A Study of the Performance of Initial Public Offerings (IPOs) of the Indian Capital Market

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Abstract

Objectives: The performance of IPOs differently noticed at different time. Different factors affect the performance of IPOs. Overall market performance, market liquidity, the performance of the economy, and the performance of the respective industry and firm are some of the common factors which affect the performance of the IPOs. Indian capital market has experienced a large number of listing of IPOs in the last five years. In the present study, the main objectives were to analyze the short-term as well as the long-term performance of the selected IPOs.

Methodology: To conduct the study the researchers selected 25 IPOs listed on both the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) in the year 2018. Although because of the unavailability of data only 23 IPOs among 25 are analyzed. To analyze the short-term performance the researchers calculated listing gain and listing daily return for one month, two-month, three months, and six months. For the long-term performance analysis, they have calculated the listing gain after one year, two years, three years, and four years. And finally, they compared the performance with the help of paired T-test.

Conclusion: The result of the study revealed that after six months of listing, 11 IPOs give a positive return to the investors while after four years of listing the performance of eight IPOs was satisfactory and among them, Fine organic industries Ltd was the best performer who's closing price was 725% of issue price after four years. From the paired T-test it was also found that there is a

significant difference between the long-term and short-term performance of the selected IPOs.

Keywords: Aftermarket performance analysis, initial public offerings, short-term analysis, long-term analysis, paired T-test.

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Introduction:

Initial public offerings are a very big step for any company as it provides the assistance to raise money from the market. When an unlisted company offers its share for the first time to the public it stands for initial public offerings *(Kumar, 2015).* On the other hand, IPOs are a very big opportunity for investors as they can invest their valuable money in IPOs and also can get higher returns by holding their money either for the short term or long term. Mainly the investors invest their money with the motive of earning good returns *(Shaw and Kapasi, 2022).*

The performance of any stock depends on many factors. Some IPOs perform well initially but some test the patience of investors as it gives higher returns during the long term. It becomes very important for the investors to analyze the performance of the IPOs both in short term and long term to understand the pattern of the stock market and to take wise decisions in the future.

In the present study, an attempt is made by the researchers to analyze the short-term as well as the long-term performance of the selected initial public offerings, and also an attempt is made to compare the performances of IPOs during short-term and long-term.

Review of Literature:

Jewatowski and Liziska (2012): compare the short-term and long-term performance of the initial public offerings that were listed on the Warsaw Stock Exchange during the year 1998 to 2008. They have calculated the buy and hold return for three years and also calculated the market-adjusted return. Besides this, they also used ordinary least square regression. Their study revealed that the market-adjusted return was 13.95% while the buy and hold abnormal return was -22.62% and they also found the strong explanatory power of investment size, profitability, and growth opportunities.

Procianoy and Cigerza (2007): in their research article titled "IPOs in emerging markets: A comparison of Brazil, India, and China" compare the emerging markets of three countries. The different marketing environments and financial and legal characteristics of these countries give new light to understanding the phenomenon in finance. From the study, they found that at some point Indian, Chinese and Brazilian IPOs have the same features as the others but different results in the long-term and short-term performance.

AlShiab (2018): in his research paper titled "Initial public offerings short- and long-term performance of MENA countries" examined the Middle East's initial public offerings and North African IPOs that got listed from 2001 to 2015. The researcher got mixed results from the study that he categorized into the following three groups:

- In the first group, he mentioned the IPO of all those countries whose performance was better than the benchmark portfolio during the short period but the performance was not better during the long time period.

- In the second group, the IPOs of the countries comprises that underperformed till 16 months of listing, and such underperformance became significant in long run as well.

- The third group comprises that IPOs experienced a cyclic performance that means from overperformance to underperformance and vice versa during the study period.

Overall, the researcher concluded that the selected IPOs performed better during the long term as compared to the short term.

Zamanian, Khodaparati, and Mirbagherijam (2013): in their research paper compared the short-term and long-term return of IPOs of private and public companies that got listed on the Tehran Stock Exchange. The researchers used panel data regression to compare the factors of return of IPOs for both types of firms. Their study revealed that the volume of transactions, size of companies, and P/E ratio are the most important determinant of abnormal returns during the long-term period in both private and public companies. In case of short run, the return of private companies was related to the volume of transactions and size of the firm while in the case of public companies' size, individual firms' specification and P/E ratio are the main determinants of abnormal return. Besides this, they also found that corporate ownership has no significant impact on the abnormal return of both public and private companies in short and long run.

