
PRICING OF INITIAL PUBLIC OFFERINGS IN INDIA: A STUDY BASED ON BSE

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ABSTRACT

The paper is an attempt to measure the level of underpricing or overpricing of Initial Public Offers in India during a period of the six years (2008-13). The price behavior of Initial Public Offers has been examined with the help of price indicators: average market adjusted abnormal return (avg. MAAR) and wealth relative (WR). The study examines the price behavior of selected Initial Public Offers during the six years (2008-13) and a sample of total 124 companies has been taken for this purpose. The return on security has been computed by taking closing price of security on listing date and issue price of the security.

Key Words: Market Adjusted Abnormal Return, Wealth Relative, Initial Public Offers, Return on Security, Return on Market Index, Price behavior, Price Performance, Underpricing, Overpricing.

Introduction

Financial management is the key concern for every business organization (manufacturing, trading or service provider) and every category of investor (individual investor or institutional investor). A business can clutch the better opportunities if appropriate funds are available at the right time and in the right form. Therefore, financial management is the one of the most important aspect for every business organization. A number of the options are available for financing the business projects. Initial Public Offer is accorded as one of the most prominent ways to raise the funds. An initial public offer is colloquially known as the way of going public, where first time a company publicly sells shares of its stock in the open market to public. According to various reports of SEBI: the amount of funds raised through IPOs (85 IPOs) in the year 2007-08 is Rs. 42595 crore, Rs. 2082 crore in 2008-09 through 21 IPOs and Rs. 24696 crore in 2009-10 through 39 IPOs, Rs. 35559 Crore in 2010-11 through 53 and Rs. 41515 Crore in the year 2011-12 through 54 IPOs. 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 research companies also intend to understand the price behavior of the IPOs and the stock performance after listing of the IPOs in order to optimize their investment returns. The study has been conducted to examine the price performance of the IPOs and to understand the price behavior of IPOs.

Review of Literature

The review of the various studies with respect to the pricing (Underpricing/overpricing) of IPOs and price performance of IPOs are as follows: 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 by the companies in the Indian market during the period from 2000 to 2001. 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. Study also proved that underpricing is in existence in Indian IPO market. 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 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 & Premium Initial Public Offers In India, sample of the study constituted by adding 170 at par and 318 at premium IPOs 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 issued through Book Building;
4. To check the level of Underpricing in Indian capital markets.

Sample Plan of the study:

This study is based on equity shares initial public offers offered on BSE during 2008 to 2013. A sample of 124 companies has been considered for research. Book built IPOs offered through BSE have been taken to measure the market price performance of IPOs.

Data Collection:

To achieve the objectives of the study, secondary data is used. The data has been collected from the sources such as: www.bseindia.com, various annual reports of SEBI, CMIE-Prowess database, Prime database, and several issues of The Economic Times, www.icidirect.com & www.sebi.gov.in.

Analysis Pattern of the Study:

With a view to know Average Raw Return on IPO (ARR), Return on Market Index (R_m) and Market Adjusted Abnormal Return (MAAR) of IPOs the following pattern is 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

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

Where, R_i (%) is the shareholders' Average Raw Return, P_i is the closing price on the first day of trading and P_o is the issue price.

Return on Market Index

The return on the market index R_m (%) during the same period is calculated as follows:

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

P_{m1} denotes the closing value of the benchmark index on the first trading day of the stock and P_{m0} 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: H0: Average market adjusted abnormal return is not significant or there is no underpricing in Indian IPOs market.

Analysis and Statistics

This section depicts the year-wise underpricing in India. The results are in line with other Indian and International studies. Table 1 shows year-wise average raw return, average market adjusted abnormal return and wealth relative. Average market adjusted abnormal return (MAAR) is used to determine the level of underpricing. Indian IPO market has shown underpricing for all six years of the study period. Underpricing ranges 2.11% to 15.08%. The average market adjusted abnormal return is highest in year 2008. Wealth Relative (WR) of this year also verifies the results; it is more than 1.15 for the same time period. In the year 2011, the WR is 1.02, which is lowest out of these six years. It is found that average market adjusted abnormal return for all 124 IPOs is 8.25%. Hence, it is concluded that during the study period Indian IPO market remain underpriced. The average raw return and mean market adjusted abnormal returns are significantly different from zero in almost all the years, but these varied widely across all the years. Year 2008 scored highest mean MAAR followed by year 2010, year 2009, year 2012, year 2013 and year 2011. Year 2011 got lowest mean MAAR but it is still positive, therefore it is concluded that Indian IPO market remained underpriced during the study period.

