



# **“Initial Public Offerings, Their Features And Performance Evaluation With Specific Reference To Indian Companies In The Last Decade”**

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## **Abstract**

This paper tries to explore the performance and characteristics of Initial Public Offerings (IPOs) of Indian companies listed in Bombay Stock Exchange during the past ten years period from 2010 to 2020. The study undertakes to evaluate the performance of IPOs on the basis of its nature of return on the first day of its listing. The first day of listing is considered to be the Acid-Test day for any company's listing and its performance on the first day envisages the fact that “First impression is the Best Impression.

The current work has used the event study methodology, where in, an event window is created with 70 days as the base, for these 70 days Average Abnormal Returns (ARR) and Cumulative Average Abnormal Returns (CAAR) were calculated to analyse the performance of IPOs. To calculate the market adjusted return BSE SENSEX was considered as the benchmark index. The study has attempted to verify IPO performance in India on the basis of nature of return on the first day of trading. It was found in the analysis that Indian IPOs underperformed irrespective of its nature of return on the first day of listing. From the analysis it is also evidenced that the companies which had negative return on the first day of trade have severely underperformed than the companies having positive return on the first day of trading.

The goal of this paper is to establish evidence to identify those companies which have performed better as well as underperformed after its first day of trading.

**Key Words:** IPO, Index, Average Abnormal Return, Cumulative Average Abnormal Return

## Introduction

**IPO** is a popular term used in corporate, which refers to Initial Public Offer, through which a company tries to reach out to different investors with the objective of broadening its share capital base. Corporate prefer to issue Equity share, one of the widely accepted modes to reach out to varied population, is considered to be the popular mode of finance due to variety of merits it carry. This mode is preferred because it does not have any fixed payout in terms of dividend and also it does not have any maturity period to pay the capital back. When a corporate issues the equity shares for the first time to public such issue is referred as Initial Public Offering and this happens through the Primary Market. This market of issue is exclusively reserved for first time issues and all first timers will test their fate in this type of market.

The company's also raise finance through other ways namely follow on public offer, rights issue, Private Placement or QIP (Qualified Institutional Placement). Rights Issue is offered to the existing share holders of the company and these shares are sold much lower than the current traded price. Private Placement is offered to certain private players or a specified group of investors. In other case the promoters can themselves buy these shares or request their friends or relatives to buy these shares. Generally, the amount of capital raised through public issues will have contribution of funds than any other type of issues. In all these cases pricing of the issues do not cause any problem as this depends upon the track record of the company. In case of IPOs the track record of promoters need to be studied for arriving at the price of the share. The whole process is termed as 'Valuation'.

Price fixation of shares at the time of issue is of great importance since it is considered to have a long term impact on the market value of the shares. During the last decade, Indian primary market has seen the mismatch of issue prices and even the price bands fixed by the companies got revised in some cases. In some other cases, high prices associated with IPOs have triggered problems for the investors and eventually resulting in heavy losses to investors.

A Company can identify two methods to fix the price for an issue; it is classified as, Fixed Price Method or Book-Building Method or combination of both. Under fixed price method, the company sells the share at a pre-fixed rate which is intimated to the investors before the issue itself. Whereas, in case of Book-Building a company instructs the investors to bid for a share in between a fixed price band. The investors are instructed to bid for the share as per the instruction given in the price band of the company. There are two types of book-building, the first one is considered as 75 percent book building process in which 25 percent of shares are offered at a fixed price and the rest 75 percent is fixed by following a price band. Under the second method the entire share issue is offered through book building process. Therefore, in any television advertisement of such issues one can hear that the issue is a 100 percent book built issue.

Under book building process of public offerings, 35 percent of the offerings are reserved for retail investors, 50 percent is to be allocated for Qualified Institutional Buyers and remaining 15 percent is to be offered for non-institutional investors who are popularly known as High Net worth Individuals.

## Review of Literature

Mc Donald and Fisher (1972) examined that a large significant returns for the IPO subscribers in the first week for more than 142 common stocks in US during 1969-70. John and Gary (1987) found that negative returns over a four to six weeks period following the listing of 2482 listings on the New York Stock Exchange during the period 1926 to 1982.

