Project Dissertation Report on

IPO Valuation and Post-IPO Performance Analysis- Case of Indian Stock Market

Submitted by-

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CERTIFICATE

This is to certify that the work titled **"IPO Valuation and Post-IPO Performance Analysis- Case of Indian Stock Market"** as part of the final year Major Research Project submitted by Farhan Qaisar Khan in the 4th Semester of MBA, Delhi School of Management, Delhi Technological University during January-May 2022 is his original work and has not been submitted anywhere else for the award of any credits/ degree whatsoever.

The project is submitted in Delhi School of Management, Delhi Technological University as partial fulfilment of the requirement for the award of the degree of Master of Business Administration.

Prof. Archana Singh

Head of Department (DSM, DTU)

DECLARATION

I hereby declare that the work titled **"IPO Valuation and Post-IPO Performance Analysis- Case of Indian Stock Market"** as part of the final year Major Research Project submitted by me in the 4th Semester of MBA, Delhi School of Management, Delhi Technological University, during January-May 2022 under the esteemed guidance of Dr Archana Singh, is my original work and has not been submitted elsewhere.

The report has been drafted by me in my own words and is not copied from elsewhere. Anything that appears in this report which is not my original work has been duly and appropriately referred/ cited/ acknowledged.

Farhan Qaisar Khan

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EXECUTIVE SUMMARY

Nobody in the system, including promoters, lead managers, rating agencies, and the regulator, can be held responsible for the pumping of profits and dumping of shares operations that appear to be typical in IPOs. A prospectus for a public offering contains a lot of information. However, ordinary investors lack access to one critical metric, predicted earnings, which determines the most important part of a public issue's valuation, whether it is overpriced or underpriced.

Methodology/Design: Tabular calculation and correlation analysis was used to find the trend and relationship between the individual factors undertaken.

Purpose: The purpose of the study is to gauge the IPO performance of the last 5 years, laying special emphasis to the IPOs listed during the covid-19 period and a comparison between the Mainboard and Small and Medium Enterprise (SME) IPOs. The study would try to find how many companies are undervalued, fairly valued and overvalued on the listing day, also ascertaining the average numbers and reasons for the same. It's of immense benefit to the retail investor to know what would it cost to invest in the IPO and also, the benefits attached with the same.

Research limitations/Future scope: The study is limited to the IPOs listed during a 5-year period starting from 2017 till 2021. Moreover, the individual factors are limited in the calculation of correlation analysis that includes firm's age, IPO size, IPO rating among others whereas future research study could also include underwriter's reputation, firm's growth stage, financial leverage and macroeconomic factors like GDP and interest rates for a keener insight.

Keywords: Underpricing, Overpricing, Valuation, Primary Return, Secondary Return, Listing Day Gain/Loss, Overall Return, IPO Size

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1. INTRODUCTION

Before diving deep into the research study, it would be fair to explain the concept of the research topic studied. The process to issue shares of a private firm to the general public in a fresh stock issue is known as an initial public offering (IPO). An IPO allow a company to raise money from the public or the individual retail buyers. This move from a private. to a public firm, which usually involves a share premium for current private investors, can be a crucial opportunity for private investors to completely realise returns/gains from their investment. Meanwhile, public investors are allowed to participate in the offering.

Before going public, a company is considered private. The firm has expanded with a limited number of stockholders as a pre-IPO private company, comprising early investors such as the founders, family, and friends, as well as professional investors such as venture capitalists and angel investors.

An initial public offering (IPO) is a significant milestone for a company since it allows it to raise significant funds. This increases the company's capacity to expand and grow. The enhanced transparency and legitimacy of its stock listing may also help company acquire better terms when seeking borrowed capital.

When a firm believes it is mature enough for the rigours of SEC laws, as well as the rewards and responsibilities that come with being a public company, it will begin to promote its interest in going public.

This stage of development usually occurs after a company has achieved unicorn status. However, depending on market competition and their capacity to meet listing standards, private companies with good fundamentals and proven profitability potential can potentially qualify for an IPO.

A company's IPO shares are priced through underwriting due diligence. When a company goes public, existing private shareholders' shares are valued at the public market price, and new private stockholders' shares are value at the public market rate. Share underwriting might incorporate special procedures for private to public share ownership.

Overall, the equity worth of the company's new owners is determined by the numbers of shares issued & the rate at which those are sold. Shareholders' equity comprises shares owned by investors in both private and public companies, however with an IPO, shareholders' equity grows rapidly by cash from the initial sale.

Steps to an IPO:

1. The IPO process starts off with the hiring of an underwriter or an investment bank for that purpose as they study a number of important financial parameters of the company including the amount to be raised. They also ensure that the issue is subscribed fully, while acting as intermediary between the investor/client and the company.
2. Following this, a registration statement along with a draft prospectus is prepared which includes the business model, industry analysis, purpose of IPO, management details among others and is eventually submitted to the registrar of companies.
3. After this, the Securities and Exchange Board of India intervenes and verify the details submitted.
4. If the documents are verified by SEBI, the company may apply to the stock exchange for their initial issue of shares.
5. Following the application, a buzz is created by the company in the market for marketing purposes so that the general public becomes aware of the issue and eventually gets attracted.
6. The second last step includes the IPO pricing, which can be fixed through Fixed Price or Book Binding Offer.
7. Finally, the shares are allotted to each investor, or partially allotted in case of oversubscription.

