

A RESEARCH PAPER ON UNDERPRICING OF IPO'S IN INDIA

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ABSTRACT:

Underpricing in Initial Public Offer has existed in so many parts of the world. In India context, the review of literature suggests the same. The objective is to find whether underpricing exist in IPO's in India or not. The performance of IP has been measured of different industries and the conclusion in that the underpricing very well exist in India IPO scenario.

INTRODUCTION:

The initial public offering (IPO) is an important step in a firm's life and a central issue in corporate finance. As such, the topic has received widespread attention in the literature. Enhancing the attention given to IPOs is the fact that IPOs are associated with some interesting empirical patterns.

Initial Public Offerings (IPO)

An "initial public offering" is a company's first sale of stock to the public. This is why it is also referred to as "going public". When a company that has already issued and stock issues more stock it is called a "secondary offering".

It can be used by either small or large companies to raise expansion capital and become publicly traded enterprises. Many companies that undertake an IPO also request the assistance of an

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investment banking firm acting in the capacity of an underwriter to help them correctly assess the value of their shares, that is, the share price (IPO Initial Public Offerings, 2011).

The IPO Pricing Process

Corporate may raise capital in the primary market by way of an initial public offer, rights issue or private placement. An Initial Public Offer (IPO) is the selling of securities to the public in the primary market. This Initial Public Offering can be made through the fixed price method, book building method or a combination of both.

Fixed Price Method: In this method of pricing the investment bank in consultation with the firm fixes the price at which an investor can subscribe to. This price could be at par value or at a premium above the par value.

Book Building Method: In this method of pricing a price band is fixed instead of a fixed price. The lowest price in the price band is called as ‘floor price’ and the highest price is called as ‘cap price’. An investor can subscribe at a price anywhere in the price band. An investor who wants to subscribe at any price can mention the ‘cut-off price’. This cut-off price is decided once the bid period is over. Once the issue is closed a book with descending order of prices is prepared. Cut-off price is the price at which the entire issue gets subscribed. This is the most commonly used method. Difference between shares offered through book building and offer of shares through normal public issue:

| Features | Fixed Price process | Book Building process |
|----------|--|---|
| Pricing | Price at which the securities are offered/ allotted is known in advance to the investor. | Price at which securities will be offered/ allotted is not known in advance to the investor. Only an indicative price range is known. |
| Demand | Demand for the securities offered is known only after the closure of the issue | Demand for the securities offered can be known everyday as the book is built. |
| Payment | Payment if made at the time of subscription wherein refund is given after allocation. | Payment is made only after allocation. |

REVIEW OF LITERATURE: -

S.M. Solaiman (2009), studied to discover the weaknesses of initial public offering (IPO) regulation in Bangladesh in the light of the relevant law and practice in Australia. They found that the IPO regulation in Bangladesh is weaker than that in Australia. The major weaknesses may be attributed to different factors such as the adoption of the disclosure philosophy prematurely by discarding the previous merit regulation in 1999 for a pre-emerging securities market, lack of experienced and well-trained people in the composition of securities regulators.

Bjorn Bartling and Andreas Park (2010), studied the theoretical model and the implications of this combination of short position and overallocation option on the pricing of the IPO. They found that either in exacerbated underpricing when favorably informed underwriters lower prices to secure a signaling benefit or in informational inefficient offer prices when underwriters pool in offer prices irrespective of their information.

Jingyun Ma, Fengming Song and Zhishu Yang (2010), studied to examine the evolution of China's securities market regulation from 1980 to 2007 and the dual role of the government in this process. They found that paper unique evidence of how securities regulation evolves in response to government direction and supervision if the government is both the owner and the regulator of the securities market.

Elsevier B.V (2011), studied on underpricing with a demand-supply analytical framework that captures critical institutional features of China's primary market. They have given major finding that there are five traits presents in China's market: - 1) government regulation 2) initial return 3) investment risk 4) privatizations under a more expansive 5) corporate assets.

