Long-Run Performance of IPO Market in India

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Abstract

In this paper, we examine the Long-run performance of initial public offerings (IPOs). The data has been taken for 31 IPOs from the year 2000 to 2003. We have used Logistic Regression Model through SPSS Version 16 to test for the relationship between long run performance of IPOs and short run performance variables of the company. The analysis shows that the long run variables have no relationship with short-run variables or else have negative relationship. With some of the variables it has positive relationship. It shows anomaly. The companies having listing gain have negative current ratio, debt equity ratio and return on net worth and the companies having short-run gain has negative current ratio and debt equity ratio. The theory supports the view that for IPO markets to be efficient there should be low listing gain, moderate short-run gain and high long-run gain. Only then there will be long term development of IPO market. But the actual situation is opposite. The companies have listing gain, short-run gain but they are not able to give long run gain.

Keywords: IPO, Short-run Performance, Long Run Performance

JEL Classification Code: G14, G32

Introduction

The Indian Economy has undergone several structural as well as policy reforms particularly after the deregulation of the economy. The vibrant economic environment and the waves of globalization and liberalization have contributed substantially for the deepening, widening and broadening of the securities market. The reforms was introduced consisting of measures to liberalize, regulate and develop the market, the most applaud-able reform being the dismantling of Controller of Capital Issues (CCI) and the introduction of SEBI. Till date, large number of reforms took place which change the whole gamut of Indian stock Market, particularly IPO market. A company may raise capital in the primary market through initial public offerings (IPOs). Initial public offerings also referred as public offerings is the first sale of stock by a private company to the public.

Long run performance of an IPO is always an important determinant to judge the efficiency of the stock market. In this Paper an effort has been made to study the long run performance of Indian IPOs. IPO market is used for mobilization of capital and the capital is being used for creating asset. Assets by definition belong to long run therefore it is important to understand how the IPO market is mobilizing and creating assets, how these assets are performing in the long run. Although the process of issues of IPOs, the listing gain and short run gain are important indicators. They do not represent the effect of asset creation in the capital market. By definition, the capital market is meant for long term asset. Therefore any study of IPO performance would be incomplete without studying the long term performance of the shares issued through an IPO. After all, a share is claimed to be a part of the total assets created in the long run by an IPO company. The owners of such shares should be compensated well for their investment which implies that the long run performance of IPO's should be good. Only if this is a case can we say that the performance of an IPO is good. Therefore the long run performance is one of the most important criterion for understanding the IPO performance and pricing.

Rationale of Paper

The present Paper evaluates the long run performance of IPOs. Most of the research studies evaluate the

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IPO performance for 1 to 3 years after the IPO date. Most studies in developed markets show that IPOs underperformed stock market benchmarks. Ritter and Welch (2002) documented that American IPOs had negative buy-and-hold market adjusted return (BHAR): -24.7%, -7.2%, -32.3% and -34.3% in 1980-1989, 1990-1994, 1995-1998 and 1999-2000 periods, respectively. Ljungqvist (1997) found aftermarket BHAR of -27.2% between 1998 and 1990, taking a sample of German IPOs. However, literature shows different empirical findings about aftermarket performance. In our study, we have taken the IPO data of 31 companies from the year 2000 to 2003.

- This period is a normal period because in 1999 there was boom in information technology sector and many companies have raised money without having strong fundamentals.
- We have also assured that these companies existed in the year 2007, 2008 and 2009.
- An idea behind this is to allow a building up period, by which long run performance is stabilised.
- We have compared short run variables listing gain, short run gain and short run excess gain with long run performance variable.

Data and Methodology

Data

The study has been done with the help of secondary data obtained from various sources like Prowess – Indian corporate database of CMIE as well as official websites of BSE, NSE, SEBI, RBI, and Money Control. The data has been taken for 31 IPOs from the year 2000 to 2003. Microsoft Excel has been used for processing the data. We have used Logistic Regression Model through SPSS Version 16 to test for the relationship between long run performance of IPOs and short run performance variables of the company.