1.1 Background

It has often been seen that there is mispricing of IPOs, a lot of media buzz and hype is created at the time of company's listing which attracts plenty of investors. The investors with low financial literacy see the IPOs as a speculation activity where they stand a chance to make big short-term gain rather than keenly observing and analysing the valuation, pricing and the risk attached. Sometimes, they actually make millions out of it, but often they suffer huge losses too. Therefore, the issue is further subjected to high gains or losses to the investors. Numerous reasons have been given for underpricing and overpricing of IPOs and the continual denial to accept the same is every IPOs story. The study would look at the broad picture and try to find out what, why and how exactly mispricing happens and their subsequent repercussions.

Investment bankers assist multiple companies each year in raising financing from the marketplace. They help such companies issue stocks and raise extra financing. The difficulty is that once these companies have access to financial markets, they usually expand at a dizzying pace. This suggests that these businesses have a huge number of projects in which they want to put money. Traditional sources of funding, like promoter stock and bank borrowings, are insufficient to fulfil their needs. As a consequence, corporations often surge into the capital markets.

It had been demonstrated that when these companies/firms sell their securities, they frequently undervalue themselves. This means that when IPOs are issued, there is significant under-pricing at work. This implies that the corporations that issue securities are losing money! It's incredible that such a tendency is forming despite the fact that capital markets around the world are competitive, and any pricing differences should be remedied swiftly. We'll learn why IPOs are frequently underpriced and how investment bankers play a role in it in this post.

1.2 Problem Statement

It’s not limited to a developing country like India where the IPOs tends to garner huge amount of frenzy, buzz, hype and not to forget the criticisms and objections. Several well-known existing organisations and start-ups choose to go public for a variety of reasons, including loan payback, capacity and expansion of operation, merger/acquisition, and so on. The investors were running out of money at the time of the issue, and a new investment would have had a significant impact on their finances. As a result, determining whether or not their investment was profitable became a priority. It is also necessary to evaluate the elements that influenced the IPO's performance, such as the issue price, issue size, listing day performance, falling stock prices, and the relationship between market return and individual security return, among others.

The companies usually get the requisite amount of capital for which they had gone public, but if the issue contains valuation errors or is rather mispriced, then it’s the investors and the general public that’s at the receiving end. The different types of entities fare differently on the capital market, where some suffer huge losses after getting listed on the exchange even after getting a decent IPO rating, having good brand image and being an established market player. Therefore, the abnormal intraday gain or loss on listing and the correction of prices over medium or long term is a matter of study which has been taken care of in this study.

The Small and Medium Enterprises (SME) and Mainboard IPO companies fare differently on the market during a similar given time period due to different factors like company’s age, market share, IPO price, growth potential among others, which needs to be studied separately. Lastly, the impact of Covid-19 pandemic on the capital markets and the economy as a whole is nothing unknown, but has not been taken up as a separate study till now. Therefore, it becomes relevant to study the impact and its probable reasons in a brief post covid phase, so that necessary lessons are learned and precautions taken if a similar phase occurs in the future.

1.3 Objective of the study

The study would aim to investigate the performance of IPOs listed on the stock exchanges from 2017 to 2021 and try to find out how they fared on the capital market, their primary and secondary market return, intraday return and current or overall return. The same calculations would be applied to SME IPOs. The research would also include correlation analysis of return with other individual factors like IPO rating, issue size, company age, index return among others so as to find out which factor affect the returns that the IPO generate. Lastly, the study would try to shed some light specifically on the IPOs that were listed during the Covid-19 phase and ascertain its performance and valuation.

1.4 Scope of the study

The study is limited to the Indian Stock Exchange for the period 2017-2021 and includes the SME IPOs and the Mainboard IPOs. The correlation coefficient analysis also uses 4-5 individual factors which may affect the listing day as well as overall IPO performance. The study has neglected the IPOs which have been delisted during the time of study. The number of Mainboard IPO companies selected for the study was 161 while SME IPOs were 337.

2. LITERATURE REVIEW

A number of researches have been made, which has covered the issue of under and overvaluation, with some of them covering the period of the year 2000 in USA, where a number of internet companies had presented a lofty valuation, which resulted in increased overpricing. The researches also highlighted the problems of undervaluation and correlated with a number of individual factors including underwriter’s reputation, firm’s age and financial leverage among others. The study has moved forward taking note from the prior researches as mentioned below:

Manu and Saini (2020) in their study, used empirical analysis to determine whether Indian IPOs are underpriced in the short run and whether various independent factors such as the age of the companies, the size of the issue, the promoter's post-issue holdings, and the ownership sector have an impact on the total and abnormal returns of the selected companies. The majority of IPOs in 2017 were underpriced, according to the findings. The analysis also shows that various independent variables had no meaningful impact on the total returns and abnormal returns of selected Indian IPOs. The regression and correlation results indicate that there is no significant association between the selected independent variables and the 1st and 30th day returns. The lack of a relationship between some variables and IPO returns could be attributable to different financial structural reforms that occurred in the Indian economy previous to and during the study period. De-monetization, which occurred on November 8, 2016, and the adoption of the Goods and Service Tax, which began on July 1, 2017, both resulted in significant uncertainty and unpredictable behaviour patterns in the Indian economy.