Gerry Gallery, Natalie Gallery and Angela Linus (2011), studied on jointly assess the impact of regulatory reform for corporate fundraising in Australia (CLERP Act 1999) and the relaxation of ASX admission rules in 1999, on the accuracy of management earnings forecasts in initial public offer (IPO) prospectuses. They found that the new regulatory environment had a positive impact on management forecasting behavior. In the post-CLERP Act period, the accuracy of

prospectus forecasts and their revisions significantly improved and, as expected, the results are primarily driven by CTE firms.

Objective of the study

The objectives of the study are:-

- To study whether Underpricing exists in Indian IPO's.

Data Base and Research Methodology

Sample of the study

The sample consists of 1200 Indian companies, which issued IPOs during May 1992 to December 2010. Sample selection is based on the following criteria:

- 1) The IPO is made in the free pricing era of SEBI
- 2) The IPO is listed on the BSE and has been traded for two years after listing.
- 3) Data regarding offer price, listing date and date of incorporation are available.

The sample selection is guided by the availability of data. The sample consists of 771 fixed price issues. We have taken list value and offer value of IPO on different companies in order to calculate the underpricing and overpricing.

Sources of Data

The various sources of data inputs for our IPO sample are:

- Prowess – Indian corporate database of CMIE
- Website of Capital Market Journal: www.capitalmarket.com
- Regulations frame work from www.sebi.govt.in
- Official Directory of Bombay Stock Exchange

Measurement of Performance of IPOs

The premium available to the initial subscribers of the Indian IPOs has been estimated and compared with other IPOs. The subscribers' return has been measured using the conventional method. The initial return on IPOs is computed as the difference between the closing price on the first day of trading and the offer price, divided by the offer price.

$$R_i = \frac{P_1 - P_0}{P_0} \times 100 \quad \dots (1)$$

Where

R_i = Subscribers' initial return (hereafter raw return)

P₁ = Closing price on the first day of trading

P₀ = Offer price

We have done descriptive analysis and comparative analysis. The aim of descriptive analysis is to summarize a data set, rather than use the data to learn about the population that the data are thought to represent. We have calculated maximum, minimum and average by descriptive analysis. The aim of comparative analysis is the item-by-item comparison of two or more comparable alternatives, processes, products, qualifications, sets of data, systems, or the like.

DATA ANALYSIS AND INTERPRETATION: -

Table 1: Underpricing, overpricing and no effect of companies

| Underpricing, Overpricing & No effect of Companies | | | | |
|--|------------------|---------|---------|---------|
| | No. of Companies | Maximum | Minimum | Average |
| Underpricing | 875 | 4900% | 1% | 77% |
| Overpricing | 252 | 100% | 1% | 43% |
| No Effect | 73 | 0% | 0% | 0% |