Glenn (1980) stated that events which do not have data prior to the event, the market adjusted returns is calculated because there is not estimation period for such event. Hence, the market adjusted return is calculated by subtracting market return from the actual return of a particular share in the model developed by him.

Jay (1991) stated that overpricing of US IPOs appeared to be a short run phenomenon and a substantial variation in the underperformance was found year to year and industry to industry. Mario (1993) found 14.3 percent positive return on the first day of trading and underperformance of IPOs in UK in a number of benchmarks in 36 full months of public listing following their first day trading. Madhusoodanam and Thiripalraju (1997) found under pricing of IPOs in India in short-run and it was higher than the results of other countries.

Walid and Ahmad (2008) found that the CAAR had significant negative abnormal returns of Jordanian IPOs, where as the calendar time approach evidenced that the long term performance were not different than that of the overall market. Dorsaf (2009) found that the over optimistic market expectations observed in prices in the first year following the announcement of seasoned equity offerings in Tunisian stock exchange.

Rohini (2009) documented the existence of under pricing in National Stock Exchange of India and it was severe in short run. Aysa (2010) found that using an equally weighted buy and hold abnormal return that the IPOs had significantly underperformed in long run in Turkey, but under cumulative abnormal return over performance was found.

Ganesamoorthy and Shankar (2012) have documented the evidence that the performance of Indian IPOs made during 2001 to 2010 were underperformed than the market expectations. Rajagopalan (2012) found that the buyback offerings by Indian listed companies generated both positive and negative returns in the post event period by taking the buyback information good news. Ganesamoorthy and Shankar (2013) found that performance of large size IPOs was better than that of small and medium size IPOs. The results further revealed that small IPOs were overpriced than medium and large size IPOs.

## Statement of the Problem

After the successful completion of IPOs companies list their shares in a recognized stock exchange and after such listing the value of equity share is determined by the economic forces of the market, that is, demand and supply. The share price movement on the event of IPO is determined by the perception of the investors. It is of the common belief that the returns achieved on the first day of IPO plays a vital role in perceiving the future value of the equity share. Hence, in this research an attempt is made to understand the influence of first day's success on the performance of the stock in the rest of period. The problem identified is to understand the IPO performance on the basis of nature of return on the first day of trading.

**Table—1 Exhibiting Research Design**

Research Type	Analytical
Research Context	Indian firms which got listed after its IPO in BSE/NSE
Research Approach	Quantitative
Data type	Continuous variables
Data collection tools	Prowess Data Base, various web portals of Bombay Stock Exchange and National Stock Exchange
Data Analysis Software	SPSS Version 18.0, MS Excel, MS Word, MS Power Point
Sampling Technique	Systematic Sampling
Sample Size	235 IPOs
Sample Period	1 <sup>st</sup> April 2010 to 31 <sup>st</sup> March 2020
Scope	Restricted to the study of Indian IPO performance only
Statistical Techniques	CAAR, AAR, t test for abnormal returns, Standard Deviation

## Objectives

The specific Objectives of the study are listed below:

- Understanding the market performance of IPO companies on the basis of first day's return achieved by it.
- Understanding the nature and characteristics of Indian IPOs
- Understand the persistence of price impact of IPOs of the companies on the basis of nature of return on the first day of trading.

## Data and Methodology

The study considered 235 IPOs happened during a moderate period of ten years starting from 1<sup>st</sup> April 2010 to 31<sup>st</sup> March 2020. The list of companies who got into IPO during this period was collected from the PROWESS data base. The study required the following data:

- a. Daily share prices of chosen companies under sample
- b. Daily Index data of BSE-SENSEX

A total of 235 companies were considered under this study and these companies were classified under two heads namely, companies which have achieved positive returns on the first day of listing and those companies which have achieved negative returns on the first day of listing. A total of 122 companies advanced on the first day of the listing and the rest 113 declined on its first day of listing.

## Event study Methodology

Event study Methodology was adopted in this study which was developed by Glenn (1990). Event day was identified and it is considered as the day in which a major event has happened with respect to a particular company. The study has followed the below mentioned steps;

- a. An event window was framed based on the major event happening with respect to a particular company.
- b. Thirty days before the event and thirty days after event was considered for analysis
- c. The price movements during this period was studied
- d. The factors considered for this purpose include company related and the economy related factors.
- e. In order to assess the impact of the specific event identified for the study and its price impact, of the total change in price the change due to market related factors affecting the price need to be eliminated. The resulting change is referred to market adjusted return. In other words, market adjusted return would reflect the change in the value of shares exclusively due to company related factors.
- f. The study considered BSE Sensex as to reflect the changes in general market factors.
- g. The difference between the actual return and market return during the event window which is the market adjusted return is considered as abnormal return.

