A STUDY ON INITIAL PERFORMANCE OF IPO'S IN SINDIA DURING 2015-16 - COMPARISON OF BOOK BUILDING AND FIXED PRICE MECHANISM

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ABSTRACT

Pricing Mechanisms is an important decision before issuing IPOs. It plays a vital role in success and failure of any IPOs in Capital Market. One of the important reforms, Indian Capital Markets witnessed in the recent past is the introduction of issuing shares through the book building process. In this paper we studied the listing day performance of 69 IPOs were issued either through Book Building method of public issue or through fixed price method during the financial year 2015-16. It is also understood from the study that though only 36% of total issues was made through book building mode, but the amount raised by them is 98% of the total issue size. The empirical analysis reveals significant first day under pricing of 7.04% in fixed price offer and 6.4% in book building mechanism. When it is adjusted to the market, the under pricing in fixed price offer is 7.3% and book building mechanism is 9.8%. We have applied t-test to verify whether there is significant difference in the mean returns of the IPOs issued through book building method and fixed price method.

Keywords: Book Building Method, Fixed Price Method, Initial Returns, Market Adjusted Initial Returns

I. INTRODUCTION

An initial Public Offer (IPO) is the selling of securities to the public in the primary market. The Initial Public Offering can be made through the fixed price method, book building method or the combination of both. Book building is the most practical mechanism for the quick and efficient management of mega issues (including offers of sale).

II. BOOK BUILDING MECHANISM

Book building is a process used for marketing a public offer of equity shares, debentures or bonds of a company. This process helps the issuer not only to determine the demand but also aids the process of 'price discovery' i.e., the price at which shares shall be issued will be determined by the demand and supply forces of the market. It's a method where, during the time period for which the initial public offer is open, bids are gathered from traders at different prices that are higher or equal to the ground price. The IPO offer price is decided following the bid ending date.

Security Exchange Board of India defines book building as

" A process undertaken by which a demand for the securities proposed to be issued by a body corporate is elicited and built up and the price for such securities is assessed for the determination of the quantum of such securities to be issued by means of notice, circular, advertisement, document or information memoranda or offer document."

III. FIXED PRICE MECHANISM

Under the Fixed Price Mechanism eligible companies have the freedom to issue shares at a price determined by themselves in consultation with the lead manager and giving justifications for the proposed premium by disclosing all the relevant information such that the investor can make an informed choice.

IV. UNDER PRICING

Under pricing in Initial Public Offerings (IPOs) is a persistent worldwide phenomenon. There is a significant difference in the prices at which the IPOs are offered to the investors and the price at which they trade on the day of the listing. So if the investors get shares allotted in an IPO at a lower offer price and then sell them on the first day of listing at higher prices then they can make substantial gains. This phenomenon is known as "Under Pricing" in the IPO market. It is believed that IPOs are often underpriced because of concerns relating to liquidity and uncertainty about the level at which the stock will trade. The less liquid and less predictable the shares are, the more underpriced they will have to be in order to compensate investors for the risk they are taking. The conventional argument given for 'under pricing' is that an IPO's issuer tends to know more about the value of the shares than the investor, and therefore, the company must under price its stock to encourage investors to participate in the IPO. An issue is overpriced if the price received by the issuer in the primary market is higher than the price of the same securities in the secondary market.

V. REVIEW OF LITERATURE:

- Ann E. Sherman in his article says that, the U.S. book-building method has become increasingly popular for initial public offerings (IPOs) worldwide over the last decade, whereas sealed-bid IPO auctions have been abandoned in nearly all of the many countries in which they have been tried. Book building lets underwriters manage investor access to shares, allowing them to reduce risk for both issuers and investors and to control spending on information acquisition, thereby limiting either under pricing or aftermarket volatility. The author's models also predict that offerings with higher expected under pricing have lower expected aftermarket volatility; that an auction open to large numbers of potential bidders is vulnerable to inaccurate pricing and to fluctuations in the number of bidders; and that both book-built and auctioned IPOs will exhibit partial adjustment to both private and public information.