Figure 1: No. of companies in underpricing, overpricing & no effect

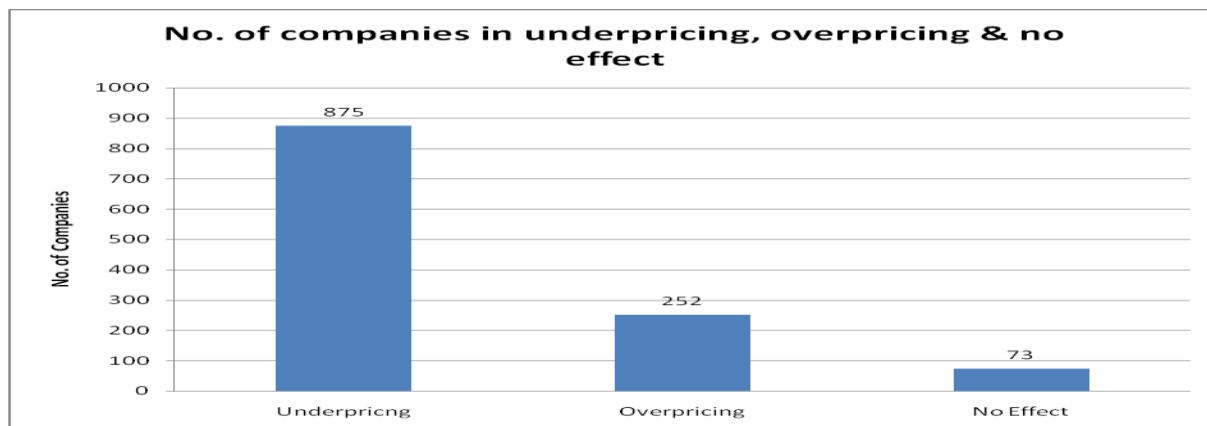


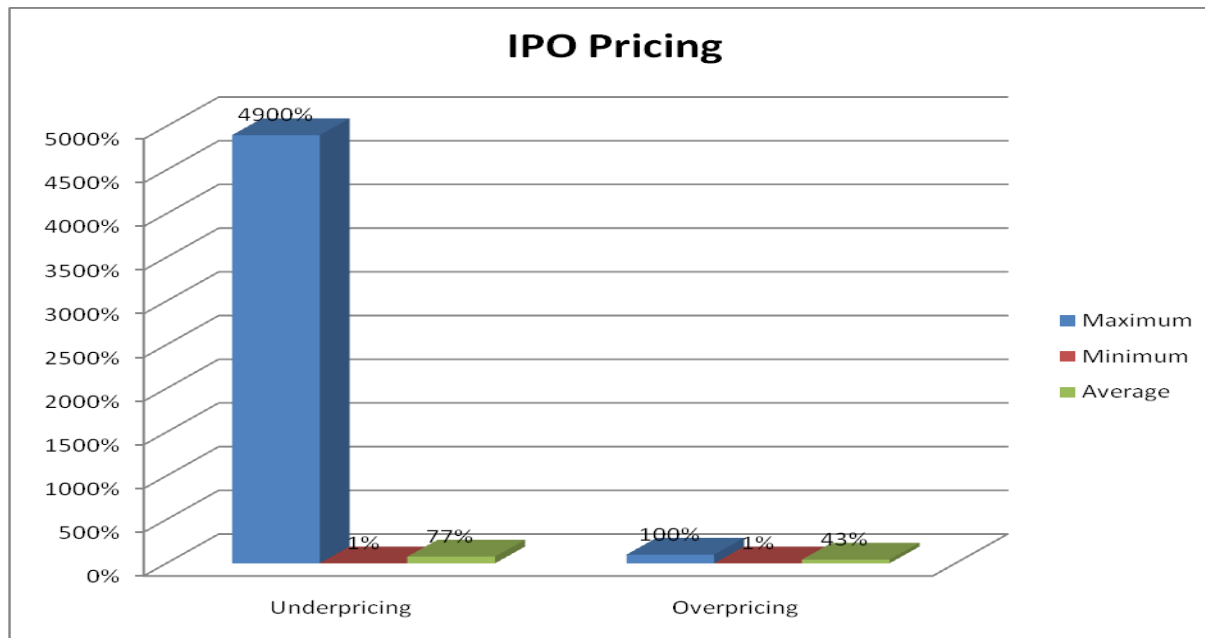
Figure 2: Maximum, minimum & average of underpricing and overpricing

Table 4.1 provides the sample distribution of IPO underpricing by Company. We found that 875 companies were underpriced, 252 companies were overpriced and 73 companies were fairly priced (see figure 4.1). The maximum underpricing is 4900% of CCS InfoTech Ltd. a company of computer hardware industry and minimum is 1% for IPO of Standard Chartered PLC and Andhra Bank and one of this is private and the other is public sector bank industry. The maximum overpricing is i.e.100% (refer table 4.1 above) of Centurion Bank of Punjab Ltd (merged) which is a private sector bank. The extreme inequality of demand and supply of IPOs was thought to be one of the major reasons for the high level of underpricing (**Chi and Padgett (2005)**).

