A STUDY ON PERFORMANCE OF IPOs IN INDIA FOR THE PERIOD 2018-2021

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ABSTRACT
In this article, we have analyzed the listing day performance of 121 IPOs issued in India in the period 2018 to 2021 that are listed in National stock exchange, India. The study focuses on the average market return on listing day and the market adjusted abnormal return of the IPOs. The objectives of this article is to understand the performance on listing day and industry wise analysis of the IPOs. The result of study is that the market adjusted abnormal return for the period 2018-2021 is not zero. Chemicals & petrochemicals and Finance industry has issued maximum number of IPOs during the period 2018-2021.

KEY WORDS: Market adjusted abnormal return, Issue price, industry analysis, Initial public offerings, Covid

INTRODUCTION
Initial Public offerings also known as IPO is the process of converting a private company to a public company. An IPO is generally initiated to infuse new capital into the firm for the purpose of running the business, raise money for future needs or to monetize the investments made by the shareholders.

This creates an opportunity for informed investors to earn a good return on their investments. Like mentioned IPOs can be a great move if you are informed investor. But not every IPO is a good opportunity.

It has been seen that the study on IPOs reveal that one, Buyers can receive a big gain on the listing day because IPOs are listed at a big premium to the issue price and two, the undervaluation of IPOs, or overpricing, lasts for a very long time. Numerous studies that attempt to justify low IPO prices by pointing to high first-day returns as compensation for taking on risk corroborate this claim. Underpricing is when the IPO is priced below the issue's fair market value. The extent of underpricing varies from country to country and within a single country from issue to issue. The undervaluation of the IPO results in a capital loss for the company that issued but a profit for the buyers because it generates a positive abnormal initial return for them.

LITERATURE REVIEW
Iqbal Thonse Hawaldar, K.R. Naveen Kumar & T. Mallikarjunappa (2018), The performance of IPOs, IPOs which has fixed price falling on day of listing as well as their post-listing aftermarket performance in the Indian stock market are all examined in this study. We examine 464 Indian initial public offerings (IPOs) that were listed between the year 2001 and year 2011 for pricing and long-term performance. The study spans a period of 15 years, from 2001 to 2015. The discovery of the study indicates that book-built IPOs are that are below the normal prices are less significantly than fixed-price IPOs. Additionally, negative CAARs related to fixed-price IPOs become positive after a year and a half and continue to stay positive after that. In contrast, negative CAARs that are related to IPO that are book built end up having negative values up to 5 years and beyond.

Khan, M.A., et al (2021), According to the study, underpriced initial public offerings (IPOs) produce higher profits. Assumedly, the closing price is lesser than the issue price on the day of listing (Po >P1) on that day. In the secondary market, it aids in increasing demand and preserving price stability. As a result, underpricing supports increased demand and keeps secondary market prices stable. Furthermore, the paper advises buyers to sell price shares by the end of the listing day in order to minimize losses, and further recommends buyers to hold onto shares that are undervalued and investment for longer period of time in order to benefit from investments that are underpriced and offer superior returns. In contrast to the short term, the long-term returns are more promising. There is a fair chance that investors who purchase shares of firms on the day they list them and hold them for a long time will see positive returns.

Mangala, D. et al(2022). The findings show that industry type and issue year have an impact on earnings management and listing day returns. In addition, the study shows that short-term accruals, which are based on higher DCA values, contribute more to the management of profits. Additionally, it states that listing returns are influenced by the overall level of earnings management (DA), although DLA and DCA individually have little effect on the returns of the listing day of IPOs in India.

Shikha Bhatia et al (2012) This study looked into how Indian IPO share prices performed. It especially looked at the magnitude of
Indian IPOs' long-term performance, their cross-sectional and time-series patterns, and last but not least, the various justifications for their performances of share price in the long run. Upon examining it may be claimed that, in terms of share price performance over time, Indian IPOs exhibit very significant abnormal returns in the period of five years after issue. The performance of share price of Indian IPOs is not supporting the evidence from other countries showing considerable long-term underperformance. Indian IPOs portray notable differences in their cross-sectional patterns and time-series and, suggesting that numerous issue-related and firm-related features have a substantial impact on the long-term performance of enterprises. Last but not least, the performance of the share price for five years under study following the public offer is heavily impacted by early returns, market returns, and issue price inverse. The results of the study on long-term performance predictors are consistent with the investor overconfidence and windows of opportunity hypotheses.

