

Demonetization Impact on Underpricing: An Empirical Study Based On NSE

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ABSTRACT

This empirical study is an attempt to gauge the level of underpricing or overpricing of Initial Public Offers in India after demonetization. The initial public offers offered (after demonization) during the period of 9 December 2016 to 30 June 2017 have been studied. The study observes the price behavior of twelve Initial Public Offers which have been offered after demonetization. The return on IPO has been computed by taking closing price of IPO on listing date and offer price of the IPO.

The price behavior of Initial Public Offers has been examined with the help of price indicators: Average Market Adjusted Abnormal Return (Avg. MAAR).

Key Words: Market Adjusted Abnormal Return, Initial Public Offers.

Introduction

On November 8, 2016 the Government of India announced to discontinue currency notes on Rs 500 & Rs 1000 to eliminate fake currency circulated in market and to curb the black money as per the Election Agenda of NDA. It was also an effort to turn India into cash less economy.

Due to demonetization GDP growth rate slowed down to 6.1 per cent in Q4 of financial year 2016-17 as come to 7.1 per cent in Q3 of the same year(Hindustan Times dated 1 June 2017).

Industrial production contracted in December 2016 due to a sharp decline in production of consumer goods confirming a demonetization led contraction in demand. The Index of Industrial Production (IIP) was 0.4 per cent lower in December 2016 from the same period ago.

The present study is attempt to check the impact of demonetization on pricing of Initial Public Offerings in India.

Review of Literature

The review of the various studies with respect to the pricing of IPOs and price performance of IPOs are as follows: Krishanmurti and Kumar (2002) studied 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 underpricing 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 & DhandaNeelam (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 & DhandaNeelam (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 & DhandaNeelam (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. NarangSahil& Kumar Vinod (2017) in study of underpricing of initial public offerings: An Indian Evidence considered a sample of 49 IPOs offered during 2014-16 proved that there is underpricing in Indian IPO Market. The Avg. MAAR was 14.63 per cent.

Research Methodology

Objectives of the study:

The research has been conducted to attain the following objectives:

1. To ascertain the raw return of Initial Public Offers, as well as Market Adjusted Abnormal Rate of Return of Initial Public Offers;
2. To analyze the Market Price Performance of Initial Public Offers issued through Book Building;
3. To check the level of Underpricing in Indian capital markets after Demonetization.

Plan of the study:

This study is based on equity shares initial public offers offered on NSE during the period from 9 December 2016 to 30 June 2017. The IPOs of twelve companies have been considered for research. Book built IPOs offered through NSE 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.nseindia.com, various annual reports of SEBI, CMIE-Prowess database, Prime database, and several issues of The Economic Times & Hindustan Times.

Analysis Pattern of the Study:

With a view to know Average Raw Return on IPO (ARR), Return on Market Index (Rm) 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

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

Where, R_i (%) is the shareholders' Average Raw Return, P_i is the closing price on the first day of trading and P_0 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: H_0 : Average market adjusted abnormal return is not significant or there is no underpricing in Indian IPOs market.

Analysis and Statistics

This section depicts the level of underpricing after demonetization. The results are in line with other Indian and International studies. Table 1 shows IPO-wise average raw return, market index return & average market adjusted abnormal return. Average market adjusted abnormal return (MAAR) is used to determine the level of underpricing. Indian IPO market has shown underpricing for the study period. Underpricing ranges -17.5% to 114.6%. The average market adjusted abnormal return is highest for the IPO Avenue Super marts Limited. It is found that average market adjusted abnormal return for all 12 IPOs is 25.202%. 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. Therefore it is concluded that Indian IPO market remained underpriced during the study period. Demonetization could not change the nature of underpricing of the Indian IPO market.

Table 1

Sr. No.	IPO Name	Offer Price (Rs.)	Issue Date	End Date	Listing Date	Nifty issue end date	Nifty Issue listing date	Nifty Return(%)	Issue listing Price	Issue Return (%)	MAAR(%)
1	Central Depository Services (India) Limited	149	21-Jun-17		30-Jun-17	9634.0	9521.0	-1.2	260.7	75.0	76.1
2	Eris Lifesciences Limited	603	20-Jun-17		29-Jun-17	9654.0	9504.0	-1.6	599.5	-0.6	1.0
3	Tejas Networks Limited	257	16-Jun-17		27-Jun-17	9588.0	9511.0	-0.8	262.6	2.2	3.0
4	PSP Projects Limited	210	19-May-17		29-May-17	9428.0	9605.0	1.9	199.5	-5.0	-6.9
5	S Chand and Company Limited	670	28-Apr-17		9-May-17	9304.0	9317.0	0.1	680.0	1.5	1.4
6	Shankara Building Products Limited	460	24-Mar-17		5-Apr-17	9108.0	9265.0	1.7	634.0	37.8	36.1
7	CL Educate Limited	502	22-Mar-17		31-Mar-17	9030.0	9174.0	1.6	422.1	-15.9	-17.5
8	Avenue Supermarts Limited	299	10-Mar-17		21-Mar-17	8935.0	9122.0	2.1	647.8	116.7	114.6
9	Music Broadcast Limited	333	8-Mar-17		17-Mar-17	8924.0	9160.0	2.6	372.0	11.7	9.1
10	BSE Limited	806	25-Jan-17		3-Feb-17	8603.0	8741.0	1.6	1070.6	32.8	31.2
11	Laurus Labs Limited	428	8-Dec-16		19-Dec-16	8247.0	8104.0	-1.7	480.0	12.1	13.9
12	Sheela Foam Limited	730	1-Dec-16		9-Dec-16	8193.0	8262.0	0.8	1032.0	41.4	40.5

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	10
Overpricing	2
Total	12
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

	N	Minimum	Maximum	Mean	Std. Deviation
Offer Price (Rs.)	12	149	806	453.92	213.624
Nifty Return(%)	12	-1.7	2.6	.605	1.5600
Issue Return (%)	12	-15.9	116.7	25.806	38.1705
MAAR (%)	12	-17.5	114.6	25.202	37.9728
Valid N (listwise)	12				

Source: Data compiled by researcher through SPSS

Table 4

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Issue Return (%)	12	25.806	38.1705	11.0189
MAAR(%)	12	25.202	37.9728	10.9618

Source: Data compiled by researcher through SPSS

Table 5

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Issue Return (%)	2.342	11	.039*	25.8064	1.554	50.059
MAAR(%)	2.299	11	.042*	25.2017	1.075	49.329

*Data compiled through SPSS

* Tested at 5 per cent level of significance

The average offer price of 12 IPOs is Rs 453.92. The offer price of BSE Limited is found the highest (Rs 806). The Average MAAR is reported 25.202 percent.

Table 6

Price Behaviour (Underpricing) On Listing Day Of IPOs after Demonitization

Sample	No. of IPOs	Average Raw Return (%)	Average Market Adjusted Abnormal Return (%)
Total	12	25.806*	25.202*

*Data compiled through SPSS

* Tested at 5 per cent level of significance

Table 6 depicts the average raw return and average market adjusted abnormal return of all 12 IPOs. It depicts that the average raw return on the securities is 25.806 % and average market adjusted abnormal return is 25.202% which is significantly different than zero at 5 percent level of significance. It concludes that IPOs outperformed on the listing day after demonetization also. 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 December 9 2016 to 30 June 2017. 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 is concluded that the average raw return of the IPO is 25.806 % and average market adjusted abnormal return is 25.202%

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