Table 2: Underpricing and overpricing of industries

| Underpricing & Overpricing in Industries | | | | | | | | | |
|--|------------------|------------------|---------|---------|---------|------------------|---------|---------|---------|
| Industries | Underpricing | | | | | Overpricing | | | |
| | No. of Companies | No. of Companies | Maximum | Minimum | Average | No. of Companies | Maximum | Minimum | Average |
| Agrochemicals/pestic | 2 | 1 | 45% | 45% | 45 | 1 | 45% | 45% | 45 |

| | | | | | | | | | |
|---|----|----|------|------|------|---|------|------|------|
| ides | | | | | % | | | | % |
| Aluminum and Aluminum Products | 2 | 1 | 16% | 0% | 16% | 1 | 20% | 20% | 20% |
| Aquaculture/marine products | 10 | 10 | 138% | 10% | 55% | - | - | - | - |
| Auto ancillaries | 5 | 5 | 18% | 1% | 10% | - | - | - | - |
| Automobile components | 7 | 7 | 250% | 25% | 76% | - | - | - | - |
| Banking/term lending | 11 | 5 | 100% | 14% | 46% | 6 | 40% | 6% | 21% |
| Banks - private sector | 8 | 7 | 44% | 1% | 19% | 1 | 100% | 100% | 100% |
| Banks - public sector | 21 | 20 | 52% | 1% | 21% | 1 | 5% | 5% | 5% |
| Breweries & distilleries | 4 | 2 | 35% | 10% | 23% | 2 | 35% | 4% | 20% |
| Cables/wires/conduct ors | 9 | 8 | 127% | 8% | 45% | 1 | 4% | 4% | 4% |
| Castings & forgings | 11 | 11 | 380% | 6% | 75% | - | - | - | - |
| Cement & construction materials | 7 | 6 | 125% | 5% | 52% | 1 | 13% | 13% | 13% |
| Ceramics/marble/gra nite/sanitary ware | 9 | 8 | 100% | 2% | 34% | 1 | 8% | 8% | 8% |
| Chemicals | 46 | 39 | 950% | 3% | 107% | 7 | 57% | 3% | 17% |
| Cigarettes/tobacco | 1 | 1 | 110% | 110% | 110% | - | - | - | - |