The main objective is to:

1. To measure and analyse:

- Listing gain – by taking the 'high' quote.
- Price trends:

(i) To study the trends of average price of the share - post listing.

(ii) To study the trend in the index (Nifty).

- Standard deviation of stock price.
- Identify the 'event day' – when the short run investor sells the share.
- Abnormal gain – as difference between 'short-run gain' and 'market gain'.
- Index of listing gain and index of abnormal gain.

1. To evaluate the operating performance of the IPOs of different companies, we have picked up the companies that issued IPOs from the year 2000 to year 2003 and we have given them a building-up period of 3-5 years to study their long run fundamentals. For this we have studied post-listing accounting ratios: Return on net worth ratio, Earning per share ratio, Debt equity ratio and Current Ratio.

Model

In this study we have used logistic regression model. To establish the relationship between short-run and long-run variables, we have done three type of analysis:

- In the first type of analysis, the relationship is established between listing gain and long-run variables. Those IPO companies who have listing gain are assigned 1 and those IPO companies who have listing loss are assigned 0.

$$lg = f(cravg, deavg, ronwavg, epsavg) \quad (1)$$

where

lg = listing gain

cravg = Average current ratio

deavg = Average debt equity ratio

ronwavg = Average return on net worth

epsavg= Average earning per share

Here listing gain is an dependent variable where as cravg, deavg, ronwavg,epsavg are independent variable.

- In the second equation, the relationship is established between short-run gain and long-run variables. Short run period is defined as a 30 day period following by listing of an issue. The companies having short-run gain are taken as 1 or if there is short run loss then assigned as 0.

srg=fx (cravg, deavg, ronwavg, epsavg) (2)

Where:

Srg= Short run gain

cravg= Average current ratio

deavg = Average debt equity ratio

ronwavg = Average return on net worth

epsavg= Average earning per share

Here Short-run gain is an dependent variable whereas cravg, deavg, ronwavg, epsavg are independent variable.

- In the third equation, short run excess gain is taken as 1 or if there is short run excess loss then it is assigned as 0.

srxg=fx (cravg, deavg, ronwavg, epsavg) (3)

Where:

srxg = Short run excess gain

cravg = Average current ratio

deavg = Average debt equity ratio

ronwavg = Average return on net worth

epsavg= Average earning per share

Here short-run excess gain is a dependent variable whereas cravg, deavg, ronwavg, epsavg are independent variable.

Hypothesis

In this study, we try to test empirically the post listing long run performance for a sample of 31 IPO firms that approached the market during 2000 to 2003. In order to study the long run performance, we wait five to seven years, then we see the performance of these 31 IPO from 2007 to 2009. There are some research questions, which we tried to answer in this study. In this study,

$\mathbf{H_0}$: The performance of IPOs firms has deteriorated in the long-run

Description of Variables:

1. **Issue Price (Ispr):** Issue price is a price at which one new share is offered to general public.
2. **High Price (Hipr):** It is a maximum price of the share at the day of listing.
3. **Closing Price (Clpr):** It is the last quoted price at the day of listing.
4. **Issue Size (Issiz)**: Issue size is measured as gross proceeds (in Rs lakhs) from an issue.
5. **Oversubscription (Ovsc)**: Thisis pre-listing *ex-ante* information. This measures the number of times an IPO has been subscribed.

$$\text{Oversubscription} = \frac{\text{Number of shares applied by investors}}{\text{Number of shares offered by IPO}}$$