Khan, Zeesha, Ahmad, Alakkas, and Farooqi (2021): in the research article titled "A study of stock performance of select IPOs in India" compared the short- and long-term performance of 26 IPOs in the Indian stock market. To analyze the short-term performance, the researcher calculated the listing gain and listing day return while they calculated the market-adjusted abnormal return for continuous three years in order to analyze the long-term performance of the IPOs. After this, they also used the Wilcoxon sign rank test to compare the performances. They found that the short-term performance of

the selected IPOs was highly volatile while the long-term performance was stable.

Shaw and Kapasi (2022): compared the performance of initial public offerings that got listed before the COVID outbreak and during the COVID times. To conduct the study the researchers calculated the initial returns such as listing gain, 30 days average return, daily return, and listing day return. They also compared the performance of both the categories through paired t-test and found that there was no significant difference between the performance of both categories of IPOs.

Kumar (2015): compared the short-term and long-term performance of 211 initial public offerings that got listed during the year 2007 till 2012 in the Indian capital market. They have calculated the buy and hold abnormal return and wealth relative for three years to analyze the long-term performance while they have calculated the market-adjusted abnormal return for six months to analyze the short-term performance. They also run the multiple regression with the variables subscription rate, post issue promoter holding, age of the IPO, offer size, and leverage ratio activity with one dependent variable abnormal return. Their study revealed that the investors earn a good amount of market-adjusted abnormal return who invested their amount through direct subscription while the investors who invested on or after the day of listing failed to generate a positive return as after the day of listing most the IPOs failed to generate positive returns for over 12 months.

Manikam, Gumanti, and Fadah (2020): in their research article compared the short-term and long-term performance of 53 IPOs in Indonesia that got listed during 2005- 2009. They compared the performance on two different bases one was CAR and the other was BHAR. Their study revealed that the IPOs did not perform well in the long run as compared to short run. They have further divided the companies into two categories based on the size of the firm and book-to-market ratio. They found that under both categories the pattern of performance of all the IPOs was the same.

Research Gap:

The researcher reviewed a lot of literature and also found that the research related to performance analysis of initial public offerings during short term and long term are done but all of them are done with the IPOs listed in the earlier time. As COVID hits the nation in the year 2020, no such comparison is made during the recent time period which encouraged the researcher to do deep research in this particular area.

Objectives of the study:

Based on the above-mentioned research gap the researcher formulated the following objectives:

- To analyze the performance of the selected IPOs during the short term.
- To analyze the performance of selected IPOs during the long term.
- To compare the short-term and long-term performance of selected IPOs.

Hypothesis of the study:

The following hypothesis has been formulated for the study:

H_0: There is no significant difference between the short-term and long-term performance of selected IPOs.

H_1: There is a significant difference between the short-term and long-term performance of selected IPOs.

Scope of the study:

Our present study is restricted to the mainboard initial public offering that got listed in the year 2018 on the National Stock Exchange or Bombay Stock Exchange of India

Research methodology:

Samples of the study: In the present study 25 IPOs that got listed in the year 2018 in the Indian capital market are selected as samples of the study. Among

25 IPOs data related to two IPOs are unavailable which the researchers excluded from the samples.

Period of study: In the present study short-term as well as long-term performance analysis is done. So, to analyze the short-term performance the closing price of the IPOs for six months is collected while to analyze the long-term performance the closing price of the IPO for four years is collected.

Data collection: The present study is entirely based on the secondary data that the researchers have collected from the official website of the Bombay stock exchange (BSE) and the National Stock Exchange (NSE). Besides this, they also use other websites such as money control, yahoo finance, and capital line database to collect the data related to closing price of the IPO.

Research tools: the tools used in the study are as follows:

Listing gain: It is the profit earned by the investors at the time of listing of the IPOs if the listing price is more than the issue price. It can be calculated as follows:

LG= (LP-IP)/IP*100------------------------------------- (1)

Paired t-test: In the present study paired T-test is used to compare the mean of two different groups.