- Mr. Salaj Das in his paper examines the listing performance of mega IPOs issued and traded on NSE during the previous decade 2001 to 2010. The paper attempts to study a sample of twenty mega issues selecting nine from boom period and eleven from recession period during the previous decade under study and present a comparative analysis of the listing performance based on three parameters namely raw return on listing, simple underpricing and adjusted underpricing. Results derived from sample companies could not establish any significant difference in listing performance between boom period minor IPOs and recession period mega IPOs.
- Ms Madhuri Malhotra and Ms. Manhusha Nair attempts to examine how the initial public offerings (IPO) issued through book building fare in short-run. The study examines the first day returns of 288 book-built IPOs in India for a 7 year period (2004-2010). Based on this set of observations this study builds a comprehensive model of the short term price performance of the new offerings. Results indicate that the IPOs are underpriced in India. Oversubscription and market volatility was found to be the major factors influencing underpricing.
- Mr.Arif Khurshed of Manchester Business School, Mr. Ajay K. Singh of Indian Institute of Management, Bangalore and Mr. Alok Pande of Weatherhead School of Management have in their article stated that the distinct regulatory design of Indian IPOs permits an empirical evaluation of IPO under pricing models against those that model IPO initial returns as a consequence of overpricing. The authors find that the winner's curse problem for retail investors can be alleviated through transparency of the book building process but that does not eliminate IPO initial returns. Further, IPO initial returns persist but do not increase even if investment bankers are stripped of their discretionary allocation power.
- Mr. Arun Kumar Gopalaswamy, Mr. Kartikeya Chaturvedi and Mr. N. Sriram of IIT Madras have in their article tried to investigate empirically the difference in long run post issue performance of initial public offerings (IPOs) that tapped the Indian primary market through a fixed price offer and book building offer; also to assess the persistence of underperformance between these two routes of offering. The results suggested that there was no difference in the direction of performance of the issues post listing in the short run, however in the long run the issues that tapped the market through the book building route seemed to perform far better than the ones that raised money through a fixed price offer.

VI. METHODOLOGY OF THE. STUDY

5.1 Sources Of Data

The present study is based only on secondary data. The secondary data is collected from the websites nseindia.com, bseindia.com and chittorgarh.com. Besides this, secondary data was also collected from books, magazines, other websites and journals

5.2 Scope Of The Study

Using secondary data the study was conducted for a period of April 1, 2015 to March 31, 2016. The study includes all IPOs, with equity share as an instrument, which were listed in NSE and BSE or in

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any one of them. In other words, companies listed only in regional stock exchanges were not considered for the purpose of the study.

5.3 Objectives Of The Study

- To find out the amount of mega issues and their share in relation to total capital mobilized by Indian companies during the study period.
- To measure the initial under pricing of IPOs issued through both book building and fixed price method i.e., from the date of offer to the public to the date of their listing.
- To make a comparative study between book building method and fixed price method of public issues.

5.4 Hypothesis

H_1: There is difference in the mean returns of the IPOs issued through book building method and fixed price method.

5.5 Tools Used For Analysis

The data collected were analyzed with the help of statistical techniques and financial tools generally used by researchers in such analysis. These techniques are further explained in detail.

Financial Tools: To determine the magnitude and the degree of the deviations of the market price of the stock from its offer price, returns have been computed. If the returns are positive, the indication is that of under pricing while negative returns imply overpricing. This initial return on IPO has been computed as the difference between the closing price on the first day of trading and the offer price, divided by the offer price.

$$\text{Initial Return} = \left(\frac{P_1 - P_0}{P_0} \right) * 100 \quad \text{------------------------} (1)$$

Where P_1 = Closing price on the listing day

P_0 = Offer price

Since the market was in different phases during the study period, this return estimated by equation (1) has been adjusted using the returns on the CNX S&P Nifty Index for the corresponding period.

$$\text{Market adjusted initial return} = \left(\frac{P_1 - P_0}{P_0} - \frac{M_1 - M_0}{M_0} \right) * 100 \quad \text{--------------------} (2)$$

Where M_1 = Closing value of the market index on the listing day

M_0 = Closing value of the market index on the offer closing day

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TESTING OF HYPOTHESIS USING T-TEST:

In this study the researcher used two tailed t-test to test the difference between means. For this study the researcher tested hypothesis at 5% level of significance and has used MS Excel for the calculations.

5.6 LIMITATIONS OF THE STUDY:

- The data used in this study is collected from websites like nseindia.com and bseindia.com without examining their accuracy and correctness further.
- All limitations associated with various tools which are widely used to analyze and interpret the data, are applicable to this study.
- Only equity issues are considered.

VII. DATA ANALYSIS

Table below shows the total number of IPOs in the Indian capital market from 2005 to 2009. The table shows the number of fixed price and book- built IPOs in India in the year 2015-16 and the issue size.