Jampala Rajesh C et al (2012), This study examines initial public offerings (IPOs') short- and long-term performance on the Indian capital market. 146 IPOs that are listed on the National Stock Exchange board during 2007 and 2008 make up the sample. According to the data, the IPOs underperformed over the long and short terms, with negative returns of 8.41 and 38.44, respectively. Additionally, it was discovered that during the study period, there was a considerable discrepancy between the issue price and market performance of IPOs. Approximately 80% of the sample companies have seen negative long-term returns and 54% have underperformed from the day of IPO. By taking into account the issue price, market capitalization, etc., it analyses the stock performance. The study, however, omits to mention the causes of both short- and long-term underperformance, as well as the impact of additional variables like stock market performance, sales, earnings, etc. on stock returns.

Ramesh, B. et al (2015), A business's first equity offering to the public is called as an initial public offer or the IPO. It is a significant source of funding for businesses. In fact, IPOs are now the most widely used method of acquiring capital for businesses on the Indian capital market. One of the more perplexing financial occurrences is the initial public offer’s price (IPOs). Utilizing a sample of 150 IPOs that joined the primary capital market between May 2007 and December 2011. By taking into account the gaps of monthly, tri monthly, half yearly, yearly, bi years, and tri yearly, respectively, the long run and short run price performance have been investigated. The results show that the Indian Primary Capital Market exhibits overpricing. Second, compared to the short run, overpricing occurs more frequently over the long run. Sanjay Dhamija et al (2017), An analysis of initial public offers that are of 377 in number under study of Indian companies from during the year 2005 to 2015 is presented in this article. The article's goal is to examine whether IPOs of the Indian market perform well or underperform the market overall on the long term and to pinpoint the major factors that influence this outcome. The findings indicate that Indian IPOs initially outperform the general market before suffering considerable long-term underperformance. From 2005 to 2015, IPOs listed on the main board generated initial excess returns (IERs) an average of 22% roughly. However, around 37% of the IPOs offered have unfavorable IERs. The IPOs generated a -57.33 percent BHAR over the 36 months following their listing, underperforming the overall market. Over a holding period of 36-month, only 38 of 377 IPOs (about 10%) outperformed the benchmark index. The kind of issuer (private or government-owned), the fame of the lead manager (LMP), ownership of the promoters, and the issue size are significant issue factors that affect the long-term performance.

Dr. Singh Amit Kumar et al (2017), This paper aims to assess the result of 152 IPOs that are listed on the NSE between 2010 and 2016. The analysis of one-month returns and listing day gains is included in the study. These IPOs reported an average gain of 11.998% on the day they went public compared to a loss of 3.78% for their one-month return, according to the analysis. 63.15% of the 152 IPOs listed on the NSE were underpriced, and 36.84% were overpriced.

**RESEARCH GAP**

From the above review of the past literature, researchers found that there was no such study done during the covid period, So the researchers have shown interest in knowing the actual situations of IPOs of Indian companies for the stated period.

**OBJECTIVES**

- To determine the percentage market-adjusted irregular return that is realized on the first trading day.
- To identify industry wise company performance with the benchmark (Nifty 200).

**RESEARCH METHODOLOGY**

Data Acquisition: The required data has been collected from NSE official website.

**Sources of data**

This analysis is based on Secondary data. The data about market index and listing day returns were collected from NSE website. Other data about the company and IPO issue details were collected from respective website of the company.

**Sample Size:** A total of 121 companies have been taken under study because the number of IPOs issued during covid period.
Table 1: Year wise number of IPOs listed in NSE for the period 2018-2021

| Year | Number of IPOs issued by the companies |
|------|---------------------------------------|
| 2018 | 24                                    |
| 2019 | 16                                    |
| 2020 | 18                                    |
| 2021 | 63                                    |
| Total| 121                                   |

Period of Study: January 2018 to December 2021.

DATA ANALYSIS

To measure the performance of the IPOs, return of listing day is calculated using the open and closing price of the IPOs.

- \( R_n = \frac{(P_c - P_o)}{P_o} \)
  where
  \( P_o = \) Offer price of security
  \( P_c = \) Closing price on listing day
  \( R_n = \) Return on listing day

According to the formula, the return of a specific day is determined by the percentage difference between the issue price and the closing price in the secondary market that day.