6. **Industry (Ind):** Different industries have been taken for the study. The difference between industries may exhibit difference in returns of IPO firms.
7. **Age of the Company** (**Ageco):** Age of company is measured in years, in terms of difference between the years of incorporation of a firm and the years of going public.
8. **Number of Shares Traded** (**Nosh):** It explains the volume of shares traded on the day of listing.
9. **Turnover in Lakhs (Turn):** It explains the total amount of money being traded on the day of listing.
10. **Dominant Lead Manager (Domlm):** Lead managers are independent financial institutions appointed by the company going public to manage the IPO. They are the main body responsible for most of the IPO processing.
11. **No. of Members (Nomem):**It represent the members who are involved in accepting the bid cum application form of the IPO firm in different centres. Syndicate members are commercial or investment banks responsible for underwriting IPO's. Syndicate members are usually registered with SEBI or registered as brokers with BSE / NSE Stock Exchanges.
12. **No. of Bidding Centres (Nobid):** A centre for acceptance of the Bid cum Application Form.
13. **Ratshish (Ratshis):** It is explained as number of share traded on the day of listing/Issue size.
14. **Public or Govt. Company (Pub):** It explains that whether an IPO launch by a company is Public com-

pany or Government Company. If it is a public company then we assume 1 as variable other wise it is 0.

15. **Listing Gain (Lg):** Listing day gain is defined as:

$$Lg = \frac{\text{Listing Day High Price} - \text{Issue Price (Prev. Close)}}{\text{Issue Price (Prev. Close)}} \leftarrow 100$$

16. **Short-run Gain (srg):** This is post launch information in the IPO market. Short run gain is defined as:

    If and only if:

    SRg = (Daily Average Price (Post-listing) (MINUS) Listing Day (Closing Price[1])) >0

    It measures the post listing gain of a short-run investor, who buys an IPO share on listing and sells it at on an opportune day within a month. This is *ex-post* information.

17. **Market Gain (mg) /(Opportunity Loss)** is:

$$\frac{\text{(Event Day Market Index} - \text{Listing Day Market Index)}}{\text{Listing Day Market Index}} \leftarrow 100$$

18. **Short-run Excess Gain (srxg)** is defined as:

    SrExg = [((Event Day Average Price – Listing Day Average Price)/ Listing Day Average Price)*100 - ((Event Day Market Index – Listing Day Market Index)/ Listing Day Market Index))*100]

19. **Index Growth Rate (Idxgrw)** Measuring growth rates:

    For studying the trend of the permanent component of price we used the following semi-log equation:

    Ln Pt = a + b*Time + Ut

    Here,

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    Ln Pt = a + b*Time + Ut

    Here,

    Ln stands for Log to base 'e'.

    b = daily compound growth rate

    Ut = error term

20. **Event Day:** We have explained the concept of Event day and Moving standard deviation in the previous paper.

21. Indices of Gain

    Index of Listing Gain (in Rs.): ILG = 100(+/-)Lg

    Index of Abnormal Gain (in Rs.): IAbG = 100(+/-) SrExg

    The purpose of these indices is to gauge and compare the two gains, across different scrips and periods. The concept is that an investor invests Rs. 100/- and either loses or gains a certain percentage return. When added/ subtracted from 100, the index gives the net payback in Rupees.

22. **Return on Net Worth (RONW):** Thisis Post-listing information contained in the financial statement of the company. Return on net worth (RONW) is defined as net profit divided by net worth. It is a basic ratio that tells a shareholder what he is getting out of his investment in the company. RONW is a better measure for judging the returns that a shareholder gets on his investment. The ratio is a profitability ratio. It measures how profitably the owners' funds have been utilized by the firm. We have taken three years RONW ratio from 2006-09.

$$\text{Return on Net Worth (\%)} = \frac{\text{Net profit after tax, as restated}}{\text{Net worth as at the end of the year / period}}$$

23. **Earningsper Share (EPS):** Thisis Post -listing information contained in the financial statement of the company. Earnings per share is generally considered to be the single most important variable in determining a share's price.Earnings per share (EPS) is the amount of earnings per each outstanding share of a company's stock.

$$EPS = \frac{\text{Net profit attributable to equity shareholders}}{\text{Weighted average number of equity shares outstanding}}$$

    We have taken three years EPS ratio from 2006-09.

