Effect Of Market Conditions, Oversubscription And Market Efficiency On IPO Underpricing

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INTRODUCTION

Initial Public offers (IPO) have been considered as an attractive tool of investment, especially for the shorter duration of time. Issuing shares to the public for the first time is the journey from being a private company to a public company. It is one form of capitalization through which a privately owned company can raise additional funds to expand its business. The company that issues shares is not liable to return the money that arose. In return, the shareholders are given the right to share the profits & the right to capital distribution in case of dissolution. Hence, the shareholders are the owners of the company.

The process of issuing shares by getting the shares registered on a recognized stock exchange is called listing. Any further issue by a company that is already listed is called further issue of shares, thereby giving a company a platform to raise capital without incurring any liability. This further issue is done first through right issue, that is giving an option to the existing shareholders to buy the further issue & if they don't exercise the option, these shares are sold in the market.

According to financial experts, IPOs both in India & other countries have been under priced. There have been numerous studies to reiterate that the Indian IPO is under priced. For example, Religare Enterprises' IPO in 2007 was under priced by ₹ 337 per share & it was oversubscribed 159 times. Investment bankers have to keep several things in mind while pricing an issue. Under pricing also becomes the need as it becomes indispensable for a new company to garner interest of the investors. At least, the investors should be able to commission, in the short run, especially for the risk they are undertaking and for lost of liquidity, by paying money at the time of offer. But from the issuers point of view, under pricing is not good as they will loose the money that they could have earned if the issue is appropriately priced. Under pricing portrays a picture that there is strong demand for the share and that it could have been priced higher and the company could have earned more money. Hence, it is considered as losing the money on the table due to under pricing. Many investors buy the shares at the time of offer, even by raising loan to sell the shares on the very first day/ list day to make substantial profits.

Overpricing also has received major setbacks. If an issue is overpriced, the underwriters will not be able to justify the expectation of the investors as per the return for risk and liquidity & thereby, loose the long term faith of the investors that may ultimately result in further lowering of prices. At time of new issue, if minimum number of shares is sold in the market, the issuer has to reverse the sale of shares. If the issue is not appropriately priced, there are chances that the issue may not be subscribed in full. Thanks to underwriters, who guarantee that if the whole issue is not subscribed in full, they will buy the rest, thereby assuring the issuers that the whole issue will be subscribed in full.The pricing of an IPO, thus, is quite critical and is decided by a team of top managers of a company. **There are two ways through which the pricing is done these days: one is to fix one price at which the shares are issued & other is through the Book Building process or can be a combination of the two. Book Building process is to give a price band to the investors instead of a single price. It gives more flexibility to investors & has bright chances of shares getting sold in full. During the period for which subscription is open, the bids are collected from investors at various prices in between the upper & the lower value. After the subscription period closes, the investment bankers determine one final value at which the shares are issued. And in case the shares are over subscribed, the companies can also exercise the Green shoe option, under which they can sell shares more than offered in the range of 15% of the original number issued.** These days, in India also, the shares are issued through the Book Building process. There have been numerous studies to analyze the performance of IPOs for a short period to a long period & studies have proved that though the performance of various IPO is extremely good as a first day return, but IPOs tend to underperform various

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benchmarks when their performance is evaluated for medium or short term. But, this fact has proven right only for developed countries & not for the developing countries **(Madhusoodanam & Thriripalraju, 1996)**. Their study has proved (for Indian IPOs issued between 2000 & 2001) that underpricing exists in the Indian Market. The study also says that underpricing is not a phenomenon of market efficiency where arbitrage can take away excess profits by the end of the day, rather, it is due to the behavior of the firms who want to compensate the investors for loosing liquidity by spending money on offer date and to compensate for the risk undertaken by the investors **(Janakiramanan)**.