Research approach: to fulfill the above-stated objectives firstly, the researchers analyze the short-term performance by calculating listing day return and listing gains for one month, two-month, three months, and four months. Secondly, they have calculated the listing gain for one year, two years, three years, and four years for long-term performance analysis. Finally, to compare the short-term and long-term performance they used paired T-test.

Data interpretations and discussion:

Table (1) represents the performance of IPOs on the day of listing. The performance of the IPO is labeled as overpriced if the closing price on the listing date is below the issue price while it is labeled as underpriced if the difference between the two is positive. Among 23 IPOs 11 are overpriced which indicates a lower return initially while the rest of the IPOs are underpriced which gives the investors a good return and also enables them to trade in the stock market.

Among the selected IPOs, HDFC asset management company Ltd gave the highest listing gain of 65% followed by Apollo microsystem Ltd which gave a return of more than 60%. Among them, the worst performer IPOs were IRCON International Ltd which give – 91% of return, and ICICI securities which gave - 14% of return.

Table (1): Performance of IPOs on Listing Day				
Company Name	Issue price	Closing price on Listing Day	Listing gain	Performance
Aavas Financiers Limited IPO	821	774.35	-5.682095006	Over-priced
Garden Reach Shipbuilders & Engineers Limited IPO	118	103	-12.71186441	Over-priced
IRCON International Limited IPO	475	41.53	-91.25684211	Over-priced
Credit Access Grameen Limited IPO	422	422.05	0.011848341	Under-priced
HDFC Asset Management Company Limited IPO	1100	1815.95	65.08636364	Under-priced
TCNS Clothing Co. Limited IPO	716	659.3	-7.918994413	Over-priced
Varroc Engineering Limited IPO	967	1041.1	7.662874871	Under-priced
Fine Organic Industries Limited IPO	783	822.8	5.083014049	Under-priced

RITES Limited IPO	185	170.64	-7.762162162	Over-priced
IndoStar Capital Finance Limited IPO	572	586.1	2.465034965	Under-priced
Lemon Tree Hotels Limited IPO	56	71.65	27.94642857	Under-priced
ICICI Securities Ltd IPO	520	445.1	-14.40384615	Over-priced
Mishra Dhatu Nigam Limited IPO	90	90.05	0.055555556	Under-priced
Sandhar Technologies Limited IPO	332	322.15	-2.96686747	Over-priced
Hindustan Aeronautics Limited IPO	1215	1132.85	-6.761316872	Over-priced
Bandhan Bank Limited IPO	375	476.85	27.16	Under-priced
Bharat Dynamics Ltd IPO	428	396.95	-7.254672897	Over-priced
H.G. Infra Engineering Ltd IPO	270	267.75	-0.833333333	Over-priced
Aster DM Healthcare Ltd IPO	190	181.55	-4.447368421	Over-priced
Galaxy Surfactants Limited IPO	1480	1700.45	14.89527027	Under-priced
Amber Enterprises India Limited IPO	859	1245.25	44.96507567	Under-priced
Newgen Software Technologies Limited IPO	245	252.4	3.020408163	Under-priced
Apollo Micro Systems Limited IPO	275	441.75	60.63636364	Under-priced

Source: Authors calculations with MS Excel

Table (2) represents the short-term progressive performance of the selected IPO. In the study, the performance is analyzed for six months which is considered a short-term period. The researchers compared the closing price after 1 month, 3 months, and 6 months with the issue price which they took as the base price. To standardize the data the researchers coveted the issue price in percentage which is 100%. The value of the IPOs at any certain time period below it is considered a fall in return while a value above 100 is considered a positive return.

When the performance of the IPOs evaluated it is found that after six months only nine IPOs gave a positive return indicating that the closing price after six months was more than the issue price. After six months, Bandhan bank ltd.'s price was 50% more than the actual issue price whereas Aavas financiers ltd give a second highest return of more than 45% after six months of holding to the investors. The performance of 13 IPOs decreased after six months and these IPOs were Gardenreach shipbuilders and engineers Ltd (88.52%), IRCON International Ltd (8.47%) Credit assess Grammin Ltd (98.70%), Varroc engineering limited (67%), Indostar capital finance Ltd (60%) and so on.