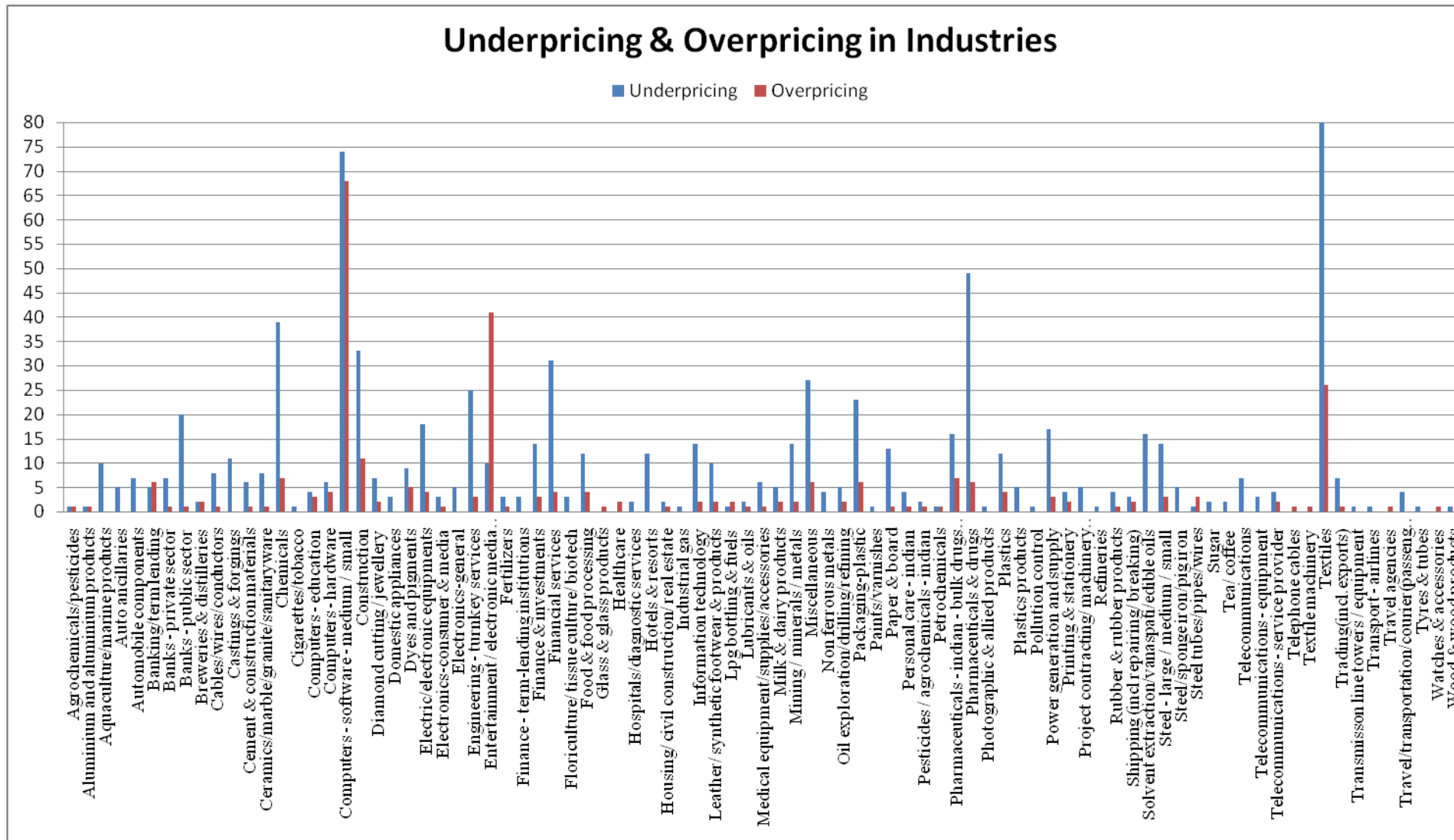
| | | | | | | | | | |
|---|-----|----|-----------|-----|----------|----|----------|-----|---------|
| Computers – education | 7 | 4 | 355 % | 10% | 122 % | 3 | 100 % | 2% | 67 % |
| Computers – hardware | 10 | 6 | 4900 % | 1% | 835 % | 4 | 100 % | 27% | 63 % |
| Computers - software - medium / small | 142 | 74 | 780 % | 2% | 74 % | 68 | 100 % | 3% | 91 % |
| Construction | 44 | 33 | 260 % | 2% | 35 % | 11 | 100 % | 3% | 16 % |
| Diamond cutting / jewellery | 9 | 7 | 150 % | 3% | 41 % | 2 | 7% | 4% | 5% |
| Domestic appliances | 3 | 3 | 42% % | 4% | 18 % | - | - | - | - |
| Dyes and pigments | 17 | 9 | 183 % | 1% | 69 % | 5 | 15% | 7% | 11 % |
| Electric/electronic equipments | 22 | 18 | 450 % | 3% | 63 % | 4 | 40% | 5% | 16 % |
| Electronics-consumer & media | 4 | 3 | 135 % | 20% | 65 % | 1 | 100 % | 10% | 55 % |
| Electronics-general | 5 | 5 | 250 % | 20% | 113 % | - | - | - | - |
| Engineering - turnkey services | 28 | 25 | 75% % | 2% | 35 % | 3 | 4% | 3% | 4% |
| Entertainment / electronic media software | 51 | 10 | 983 % | 1% | 50 % | 41 | 100 % | 3% | 21 % |
| Fertilizers | 4 | 3 | 200 % | 15% | 82 % | 1 | 8% | 8% | 8% |
| Finance - term- lending institutions | 3 | 3 | 22% % | 13% | 18 % | - | - | - | - |
| Finance & | 17 | 14 | 75% % | 5% | 33 % | 3 | 100 % | 14% | 71 % |