Udasi et al. (2021), in their study found the association coefficient between issue size and IPO underpricing positive, but not statistically significant. Stockholder ownership (QIB, HNI, and RII) has a positive correlation coefficient with IPO underpricing, which was the strongest of all. As a result, there was a moderate association between the variables. One argument for the existence of this link was that the firms aspire for larger QIB and HNI ownership because they give institutional supervision and useful information during the pre-IPO phase. As a result, underpricing might be viewed as a form of compensation. The promoters' motivation for underpricing the IPO was to maximise their riches and keep control of the company in their hands. The underwriters' reputation had a negative link with the underpricing of an IPO. As a result, there was a negative association between these two elements, contrary to widespread notion that the reputation of underwriters has an impact on the IPO's underpricing.

Mahatidana et al. (2017) in her study tried to find out what factors influence the level of underpricing in financial and manufacturing companies listed on the Indonesia Stock Exchange between 2011 and 2016. The study discovered that the underwriter's and auditor's reputations have a significant negative impact on the level of underpricing. Second, the level of Underpricing was unaffected by business age, financial leverage, ROA, or ownership concentration.

Wadhwa (2014) conducted research to determine the elements that contribute to underpricing of NSE-listed IPOs. Offer price, underwriter repute, listing delay, issue size, and other factors were considered. He concludes that the underpricing of IPOs is influenced by the delay in listing and merchant banker’s price rather than the size of issue, underwriter’s reputation, age, and firm’s risk.

Darmadie et al. (2012) study aimed to see if underpricing in Indonesian IPO companies was linked to board structure and corporate ownership. This study showed that the degree of underpricing is inversely related to both board size and institutional ownership, implying that both governance structures are important in reducing information asymmetry between issuers and prospective investors.

Dimitris et al. (2007) study aimed to provide comprehensive new international proof on initial Public Offerings (IPOs) by evaluating the original performance of 169 IPOs listed on the Athens Stock Exchange from 1997 to 2002, as well as two major causes of shortrun underpricing (ASE). The findings of the initial performance review of the IPOs show that there was significant underpricing. Furthermore, the cross - sectional study of the IPO's drivers reveals that the underwriters' reputation as well as the oversubscription times have a substantial impact on the IPO's rate of Underpricing.

Durukan (2002) in the empirical findings of her study reveal that, unlike most other markets, IPOs do not underperform the market in the long run. The return analysis produced results that corroborate the fads hypothesis. That is to say, long-term returns are inversely proportional to short-term returns. Furthermore, the opening price return is inversely proportional to the initial return. These findings show that once large early returns are obtained, the market corrects overvaluation or underpricing of IPOs. The return analysis' third conclusion is that the first returns are truly achieved by investors who buy shares at their initial offering price. The study's second phase tried to identify the characteristics that influence IPO returns. Method of IPO, privatisation, type of investors purchasing shares, age, Price to Earning (PE) ratio, gross proceeds, portion of shares issued to the public, Debt to Equity (DE)ratio, and business size are all examined as expected predictors of IPO returns in order to attain this goal. The type of investor who purchased the shares and the PE ratio were shown to be inconsequential in explaining returns as a result of the analysis. In the computed short-term return regression models, firm size, gross proceeds, IPO technique, firm age, and DE ratio were statistically significant. The positive DE ratio and age co-efficients showed that riskier enterprises with higher debt levels and older firms have a favourable impact on returns. The negative correlation between firm size, gross proceeds, and manner suggests that shares of smaller companies, firms with low gross proceeds, and initial public offerings (IPOs) that are shareholder sales produce high returns. The findings were analogous to Ozer's findings (1999). The study's findings implied that the early abnormal returns on IPOs on ISE are related to investor overvaluation as well as deliberate underpricing, which rewards informed investors. Lower returns are associated with things that reduce the uncertainty associated with IPOs. It is also important to note that the study's findings do not indicate long-term underperformance.

According to Jain and Kini (1994), the accounting performance of US IPOs has been deteriorating since the IPO. Managers/owners, they claim, are unable to generate the same level of pre-IPO excitement due to the change in ownership structure. Their findings back up the signalling hypothesis and the agency problem. They discover that post-IPO performance is poor during a six-year period encompassing one year before to the offering to the next five years after the offering. The accounting performance after the IPO was measured using Cash flow to Total Assets, sales, asset turnover, return on assets, and capex.

Kim et al. (2004) investigated the accounting-based performance of Thai IPO companies and found that, similar to Jain and Kini (1994) and Mikkelson et al. (1997), their post-IPO performance deteriorates. Their findings reveal that there is a link between the age of a company and its performance, but not between the size of the organisation and its success. They believe that companies with "low" and "high" levels of managerial ownership have a positive link with post-IPO performance, but companies with "mid" levels of managerial ownership have a negative relationship.

