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## UNDERPRICING OF INITIAL PUBLIC OFFERINGS: AN INDIAN EVIDENCE

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### ABSTRACT

The paper is an endeavor to assess the level of underpricing or overpricing of Initial Public offers during a period of past three years (2014-16). The price behavior of Initial Public Offers has been checked up with the aid of average market adjusted abnormal return (avg. MAAR). The study examines the price behavior of selected Initial Public Offers during past three years and a sample of total 49 companies has been taken for this purpose, consisting 5 IPOs from 2014, 18 IPOs from 2015 and 26 IPOs from 2016. The return on IPO has been computed by taking closing price of IPO on listing date and issue price of the IPO.

**Key Words:** Market Adjusted Abnormal Return, Annualized Market Adjusted Abnormal Return, Initial Public Offers, Raw Return on IPO, Return on Market Index, Price behavior, Price Performance, Underpricing, Overpricing.

### Introduction

A company can grasp the superior opportunities if appropriate funds are accessible at the right time and in the right form. Therefore financial management is the key concern for every business organization. A number of the choices are available for financing the business projects. Initial Public Offer is accorded as one of the most prominent ways to heave the funds. An initial public offer is the mode of going public where first time a company publicly sells shares of its stock in the open market to public. According to the reports of SEBI: the amount of funds raised through IPOs in the year 2014-15 is Rs. 1,431 crore, in 2015-16 Rs. 14,815 crore and in 2016-17 is Rs. 23,124 crore (as on November, 30, 2016). The issuer companies these days are rigorously trying to attract the investors and to turn up the issue to full subscription, by strengthening their understanding of the price behavior of IPOs and to fix the price of the Public Offer in the better way. Investors and the investment research companies also intend to know the price behavior of the IPO and the stock performance after listing of the IPO in order to optimize their investment returns. The study has been conducted to examine the price performance of the IPO and to understand the price behavior of the IPO.

## **Review of Literature**

The reviews of the various studies regarding pricing (Underpricing/overpricing) of IPOs and price performance of IPOs are as: Krishanmurti and Kumar (2002) analyzed 386 IPOs to gauge the initial listing performance of Indian IPOs and to determine as to why IPOs are under priced in India. Results showed that for overall sample the market adjusted return using Sensex as proxy was 72.34 per cent. Singh & Singh, Mittal (2003) covered 500 IPOs floated between years 1992-1996. It was found that an average underpricing was 83.22 per cent. The market adjusted underpricing was 75.16 per cent. The study reported that par issues were more underpriced than premium issues. Jankiramanan, S (2007) conducted a study on 116 IPOs issued during the period 2000-01. The study found that under- pricing exists in Indian Market. Kumar, SSS (2007) found underpricing of 26.35 per cent for a sample of 156 book-built IPOs offered during 1999-2006. Return on opening price was considered as the major determinant of underpricing. Shelly, Singh (2008) reported that the market adjusted initial return (MAIR), reputation of lead manager and age of the company have significant impact on level of subscription. The study also proved that underpricing is in existence in Indian IPO market and oversubscription has the positive significant impact on underpricing. Age and Issue Size have significant negative impact. Reputation of the lead managers & dummy industry, both have no significant impact on underpricing. Sahoo, Seshadev & Rajib, Prabina (2010) covered 92 Indian IPOs issued during the period 2002- 2006. It is reported that on an average IPOs were underpriced by 46.55 per cent on the listing day. Kumar Vinod & Dhanda Neelam (2013) examined 488 IPOs offered through BSE during 1993-2008, for both long term and short term price performance; the study proves existence of underpricing in Indian IPO market. Average market adjusted abnormal return & wealth relative are used as price performance indicators. The average market adjusted abnormal return has been reported 82.67 per cent on the listing of IPOs. All the twenty three sectors have shown existence of underpricing with more than one value of wealth relative. Kumar Vinod & Dhanda Neelam (2013) in another study of Comparative Pricing Behavior between At Par & at Premium Initial Public Offers In India, a sample of the research is constituted by adding together 170 at par and 318 premium initial public offers during the period past 15 years (1993-94 to 2007-08). They also witnessed existence of underpricing in Indian capital markets. Kumar Vinod & Dhanda Neelam (2013) in their study "Determinants of Under pricing: Indian Evidence" studied a total of 488 companies taking 166 Companies from 1993-94 to 1996-97 and 322 companies from 1997-98 to 2007-08 and studied the different factors affecting level of underpricing and reported that IPOs in Indian capital market are underpriced.

## **RESEARCH METHODOLOGY**

### **Objectives of the study:**

The research has been conducted to attain the following objectives:

1. To observe the trends of Indian IPO Market;
2. To ascertain the raw return of Initial Public Offers, as well as Market Adjusted Abnormal Rate of Return of Initial Public Offers;
3. To analyze the Market Price Performance of Initial Public Offers which are issued through book Building;
4. To check the level of Underpricing/overpricing in Indian capital markets.

**Sample Plan of the study:**

This study is based on equity shares initial public offers which have been offered on BSE during 2014- 2016. A sample of 49 companies, selected through extensive sampling, has been considered for research. Book built IPOs offered through BSE have been taken to measure the level of underpricing/overpricing of IPOs.

**Data Collection:**

To achieve the objectives of the study, secondary data is used. The data has been collected from the different sources such as: [www.bseindia.com](http://www.bseindia.com), various annual reports and bulletins of SEBI, CMIE-Prowess database, Prime database, The Economic Times & [www.sebi.gov.in](http://www.sebi.gov.in) etc.