This study has been made to test whether Indian IPOs follow the same trend in two time periods i.e. one year before Feb 2008, when there is a bubble in the market & one year after Feb. 2008, when there is slump in the market, to see the pricing & performance of Indian IPOs. To see the under pricing of Indian IPOs, they have to be tested on various parameters. First, the aim is to determine the degree to which Indian IPOs are under priced. Second, if there is any under pricing, do the market conditions have any effect on such under pricing **(Ritter, 1984)**. Third is to study the market efficiency to understand whether the promoters can time their issue as per the market conditions. This can be done by estimating the return from offer to open & from open to close to see if the excess return has been swiped away by the end of the day. This is based on the finding that the difference in the market price & the offer price is due to the valuation method & the arbitrage process should eliminate any risk-free economic profit **(Ross, 1976, cited by Murugesu and Santhapparaj, 2009)**.

LITERATURE REVIEW

Various studies have been done by the researchers in Indian as well as in international markets to prove that the IPOs are under priced, thereby letting the investors cash on it.

A study done on Malaysian IPOs emphasized that IPO market prices are efficient in early trading & that the under pricing is not influenced by market conditions. He also said that the IPO under pricing is mainly due to time lag between the offer date & list date. He studied that there is a positive return from the offer date to opening date but the difference b/w the opening price & closing price is negative **(Murugesu and Santhapparaj, 2009)**.

Another study was done by **Ritter**, where he analyzed the performance of IPOs in United States for the period from 1975 to 1984 and the conclusion was that the IPOs didn't perform well in 3-5 years time **(Ritter, 1991)**. The performance of US IPO was again proved by another study of the US IPO issued before June 1998, but proved the opposite for the issues after 1 June, 1998 **(Schaub and Highfield, 2004)**.

One study on Indian IPOs provides the evidence that oversubscription has a direct relationship with the under pricing of Indian IPOs as well. The study is based on 1963 fixed price offerings listed on Bombay Stock Exchange from the period of July 1992 to August 2006 & found that oversubscription has a positive & significant impact on under pricing of Indian IPOs during the period **(Shelly and Singh, 2008)**.

One recent study has given under pricing a different perspective that is measured in terms of number of shares sold times the difference between the first day closing price & the offer price. The author found that $9.1 million is left on the table in an average IPO. In terms of market volatility, he iterated that mo*r*e money is left on the table following recent market rises than after the market falls **(Loughran and Ritter, 2002)**.

The above has been re-emphasized by another study on NSE to say that listing delay leads to the first day under pricing; whereas, the amount of money spent on advertisement is insignificant. However, the post IPO performance in one month after the listing is negative **(Pande and Vaidyanathan, 2009)**.

In one of the study on Indian IPOs, it was found that uncertainty plays a huge role in the under pricing phenomenon of Indian IPOs. He studied 1842 companies from the year 1993 to 2001 & concluded that under pricing was less during the hot period (high volume) as compared to the slump period **(Ghosh, 2005)**.

It appears from the study of under pricing nationally as well as internationally that under pricing is mainly due to lack of prediction of the future growth of the newly listed companies. This is the reason that investment bankers tries to reduce the information gap between the issuers & investors by disseminating information about the age, size, promoter, industry classification, etc. **(Rock, 1986)**.

Under pricing in Indian Market has been proved in another study of 116 IPOs listed on the Bombay stock Exchange and National Stock Exchange for the period of 2000 to 2001. The benchmark taken in the Indian Bombay stock Exchange index was named **Sensex**. It was emphasized that under pricing doesn't show market inefficiency, but it is

derived from sound micro economics that show the behavior of firms and investors. He has given several reasons for under pricing. One is the time lag between setting the offer price and the listing day which is around 21 days and that the under pricing can increase if the time lag further increases. Then he emphasized that the investors should be compensated for the risk and loss of liquidity by investing for future issues at offer date **(Janakiramanan)**.