Wang (2005) looked into the differences in Chinese IPO operational performance and observed a rapid drop in post-IPO performance, similar to the studies mentioned. They also looked at the impact of ownership and concentration of ownership on IPO performance changes and determined that there is no link.

Coakly et al., (2004) conducted a study for the years 1985-2000, which examines the post-issue operating performance of a unique sample of 304 venture-backed and 264 non-venture UK IPOs. The sample was limited to initial public offerings (IPOs) on the London Stock Exchange's Official List. They detect a considerable deterioration in operating performance five years after the offering compared to the pre-IPO year, similar to earlier US samples. However, it appeared that this general reduction is caused by particularly strong underperformance during the bubble years of 1998-2000, whereas IPOs issued during the longer period of 1985-1997 do not underperform. Similarly, they believe that Khurshed et al. (2003)'s finding of operating underperformance for UK IPOs from 1994 to 1999 was influenced by the boom years. Their findings showed that significant underperformance by venture financed and non-venture backed IPOs is concentrated during the bubble period. Except for a few years, the operating performance disparity between venture-backed and non-venture IPOs was never significant in the UK sample, according to Jain and Kini (1995). According to cross-section regressions, venture capitalist certification had a considerable beneficial impact on operating performance from 1985 to 1997, however this certification was no longer significant during the bubble years of 1998 to 2000. According to Lerner's (1994) venture capitalist market-timing hypothesis, venture capitalist reputation has a detrimental impact on post-IPO operating performance. Finally, they discovered that large operating decreases for both venture and non-venture IPOs occurred during the bubble years of 1998-2000. They support the theory that low-quality IPOs that went public during this time period had a substantial drop in operating cash flow over assets. These claims are supported by cross-section regression results. Furthermore, they show a substantial negative link between beginning returns and post-IPO operational returns in the bubble years of 1998-2000, but not in the period of 1985-1997. The bubble years, they conclude, demonstrate the impact of market timing and investor emotion on long-term operating success.

Lougran et al. (1994) investigated the relationship between the date of initial public offerings (IPOs) and inflation-adjusted stock price indices and GDP growth rates in 15 nations. Their findings show a positive association between the frequency of IPOs and stock price, but not with the business cycle.

Rydvist and Hogholm (1995) found that going public activity is not connected with cycle movement but is related to stock price return in 11 European nations (1980-1989) and family-owned firms in Sweden (1970-1991). The findings imply that going public activity is unrelated to the business cycle, but is linked to stock price return, particularly following a big increase in stock price.

Anjana and Kunde (2009) examined 110 initial public offerings (IPOs) between January 2006 and April 2007. They discovered that 104 IPOs out of 110 gained on their first day of trading. They also discovered that initial public offerings (IPOs) fared well in both the short and long term. On the day of their initial public offering, these equities returned an average of 33%.

Kirkulak (2005) study was aimed to create a new approach for assessing underwriters' reputation and apply it to the Japanese IPO market to define their relationship. They came to the conclusion that their relationship is dependent on the demand of the market in which the IPO is being issued, i.e., if demand is high, there will be a positive and significant relationship between underwriters' reputation and level of underpricing, whereas if demand is low, there will be a negative relationship.

2.1 Research Gap

1. The previous researches done laid more emphasis on the underpricing of the IPOs as it was the prevalent issue concerning the IPO valuation and listing. However, this research is aimed to study the numbers and trend of overvaluation that's slowly and gradually is prevailing as an issue in the organisation.
2. The prior researches have not incorporated the study period from 2017-2021 in order to find out the IPO and its valuation trend, performance analysis and correlation between the factors that might affect the IPO.
3. The previous researches have not included the capital market rating as an individual factor affecting the IPO performance in the short, medium and long-run.
4. The comparative study between the IPOs of SMEs and Mainboard for the period undertaken in this study has not been included in prior researches.

2.2 Research Objectives

In order to address the existing gaps in the literature presented above, the following objectives are aimed to be achieved through this study:

- The study would aim to investigate the performance of IPOs listed on the stock exchanges from 2017 to 2021 and try to find out how they fared on the capital market, their primary and secondary market return, intraday return and current or overall return.
- The same calculations would be applied to SME IPOs. The research would also include correlation analysis of return with other individual factors like IPO rating, issue size, company age, index return among others so as to find out which factor affect the returns that the IPO generate.
- Lastly, the study would try to shed some light specifically on the IPOs that were listed during the Covid-19 phase and ascertain its performance and valuation.

3. RESEARCH METHODOLOGY

The study has been undertaken to analyse the valuation and performance of IPOs listed on the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) for a 5-year period starting from 2017 till 2021. The study would aim to ascertain the firms who are under or overvalued on the listing day. The study would be further extended towards gauging the overall performance of the stocks till date.

The study would incorporate a comparative performance and valuation analysis of the SME and the Mainboard IPOs throughout the given time period. Moreover, some light would also be shed on the performance of IPOs listed during the covid-19 pandemic period.