Table 1

Year -wise Price Performance on Listing Day (Underpricing)

Year	No. of IPOs	Average Raw Return (%)	Average Market Adjusted Abnormal Return (%)	WR	Pricing performance
2008	6	12.1897	15.08931	1.1554	Underpricing
2009	20	11.18726	8.550367	1.08330	Underpricing
2010	58	9.83375*	10.73539*	1.1083	Underpricing
2011	31	1.649718	2.11868	1.0213	Underpricing
2012	7	5.77217	8.167536	1.0837	Underpricing
2013	2	13.10602	7.827642	1.079287	Underpricing
All	124	7.837849*	8.247604*	1.082815	Underpricing

Source: Data compiled by researcher

* Significantly different than zero at 5% level of significance

The Indian IPO market is underpriced because the average raw return as well as average market adjusted abnormal return is significantly different than zero at 5 percent level of significance. The null hypothesis, that the average market adjusted abnormal return is not significantly different than zero, is rejected.

Table 2

Summarised Position of Pricing Behaviour on Listing Day

Pricing Behaviour	Sample Size
Underpricing	72
Overpricing	52
Total	124
Source: Data compiled by researcher	

It has been across the world found that investors who purchased IPO shares on offering day have experienced positive returns on the first trading day after listing. It is indicating that these IPOs may have been priced at value less than their intrinsic or fair value. The results support the existence of significant underpricing in India. The results also confirm the findings of other Indian studies (Kumar, 1995), (Narasimhan, 1995), (Shah, 1995), (Madhusoodanan & Raju, 1997), (Singh & Mittal, 2003), (Kumar Vinod & Dhanda Neelam, 2013) etc. But the level of underpricing is significantly lower as compared to other studies. Kumar vinod & Dhanda Neelam reported 82% Average MAAR of 488 IPOs offered during 1993 to 2007.

Table 3

Descriptive Statistics of IPOs

	N	Minimum	Maximum	Mean	Std. Deviation
Issue Price (Rs.)	124	10	1310	188.73	206.559
Grade	124	1	5	2.85	.971
Average Raw Return (%)	124	-97.50	153.50	7.8378	39.42890
MAAR (%)	124	-99.46	145.88	8.2476	40.04061
Lead Time (days)	124	12	174	19.09	15.449
Size (In Rs. crore)	124	23.84	15199.44	7.8752E2	1998.57780
Age	124	1	92	16.15	18.10
Sample Size	124				

Source: Data compiled by researcher

The average offer price of 124 IPOs is 188.73 rupees. The average age of IPOs has been reported

16.15. The offer price of Va Tech Wabag Ltd. is found the highest (1310 Rs.). Number of companies has issued IPOs at Rs. 10 (minimum value). Coal India has launched the biggest IPO in terms of size. Specialty Restaurants Limited has taken only 12 days to be listed after closing the offer. On an average company take 19 days to be listed after offer closing in BSE. Birla Pacific Medspa Ltd. scored the highest average market adjusted abnormal return that was 145.88 per cent. The Average MAAR is reported 8.25 per cent.

Table 4

Price Behaviour (Underpricing) On Listing Day Of IPOs

Sample	No. of IPOs	Average Raw Return (%)	Average Market Adjusted Abnormal Return (%)	WR
Total	124	7.837849*	8.247604*	1.082815
*significant at 5% level				

Table 4 depicts the average raw return and average market adjusted abnormal return of all 124 IPOs. It depicts that the average raw return on the securities is 7.83% and average market adjusted abnormal return is 8.24% which is significantly different than zero at 5 percent level of significance. This is further confirmed by the value of wealth relative that is 1.082. It concludes that IPOs outperformed on the listing day. Therefore the investors invested in the IPOs earned a positive return on the listing day.

Conclusion

It is evident from the study that, the Indian IPO market remained underpriced during the time period of 2008 to 2013. 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. It has also been observed that during the study period Indian IPO market has shown a boom.

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