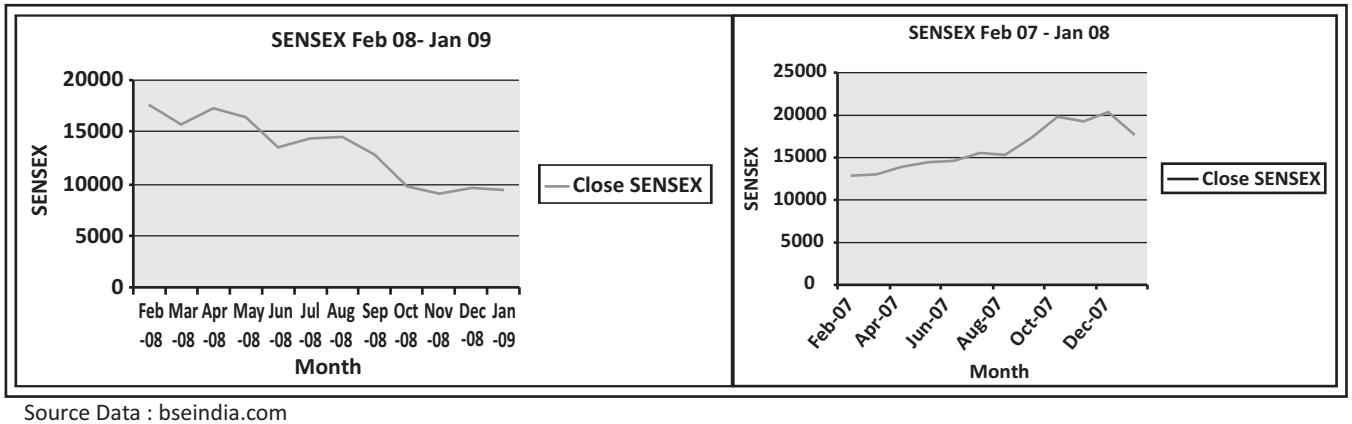
One study on IPOs listed on National Stock Exchange from March 2004 to October 2006 proved the same results that the listing delay positively effects the first day under pricing whereas, the effect of money spent on marketing of IPOs is insignificant **(Pande and Vaidyanathan, 2009)**.

A study done on the banking sector for the under performance of 24 banks that were listed in 1990 could not find any evidence of under pricing in the banking sector during that time frame **(Ghosh, 2005)**. Another study done on 43 bank IPOs issued during 2001 and 2005 suggests that though the under pricing exists for banks during the time frame, but the extent of under pricing is less for the issues managed by prestigious investment bankers. In other words, he said that under pricing is the phenomenon of valuation method **(Sahu and Rajib, 2009)**.

METHODOLOGY

The first day performances of the IPOs listed on Bombay Stock Exchange are investigated for two time periods: Feb 07-08 that represents the phase of a "Bubble" when the Sensex (BSE Index) rose from around 12000 to 18000, even reaching 20,000 in the time period & other is Feb 08-09 that represents the phase of "Slump" in the market, where the Sensex drops from around 18000 to 9000. The data resulted in a sample of 103 IPOs for the year 07-08 and 29 IPOs for the year 08-09. For each of these time periods, offer price, open price & close price of the security was recorded (capitaline.com) & the closing data of the benchmark i.e. Sensex for both the offer day & open day was recorded to evaluate the IPOs' performance in terms of under pricing & first day return in comparison to the market return for the same time lag. The results have been interpreted mainly on Excel and SPSS statistical package.

Figure 1: Trend Of Sensex For Two Time Periods On The Basis Of Which The Study In Divided In Two Time Periods



Source Data : bseindia.com

As per Ritter, the under pricing was measured by taking the difference between the closing Market Price of the IPO on the first trading day & the company's offer price (Ritter, 1984). To reflect the proportionate change in the under pricing value (unadjusted under pricing), the above value is divided by the offer price. Hence, the following formula will depict the under pricing of the shares for the first trading day:

UPi = (P1i - P0i),

UPi_P = (P1i - P0i)/ P0i

Where UPi = Under pricing of the share i

UPi_P = Unadjusted Under pricing.