Sample data: The data for which the study was intended, included all the IPOs issued on the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) from the year 2017 to 2021. There are two types of IPOs that are included in the study, the first one being Small and Medium Enterprise (SME) while the second one being the Mainboard IPOs. The definition for both of them is given below:

- **Small and Medium Sized Enterprises IPO:** Companies that have a post-issue paid-up capital of minimum 1 crore INR and maximum 25 crores INR are eligible to be considered as SME IPO.
- **Mainboard IPO:** Companies that have a post-issue paid-up capital of minimum 10 crores INR can raise funds from public through IPO by getting themselves listed on the Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) through Mainboard IPO.

The data includes 161 companies listed through Mainboard IPO and 337 companies listed through SME IPO across the selected time period of 5 years. The data specifically includes 81 Mainboard and 85 SME IPOs listed during and post the covid-19 pandemic, whose study period is taken as March 22, 2020 to December 31, 2021.

The daily and intraday market return of the National Stock Exchange (NSE) index NIFTY-50 has been taken for the given time period for a comparative analysis between how the individual stocks perform against the whole index.

The capital market IPO ratings were given to the IPOs prior to their listing. The rating criteria is based on the company's background and image, debt structure, financial health, valuation and price band. We have included the same in order to study whether there exists a relation between the IPO returns and its respective capital market rating. The ratings and their corresponding recommendations based on the risk-return profile is explained below:

Table 3.1- Capital Market Rating Scale

Rating range	**Risk-return profile**	**Recommendation**
51 or above	Low-risk, moderate to High return	Must subscribe
45-50	Low-risk low return or Moderate risk, moderate/high return	May subscribe
40-44	High-risk high return	Avoid, however active risk seekers can try
Below 40	High-risk, low/moderate return, Moderate risk low return	Do not subscribe

Source: www.capitalmarket.com

The other variable used in the study includes the size of the IPO or the total capital to be raised through public. The relation, if any, between the gains/losses and the firm's IPO size would be studied as a part of the project. Also, the age of the company and its corresponding effect on its IPO has been taken into consideration.

Sample data source: The market and current data has been taken from NSE and BSE, whereas the SME and Mainboard IPO along with its issue details have been taken from www.chittorgarh.com, which is a genuine platform that deals specifically with the IPO being listed in India. Moreover, the details regarding capital market rating and IPO size have been gathered from www.capitalmarket.com and the company's age have been individually taken from google.

Analytics tool: The study has used simple tabular calculation and correlation between the aforementioned variables using Microsoft Excel. The intraday and overall return of the IPO as well as of the market have also been arrived at using the same software.

The study has used the below mentioned methods for the research analysis:

$$\textbf{Listing day gain/loss \%} = \frac{\text{First Day Closing Price} - \text{Issue Price}}{\text{Issue Price}}$$

$$\textbf{Primary Market Return} = \frac{\text{First Day Opening Price} - \text{Issue Price}}{\text{Issue Price}}$$

$$\textbf{Secondary Market Return} = \frac{\text{First Day Closing Price} - \text{First Day Opening Price}}{\text{First Day Opening Price}}$$

$$\textbf{Current or overall gain/loss \%} = \frac{\text{Current Price} - \text{Issue Price}}{\text{Issue Price}}$$

The following criteria were used to identify undervalued, fairly valued or overvalued IPOs-

Undervalued = Listing Day gain > 1 (%)

Fairly valued = 0 < Listing Day gain < 1 (%)

Overvalued = Listing Day gain < 0 (%)

4. DATA ANALYSIS & INTERPRETATIONS

The table and calculations below, including analysis and interpretations ranging from table 4.1 to table 4.3 is directed towards achieving the 2nd and 4th research gap which aims to study the SME IPO performance for the period of study. The results and interpretations would further be used in the comparative analysis of SME and Mainboard IPO performance.

Table 4.1- Valuation of SME IPOs

Year	**Number of companies undervalued**	**Number of companies fairly valued**	**Number of companies overvalued**	**Total companies listed**
2021	29	11	16	56
2020	15	8	8	31
2019	21	20	9	50
2018	60	18	22	100
2017	59	21	20	100

Source: www.chittorgarh.com

- The companies on a percentage basis have been increasing towards overvaluation, as can be validated by the fact that the percentage of overvalued companies in 2019 was 18% but it went on to increase to 28.57% in 2021.
- The fairly valued companies on a percentage basis were slightly on a declining trend, decreasing from 21% in 2017 to 19.64% in 2021.
- Finally, the number of companies overvalued have declined a little over their 2017 results.
- The interpretation shows that the companies usually gain on the listing day, but this trend shows a slight downfall. Moreover, the simultaneous increase in the number of companies overvalued further validates the point that there are plenty of chances for the IPO to go haywire if the valuation and the price band is not arrived at with diligence.