| | | | | | | | | | |
|--|----|----|-----|-----|-----|---|-----|-----|----|
| investments | | | | | % | | % | | % |
| Financial services | 35 | 31 | 350 | 7% | 88 | 4 | 36% | 3% | 20 |
| Floriculture/ tissue culture/ biotech | 3 | 3 | 70% | 40% | 53 | - | - | - | - |
| Food & food processing | 21 | 12 | 475 | 1% | 87 | 4 | 35% | 3% | 17 |
| Glass & glass products | 1 | - | 80% | 80% | 80 | 1 | 4% | 4% | 4% |
| Healthcare | 2 | - | - | - | - | 2 | 8% | 3% | 5% |
| Hospitals/diagnostic services | 2 | 2 | 70% | 33% | 52 | - | - | - | - |
| Hotels & resorts | 12 | 12 | 390 | 5% | 92 | - | - | - | - |
| Housing/ civil construction/ real estate | 3 | 2 | 52% | 32% | 42 | 1 | 20% | 20% | 20 |
| Industrial gas | 1 | 1 | 60% | 60% | 60 | - | - | - | - |
| Information technology | 16 | 14 | 238 | 7% | 96 | 2 | 10% | 5% | 8% |
| Leather/ synthetic footwear & products | 12 | 10 | 500 | 9% | 101 | 2 | 39% | 1% | 20 |
| LPG bottling & fuels | 3 | 1 | 820 | % | 820 | 2 | 11% | 8% | 10 |
| Lubricants & oils | 3 | 2 | 100 | 30% | 65 | 1 | 10% | 10% | 10 |
| Medical equipment/supplies/accessories | 7 | 6 | 350 | 50% | 169 | 1 | 49% | 49% | 49 |

| | | | | | | | | | |
|---------------------------------------|----|----|------|-----|------|---|------|-----|-----|
| Milk & dairy products | 7 | 5 | 200% | 10% | 72% | 2 | 17% | 5% | 11% |
| Mining / minerals / metals | 16 | 14 | 431% | 1% | 59% | 2 | 9% | 1% | 5% |
| Miscellaneous | 33 | 27 | 200% | 1% | 50% | 6 | 100% | 3% | 41% |
| Non ferrous metals | 4 | 4 | 425% | 7% | 123% | - | - | - | - |
| Oil exploration/drilling/refining | 7 | 5 | 125% | 11% | 58% | 2 | 13% | 3% | 8% |
| Packaging-plastic | 29 | 23 | 322% | 1% | 69% | 6 | 47% | 4% | 15% |
| Paints/varnishes | 1 | 1 | 30% | 30% | 30% | - | - | - | - |
| Paper & board | 14 | 13 | 250% | 6% | 58% | 1 | 20% | 20% | 20% |
| Personal care – Indian | 5 | 4 | 79% | 4% | 25% | 1 | 20% | 20% | 20% |
| Pesticides / agrochemicals – Indian | 3 | 2 | 75% | 4% | 40% | 1 | 9% | 9% | 9% |
| Petrochemicals | 2 | 1 | 17% | 17% | 17% | 1 | 34% | 34% | 34% |
| Pharmaceuticals – Indian - bulk drugs | 23 | 16 | 175% | 1% | 40% | 7 | 100% | 2% | 30% |
| Pharmaceuticals & drugs | 55 | 49 | 950% | 6% | 103% | 6 | 50% | 10% | 22% |
| Photographic & allied products | 1 | 1 | 50% | 50% | 50% | - | - | - | - |

| | | | | | | | | | |
|--|----|----|----------|----------|----------|---|----------|-----|---------|
| Plastics | 16 | 12 | 388 % | 4% | 104 % | 4 | 36% | 7% | 18 % |
| Plastics products | 5 | 5 | 45% | 7% | 21 % | - | - | - | - |
| Pollution control | 1 | 1 | 425 % | 425 % | 425 % | - | - | - | - |
| Power generation and supply | 20 | 17 | 150 % | 1% | 26 % | 3 | 8% | 1% | 4% |
| Printing & stationery | 6 | 4 | 175 % | 4% | 64 % | 2 | 25% | 10% | 18 % |
| Project contracting/ machinery manufacture | 5 | 5 | 400 % | 6% | 103 % | - | - | - | - |
| Refineries | 1 | 1 | 70% | 0% | 70 % | - | - | - | - |
| Rubber & rubber products | 5 | 4 | 169 % | 5% | 60 % | 1 | 10% | 10% | 10 % |
| Shipping (incl. repairing/ breaking) | 5 | 3 | 150 % | 40% | 93 % | 2 | 100 % | 2% | 51 % |
| Solvent extraction/vanaspati/ edible oils | 16 | 16 | 160 % | 4% | 52 % | - | - | - | - |
| Steel - large / medium / small | 17 | 14 | 75% | 3% | 24 % | 3 | 100 % | 13% | 46 % |
| Steel/sponge iron/pig iron | 8 | 5 | 661 % | 3% | 138 % | | 100 % | 2% | 52 % |
| Steel tubes/pipes/wires | 2 | 1 | 20% | 20% | 20 % | 3 | 25% | 25% | 25 % |
| Sugar | 2 | 2 | 54% | 9% | 27 % | - | - | - | - |