In order to calculate abnormal return, and return of respective stock and return on market index were calculated as follows;

$$R_m = M_t - M_{t-1} / M_{t-1}$$

Where,  $M_t$  = Market return at day 't'

$$R_j = R_{jt} - R_{jt} - 1 / R_{jt} \times 100$$

Where,  $R_{jt}$  = Actual return of Security 'j' at day 't'

Abnormal return was calculated as;

$$AR_{jt} = R_{jt} - R_{mjt}$$

Where,  $AR_{jt}$  = Actual return of security 'j' at day 't'

$R_{mjt}$  = Market return at day 't'

The Average Abnormal Returns (AARs) of Shares on a particular day 't' is calculated as follow;

$$AAR_t = \frac{1}{N} \sum_{j=1}^N AR_{jt}$$

$$AR_{jt} = AR_{j1} + AR_{j2} + AR_{j3} + \dots + AR_{jn} / N$$

Where, N denotes number of securities considered for day 't'

Cumulative average abnormal returns (CAARs) were also calculated for analyzing the persistent effect of the price. Cumulative Average Abnormal Returns (CAARs) are the sums of daily average abnormal returns (AARs) during the event window.

### **'t' test for abnormal return**

The average abnormal return and cumulative average abnormal return were calculated for Indian IPOs for the study period. In order to check the efficiency of market, two tailed t test has been applied to know the significance of abnormal return.

## Analysis and Interpretation

As mentioned in the previous paragraphs, the companies provided positive and negative returns on the first day of trading. The study analyses the companies based on the nature of return achieved on the first of trading. The results are presented in the following tables.

Table—2: AAR and CAAR of IPOs of POSITIVE RETURN COMPANIES

DAY	AAR	't' value	CAAR	't' value	DAY	AAR	't' value	CAAR	't' value
1	8.122	14.32	8.122	14.32	36	0.291	0.187	2.186	3.456
2	3.245	11.21	2.242	8.926	37	0.983	0.237	3.145	2.198
3	-0.454	-0.321	4.543	6.512	38	0.883	0.281	3.882	3.115
4	-0.145	-0.275	6.321	5.234	39	-0.764	-1.215	-1.435	-2.215
5	-0.832	-1.324	5.213	2.341	40	-0.981	-0.642	-0.432	-1.245
6	-0.277	-5.806	4.234	2.801	41	1.247	2.109	8.921	6.142
7	-0.523	-1.642	3.864	3.214	42	-0.271	-0.321	-2.142	-0.732
8	-0.701	-1.243	2.752	1.721	43	0.321	0.197	2.432	1.564
9	-0.432	-0.912	3.212	1.341	44	0.3133	0.647	2.102	0.792
10	0.652	1.432	3.542	1.542	45	0.3451	2.871	2.237	1.761
11	-0.532	-1.432	2.431	1.342	46	0.3145	0.872	3.418	2.192
12	0.142	0.872	2.534	1.243	47	-0.915	-0.287	-2.41	-1.76
13	0.123	0.278	2.654	1.289	48	-0.114	-0.598	-1.62	-0.287
14	-0.248	-0.432	2.764	1.089	49	-0.145	-0.675	2.321	5.234
15	-0.564	-1.778	1.897	0.827	50	-0.822	-0.524	3.213	2.341
16	-0.523	-1.236	1.549	0.631	51	-0.267	-5.706	2.234	2.801
17	-0.389	-0.921	1.052	0.4239	52	-0.723	-0.642	4.564	2.314
18	0.542	0.984	1.542	0.583	53	0.291	0.227	1.286	4.256
19	0.349	0.975	2.346	1.983	54	0.283	0.537	1.245	4.298
20	-0.932	0.292	2.541	1.764	55	0.383	0.582	4.882	1.115
21	0.258	1.245	1.526	0.224	56	-0.564	-1.215	-1.435	-2.215
22	-0.213	-0.982	0.521	0.874	57	-0.987	-0.542	-0.320	-1.245
23	-0.753	-2.173	0.534	0.302	58	1.247	2.109	8.921	6.142
24	-0.543	-1.322	0.508	0.012	59	0.123	0.278	2.654	1.289