Table 4.2- Avg. listing gain/loss of undervalued and overvalued companies respectively

Year	Gain%	Loss%
2021	31.60	6.10
2020	5.10	6.25
2019	6.79	3.85
2018	9.80	5.57
2017	17.93	7.16

Source: National Stock Exchange and Bombay Stock Exchange

- The outlier is clearly visible from the above table, a massive first day gain on an average shows a different picture, the investors have gain tremendously.
- The year 2020 gave the least return to IPO investors, which can be on account of the slump in economic activities as a result of the first wave of covid-19 and the lockdown imposed. The average loss is greater than the average gain for the year, which clearly depicts the dismal return on the IPOs.
- Overall, the loss in percentage terms have more or less remained in the same range of 5-7 percent. This shows that there isn't a drastic change in the loss percentage on the listing day.

Table 4.3- Current gain or loss status of SMEs listed on the Indian Stock Exchange

Year	Companies in gain	Average gain %	Companies in loss	Average loss %
2021	36	362.63	18	44.7
2020	21	242.75	10	42.96
2019	29	181.64	19	53.98
2018	62	247.58	30	49.95
2017	48	330.14	42	47.59

Source: National Stock Exchange and Bombay Stock Exchange

- If we look at how the SME IPOs fared over the years, in the medium and long term, we can see that it takes around 3-4 years for a return over 300%. That is the reason why gain figures in the year 2018 and 2019 have shown a decrease. If trend upholds, these stocks may reach the 300%-figure mark in a year or two.
- However, an astonishing fact can be seen in the year 2021. The average gain of the IPOs listed in 2021 has already crossed 350% in a year itself! Statistically, the return that was earlier generated over 3-4 years, was generated in the year 2021 itself by the IPOs.
- Moreover, the return generated on the IPO in the year 2020 till now has more than doubled. This shows that IPOs listed in 2020 has shown immense recovery in the year 2021, mainly because of the resumption of economic activities and the lockdown imposed was lifted again.

The table and calculations below, including analysis and interpretations ranging from table 4.4 to table 4.6 is directed towards achieving the 2nd and 4th research gap which aims to study the Mainboard IPO performance for the period of study. The results and interpretations would further be used in the comparative analysis of SME and Mainboard IPO performance.

Table 4.4- Performance of Mainboard IPOs-

Year	**Number of companies undervalued**	**Number of companies fairly valued**	**Number of companies overvalued**	**Total companies listed**
2021	45	1	20	66
2020	12	0	4	16
2019	9	2	6	17
2018	10	2	12	24
2017	23	3	12	38

Source: www.chittorgarh.com

The number of companies going public has increased manifold, the reasons for the same are as follows:

- The impact of covid-19 pandemic on business activities, lockdown imposition and other trade restrictions.
- The stupendous performance by the IPOs, inspiring investors to look for more during the period.
- To cover the shortfall of money through public issue and to fund their expansion projects. For e.g., Paytm, MobiKwik, Zomato and other companies went public to fund their operational expansion.
- To cover the losses suffered during the lockdown or to meet out the debt obligations.

The number of companies listed on the exchange have raised their issue at a higher price than their intrinsic worth, which can be validated by looking at the figures of 2021.

Lastly, the issues in 2021 have performed exceptionally well and provided a good return for retail as well as institutional investors, as was the case with the SMEs.

Table 4.5- Avg. listing gain/loss of undervalued and overvalued companies respectively

Year	**Gain%**	**Loss%**
2021	49.05	9.66
2020	56.26	8.52
2019	24.23	14.81
2018	26.23	8.72
2017	39.56	5.17

Source: National Stock Exchange and Bombay Stock Exchange

- Through the above table, it can be seen that the last two years have given an average return of around 50%, which is way better than the returns generated in the previous years.

- The spike in such a gain can be attributed to the pent-up market, which has attracted numerous buyers, ultimately resulting in more demand than supply. Applying the basic economics, the price would rise in this case and that's what has happened. Moreover, there were a few outliers who have given more than double returns on its issue; therefore, the average is also affected by the same. Nonetheless, the IPOs still performed exceptionally well.
- 2019 contains an outlier namely Xelpmoc Design and Tech Ltd, whose total return on the first day fell by 54.46%. That's why the average loss is comparatively higher in that year.
- The losses lie in the range of 7-8% on an average, which has not shown a notable deviation.

Table 4.6- Current gain or loss status of IPOs listed on the Indian Stock Exchange

Year	Companies in gain	Average gain %	Companies in loss	Average loss %
2021	44	70.94	22	26.62
2020	16	144.67	-	-
2019	14	315.47	3	50.42
2018	17	121.58	7	41.69
2017	23	199.36	15	56

Source: National Stock Exchange and Bombay Stock Exchange

- Through the above table, the IPO issues of 2017 have given a return of around 200%, which can be interpreted as the return of 200% is generated in the long-term (4-5 years) while in the year 2019, more than 300% gain was received on the IPO investment, that too in a period of just 2-3 years.
- The year 2021 saw a 71% gain to investors post IPO, which is at par with the performance levels of IPOs issued in the year 2020.
- The average loss to the investors has been reduced to half for the year 2021, but as it's evident from the trend, we can say that the IPO price may correct itself over long term which at times results in losses. Thus, we can say that the

market always corrects itself overtime and has an impact on the IPO prices. Therefore, the valuation analysts need to ascertain the true value of shares, as an overhyped one can lead to losses to the investors.