24. **Debt Equity (De):** A measure of a company's financial leverage calculated by dividing its total liabilities by stockholders' equity. It indicates what proportion of equity and debt the company is using to finance its assets. A high debt/equity ratio generally means that a company has been aggressive in financing its growth with debt. This can result in volatile earnings as a result of the additional interest expense. This is also post listing information contained in the financial statement of the company.

$$\text{Debt / Equity Ratio} = \frac{\text{Long – term Debt + Short Term Debt}}{\text{Equity Share Capital + Reserves and Surplus}}$$

1 We have considered closing price because that is the last opportunity for a short run investor to buy a newly listed share.

We have taken three years DE ratio from 2006-09.

25. **Current Ratio (CR):** This is Post listing information of three years contained in the financial statement of the company. The current ratio is a financial ratio that measures whether or not a firm has enough resources to pay its debts over the next 12 months. An indication of a company's ability to meetshort-termdebt obligations; the higher the ratio, the more liquid the company is. Current ratio is equal to current assets divided by current liabilities. If the current assets of a company are more than twice the current liabilities, then that company is generally considered to have good short-term financialstrength. If current liabilities exceed current assets, then the company may have problemsmeeting its short-term obligations. The two basic components of this ratio are current assets and current liabilities. Current assets include cash and those assets which can be easily converted into cash within a short period of time, generally, one year, such as marketable securities or readily realizable investments, bills receivables, sundry debtors, (excluding bad debts or provisions), inventories, work in progress, etc. Prepaid expenses should also be included in current assets because they represent payments made in advance which will not have to be paid in near future.

    Current liabilities are those obligations which are payable within a short period of time generallyone year and include outstanding expenses, bills payable, sundry creditors, bank overdraft, accrued expenses, short term advances, income tax payable, dividend payable, etc. We have taken three years Current ratio from 2006-09.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Review of Literature

The policy guidelines does not anywhere define long run. But literature in India and overseas gives a view about the meaning of long run. Ritter (1991) has studied the long-run performance of IPOs in the U.S. between 1975 and 1984; Loughran (1993) analysed the returns from IPO's during 1967-1987. Ljungqvist (1995) has taken a sample of 145 German IPOs in 1970-1988 to find abnormal return. In India also, Ajay Shah (1995) has taken a period of five years from 1991-1995 to study long run performance. Madhusoodan and Thiripalraju (1996) analysed the Indian IPO market in terms of Long run performance by taking sample size of 1922 IPOs between 1991 and 1995. Another study by Ranjan and Madhusoodanan (2004) examined the 92 IPOs during January 1999 to November 2003. Janakiramanan (2007) use the data of 116 IPOs firms to study the long run performance during 2000-2002.

Khurshed, Mudambi & Goergen (1999) proposed that the long-run performance of IPOs is a function of pre-IPO factors, including managerial decisions and the firm's performance prior to going public. They relate long-run performance to a much richer set of explanatory factors than in the previous literature. Using a number of variables, the work provides empirical evidence in support of this proposition. The manner in which a company is run before it is listed on the stock exchange gives a strong signal of how its shares will perform in its first few years of coming to the market. The results show that:

- An examination of the distribution of the long-run returns and the independent variables shows that most of them are positively skewed but are not significantly non-normal.
- The small firms drive the long-run under-pricing whereas the share price performance of large firms is driven by the managerial decisions and the firm's financial performance before the IPO.
- They find a positive relationship between the size of a firm and its longrun performance. The larger the size of a firm (in terms of the assets at the time of flotation) the better is the long-run performance. This result is stronger for the smaller firms as compared to the larger ones.
- They also find a negative relationship between the profitability of a firm prior to going public and its long-run performance. The result is stronger for larger firms. The more profitable a firm is prior to going public; the worse is the long-run performance.
- They find a significant relationship between the degree of multi-nationality of a firm and its long-run performance. This effect was strong for both the small and large firms alike. The more multinational a firm (in terms of subsidiaries in different countries) the better is the long-run performance.