25	0.435	1.873	0.452	0.175	60	-0.345	-0.531	1.864	2.089
26	-0.342	-0.198	0.142	0.187	61	-0.642	-0.878	3.897	1.827
27	0.141	0.435	0.269	0.098	62	-0.511	-1.236	1.549	0.631
28	-0.983	-0.431	0.0327	0.012	63	-0.334	-0.111	2.022	1.490
29	0.872	0.276	0.984	0.634	64	-0.701	-1.243	2.752	1.721
30	-0.291	-0.987	-0.362	-0.187	65	-0.432	-0.912	3.212	1.341
31	-0.162	-0.281	-0.875	-0.162	66	0.652	1.432	3.542	1.542
32	-0.031	-0.074	-0.521	-0.025	67	-0.432	-1.432	2.431	1.342
33	0.0873	0.185	0.4856	0.1521	68	0.122	0.872	3.534	1.243
34	0.634	0.847	1.252	1.361	69	0.120	0.278	4.654	1.289
35	-0.321	-2.912	-1.824	-1.219	70	-0.218	-0.232	1.764	1.089

Table--2 shows the Average Abnormal Returns of the group companies which had positive returns on the first day of the trading. It is been observed that a high abnormal return achieved on the first day which also followed on to the second day. But, later for the next seven days the companies have achieved the negative returns. In spite high positive returns on the first and second day for the next one week the returns were negative. The AAR of the first day was statistically significant at 1% level. Among other AAR's 27<sup>th</sup> days was significant at 1% level and the rest were significant at 10% level.

Table—2 also exhibits the results of CAAR for the set companies, which is visible from the table that on the first and second day of trading it also achieved the positive returns. CAAR of these two days was also statistically significant at 1% level. CAAR of 21<sup>st</sup> and 22<sup>nd</sup> days were statistically significant at 5% and the rest of the CAAR's were not significant either at 1%, 5% or 10%. It is been observed in the analysis that there is a declining trend in CAAR.



Table—3: Showing AAR and CAAR of IPOs of NEGATIVE RETURN COMPANIES

DAY	AAR	't' value	CAAR	't' value	DAY	AAR	't' value	CAAR	't' value
1	-3.872	-12.098	-5.321	-15.832	36	-0.622	-0.495	-8.641	-9.764
2	-2.132	-11.341	-3.842	-11.021	37	-0.456	-0.646	-7.826	-10.224
3	-0.732	-1.2190	-5.421	-6.9832	38	-0.313	-0.882	-10.521	-11.874
4	-0.542	-1.984	-4.394	-5.3982	39	-0.853	-1.173	-12.534	-16.302
5	-0.492	-2.102	-3.210	-4.2013	40	-0.543	-1.322	-14.508	-15.012
6	0.321	0.532	4.322	5.201	41	0.348	0.981	1.452	0.175
7	1.221	0.239	3.210	4.102	42	-0.346	-0.198	-10.142	-12.28
8	-1.029	-2.193	-3.212	-5.123	43	-0.345	-0.531	11.864	12.089
9	-0.4293	-0.414	-5.204	-7.492	44	-0.642	-0.878	13.897	14.827
10	-0.392	-0.695	-6.403	-8.931	45	-0.564	-1.215	-11.435	-12.215
11	-0.532	-1.432	4.431	5.342	46	0.3145	0.872	3.418	2.192
12	0.152	0.772	1.534	2.243	47	-0.915	-0.287	-12.41	-14.76
13	0.123	0.278	2.654	1.289	48	-0.114	-0.598	-11.62	-12.287
14	-0.348	-0.535	-6.964	-7.012	49	-0.145	-0.675	12.321	15.234
15	-0.564	-1.778	-8.997	-10.27	50	-0.822	-0.524	13.213	12.341
16	-0.222	-2.236	-6.49	-8.312	51	-0.267	-5.706	11.234	12.801
17	-0.389	-0.921	-6.052	-7.239	52	-0.723	-0.642	14.564	12.314
18	0.642	0.888	1.646	1.586	53	0.291	0.227	1.286	14.256
19	0.445	0.655	1.446	2.830	54	0.283	0.537	1.245	4.298
20	-0.832	-0.395	-5.641	-8.764	55	0.383	0.582	4.882	1.115
21	-0.359	-0.245	-6.826	-8.224	56	-0.664	-0.215	-11.435	-12.215
22	-0.213	-0.982	-6.521	-9.874	57	-0.987	-0.542	-11.320	-12.245
23	-0.753	-2.173	-8.534	-6.302	58	1.247	2.109	8.921	6.142
24	-0.543	-1.322	-4.508	-5.012	59	0.123	0.278	2.654	1.289
25	0.348	0.981	0.452	0.175	60	-0.345	-0.531	11.864	12.089
26	-0.346	-0.198	-10.142	-12.28	61	-0.642	-0.878	13.897	11.827
27	-0.241	-0.625	-12.969	-11.98	62	-0.511	-1.236	11.549	12.631
28	-0.283	-0.236	0.0327	0.012	63	-0.334	-0.111	12.022	12.490
29	0.872	0.276	0.984	0.634	64	-0.701	-1.243	12.752	11.721
30	-0.291	-0.987	-12.362	-11.187	65	-0.432	-0.912	13.212	12.341
31	-0.111	-0.281	-11.875	-12.162	66	0.652	1.432	3.542	1.542