**Analysis Pattern of the Study:**

In order to compute the Average Raw Return (R<sub>i</sub>), Return on Market Index (R<sub>m</sub>) and Market Adjusted Abnormal Return (MAAR) on IPOs the following pattern has been used:

Price Behaviour on Listing Day of Indian IPOs

To examine the price performance on listing day of Indian IPOs, the market adjusted abnormal return of IPOs have been calculated as under:

Average Raw Return/Return on a Stock

$$R_i = (P_i/P_0) - 1 * 100$$

Where, R<sub>i</sub> (%) is the shareholders' Average Raw Return, P<sub>i</sub> is the closing price on the first day of trading and P<sub>0</sub> is the issue price.

Return on Market Index

The return on the market index R<sub>m</sub> (%) during the same period is calculated as follows:

$$R_m = (P_{m1}/P_{m0}) - 1 * 100$$

P<sub>m1</sub> denotes the closing value of the benchmark index on the first trading day of the stock and P<sub>m0</sub> is the closing value on the benchmark index on the offer's closing day. The BSE Sensex is used as the benchmark index.

Market Adjusted Abnormal Return

$$MAAR = R_i - R_m$$

Market-adjusted abnormal return (%) is calculated as the return on the stock minus the return on a market benchmark (BSE-Sensex) over the same period.

$$\text{Average MAAR} = \frac{1}{n} \sum_{i=1}^n MAAR$$

**Hypothesis of the Study:** H<sub>0</sub>: Average market adjusted abnormal return is not significant.

**Results of the Study:**

The study is an attempt to examine the pricing behavior of IPOs in India. Therefore the degree of underpricing on listing day of IPOs has been reported.

**Analysis and Statistics:**

This section examines the price performance of IPOs. It studies the price performance between the date of issue closing and the listing date of IPOs on BSE. Whether the securities are underpriced or overpriced, whether the IPOs have outperformed or underperformed, it can be tested with the help of magnitude of MAAR.

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Table 1 Explains minimum, maximum, mean and standard deviation of the various features of IPOs such as: offer price, listing price, lead time, raw return (R<sub>i</sub>), return on market index (R<sub>m</sub>), market adjusted abnormal return in percentage terms (% MAAR) and annualized market adjusted abnormal return (% AMAAR).

<b>Table:1 (Descriptive Statistics of IPOs )</b>							
	<b>Offer Price (Rs.)</b>	<b>Listing Pricing (Rs.)</b>	<b>Lead Time (Days)</b>	<b>Raw Return of IPO (%)</b>	<b>Return of market Benchmark (%)</b>	<b>MAAR (%)</b>	<b>AMAAR (%)</b>
<b>N</b>	49	49	49	49	49	49	49
<b>Mean</b>	355.59	408.34	16.18	13.56	-1.07	14.63	374.83
<b>Max.</b>	1050	1381.45	186	67.55	04.84	66.32	1865.87
<b>Min.</b>	45	45.40	2	-21.58	-7.78	-23.13	-
<b>Std. Deviation</b>	253.62	316.40	25.41	21.12	2.935	20.42	925.13
<b>Std. Error of Mean</b>	36.23	45.20	3.63	03.01	0.42	02.91	132.21

\*Data compiled with SPSS

The average offer price of the 49 companies selected in the sample is 355.59 and the maximum offer price is 1050. While the minimum offer price is just Rs. 45 that relatively is very low. Standard deviation of the offer price is 253.62 shows a very high variability between the offer prices of the various issues. Standard error of the mean for offer price is Rs. 36.23. Highest listing price is Rs. 1381.45 and lowest listing price is Rs. 45.4 and the average listing price of the all 49 companies have been Rs. 480.34 with a standard deviation of 316.40 and standard error of mean Rs. 45.20. Highest lead time is 186 day, minimum lead time is 2 days and average lead time is 16.18 days. Standard deviation and standard error of the lead time are 25.41 & 3.63. Highest raw return on the IPOs out of the total is 67.55%, lowest return has been -21.58% and average return on the IPOs have been 13.56% with a standard deviation of 21.12 and a std. error of mean 03.01. Average return of the on the market benchmark or market index has been -1.07%, highest return on the market index during any lead time had been 04.84% and minimum return on the market index during any lead time is -07.78%. The standard deviation of the return on the market benchmark is 02.935. Standard error of mean for return on the market index is 00.42. Mean MAAR of the 49 companies is 14.63, highest value of MAAR is 66.32 and the lowest value of market adjusted abnormal return earned on any IPO have been -23.13% with a std. deviation of 02.93. Std. error of the mean is 02.9184. Positive AMAAR implies existence of underpricing in IPOs. The average annualized market adjusted abnormal return of the sample of 49 IPOs is 374.83% mean while

the highest value of annualized market adjusted return earned on any IPO of 49 is 1865% and the minimum value of AMAAR earned on any IPO during the lead time have been -4221.02%, highly underperformed IPO. The standard deviation of the AMAAR is 925.13. Standard error of mean for AMMAR is 132.21962.

**Table:2 Hypothesis Testing (One Sample T-test)**

	Test Value = 0					
	T	Degree of Freedom	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
R	4.494	48	.000**	.1356083	.074940	.196277
M	-2.556	48	.014**	-.0107148	-.019144	-.002285
MAAR	5.014	48	.000**	.1463231	.087644	.205003
AMAAR	2.835	48	.007**	3.7482831	1.089830	6.406737

\*Data compiled with SPSS

\*\*Tested at 5% level of significance

It is concluded on the basis of Table 2 that market adjusted abnormal return and annualized market adjusted abnormal return on the IPOs, issued during the period of 2014-16, is significant. Underpricing is reported in initial public offers in Indian capital market as per the results of the study.

**Conclusion**

It is evident that Indian IPO market remained underpriced during the time period of 2014 to 2016. The hypothesis has been rejected that there is no underpricing of IPOs in India. The results of the study are in line with the other studies conducted in India as well as out of India.

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