TABLE No.: 1

TOTAL NUMBER OF IPOs AND THE ISSUE SIZE

Type of Issue	No. of IPOs	%	Issue size (Rs. in crores)	%
Fixed Price	25	36.23	12271.04	97.69
Book building	44	63.77	290.76	02.31
Total	69	100	12561.8	100

Source: nseindia.com and bseindia.com

Table 1 shows the number of IPOs in the Indian market during the period 2015-16 and their issue size. It is evident from the table that though the numbers of IPOs issued under fixed price method are more than that of the book building method, the amount raised by book building issue is 97.69% of the total issue size. This can be attributed to the fact that most of the fixed price issues were from MSME sector where the issue size was less than Rs.5 crore.

6.1 Percentage Of Mega Issue:

Mega issues are issues over Rs.100 crores. It is generally believed that book building method is more suitable for mega issues. This is because the cost of issue of shares through book building mode is more and hence it is suitable mainly for mega issues where amount raised is more than Rs.100 crores.

TABLE NO. : 2

PERCENTAGE OF MEGA ISSUE TO TOTAL ISSUE

Type of issue	No. of Issues	%	Issue size	%
Mega Issue	22	31.88	12124.6	96.52
Small Issue	47	68.12	437.2	03.48
Total Issue	69	100	12561.8	100

Source: nseindia.com and bseindia.com

The pattern of Mega Issues and their share in relation to total capital mobilized by Indian companies during the study period are presented in Table 2. It is evident from the table that money raised through mega issues formed 96.52% per cent of the total issues during the study period, but the number of mega issues made during the year was only 31.88% of the total issue.

6.2 Price Performance Of Ipos – Comparison Between Book Building Issues And Fixed Price Issues

In Indian IPO markets, book building mechanism was introduced a few years back and has since gained popularity particularly for relatively larger IPOs. Traditionally, Indian IPOs used to be fixed price offerings. While book building has become increasingly popular especially for large issues, smaller issues by relatively small firms continue to be offered on fixed price basis. Indian IPO markets thus, provide a natural setting to understand whether there are any systematic differences in under pricing of the IPOs following fixed price as opposed to book building method.

To make a comparative study between book building and fixed price issues, initial returns and market adjusted excess return is considered.

Table No.: 3

Comparative Study Of Returns Of Book Building Method And Fixed Price Method

Type of Issue	Book Building Mechanism		Fixed Price Mechanism	
	Initial Returns	Market adjusted Initial Returns	Initial returns	Market adjusted Initial Returns
Under Pricing	16	15	34	31
Over Pricing	9	10	10	13

Source: Self computation

From the study it was clear that when initial returns were calculated as per equation no (i),it is evident that 16 put of 25 issues under book building method was underpriced where as 34 out of 44 fixed price issues were underpriced.

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In case of market adjusted initial returns which were calculated as per equation no (ii), it is evident that 15 out of 25 book building issues were underpriced whereas 31 out of 44 fixed price issues were underpriced.

6.3 Students T Test (Two Tailed Test)

In this section the performance of IPOs issued through book building method and fixed price method are compared using t-test.

H_o: $\mu_1 = \mu_2$ (There is no difference in the mean returns of the IPOs issued through book building method and fixed price method on the listing day.)

H_1: $\mu_1 \neq \mu_2$ (There is difference in the mean returns of the IPOs issued through book building method and fixed price method on the listing day.)

Table No.:4

Students T Test

Particulars	Book Building Method	Fixed Price Method
Mean	0.080752	0.071501
Variance	0.039973	0.024896
Observations	50	88
Degrees of Freedom	84	
t Stat	0.281186	
t critical two-tail	1.98861	

Source: Computed using MS Excel

When we compare the standardized statistic, that is, t = 0.281186 with the critical value $t^*=\pm1.98861$ at 0.05 level of, we find that the critical value is greater than the standardized value at 5% level of significance. Hence we accept the null hypothesis (H_o) and reject the alternate hypothesis (H_1) that there is no significant difference in the mean returns of the IPOs issued through book building method and fixed price method on the listing day.

VII. CONCLUSION

It is clear from the study that though numbers of fixed price issues are more than the book building issues, the amount raised through book building issue is much higher than the fixed price issue, since most of the mega issues are made through book building mode.

The empirical analysis reveals that average return on the listing day in case of fixed price issue is 7.04% and in case of book building mechanism is 6.4%. In case of market adjusted initial returns, the average return in fixed price offer is 7.3% and book building mechanism is 9.8%.

From the above analysis, it can be concluded that book building method of public issues have been widely accepted in India and is being widely used in case of mega issue. It can also be concluded that under pricing is present in both NSE and BSE.

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