"Mohd Rashid R.; Abdul-Rahim R.; Yong O. (2014)"	54	2014	"Economic Systems"
5, Political connection of CEO, Corporate Governance. Underpricing and long run Performance	7	1971	281.5	"Fan J.P.H.; Wong T.J.; Zhang T. (2004)"	1541	2004	"Journal of Financial Economics"
				"Chan K.; Wang J.; Wei K.C.J. (2004)"	185	2004	"Journal of Corporate Finance"
6, Group affiliation, institutional investors, reduction of agency problems	6	144	24	"Marisetty V.B.; Subrahmanyam M.G. (2010)"	56	2010	"Journal of Financial Markets"
				"Lo, H.-C.; Wu R.-S.; Kweh Q.L. (2017)"	27	2017	"International Review of Financial Analysis"

Source: Authors Compilation and Elaboration.

In this cluster, Fan J.P.H. et al. (2004) received the highest number of citations followed by Chan et al. (2004), Eckbo et al. (2005), Ahmad-Zaluki et al. (2011), Chen et al. (2018), and so forth (exhibited in Table 3).

4. DATA ANALYSIS AND RESULTS

4.1: Factors of IPO Pricing and Performance Based on Individual Data

The study related to IPO performance observed that IPO underpricing, return, causes of underpricing, higher return, firm-level management for maximum earnings, delays in listing of equity, the huge gap between offerings and listings, and so forth are the main concerns of IPO. We examined some of the most important and highly cited papers related to IPO pricing and performance. IPO underpricing is a deliberate strategy of companies to promote broad ownership and secondary-market liquidity achieved through initial underpricing and suggests that underpricing correlates with ownership (Fan et al., 2004). A-shares are more underpriced than B-shares if there's a longer gap between offering and listing, as well as the participation of local investors during 1993-1998. In the long run 'B' performed better than 'A' (Chan et al., 2004). A-shares in Shanghai had huge underpricing (289 per cent) compared to B-shares (26 per cent) in IPOs. The State equity retention, time overrun, and risks influenced the underpricing; both A and B shares had excess returns (Mok and Hui, 1998). Long-term returns for 5 years are generally low for 6000 Nasdaq IPO stocks, but some IPOs achieve impressive gains of 1000 per cent or more on high stock turnover, low debt, and potentially decreasing risk (Eckbo and Norli 2005). In Malaysian IPOs, earnings manipulation is more common during economic crises, particularly when company owners aim to maintain control for aggressive earnings management causing poor IPO performance (Ahmad-Zaluki et al., 2011). It is observed that state-owned enterprises tend to inflate their earnings, leading to poorer post-IPO performance to suppress IPO underperformance in China (Kao et al., 2009). The work reveals that subsidies for R&D and non-R&D impacted the IPO performance of Chinese IT startups, it finds that R&D subsidies have a curvilinear (U Shape) effect, while non-R&D subsidies have a positive impact (Chen et al., 2018). This study explores the nexus among venture capital groups. In the US and the UK, a more diverse Venture Capital group tends to result in more earnings manipulation before going public and issuing an IPO. In the USA manipulation relates to higher underpricing and worse post-IPO performance especially due to the influence of local and informal rules (Chahine et al., 2012). The legal environment, corporate governance in the home country, and choice of the host capital market are crucial factors for any foreign companies going public. The independence of board, origin of company, and the institutional effect play important roles in the decisions of foreign IPOs (Bell et al., 2012). The group firms have higher underpricing than others, (Marisetty and Subrahmanyam, 2010).

4.2: Factors of IPO Pricing and Performance Based on Cluster Data

4.2.1. Market Performance and Investor Relations:

The initial and after-market performance and investor relations related to IPO performance were the focus areas of the research cluster. Kiymaz (2000) found from the Istanbul stock exchange that the initial and after-market performance of Turkish IPOs was undervalued by 13.1 per cent due to company size and market performance. Chahine et al. (2020) studied Investor Relation policies emphasizing initial stock price gains but long-term returns. It found that firms with less visibility and inexperienced management hire Investor Relations consultants to create positive news before going public, leading to higher initial stock prices but lower long-term returns and suggested that investor relation programs often serve short-term goals and benefit certain insiders, like underwriters and venture capitalists, seeking higher first-day returns. Badru and Ahmad-Zaluki (2018) explored pre-IPO financial indicators and IPO outcomes in Malaysia. Yan and Williams (2021) examined international market entry timing's link to firm growth and success.

4.2.2. Risk, Leverage, and Earnings Management:
The risk, leverage, and earnings management focused area under this research cluster. Eckbo & Norli (2005) have investigated a strategy of buying and holding over 6000 Nasdaq IPO stocks for up to 5 years and found that the liquidity risk is high, low turnover and leverage, and lower average long-run IPO returns. Some IPO stocks show significant gains, often exceeding 1000 per cent, and exhibit low turnover and leverage characteristics. Ahmad-Zaluki et al. (2011) showed that Malaysian IPOs manage income-boosting earnings, especially during economic crises. High ownership concentration and control concerns affect this behaviour, with firms willing to accept lower proceeds to retain control. Aggressive earnings management negatively impacts market performance, particularly during crisis periods, highlighting the role of personal liquidity concerns in IPO decisions. Bell et al. (2012) explored the factors influencing the success of foreign IPOs majorly focusing on corporate governance.