Comparison between the SME and Mainboard IPO valuation and performance:

- In the Mainboard IPOs, the chances are higher for it to be considered either as under or overvalued rather than being fairly valued. On the other hand, the SME IPOs have a comparatively greater chance of being fairly valued. The reason could be attributed to the greater fluctuation in the stocks of bigger companies with higher paid-up capital, rather than the SMEs.
- In the year 2021, both the types of IPO have shown a tremendous increase in the number of listings, but the SMEs have shown a comparatively greater spike, increasing by 4 times as compared to the Mainboard IPOs which has increased by 2 times.
- There was a notable spike in the listing day gain for the SME IPOs in the year 2021 as compared to its previous numbers. Apart from that, the loss and gain on the listing day have remained more or less same for the SME IPOs. On the other hand, the Mainboard IPOs have almost doubled the gain on the listing day in the last 2 years. The reason could be attributed to pent-up demand in primary market investment during and post the covid-19.
- Though the performance of IPOs over the medium or long term has been very positive in both the cases, still the SME IPOs give exceptionally higher return than the Mainboard IPOs particularly because of the higher growth potential in the SMEs. It has often been seen that a mature company reaches a saturation point sooner than a young company.
- It has been observed that 40-50% of the companies listed on the exchange tend to be in loss over the medium or long term with an average loss of 47%. Meanwhile, the remaining companies give an average return of around 100% if we ignore the outliers, which in few cases have given return of even 2100%!

Table 4.7- Comparison table IPO performance during Covid-19

	2020		2021	
	SME	**Mainboard**	**SME**	**Mainboard**
Average listing day gain of undervalued companies	5.10	49.05	31.60	56.26
Average listing day loss of overvalued companies	6.25	9.66	6.10	8.52

Numerically, the mainboard IPOs have given a higher return than the SME while the losses have remained more or less the same in both the cases. However, the average listing day gain of SME IPOs in 2021 have shown a drastic increase numerically but only due a couple of outliers in the average. There were 3 IPOs that gave returns of more than 100% on the listing day, one of them even giving more than 300% return. Therefore, the figure obtained doesn't reflect the true picture. If the study ignores the outliers, still however, there was a very decent three-fold increase in the listing day gain of around 15%.

Table 4.8- Correlation results

	Primary Market Gain / Loss (%)	*Secondary Market Gain / Loss (%)*	*Total Return on first day (%)*	*Current or overall Gain/Loss %*	*Rating*	*Intraday Market Return*	*Daily return*	*Issue size (in crores)*	*Age of the company*
Primary Market Gain / Loss (%)	1								
Secondary Market Gain / Loss (%)	-0.126	1							
Total Return on first day (%)	0.919	0.258	1						
Current or overall Gain/Loss %	0.134	-0.062	0.107	1					
Rating	0.155	-0.060	0.130	0.013	1				
Intraday Market Return	0.120	-0.081	0.092	-0.129	-0.210	1			
Daily market return	0.088	-0.080	0.060	-0.091	-0.207	0.845	1		
Issue size (in crores)	-0.210	0.002	-0.192	-0.165	0.105	-0.227	-0.180	1	
Age of the company	0.051	-0.005	0.044	0.087	0.006	-0.061	-0.047	0.003	1

Data analysis using Excel

- The above table shows the correlation results (consolidated) and aims to study the 1st research gap. The results obtained clearly show that all of the specified independent variables, such as company age, issue size, IPO rating, daily and intraday market return on NSE, have insignificant coefficients. As a result, the consolidated correlation results show that none of the selected independent variables have a significant impact on anomalous returns on the opening and closing day 1 returns and total current returns. These findings are in line with those of Premkumar & Malhotra (2017) and Manu and Saini (2020).
- The intraday market return and the daily market return (return over previous closing day) are not exactly related, the coefficient is found to be 0.845 in our study.
- However, there's a strong correlation between the total return on the first day of listing with the primary market gain/loss. The result clearly states that if the IPO opens higher than the issue price, there are very strong chances that it would yield good intraday results. But the interesting fact is, there's no guarantee that the same IPO would yield good returns over the medium or long term as the market begins to correct itself overtime.

4.1 Results & Discussions

The correlation coefficients don't show a definite relationship apart from that of primary market gain and intraday gain. The SMEs showed a greater spike in terms of increment in the number of listings and were more fairly valued than the Mainboard IPOs. The returns given by the SMEs were greater than that given by the Mainboard ones. There always remains a few outliers but even after considering the same, it has been observed that findings and conclusion have remained the same. As numerous prior researches have stated and tried to find out the reasons for the problem of underpricing in the IPOs, similar results have been arrived at in our case, the reasons for which could be as follows:

- There exists a financial motive by the investment bankers to undervalue the stock. If the price of the shares is sold below the market price, the investment banker has a better chance of selling all of the shares quickly. However, if the issuance is priced reasonably, there is a risk that not all of the shares will be sold at once. As a result of the underwriting clause, the investment bank will be required to hold some of the shares on its books. This would imply that their own money is locked up, and they must take the risks. This is why investment bankers intentionally undervalue their stocks. However, investment bankers reject this theory of monopoly as they no longer have a monopoly for share underwriting. Commercial banks, international banks, and a wide range of institutions have been able to underwrite shares too. As a result, competition among underwriters should, in theory, reduce share underpricing.