P1i = closing price of the security i on first trading day

P0i = offer price of security i.

The above formula will be an indicator to see if the security is issued at a discount, or appropriately priced or overpriced (Miller and Reilly's, 1987).

Issued at discount/ under priced = if UP or UP_P is positive
Appropriately priced = if UP or UP_P is zero
Overpriced = if UP or UP_P is negative.
Hence,

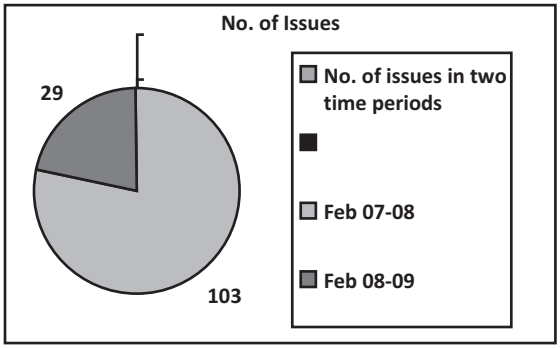
❁ Hypothesis 1 (H1): Under pricing exists for the given time period for Indian IPOs.

The purpose of the above hypothesis is to see if the shares are under priced or not for the given time period, which is calculated by the UP and UP_P mentioned above.

Table 1 : Shows The Number Of Issues In Two Time Periods

No. of issues in two time periods	
Feb 07-08	103
Feb 08-09	29

Figure 2: Chart For Data In Table 1



Both overpricing & under pricing are harmful from the promoter's point of view. If shares are overpriced, people will loose the faith in the company, which will hamper the long term commitment of the shareholders. And if the shares are under priced, promoters will loose the issue proceeds & net worth of the organization (Loughran and Ritter, 2002). To reduce the extent of pricing variation, many companies follow the Book Building process to issue IPOs.

There have been proven theories about the relationship between the market index & the under pricing of the share (Aggarwal and Rivoli, 1990; and Logue, 1973). The argument given by them is that there is a time lag between the offer date, the open date and this is due to this time lag. The IPO may record a higher closing market price as the market may also notice an increase over this period. To control for this effect, they recommend the use of Market Adjusted Abnormal Return (MAAR), which is calculated as the difference between the initial return on the security (Ri) & the return on the market portfolio (Rm). Hence the equation is given as:

MAARi = Ri - Rm,

Where R i = (Closing market price on first day - offer price)/ offer price,

Or Ri = (P1i-P0i)/ P0i = UP_P

Rm = (closing SENSEX on first day- closing SENSEX on offer day)/ closing SENSEX on offer day,

Or Rm = (M1i - M0i)/ M0i

Hence, the hypothesis tested is:

❁ Hypothesis 2 (H2): There is a relation between the market conditions and the under pricing phenomenon, which is calculated by computing MAAR.

The second hypothesis will be tested by calculating MAAR and by establishing the relationship between Ri and Rm to decide whether the under pricing follows a random walk. For this, their mean, median, t-value will be calculated & it will be tested for its significance by calculating its p-value.Now, the efficiency of the market can be examined by seeing the relation between the share prices from offer to open & open to close. There have been studies to prove that if the market is efficient, then the offer price will be equal to the open price as the process of arbitrage would eliminate any risk free profits (Ross, 1976).The same has been suggested as a measure to see if the valuation model is appropriate or not (Alford, 1992). He suggests the calculation of Absolute Prediction Error, which is calculated as the

difference between the offer price and the open price and if it is zero, then the valuation method is accurate.

Absolute Prediction Error = (OMP - OP)/ OP,

Where OP is the offer price,OMP is the opening market price on listing.

Hence, third hypothesis is tested to see if the market is efficient & that the under pricing is not taken away by the end of the day by comparing the returns from offer to open date, open to close & offer to close.