- They also document a relationship between ownership change at the time of IPO and long-run performance. We find that the higher the proportion of equity sold at the time of offering (i.e. the higher the dilution of original share holdings) the worse is the long-run performance. The result is stronger for large firms.

Thus the results obtained from this study provide important information for the prospective investors in new issues. While, pre-IPO performance of a firm cannot predict the post- IPO performance with certainty, nevertheless the results of this study suggest that long-term investors should show caution while analysing IPO firms.

Gompers & Lerner (2001) sought to assess the performance of initial public offerings by examining the period before the creation of NASDAQ. The performance is examined for up to five years after listing of nearly 3,661 initial public offerings in the United States from 1935 to 1972. The results demonstrate that the performance of IPOs from 1935 to 1972 depends upon the method of return measurement used. The sample shows underperformance when performance is measured using value-weighted event-time buy-and-hold abnormal returns. This underperformance disappears when either equal-weighted buy-and-hold abnormal returns or cumulative abnormal returns are utilized. The calendar-time analysis shows that over the entire sample period—i.e., from 1935 to 1976—IPOs return as much as the market. Finally, in simple Capital Asset Pricing Model (CAPM) and Fama-French three-factor regressions, the intercepts are insignificantly different from zero or even significantly positive suggesting no abnormal performance.

Zaluki (2005)investigated the operating performance and the existence of earnings management for a sample of 254 Malaysian IPO companies over the period 1990-2000. Various measures of operating performance are used to check the robustness of the results, using the accrual-based accounting profit approach: operating income on operating assets (OI/OA) and operating income on sales (OI/Sales). The operating income variables are all measured before taxes to avoid the effect of tax rate changes imposed by the Malaysian government during the period of analysis. This study also examines the *changes* in accounting performance from the year immediately prior to the IPO (year -1 to 0, year -1 to +1, year -1 to +2, year -1 to +3). To identify when changes (if any) took place, the year-to-year change from the previous year (year -1 to 0, year 0 to +1, year +1 to +2, year +2 to +3 is also tested. Year -1 is the fiscal year prior to the IPO year, year 0 is the fiscal year of the IPO; year +1 is the fiscal year after the IPO, and so forth. The matched company-adjusted change for the IPO is the difference between the change in the operating performance for the IPO and its matched company. The main results show that the comparison of pre- and post IPO accounting-based operating performance in terms of levels and changes provides some interesting findings. There is moderate evidence supporting the view that the average IPO company in Malaysia underperforms the seasoned companies over the three year post-IPO period. However, there is strong evidence of declining performance in the IPO year and up to three years following the IPO. The year-to-year analysis reveals that the decline in performance is greatest in the year immediately following the IPO. This finding is consistent with the results of prior studies documenting the long run underperformance of IPOs. The results also confirm that the deterioration in the post-IPO operating performance is due to earnings management by IPO managers at the time of going public.

Kumar (2007)attempts to see how the IPOs issued through book building process fare both in short-run as well as in long run. The dataset includes all the new equity issues offered through book building route on the National Stock Exchange (NSE) from 1999 till May2007. In the study the short-run means the behaviour of initial returns up on listing. As in other studies he also computed the return realized over the period from the offering of the shares to the first trading day on NSE called as offer-to-close return. The long run performance is gauged by examining the returns beyond the second day of their listing at monthly intervals till May 2007 subject to a maximum of 60 months. The results indicate that the IPOs are under-priced as is evidenced by the positive listing day returns and are outperforming the market in the subsequent months almost up to twenty four months. However, after two years of listing they generate negative returns. In this study we examined the price performance of the IPOs both in the short-run as well as in the long-run where short-run means the behaviour of initial returns up on listing. As in other studies on this theme we computed the return realized over the period from the offering of the shares to the first trading day on NSE, called as offer-to-close return. IPO long run performance is gauged by examining the returns beyond the second day of their

listing at monthly intervals till May 2007 subject to a maximum of 60 months.