32	-0.031	-0.074	-12.521	-13.225	67	-0.432	-1.432	12.431	11.342
33	-0.833	0.242	-10.856	-11.521	68	0.122	0.872	13.534	14.243
34	0.624	0.546	2.252	5.610	69	0.120	0.278	4.654	1.289
35	0.221	2.212	0.424	0.219	70	-0.218	-0.232	11.764	14.089

Table—3 shows the Average Abnormal Returns (ARR) of the set companies which had negative return on the first day of listing. The first day of trading saw -3.872 as ARR and a CAAR of -5.321 which is statistically significant at 5% level. For the next four days there was abnormal change in the position of AAR as well as CAAR which was significant at 10% level. The next two days saw positive returns which were recorded in the above table. Out of the seventy days considered for the study 95% of the time the returns are found to be negative having high AAR and CAAR rates which were significant at 1% in certain cases and the rest at 5% or 10%.

During the event window of 70 days AARs of 21 days were statistically significant at different levels. The overall results of Average Abnormal Returns over 70 days of the event window show that the return of Indian IPOs with negative return on first day of trading, these companies experienced continuous negative returns on the most of the days. The percentage of negative returns was much higher than the negative returns achieved by the other set of companies which had positive returns on the first day of trading.

Table—3 also reports the Cumulative Average Abnormal Returns (CAAR) of the companies which had negative returns on the first day of trading. The overall CAAR of these companies is negative. All these CAAR's were measured for significance at 1%, 5% and 10% significant levels. The above table clearly exhibits the weak performance of these set of companies over a period of the chosen period. The negative return on the set of companies which experienced positive return on the first day of trading was comparatively lesser than the negative return incurred by the set of companies which experienced a negative return on the first day of trading.

## Conclusions

The study has attempted to verify IPO performance in India on the basis of nature of return on the first day of trading. This indicates that the price fixed for the shares by the respective companies had been discounted by the market due to not being up to the perceived level of efficiency. Hence, it could be stated that the reaction of the market to the price immediately after the IPO was adverse, indicating that the price of issue had been excessive and the market discounted the price heavily. But, subsequently the daily price movement was at the same levels without any major variation and was mostly negative indicating a continuous fall in value. It was found that Indian IPOs underperformed irrespective of its nature of return on the first day of

trading. It was also recorded that the set of companies which had negative return on the first day of trading severely underperformed than the set of companies which had positive return on the first day of trading.

Through this study it is found that most of the Indian IPOs floated during the sample period were over priced and the regulating authorities like Securities Exchange Board of India should take extra care while clearing the Red Herring Prospectus of the companies. The valuation of the companies at the time of IPOs must be more stringent and transparent; these should not be materially influenced by the promoters. Any promoter trying to bring down the price band due to under subscription should be legally penalized. SEBI should streamline the procedure for sanctioning the IPOs so that malpractices followed in the process of valuation should get completely minimized or completely abolished.

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