Table (2): Progressive performance of IPOs during short-term					
Company Name	Issue price (In %)	Listing day	1 Month	3 Months	6 Months
Aavas Financiers Limited IPO	100	94.317905	93.70889	104.0012	145.9622
Garden Reach Shipbuilders & Engineers Limited IPO	100	87.2881356	85.25424	71.5678	88.51695
IRCON International Limited IPO	100	8.74315789	7.313684	9.381053	8.469474
CreditAccess Grameen Limited IPO	100	100.011848	69.52607	92.20379	98.70853
HDFC Asset Management Company Limited IPO	100	165.086364	120.6773	138.2182	124.5818
TCNS Clothing Co. Limited IPO	100	92.0810056	94.81844	86.31285	101.4036
Varroc Engineering Limited IPO	100	107.662875	119.0434	78.77456	67.01655
Fine Organic Industries Limited IPO	100	105.083014	134.3167	144.1252	142.7714
RITES Limited IPO	100	92.2378378	123.5027	109.6216	105.4054
IndoStar Capital Finance Limited IPO	100	102.465035	91.03147	80.34091	60
Lemon Tree Hotels Limited IPO	100	127.946429	129.6429	139.2857	123.6607
ICICI Securities Ltd IPO	100	85.5961538	73.79808	62.11538	45.96154
Mishra Dhatu Nigam Limited IPO	100	100.055556	159.1111	157.3333	131.7222
Sandhar Technologies Limited	100	97.0331325	117.9217	111.8825	95.19578

IPO					
Hindustan Aeronautics Limited IPO	100	93.2386831	92.53909	69.49794	64.18107
Bandhan Bank Limited IPO	100	127.16	136.92	140.4133	150.7333
Bharat Dynamics Ltd IPO	100	92.7453271	94.00701	87.88551	65.5257
H.G. Infra Engineering Ltd IPO	100	99.1666667	124.4259	86.5	76.35185
Aster DM Healthcare Ltd IPO	100	95.5526316	89.36842	91.89474	93.57895
Galaxy Surfactants Limited IPO	100	114.89527	101.3345	92.58784	85.66554
Amber Enterprises India Limited IPO	100	144.965076	127.1478	132.5611	113.3644
Newgen Software Technologies Limited IPO	100	103.020408	99.38776	102.5102	98.18367
Apollo Micro Systems Limited IPO	100	160.636364	110.4364	83.03636	56.74545

Source: Authors calculations with MS Excel

Table (3) represents the progressive performance of the IPOs after one year, two years, three years, and four years. In this section, the researchers evaluated the buy-and-hold strategy of the investors who hold their money for a long period of time. After one year of holding, HDFC asset management Company Ltd gave maximum return because the closing price was more than 141 percent as compared to the issue price followed by Fine organic industries Ltd. At this time IRCON international Ltd gave a maximum loss to the investors as the price was reduced to 8.44% only.

After two years the closing price of Fine organic industries limited stood at 322% which is the highest among all the IPOs followed by Amber enterprises India limited at 278%. At this time many companies failed to even match the issue price and these companies were TCNS clothing Co. Ltd (62.39), IRCON international ltd (9.21), Varroc engineering limited (41.09), Indostar capital finance LD (54.74), lemon tree hotels limited (71.87) and so on.

After three years of holding again, Fine organic industries Ltd gave the highest return to the investors as the closing price after three years was 474% followed by Amber Enterprises India Ltd.

After four years it was seen that among the selected IPOs 15 IPOs closing price was more than the issue price. At this time Fine organic industries gave the highest return to their shareholders with a closing price of 725% more than the issue price.

It is seen that among all the selected IPOs, the IPOs which gave a consistent return to its investor during the long term were Fine organic industries Ltd, Aavas financial limited, Gardenreach shipbuilders, and engineers Ltd, Amber enterprises India Ltd, RITES Ltd, and HDFC asset management Company Ltd.