Upon listing the IPOs on an average offered positive returns (after adjusting for market movements)to investors and a large part of the closing day returns on the listing day were accounted for by the opening returns. In the long run the IPOs offered positive returns up till twenty four months but subsequently they underperform the market.

Results

Listing Gain and Long-run Performance

The results of logistic model show that:

Classification Table: Those companies who have got listing gain are positive where as those who have listing losses are negative. Classification of the observed IPOs was done on the basis of listing gain assigned 1 and listing loss assigned 0. ***Table 1.1*** shows that proportion of correct classification is 90.3%. It clearly shows that behaviour of IPO which experience listing gain is distinguishable from those who experience listing loss.

Table 1.1: Classification Table for listing gain and listing loss

			Predicted lgD		
	Observed		0	1	Percentage Correct
Step 1	lgD	0	3	2	60
		1	1	25	96.2
	Overall Percentage				90.3

a. Constant is included in the model.

b. The cut value is .500

Omnibus Test: The insignificant difference is shown in the (***Table 1.2***) by the statistic Chi-square (4, N=31) =13.074, p<.05 which has not improved the predictable capacity of the model reducing the value of -2 Log likelihood ratio which stands at14.318. The difference is explained by the regression to the extent of .344 indicated by the Cox and Snell R square whereas .586 indicated by the Nagelkerke R square both shows moderate explanatory power (Table 7.3).

Table 1.2: Omnibus Tests of Model Coefficients

		Chi-square	*df*	*Sig.*
Step 1	Step	13.074	4	0.011
	Block	13.074	4	0.011
	Model	13.074	4	0.011

Table 1.3: Model Summary

Step	*-2 Log likelihood*	*Cox &Snell R Square*	*Nagelkerke R Square*
1	14.318	0.344	0.586

The actual parameter estimates of the equation are:

Table 1.4: Parameter Estimates

Listing Gain		*B*	*S.E.*	*Wald*	*df*	*Sig.*	*Exp (B)*
Step 1a	CRAVG	-0.012	0.022	0.276	1	0.599	0.9884
	DEAVG	-0.780	0.450	2.997	1	0.083	0.4586
	RONWAVG	-0.054	0.145	0.137	1	0.711	0.9477
	EPSAVG	0.652	0.458	2.023	1	0.155	1.9187
	Constant	2.120	0.973	4.743	1	0.029	8.3297

a. Variable(s) entered on step 1: CRAVG, DEAVG, RONWAVG, EPSAVG.

Only two of the factors are found to be significant, that is, **DEAVG and the constant term**, although DEAVG is significant at 10% level.

(a) The relation between listing gain and current ratio is negative. It shows that the companies who have listing gain have low current ratio i.e. CL> CA.

(b) The companies who earned listing gain, have low debt-equity ratio which means they have low debt finance and more equity investment. The Beta coefficient of debt equity ratio has a negative sign which implies that listing gain being high has attracted equity investment. This however, has not lead to any improvement in long run performance.

(c) The firms getting listing gain have low return on net worth.

(d) Out of the companies issuing IPOs and having listing gain, the proportion of companies having high EPS is high and the companies having listing loss, their EPS is less. It means that the IPO market is

punishing those companies who are performing well and it favouring those companies who have not performing well, in the sense that listing gain is not a sign of an efficient stock market.

(e) The constantis significant at 5% level. This only indicates that proportion of success is more than proportion of failure. The higher proportion is being affected by other factors (strategy, syndicate, manipulation and irrationality). Hence, it is not clear that long run variables are related to listing gain.

All this analysis clearly reveals that the listing gain is not a good market signal for long-run performance.

Short-run Gain and Long-run Performance

The results of logistic model show that:

Classification Table: Those companies, who have got short run gain as against loss, form the right basis of classification. The model is based on short run gain. Classification of the observed IPO's was done on the basis of short run gain assigned 1 and short run loss assigned 0. ***Table 1.5*** shows that proportion of correct classification is 58.1%.