❁ Hypothesis 3 (H3): There is significant association between Return from Offer to Open (ROO) & Return from Open to close (ROC).

To prove the above hypothesis, ROO (return from offer to open) & ROC (return from open to close) will be tested for any association (Murugesu and Santhapparaj, 2009). In his study on Malaysian IPO, he found that if the market is efficient, there should not be any statistically significant association between "ROO" & "ROC". Also, it will support the findings that the Indian IPO are sufficiently under priced as to compensate the investors for information lag.

Therefore, ROO & ROC will be tested for any correlation between them at 5% level of significance and the difference in their means will also be tested at 55 level of confidence.Another hypothesis is tested to say that there is a positive relation between number of times a security is oversubscribed & their average market adjusted abnormal returns. Rock suggested that higher the informed demand about a particular issue, the higher will be the under pricing (Rock, 1986).

❁ Hypothesis 4 (H4): There is a positive relation between oversubscription and market adjusted abnormal return.

The above hypothesis will be tested to see if the same works for the given time period as well. Today is the world of transparency. These days, investors are provided every information about the company through the prospectus which helps them make their investment decisions. And the level of subscription increases only if there is enough information about the company in the market. In all, the IPO of the said time periods are being tested on various parameters to evaluate the under pricing of the issues, the effect of market conditions on under pricing, efficiency of the market & effect of over subscription on the under pricing.

ANALYSIS & INTERPRETATION

DESCRIPTIVE STATISTICS

UNADJUSTED UNDER PRICING

Table 2 shows the description of the variables discussed above. The IPOs for Feb 07-08 were, on an average, under priced by ₹ 41 per share or 30 % if it is seen as an unadjusted under pricing & if market adjusted abnormal returns are

Table 2 : Statistics For Measuring Under Pricing For Both Years

Feb 07-08					
	Abbreviation	**Mean**	**Median**	**Max**	**Min**
Offer Price per share	OP	202.126	130	825	48
Open MP per share	OMP	239.951	150	1443.75	2.1
Closing MP per share	CMP	243.3509	138.3	1509.95	3.77
Under pricing per share	UP	41.22485	7.2	684.95	-629.51
UP Ratio	UP/OP	0.300727	0.08581	6.854167	-0.76994
UP based on Market adjusted returns	MAAR	0.300805	0.063151	6.8347	-0.86038

Feb 08-09					
	Abbreviation	**Mean**	**Median**	**Max**	**Min**
Offer Price per share	OP	122.1066	85	540	1.96
Open MP per share	OMP	125.02	90	550	2
Closing MP per share	CMP	121.8103	81.5	707.2	0.92
Under pricing per share	UP	-3.20966	-3.85	157.2	-246.6
UP Ratio	UP/OP	-0.00522	-0.05449	1.595714	-0.93619
UP based on Market adjusted returns	MAAR	0.062029	0.0098	1.543648	-0.96293

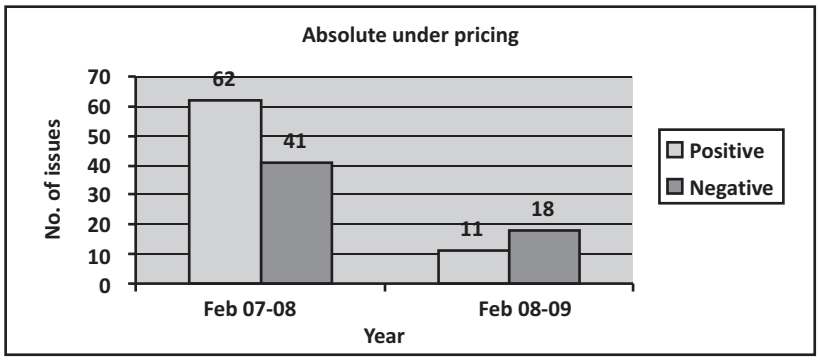
used, under pricing remains the same as 30%; whereas in Feb 08-09, IPOs were overpriced by 3.2 per share or 0.5% if seen as unadjusted return whereas, if market adjusted abnormal returns are used, overpricing is eliminated & IPOs were under priced upto 6.2%.