| | | | | | | | | | |
|--|-----|----|------|-----|------|----|------|------|------|
| Tea/ coffee | 2 | 2 | 100% | 87% | 93% | - | - | - | - |
| Telecommunications | 7 | 7 | 400% | 7% | 100% | - | - | - | - |
| Telecommunications - equipment | 3 | 3 | 43% | 5% | 22% | - | - | - | - |
| Telecommunications - service provider | 6 | 4 | 50% | 21% | 29% | 2 | 4% | 4% | 4% |
| Telephone cables | 1 | - | - | - | - | 1 | 20% | 20% | 20% |
| Textile machinery | 1 | - | - | - | - | 1 | 8% | 8% | 8% |
| Textiles | 106 | 80 | 800% | 2% | 87% | 26 | 100% | 1% | 18% |
| Trading(incl. exports) | 8 | 7 | 450% | 22% | 103% | 1 | 100% | 100% | 100% |
| Transmission line towers / equipment | 1 | 1 | 1% | 1% | 1% | - | - | - | - |
| Transport – airlines | 1 | 1 | 10% | 10% | 10% | - | - | - | - |
| Travel agencies | 1 | - | - | - | - | 1 | 8% | 8% | 8% |
| Travel/transportation/ courier(passenger) | 4 | 4 | 325% | 40% | 166% | - | - | - | - |
| Tyres & tubes | 1 | 1 | 65% | 0% | 65% | - | - | - | - |
| Watches & accessories | 1 | - | - | - | - | 1 | 10% | 10% | 10% |
| Wood & wood products | 1 | 1 | 50% | 50% | 50% | - | - | - | - |

Figure 3: Underpricing and overpricing of industries

The Industry-wise IPO underpricing and overpricing. The maximum underpricing was found in computer hardware industry and minimum has been in Banks - Private Sector. The IPOs of some companies in this Industry was also found to be overpriced to the extent of 100%.

Computers Software (Large / Medium / Small) industries is having 74 companies underpriced and 68 companies overpriced. The underpricing of this industry is maximum 780% and minimum 2% and the overpricing is maximum 100% and minimum 3%.

The Entertainment / Electronic Media Software has shown opposite results with only 10 companies IPOs underpriced and IPOs of 41 companies were overpriced. The maximum and minimum underpricing was found to be 983% and 1% respectively and the maximum and minimum overpricing had been 100% and 3% respectively in this sector.

Textile industry is having maximum number of underpriced and overpriced companies i.e. 80 companies were underpriced and 26 companies were overpriced. The maximum and minimum underpricing is 800% and 2% resp. and the maximum and minimum overpricing is 100% and 1% resp. IPOs are generally underpriced in all industries. This is consistent with the stylized fact of initial underpricing of IPOs in many industries as summarized by **Charles Shi and Kuntara Pukthuanthong and Thomas Walker (2006)**.

CONCLUSION

The results concluded that IPOs are underpriced in Indian market. In India, there is average 77% underpricing and average 43% overpricing which can be obtained by descriptive analysis method. It occurs because underpricing is based on information production and ownership dispersion which will benefit the issuing firms. If issuing firms want to have a more dispersed ownership, they need to underprice their IPOs so that more investors will be induced to produce information about the issue and subsequently buy the shares. Underpricing is also effected by media attention and publicity.

The result also suggested that after change the regulatory framework, the book building IPOs show less underpricing than fixed price issues. The average underpricing value is achieved 101% by fixed price and 27% by book building method which can be obtained by descriptive analysis method. It occurs because the issuer sets a price range within which the investor is allowed to bid for shares. The range is based on where competitive companies are trading and an estimate of the value of the company that the market will bear.

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