Table (3): Progressive performance of IPOs during long-term					
Company Name	Issue price (In %)	1 Year	2 Years	3 Years	4 Years
Aavas Financiers Limited IPO	100	241.3033	239.4093	318.6419	270.7369
Garden Reach Shipbuilders & Engineers Limited IPO	100	168.5169	164.7458	189.2797	214.8729
IRCON International Limited IPO	100	8.463158	9.210526	9.505263	8.263158
CreditAccess Grameen Limited IPO	100	181.9787	179.1114	141.6706	232.5355
HDFC Asset Management Company Limited IPO	100	290.8818	265.2727	222.3727	182.0045
TCNS Clothing Co. Limited IPO	100	86.71788	62.39525	109.148	86.17318
Varroc Engineering Limited IPO	100	43.22647	41.09617	34.36918	35.41882
Fine Organic Industries Limited IPO	100	248.41	322.152	474.3167	725.9706

RITES Limited IPO	100	156.6216	146.8108	142.8378	143.6486
IndoStar Capital Finance Limited IPO	100	31.62587	54.7465	41.94056	24.0472
Lemon Tree Hotels Limited IPO	100	114.2857	71.875	83.21429	130.0893
ICICI Securities Ltd IPO	100	78.23077	88.98077	152.2596	94
Mishra Dhatu Nigam Limited IPO	100	173.7778	222.6111	201.2778	189.0556
Sandhar Technologies Limited IPO	100	75.27108	69.27711	76.05422	72.74096
Hindustan Aeronautics Limited IPO	100	60.11523	69.65021	99.64198	164.3868
Bandhan Bank Limited IPO	100	135.5333	107.2667	67.38667	73.09333
Bharat Dynamics Ltd IPO	100	68.79673	79.52103	91.01636	192.8271
H.G. Infra Engineering Ltd IPO	100	96.03704	79.61111	210.9815	217.0556
Aster DM Healthcare Ltd IPO	100	84.60526	87.28947	91.47368	125.3421
Galaxy Surfactants Limited IPO	100	101.3514	135.0777	212.3277	210.5169
Amber Enterprises India Limited IPO	100	130.0524	273.8999	386.0536	264.0279
Newgen Software Technologies Limited IPO	100	79.57143	109.551	240.4694	151.8571
Apollo Micro Systems Limited IPO	100	26.74545	45.09091	59.83636	49.83636

Source: Authors calculations with MS Excel

Testing of Hypothesis: To test the hypothesis of the study the researchers used paired T-test.

Table (4) represents the result of paired t-test. This test is used to compare the means of short-term and long-term performance of IPOs. The calculated P value is 0.024 which is less than 0.05, indicating that there is a significant

difference between the short-term and long-term performance of the IPOs. Therefore, the alternative hypothesis (research hypothesis) is accepted at a level of significance of 5%.

Table (4): Result of paired t-test		
Particulars	Return in short term	Return in long-term
Mean	100.08	142.624
St. deviation	28.711	96.43
Observations	23	23
Pearson Correlation	0.5427	
Df	22	
t-stat	-2.4178	
p-value	0.0243	

Source: Author's calculation with SPSS 15

Conclusion:

Nowadays no company can sustain itself without a good amount of investment as the competition is very high in the market. To compete with the giants of the market, one needs huge investment which is very difficult to gather. Initial public offerings are a way to gather capital by selling off some portion of shares to the public. The present study is conducted to analyze the performance of the initial public offerings during the short term as well as long term. The researchers got the following results:

- When the initial day performance was evaluated, it was found that among 23 IPOs, 12 IPOs were underpriced and among them, HDFC asset management Ltd was highly underpriced which was a very good investment choice for the investors.
- The result of progressive performance during the short term revealed that among selected IPOs 13 IPOs performance decreased after six months

while the rest of the IPOs gave a positive return to the investors. Among them, Bandhan bank gave the highest return to the investors.

- The result of progressive performance during the long term showed that there were only eight companies whose performance was satisfactory for the continuous 4 years. Among them, Fine organic industries Ltd gives the highest return to the long-term investors followed by Aavas financiers Ltd.

- From the paired T-test it is found that there is a significant difference between the long-term and short-term performance of the selected IPOs.

Recommendations:

Based on the above study and the conclusion made by the researchers they recommend to investors to wisely decide on investment after analyzing the short-term as well as the long-term performance of any IPO. This study is recommended to:

- The new investors who intend to invest their money and believe in performance analysis.
- The researchers who study the stock market or whose studies are associated with IPOs.

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