As per the Table 3, around 60% IPOs are under priced, 40% were overpriced for the year 07-08 as compared to 38%; which were under priced, and 62% were overpriced for the year 2008-09.

Table 3 : Absolute Under Pricing

Under priced/ Overpriced	Positive	Negative	
Feb 07-08	62	41	103
	60.19417	39.80583	100
Feb 08-09	11	18	29
	37.93103	62.06897	100

Figure 3: Chart For Data In Table 3



Hence, results show that in the "bubble" period, the securities are under priced, whereas in the "slump" phase, the securities are overpriced. Hence, on an average, under pricing does not exist at times of slump, whereas, sufficient examples can be seen at times of optimism in the market.

EFFECT OF MARKET CONDITIONS ON UNDER PRICING

As per the previous research, it was found that if the mean of the unadjusted return and market adjusted abnormal return is not significantly different, then the market conditions surely affects the shares being under priced and that the issuers of shares can time their issue accordingly (Ritter, 1984). Similar are the findings of another study where the companies are getting very high under pricing which is mentioned as "Hot" period phase, whereas the number of listings increase during the "cold" period (Ibbotson and Jaffe, 1975). The argument given is that the issuers also tend to reduce the extent of under pricing so as to maximize the issue prices of the IPOs.

As per Table 4, the market adjusted abnormal return was under priced by 30% in Feb 07-08 as compared to 30% average for the unadjusted mean, whereas in Feb 08-09, under pricing was only 6.2% on an average, as compared to the over pricing of 0.5% as unadjusted mean.

Table 4 shows the comparison of the means of the unadjusted UP ratio and market adjusted return for the year 07-08 shows that the difference in the means of the two is insignificant at 5% level of confidence as the p-value of the difference is 0.991.

Table 4 : Showing The Stats. For The Difference In Unadjusted Return And Market Adjusted Abnormal Return

Comparison of UP ratio and MAAR		
	Feb 07-08	Feb 08-09
Absolute difference between mean	0.00008	0.067
T-stats	0.011	4.09
P-value	0.99	0

Whereas for the year 08-09, the absolute difference between the mean of the two was 0.067, which is significant at 1% level of confidence. This indicates that the under pricing of the share do not follow the market trend.
The above analysis confirms the findings discussed for the year 07-08, which is the finding of another study on 264 shares of Malaysian IPO (Murugesu and Santhapparaj, 2009).
Another argument for the under pricing trend in 08-09 can be attributed to the fact that 79% of the issues in that year are small- cap, whereas Sensex represents top 30 companies only which is not the representation of small companies' trends.
As per the market experts, market capitalization is an important factor to determine the investment style of an investor. Market cap is calculated by multiplying the number of shares sold publicly by the market price of the share. The market price changes every day, therefore, the market cap also changes every day. Thus, it provides the total value/ net worth of the company as a whole.
It is very much probable that the investors get caught in a trap of economic bubble, or loose faith at times of slump & the market cap can be one of the factors that may affect the public opinion. It is the general belief that at times of bubble, investment can be done in small or mid cap firms, but at times of recession, it is very risky to trust small & mid cap firms.
The table 5 shows that IPOs, that cater to the small cap, are 79%, IPOs of mid cap firms are only 7% & are 14% for large cap, which itself indicates poor response from the market.
In times of economic bubble, 34% are IPOs of large cap, & 56% are IPOs of small cap firms & the rest 13% are mid cap. Hence, these firms have also taken the benefit of the market rise by timing their IPOs during this period.