- \( M_n = \frac{(I_c - I_o)}{I_o} \)
  Where
  \( M_n = \) Market return on listing day
  \( I_c = \) listing day closing index

To find out the level of underpricing in Indian IPOs for the stated period, market adjusted abnormal return (MAAR) is calculated.

\[
MAAR = \left\{ \frac{100\% \times [(1 + R_n) / (1 + M_n)] - 1] \right\}
\]

The variables considered for calculation are:
1) Issue price
2) Issue size
3) Closing index of IPOs
4) Opening index of IPOs
5) Market return

Table 2: MAAR for the year 2018-2021

| Year | Number of companies | Minimum | Maximum | Mean | Standard deviation |
|------|---------------------|---------|---------|------|--------------------|
| 2018 | 24                  | 53.125  | 116.298 | 95.0188 | 16.382             |
| 2019 | 16                  | 21.9714 | 107.846 | 93.3501 | 23.4867            |
| 2020 | 18                  | 34.4506 | 219.321 | 99.0422 | 38.0016            |
| 2021 | 63                  | 39.0008 | 219.321 | 100.319 | 20.50189145       |

The table 2 exhibits the market adjusted abnormal return for the period 2018-2021. The returns on initial day of the IPO were adjusted with NIFTY 200 market index. This analysis is done for the period January 2018 to December 2021 which consists of 121 IPOs issued and all 121 are under study. The market adjusted abnormal return for the years 2018, 2019, 2020 and 2021 are 95.01, 93.15, 99.05, 100.3 respectively. In the year 2018, the highest MAAR was 116.29 and the standard deviation for that year was 16.38. This indicates that abnormal returns on initial day slightly deviated. In the year 2019, the highest MAAR was 107.846 and the standard deviation for that year was 23.48. This indicates that abnormal returns on initial day moderately deviated. In the year 2020, the highest MAAR was 219.321 and the standard deviation for that year was 38.00. This indicates that abnormal returns on initial day was highly deviated. In the year 2021, the highest MAAR was 219.32 and the standard deviation for that year was 20.50. This indicates that abnormal returns on initial day moderately deviated.
Table 3: Descriptive statistics of the variables for the period 2018-21.

| Year | variables         | N  | Minimum | Maximum | Mean      | Standard deviation |
|------|-------------------|----|---------|---------|-----------|-------------------|
| 2018 | issue price       | 24 | 56      | 1480    | 513.81    | 394.072           |
|      | issue size        |    | 77.4    | 4473    | 1295.26   | 1315.205          |
|      | Market return (Mi)|    | -0.065  | 0.928   | 0.09005   | 0.26736           |
| 2019 | issue price       | 16 | 19      | 973     | 338.357   | 332.834           |
|      | issue size        |    | 23      | 3125    | 789.56    | 785.04            |
|      | Market return (Mi)|    | -0.03533| 0.91296 | 0.06007   | 0.2279            |
| 2020 | issue price       | 18 | 33      | 1500    | 439.8     | 423.285           |
|      | issue size        |    | 61.2    | 116765  | 8054.23   | 27255.86          |
|      | Market return (Mi)|    | -0.57013| 1.57568 | 0.14076   | 0.47006           |
| 2021 | issue price       | 63 | 21.4    | 2769    | 709.75    | 573.927           |
|      | issue size        |    | 60      | 18915.9 | 1935.08   | 2888.85           |
|      | Market return (Mi)|    | -0.06912| 0.04471 | -0.00492  | 0.02568           |

The above table shows the statistics of the Market Return of Initial Public Offers, issue size and Issue price and that were listed from 2018 to 2021. Data consists of 121 companies that is under analysis.

In 2018 the total number of samples taken is 24. The lowest price is 56 which belongs to lemon Tree Hotels Ltd of Leisure services industry and the highest price is 1480 which belongs to Galaxy Surfactants Ltd of Chemicals and Petro Chemicals industry, the difference between them is huge. The average issue size is 1295.26 and the minimum issue size is 77.4. The average market return on NIFTY 200 is 0.09005 and with the highest being 0.2279.

In 2019 the total number of samples taken is 16. The lowest price is 19 which belongs to Rail Vikas Nigam Ltd of construction industry and the highest price is 973 which belongs to India MART Inter MESH Ltd of retail sector, the difference between them is huge. The average issue size is 789.56 and the minimum issue size is 23. The average market return on NIFTY 200 is 0.06007 and with the highest being 0.14076.

In 2020 the total number of samples taken is 18. The lowest price is 33 which belongs to Equitas Small Finance Bank Ltd of Financial Services and the highest price is 1500 which belongs to Gland Pharma Ltd of Pharmaceuticals and Biotechnology, the difference between them is huge. The average issue size is 8054.23 and the minimum issue size is 61.2. The average market return on NIFTY 200 is 0.14076 and with the highest being 1.57568.