4.2.3. Venture Capital Syndicate and Management Board:
The impact of venture capital syndicates and management boards on performance of IPO" was examined. The venture capital syndicates and earnings management" in the US and the UK were revealed by Chahine et al. (2012). The influence of "family ties on top-ranked managers and decision-makers concerning performance of IPO" was focused byChahine and Goergen (2013). The social relationship positively influences outcomes, while strong family ties have a negative effect. Clarke et al. (2016) analyzed India's IPO regulations and found traditional underpricing around 23 per cent, with most initial returns originating from first-day trading activity from non-institutional investors, and supportingsentiment-based IPO return.

4.2.4. Signaling Effects and Lock-up Provisions:
The technology-intensive firms were influenced by financial facilities, Chen et al. (2018). The subsidy facility was influenced by state ownership and patent intensity policy. Rashid et al. (2014), explored the influence of lock-up agreements in IPOs on initial returns and found that the lock-up period rather than lock-up ratio positively affects these returns. Song et al. (2014), emphasized overvaluation as a more significant factor than underpricing in Chinese IPOs and noted its predictive power for post-IPO performance. Mazumder and Saha (2021), investigated the impact of COVID-19-related fear on short-term IPO performance, observing a decrease in initial returns as pandemic fear rises, especially for IPOs compared to existing firms.

4.2.5. Political Connection:
Authors' investigated that the political connection between the CEO and corporate governance of a firm can influence underpricing and long-run performance of IPOs. Fan et al. (2004), found that CEOs with political connections in partially privatized firms led to poorer performance, including lower stock returns and reduced earnings and sales growth. Chan et al. (2004), studied Chinese IPOs from 1993 to 1998, noting high underpricing for A-share (178 per cent) due to factors like the time between offering and listing, local investors, and share count. A-share had slight long-term underperformance, while B-share outperformed. Mok and Hui (1998), explored Shanghai IPOs, showing significant underpricing for A-share (289 per cent) compared to B-share (26 per cent), attributed to factors like state equity retention, listing timing, and new issue risk. Overpriced maintained excess returns over the long term with somewhat less negative cumulative returns compared to the market return.

4.2.6. Group Affiliation, Institutional Investors, and Agency Problems:
The impact of group affiliation, institutional investors and agency problems is examined in this cluster. Marisetty and Subrahmanyam (2010), studied group-affiliated Indian IPOs noting higher underpricing linked to investor overreactions. Lo et al. (2017), examined institutional investors' roles in earnings management during IPOs, they encourage manipulation before but curb it afterwards. Fung et al. (2004), highlighted financing costs in Asian IPOs due to upfront payments and lock-up periods, affecting returns, especially in high-interest or oversubscribed cases. Mumtaz et al. (2016), analyzed IPOs on Karachi Stock Exchange, and observed that the significant underpricing is influenced by "aftermarket risk, oversubscription, offer price, return on assets, promoter holdings, and size of the firm".

5. SUMMARY AND CONCLUSION
From the data description and analysis, it is observed that IPO pricing and performance, firm-level management for maximum earnings, delays in listing of equity, and huge gap between offerings and listings are the main concerns of IPO performance, which are caused by the deliberated and biased decision of firm, deliberated strategy of IPO underpricing, underpricing correlates with ownership**,** a longer gap between offering and listing, local investors' effect, state equity retention, time overrun, and risks influencing the underpricing and performance of IPO. Earnings manipulation, aggressive earnings management, nexus among venture capital groups, legal environment, and corporate governance are other factors that influence IPO underpricing and performance substantially. The initial and after-market performance, investor relations, risk, leverage, and earnings management, venture capital syndicate, effects of management board, distinct signalling effects, influence of lock-up provisions, political connection, corporate

governance, and group affiliation, institutional investors, and agency problems are the multi-directional factors of underpricing and performance of any IPO.

It can be concluded that the articles have received a boost in their publication in the field of IPO performance after 2008. This study offers insights into current and future research useful for both researchers and policymakers by guiding and highlighting unexplored areas. Policymakers can use it to create stringent rules regarding IPO pricing, especially intentional underpricing. The study also identifies influential authors and journals, helping researchers to find suitable outlets for their work and contributing to sustainable research and development. Two research queries arrived after the analysis of data.

Q1: Does the timing of investor relations, and regulatory considerations linked to risk, leverage, investor protection, and strong management influence IPO performance?

Q2: What insights on institutional investors, agency problems, earnings management, and group affiliation are related to IPO pricing and performance?

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