Table 5 : Shows The Number & Percentage Of Issues As Per Market Capitalization

Market Cap	Feb 07-08	Feb 08-09	Feb 07-08	Feb 08-09
Small Cap	56	23	54%	79%
Mid Cap	13	2	13%	7%
Large Cap	34	4	33%	14%
	103	**29**	**100%**	**100%**

The table 6 tests the hypothesis whether the market adjusted abnormal return mean is significantly different from the population mean. For the year Feb 07-08, the relationship was significant at 1% level of confidence as the p-value is 0.001. Hence, at that time period, there was optimism in the market & the investors could predict the growth statistics and that the sample represents the population.

Table 6 : Shows Stats Of MAAR For One Sample T-Test

MAAR	Feb 08-09	Feb 07-08
Mean	0.062	0.3
Median	0.0098	0.063151
SD	0.57	0.86
T-stats	0.583	3.53
P-value (2 tailed)	0.564	0.001

Whereas, the time period of Feb 08-09 shows uncertainty in the market & market adjusted mean is not significantly different from the population as the p-value is 0.564, which is much above 5 % level of confidence. Hence, market adjusted abnormal return of this time period does not represent population and thereby, investors cannot predict any stats. from the given information about the IPO in this year. Feb 08-09, considered as the "cold" period did not show the market trend & hence, the market is uncertain & IPOs' return at that time period follow a random walk.

OVERSUBSCRIPTION

The Table 7 proves Rock's findings for the bubble phase for Indian IPO and the year 07-08 shows positive relation between the over subscription and Market adjusted abnormal return, but of course, the slump phase proved to be an uncertain market time and again, from all the tests, there is very less over subscription & there is not even a single

evidence of increase in returns with increase in subscription. This phase, basically, shows lack of trust among the investors.

Table 7 : Shows The Relation Between Oversubscription And MAAR

Oversubscription	Feb 07-08	MAAR average	Feb 08-09	MAAR average
sample	103		29	
Less than 5	48	0%	23	1%
5 to 10	9	9%	3	-6%
10 to 20	6	54%	1	0%
20 to 50	18	58%	2	-1%
50 & above	22	75%	0	0%

MARKET EFFICIENCY

Market is considered as efficient if the initial market prices cannot be used to predict the subsequent market returns (Mcdonald and Fisher, 1972; and Barry and Jenning, 1993, cited by Murugesu and Santhapparaj, 2009). He suggests that if the market is efficient enough, the promoters could have planned the listing date of their IPO.

There are also some studies that measures under pricing for the time lag of the offer day & the list price or the open price (Yong and Isa, 2003). In their study, Young and Isa (2003) calculated under pricing (offer to opening market price) at 94.9% for the time period of Jan 1990 to Dec 1998. Hence, under pricing in this study has been studied from another parameter i.e. comparison of close to offer return with open to offer & close to open so as to see if there is a variation in valuation of the shares, whether the correction has been done in the market from open to the close of the day and the excess profits due to under pricing have been eliminated by the end of the day.

The Table 8 shows that the mean returns for offer to open is 22% while from open to close, it is just 4% for the year Feb 07-08 as compared to 4% for offer to open & -4% for open to close.

Table 8 : Shows The Relative Return Of Offer To Close, Offer To Open And Open To Close

	Feb 07-08		Feb 08-09	
	Mean	Median	Mean	Median
(Offer-Close)/ Offer	0.300727	0.08581	-0.00522	-0.05449
(Offer-Open)/ Open	0.215226	0.071429	0.042251	0.006667
(Close-Open)/ Open	0.035751	-0.02507	-0.03973	-0.1059

Hence, it is clear that the market adds a little bit from open to close in year Feb07-08, but negative returns for open to close shows that little positive returns that accrue in Feb 08-09 are taken away by the end of the day.

Now, to test the significance of the above results, the correlation between Returns from Offer to Open (ROO) and Return from Open to Close (ROC) and the difference of the means of the two will be tested at 5% level of significance.