Table 1.5: Classification Table for Short-run Gain and Short –run Loss

	Observed		*Predicted*		
			srgD		Percentage Correct
			0	1	
Step 1	srgD	0	13	5	72.2
		1	8	5	38.5
	Overall Percentage				58.1

Omnibus Test: The insignificant difference is shown in the table by the statistic Chi-square (4, N=31) =5.998, p<.05 which has not improved the predictable capacity of the model reducing the value of -2 Log likelihood ratio which stands at 36.977. The difference is explained by the regression to the extent of .176 indicated by the Cox and Snell R square whereas .24 indicated by the Nagelkerke R square both shows moderate explanatory power.

Table 1.6: Omnibus Tests of Model Coefficients

		Chi-square	*df*	*Sig.*
Step 1	Step	5.998	4	0.199
	Block	5.998	4	0.199
	Model	5.998	4	0.199

Table 1.7: Model Summary

Step	*-2 Log likelihood*	*Cox &Snell R Square*	*Nagelkerke R Square*
1	36.977	0.176	0.24

The actual parameters are given in ***Table 1.8***.

Table 1.8: Parameter Estimates

Short-run gain		*B*	*S.E.*	*Wald*	*df*	*Sig.*	*Exp(B)*
Step 1a	CRAVG	-0.064	0.06	1.155	1	0.283	0.938
	DEAVG	-0.075	0.08	0.984	1	0.321	0.928
	RONWAVG	0.015	0.02	0.59	1	0.442	1.015
	EPSAVG	0.016	0.03	0.381	1	0.537	1.016

a. Variable(s) entered on step 1: CRAVG, DEAVG, RONWAVG, EPSAVG.

The above table does not give significant results for any of the variables.

(a) The current ratio has got a negative sign. In this case out of the proportion of short run gain companies only few companies have high current ratio as compared to proportion of short run loss companies where many of the companies have high current ratio. In simple words, the companies getting short-run gain have low current ratio i.e. their CL > CA. This indicates that many companies having short run gain are not able to sustain in the long run as their current ratio is negative. It shows that these companies have weak financial strategies. They do not have proper asset liability management.

(b) The companies getting short-run gain have low debt equity ratio. This indicates that many companies in case of short run gain have high debt content which is not a good indicator for the investor in the long run. High debt content in the financial statement of the company means the companies have shortage of funds, which means companies may not able to sustain in the long run. But in case of short run

loss companies many companies have high debt equity ratio which means companies have equity base which is good for the future prospect of the company.

(c) Out of the companies having short-run gain, many companies have high return on net worth and out of the proportion of short run loss, many companies has low return on networth. IPO market is anomalous. In the long run, those companies who are incurring loss, actually have positive return on networth. It means investment does not go into the hands of those companies which have long run profitability.

(d) Those IPOs which give short-run gain, have high EPS. Those IPOs where EPS is high, there is no market signal for IPOs in the long run.

Short-run Excess Gain and Long-run Performance

The results of logistic model show that:

Classification Table: Those companies who have got short run excess gain in the long run are positive whereas short run excess loss are negative. Classification of the observed IPO's was done on the basis of short run excess gain assigned 1 and short run excess loss assigned 0. Table 7.9 shows that proportion of correct classification is 64.5%. It clearly shows that in the short run the companies having short run excess gain are marginally larger in numbers as compared to companies having short run excess loss.

Omnibus Test: The insignificant difference is shown in the table by the statistic Chi-square (4,N=31) =3.657,p<.05,which has not improved the predictable capacity of the model reducing the value of -2LL ratio which stands at 39.286. The difference is explained by the regression to the extent of .111 indicated by the Cox and Snell R square whereas .148 indicated by the Nagelkerke R square both shows moderate explanatory power.