- If it is established in a court that investors were sold an overpriced issue, investment bankers may face significant liability. To counter this, investment bankers presume that the selling company's directors are not providing them with 100% accurate information. As a result, they purposefully decrease the valuation to preserve a profit margin and underprice the stock. This is so that even if later on, unfavourable information is discovered, the investment bankers can still argue that the issue is not overpriced, and hence they should not be obliged to pay damages to the shareholders. The truth remains, however, that underwriters have an incentive to offer a lower valuation to the shares in order to protect themselves against lawsuits.
- There always remains a significant information asymmetry during an IPO. Investors buy a fairly unknown product when an initial public offering (IPO) is announced. Because the company's operations have been kept private till now, therefore it can be said that the financial performance of the company has remained hidden. There still remains a significant information imbalance. This is why the stockholders bidding always offer a lesser price. This is because they will, on average, bid on a large number of IPOs. Some issues will end up being pricey. As a result, investors bid a lower price on an IPO to be cautious. The selling firm is also aware of the problem. They do not appear to object, however, because after an IPO has been issued and proven to be worthwhile, the investing community gives successive public offerings a higher valuation. As a result, underpricing can be defined as a premium paid by a corporation to entice investors to put their money into an unknown company.
- The insider-outsider theory posits that underpricing is the best approach provided the asymmetry. Insiders would purchase an offer if it is underpriced

since they know its actual worth. On the other hand, outsiders would purchase it because they believe it is at least reasonably priced. So, when market corrects and prices rise, both insiders and outsiders prosper. But if the issue is overpriced, both the insiders as well as outsiders would not want to buy it.

- If institutional investors are drawn to a company, amateurs will follow. However, the significant distinction is that institutional investors grasp the stock's underlying value, but amateurs will stay in and drive the market upward but would be missing the entry and exit points to make a decent profit. Because the stock market is a zero-sum game, it's a wonderful chance to profit from the herd mentality of buying the moving stock.
- Investment banks must provide a speedy return on their IPO investments to their institutional clients. Otherwise, they would be hesitant to invest in future IPOs, costing the investment bank money and damaging its reputation as an underwriter.
- Underpricing causes the issuing firm to leave money on the table, but investment banks don't seem to mind because each issuing company is essentially a one-time client. On the other hand, institutional investors are the true long-term, repeat customers. They keep investment banks afloat and generate commissions for them.

However, the study has also found a trend of increasing overvaluation in the number of IPOs of the company. The following could be the reasons:

- To provide excessive, handsome and maximum price of the shares to its existing holders including promoters, venture or angels. A lot of people believe that the listing day gain is better than that of long-term investment as the money received could be invested somewhere else to make more money. Therefore, the internal people make it a point for higher IPO valuations to get bigger returns on listing.
- Nowadays, the valuation of new-age companies does not have a fair or a tested method and often includes excessive growth rate estimations, thereby developing a great hype for the same. The investors often fall in the trap of investing for a long term, hoping for the business to grow to its full potential.
- It has been previously seen with the case of internet companies in the year 2000 where sky-rocketing valuations were made where relative valuation techniques

were often moulded to calculate the share’s intrinsic price. The shares fell dramatically after the bubble burst.

Finally, the covid-19 outbreak hampered the economy growth and forced the cashless companies to go public and raise money for sustaining their operations. That’s the reason why an increased number of them went public, however, it included new companies such as start-ups who had recently garnered fame for their innovative work to satisfy the consumer needs.

5. CONCLUSION

The study came to the conclusion that the problem of underpricing in IPOs is sustained till date due to the various benefits to investors, promoters and underwriters as mentioned and explained above. However, it was also discovered that a trend of overpricing the IPOs is also under the pipeline in both the cases i.e., SMEs and Mainboard IPOs. The problem in valuing companies with negative earnings (for e.g., Zomato) and start-ups whose business models are relatively newer makes the valuation go to the upside, often giving handsome initial return to its promoters and underwriter's clients but it's the long-term investor who fall in such a trap and suffers after the market corrects itself overtime. The efficient market theory can't be achieved due to information asymmetry and also because if that's achieved really, the investor would never be able to beat the market. Therefore, it's true to conclude that the secondary market doesn't reveal all the information and all the stocks listed on it are not fairly priced.

Lastly, as with the previous literature and studies, the correlation coefficient results obtained in our case also do not single out a factor that affects the IPO's performance, which clearly reveals the ambiguity that sustains in this situation.

5.1 Future scope

The future study on this topic may include other factors which might affect the IPO mispricing, such as:

- Underwriter's reputation
- Firm's growth stage
- Economic conditions of the country through GDP and interest rates.
- Promoters' holding
- Ownership sector
- Financial leverage of the firm
- Valuation multiples like Price to Earnings and Price to Book Value

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