In one of the studies on Malaysian IPOs, the author tested the hypothesis that if the market is efficient, there should not be any statistically significant association between "ROO" & "ROC" (Murugesu and Santhapparaj, 2009), where

ROO = Relative return from offer to open

ROC = relative return from open to close

Table 10 shows that the correlation between ROO & ROC during 08-09 is not significant as the p-value is 0.639. Also, the difference between the means of ROO & ROC is not significant as the p-value is 44%. Hence, this rejects the alternate hypothesis that there is a relation between the ROO & ROC & hence, the theory is accepted that the initial price changes could not be used to predict the subsequent price changes for the year Feb 08-09, when the market was going down (Murugesu and Santhapparaj, 2009).

Whereas, the opposite is true for the year Feb 07-08, where the significance level of correlation b/w ROO & ROC was significant at 1% level. Also, the difference in the mean of ROO & ROC is significant at 0% significance level. Hence, the alternate hypothesis was accepted for the year Feb 07-08.

The result implies that if the people who subscribed for the shares at time of original subscription in Feb 08-09 have earned better than the people who bought it on open price, whereas in Feb. 07-08, the people who couldn't take

Table 9 : Shows The Stats For Correlation Between ROO & ROC And The Test Of The Difference Of Their Means

	Feb 07-08	Feb 08-09
1. Correlation		
value ®	0.31	-0.091
p-value	0.001	0.639
2. Difference between means		
Mean difference		
t-stats	3.98	0.783
p-value	0	0.44

(Calculated in SPSS)

advantage of original subscription could have gained advantage by buying the shares at the list price & holding the shares by the end of the day.

CONCLUSION AND SCOPE OF FURTHER STUDY

The study in concern is made on the level of under pricing of Indian IPOs for two time periods representing opposite market conditions. **The level of under pricing has been tested from four parameters: one is level of under pricing, second is to see the effect of the market conditions on the level of under pricing, third is to see the efficiency of the market and fourth one is to see the effect of oversubscription on under pricing. The results for the first phase that represents boom, growth and optimism in the market suggests that there exists sufficient under pricing and that the market conditions effect the under pricing of the issues. As far as the market efficiency is concerned, the market was not efficient enough in the period of study as the people who could not invest at time of offer also earned profits by investing on the first day of listing. Also, the investors were reimbursed for the risk undertaken by them by making an informed issue as the under pricing increases with the increase in the over subscription. Whereas, the other time period of downturn, pessimism, and slump shows no under pricing, instead, it shows symbol of over pricing.** The pricing of the shares does not show any relation with the market trend. The cause of this may be attributed to the fact that majority of the issues are from small cap companies, but in such times, investors generally loose faith in small companies. That's the reason why under pricing and over subscription is not showing any trend. Thus to sum up, this time period is actually not matching the current benchmark and thereby, showing no trend and doesn't confirm the findings of the previous researches mentioned earlier in the paper. Whereas, the other time period of "bubble" confirms all the earlier theories except for the market efficiency.

Further, the study can be done on the change in operating performance of the firms from being a private firm and then being public. The current study has got the potential to study the same issues for their one month or long term performance. Another study can be done on the ownership percentage retained by promoters after IPO.

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CONCLUSION

Performance appraisal is the best tool to achieve the employees Performance. Performance appraisal is done to improve performance, not to find a donkey to pin a tail on or blame. The objective of this study was to identify lacunae in the performance appraisal system, which are making performance appraisal system ineffective and by knowing deficient in performance appraisal, one can make an effective performance appraisal system, that would contribute to the goals of the organization & individual improvement because every employee spends a major part of his working life for the organization. In some organizations, mangers spend as much as about 80% of their working life for the organization (including the time they spend at home thinking about ,planning ,discussing etc of the things related to their work). So, it is of paramount importance to develop and utilize the most excellent and effective Performance Appraisal System.

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