Table 1.9: Classification Table for Short-Run Excess Gain and Short –Run Excess Loss

			Predicted srxgD		
	Observed		0	1	Percentage Correct
Step 1	srxgD	0	11	4	73.3
		1	7	9	56.2
	Overall Percentage				64.5

a. The cut value is .500

Table 1.10: Omnibus Tests of Model Coefficients

		Chi-square	*df*	*Sig.*
Step 1	Step	3.657	4	0.454
	Block	3.657	4	0.454
	Model	3.657	4	0.454

Table 1.11: Model Summary

Step	*-2 Log likelihood*	*Cox &Snell R Square*	*Nagelkerke R Square*
1	39.286	0.111	0.148

The actual parameters are given in ***Table 1.12*** as explained below:

(a) Though the relationship between short-run excess gain and the current ratio is positive, but the relationship is not significant and definite.

(b) The companies having short-run excess gain have low debt equity ratio.

Table 1.12: Parameter Estimates

Short-run excess gain		*B*	*S.E.*	*Wald*	*df*	*Sig.*	*Exp(B)*
Step 1a	CRAVG	0.002	0.017	0.009	1	0.923	1.002
	DEAVG	-0.087	0.098	0.783	1	0.376	0.917
	RONWAVG	0.003	0.016	0.032	1	0.858	1.003
	EPSAVG	0.059	0.049	1.428	1	0.232	1.061
	Constant	-0.226	0.489	0.214	1	0.644	0.798

a. Variable(s) entered on step 1: CRAVG, DEAVG, RONWAVG, EPSAVG.

Table 1.13: Correlation Matrix of Long-run Performance Variables

		CRAVG	*DEAVG*	*RONWAVG*	*EPSAVG*
CRAVG	Pearson Correlation	1	-0.141	-0.075	-0.211
	Sig. (2-tailed)		0.45	0.688	0.256
	N	31	31	31	31
DEAVG	Pearson Correlation	-0.141	1	0.237	.478**
	Sig. (2-tailed)	0.45		0.199	0.006
	N	31	31	31	31
RONWAVG	Pearson Correlation	-0.075	0.237	1	.419*
	Sig. (2-tailed)	0.688	0.199		0.019
	N	31	31	31	31
EPSAVG	Pearson Correlation	-0.211	.478**	.419*	1
	Sig. (2-tailed)	0.256	0.006	0.019	
	N	31	31	31	31

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

(c) The companies earning short-run excess gain have high return on net worth ratio and high EPS but both the relationships are not significant as shown by p-values. This is an ironic situation. Those companies who have short run excess gain, they have high EPS. But if we look overall picture, the IPO market in the long run is promoting those companies who have short-run excess gains and high EPS, which otherwise have low prices in the long run. IPO market is anomalous. The investment does not go into the hand of those companies which have long run profitability.

(d) The constant is also not significant. It represents the factors other than the listing gain, short-run gain and short-run excess gain that affect long run performance. The negative sign shows that the other factors are also not favourable.

For IPO markets to be efficient, the listing gain, the short-run gain and the short-run excess gain should be moderate in comparison to long-run performance. However the results show that this is not true. The IPO Markets favor those companies who have listing gain and short-run gain and the market is not efficient.

Correlation Matrix of Long-run Performance Variables

Only two of the four correlations are significant, EPS is positive correlated with debt –equity ratio and return on net worth. The companies having high debt-equity ratio, have high debt content and low equity base. It means they are taking advantage of leverage and giving more profits, therefore more EPS. The companies having more high return on net worth have high EPS.

The current ratio has negative correlation with debt equity ratio, return on net worth and the earning per share ratio though the correlation is not significant. Moreover the correlation between debt equity ratio and return on net worth ratio is also positive though not significant.

Conclusion

The analysis shows that the long run variables have no relationship with short-run variables or else have negative relationship. With some of the variables it has positive relationship. It shows the anomaly. The companies having listing gain have negative current ratio, debt equity ratio and return on net worth and the companies having short-run gain has negative current ratio and debt equity ratio. The theory supports the view that for IPO markets to be efficient there should be low listing gain, moderate short-run gain and high long-run gain. Only then there will be long term development of IPO market. But the actual situation is opposite. The companies have listing gain, short-run gain but they are not able to give long run gain.

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