In 2021 the total number of samples taken is 63. The lowest price is 21.4 which belongs to Indian Railway Finance Corporation Ltd of finance Industry and the highest price is 2769 which belongs to Craftsman Automation Ltd of Auto Components Industry, the difference between them is huge. The average issue size is 1935.08 and the minimum issue size is 60. The average market return on NIFTY 200 is -0.00492 and with the highest being 0.04471.
Table 4: Year wise analysis of 121 IPOs for the period 2018-2021

| Industries                        | 2018 | 2019 | 2020 | 2021 | Total |
|-----------------------------------|------|------|------|------|-------|
| Chemicals & Petrochemicals        | 2    | 2    | 3    | 5    | 10    |
| Finance                           | 4    | 1    | 2    | 3    | 10    |
| Aerospace and defense             | 5    | 3    | 3    | 8    |
| Construction                      | 4    | 2    | 1    | 1    | 8     |
| Auto components                   | 2    | 5    | 7    |
| Banks                             | 1    | 2    | 2    | 7    |
| Leisure services                  | 1    | 2    | 4    | 7    |
| Consumer Durables                 | 1    | 5    | 6    |
| Pharmaceuticals & biotechnology   | 1    | 5    | 6    |
| Retailing                         |      | 1    | 5    | 6    |
| Capital markets                   | 1    | 1    | 3    | 5    |
| Healthcare services               | 1    | 1    | 3    | 5    |
| IT software                       | 1    | 2    | 1    | 4    |
| Food products                     |      | 2    | 1    | 3    |
| Telecom services                  | 1    | 1    | 2    |
| Commercial services & supplies    |      | 2    | 2    |
| Fintech                           |      | 2    | 2    |
| Healthcare equipment & Supplies    |      | 2    | 2    |
| Industrial manufacturing          | 1    | 1    | 2    |
| Industrial products               | 2    | 2    |
| IT services                       | 1    | 1    | 2    | 2    |
| Other utilities                   | 2    | 2    |
| Realty                            | 2    | 2    |
| Agricultural food and other products | 1    | 1    | 1    |
| Cement & Cement products          |      | 1    | 1    |
| Entertainment                     |      | 1    | 1    |
| Ferrous metals                    |      | 1    | 1    |
| Pesticides & Agrochemicals        |      | 1    | 1    |
| Insurance                         |      | 1    | 1    |
| Textiles & Apparels               | 1    | 1    | 1    |
|                                  |      |      |      |      | 121   |

As shown in the table, Chemicals & Petrochemicals and Finance industry has issued the maximum number of IPOs during the period 2018-2021. In 2018, the maximum number of IPOs were issued by Aerospace and defense industry followed by construction and finance industry. In 2019 and 2020, it is evident that covid has impacted the market and therefore, not more than 2 companies from the same industry raised funds through IPOs. As the economy started to improve in 2021, we can infer from the above table that many companies started growing and issued IPOs for finance. It is evident that chemicals & Petrochemicals industry issued the maximum IPOs in the year 2021 followed by pharmaceuticals & biotechnology and healthcare services issued IPOs of 5 and 3 respectively.

This analysis clearly shows that the IPOs during the pre-Covid phase that is 2018. The IPOs issued in 2018 is 24 (refer table 1). During the Covid phase that is 2019-2020 is 16 and 18 respectively. After the covid phase that is 2021, the number of IPOs has drastically increased to 63.

FINDINGS

This study tries to analyze the listing day performance of the IPOs based on the market adjusted abnormal return on the listing day for respective IPOs. The data considered for the study is of 121 companies that issued IPOs in the time period – 2018 to 2021. The mean of market adjusted abnormal return for the IPOs is 95.01 for 2018, 0.060 for 2019, 0.140 for 2020 and -0.004 for 2021. Due to the market impact of covid in 2019 and 2020, just two firms from the same sector raised money through initial public offerings (IPOs). We may deduce that many companies started expanding and issuing IPOs for financing as the economy started to strengthen in 2021. It is clear that the chemicals and petrochemicals sector released the most initial public offerings in 2021, followed by the medicines and biotechnology sector with 5 and 3 offerings, respectively.

Recommendations

To decide on investment on IPOs, Investors should also look into oversubscription and other factors that may have impact on the performance of the IPOs on listing day.
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