

Evaluation of IPO Returns Using Style Investment

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ABSTRACT

IPO performance of 339 firms listed from 2006 to 2016 is documented. IPO returns are analyzed three years after listing date using style stock selection method. IPO returns are found to vary according to market capitalization of IPO firms. IPOs of large sized firms tend to perform better than small and medium size firms. The results imply that investors should prefer large sized IPO firms for better returns. Findings suggest that Indian IPOs are underpriced 14 percent on average. The determinants of underpricing are issue price, initial returns, money left on the table and ex ante uncertainty.

Keywords: *IPO, style returns, underpricing, ex ante uncertainty*

INTRODUCTION

The past decade has witnessed upsurge in initial public offering (IPO) activity globally consequently a plethora of literature in finance has been focused on studying the IPO phenomena from various perspectives. Much of these studies on IPO have found evidences of underpricing and long run underperformance. The stock market has also witnessed peculiar phenomena of small capitalization stocks outperforming large capitalization stocks. This paper analyses IPOs using style investments.

Style investment is commonly known as studies pertaining to value and growth stocks. Value stocks; that are categorized by low market price in comparison to their book value or earnings per share tend to outperform growth stocks as observed by Fama & French (1992), Lakonishok, Sheifer and Vishny (1994). This paper incorporates the methodology of Chan, Karceski, & Lakonishok, (2000) to classify stocks as value or growth stocks that have gone public from 2006 to 2016 in India to examine whether value IPOs outperform growth IPOs in the long run. Returns to style methodology in IPO literature has applied by Menyah, & Paudyal (2006) with reference to IPOs in the UK. Relatively very little work has been done in the application of value and growth stocks in the developing countries particularly in the Asia Pacific region.

Strong entrepreneurial activity and burgeoning start ups have increased IPO (Initial Public Offering) activity worldwide. In 2016, IPOs have raised \$132.5 billion led by technology, industrial and healthcare industries. Venture capitalists have coined a term “unicorn” referring to those firms that are start-ups valued over one billion. According to a report by Rosenbaun E. (2018) if these “unicorns” file for IPO, they are expected to raise \$200 billion in the United States alone.

This study provides a new paradigm to the IPO literature by analyzing IPO stocks from the perspective of small, medium and large sized offerings in the Indian financial market.

THEORITICAL BACKGROUND

Graham & Dodd (1934) were the pioneers of the concept of value investing. The stocks that have high book to market ratios are considered as value stocks whereas stocks with low book to market ratios are known as growth stocks. Value stocks tend to perform better as far as returns are considered. Capaul, Rowley & Sharpe (1993) have reported value stocks outperforming growth stocks in their study comprising of six countries, these results are further validated by Baumann and Miller (1998) who report value stocks outperforming growth stocks in twenty countries thereby, confirming this to be global phenomena. Similar studies and results have been found by La Porta (1996) and Lewellen (1999)

Explanations for these results could be the return for the greater risk associated with value stocks as noted by Fama & French 1998. The tendency to overweigh more recent stock information in forming investment decisions and under weigh older data is a behavioral

explanation given by Kahneman and Tversky (1982). Debondt and Thaler (1985) observe investor over reaction to recent news. Lucas(2002) finds that returns of value and growth stocks vary over time.

On the other hand, abnormal behavior of IPO stocks was first studied by Stoll and Curley (1970) who noticed significant differences between first offer price of an IPO and the price of its stock one week after listing. Logue (1973) found differences in performances of IPOs that were handled by prestigious underwriters versus non prestigious underwriters. Ibbotson (1975) illustrated that IPOs are riskier than an average stock. Ritter (1984) hypothesized that changing the risk composition might account for dramatic swings in IPOs initial returns. Taranto (2003), Marisetty & Subrahmanyam (2005) and Zamanian, G., Khodaparati, S., & Mirbagherijam, M. (2013) have studied IPOs from the perspective of finding the determinants of IPO under performance. IPO returns have been studied extensively from the viewpoint of being sensitive to the method of measurement used to calculate abnormal returns (Barber, Lyon and Tsai (1999) and Kothari & Wamer (1997)). Ritter (1984), Helwege & Liang(2004) and Chen, Chiou, & Wu (2006) have studied in detail the “hot market” phenomena of IPO markets,

This paper adds to the current literature by dividing IPO stocks into value and growth stocks and comparing their returns over a period of three years to analyze the impact of book to market ratio on IPO performance. Ritter (1984) showed that during certain hot issue periods, IPO activity is driven by certain industries. IPOs that were issued during the hot market conditions had high returns this was referred to as the “**hot issues puzzle**”. Helwege & Liang (2004) have extensively studied the IPO activity from the perspective of firm specific characteristics in “hot” and “cold” market. A hot market is characterized by high volume of IPOs with greater instances of underpricing and oversubscription. These IPOs are often of the same industry. They find that hot markets have lower earnings in the long run however, they may possess greater institutional ownership and underpricing issues when compared to cold markets.

Prior to 1992, IPOs in India followed the Controller of Capital Issues regime where all aspects of the IPO were decided by the Controller of Capital Issues thereafter Securities and Exchanges Board of India (SEBI) was established that now regulates the IPO mechanism in India. The norms for raising Funds from IPO can be found on the SEBI website they are not being reproduced here. In India the laws that govern IPOs are Securities Contracts (regulation) Act 1956 it controls the trading aspects of the stock exchanges, Securities and Exchange Board of India Act, 1992 which controls the issuance, transfer, intermediaries and offences of the securities market in India, Depositories Act 1996 governs the settlement and transfer of securities from one person to another, Companies Act 2013, and Prevention of Money Laundering Act, 2002.

Indian equity market was ranked seventh in the world with market cap of \$2.1 trillion by Sivabalan (2018) in 2018. IPO market has witnessed a growth of 970% from the year 1999 to 2017. The IPOs of companies with strong fundamentals end up performing poorly on the listing day and issues with weak fundamentals and financials perform very well on the listing day. Why

do some IPOs perform exceeding well while others don't? Much of IPO literature has been focussed on determining whether or not an IPO is offered at a price much below its fair value. It is generally seen that if an IPO outperforms the benchmark index on the day it is listed then in the long run it underperforms. An issue tends to be priced at about ten times its actual value but when market conditions stabilise the stock tumbles down to a very low market price. In India, there are many certain examples of stocks that were listed during the stock market boom in 2007 but have fallen to about sixty percentage of their listing price by 2016. These stocks, though fundamentally strong fail to attract the attention of investors today because of the volatility in returns exhibited by them in the past. When there are strong evidences for underpricing, it usually implies overvaluation of the stock being offered for the public issue. A stock rarely reaches the price levels at which it was listed. So, can it be concluded that the listing day gain is the highest gain an investor can realise in the life cycle of the stock? Furthermore, can an investor gain more if he invests in large cap stocks rather than small cap stocks? These are certain questions which this paper seeks to answer.

DATA DESCRIPTION

The objective of this paper was to analyze the returns of IPO stocks by dividing them into small, medium and large cap. For this the methodology of Chan, Karceski & Lakonishok (2000) has been followed. IPO stocks that were listed on the National Stock Exchange in the Indian Securities market from the year 2006 to the year 2016 were identified. This resulted in a sample of 339 firms. The IPO stocks were divided into small, mid and large categories by ranking IPOs by their market value which is market price of the IPO stock one year after the issue multiplied by the equity share capital. The ranked stocks were then categorized into small, mid and large. There were 101 small stocks, 107 mid stocks and 131 large stocks in the data. In terms of number, the largest number of IPOs was issued in the year 2007 which was about 24% of the total number of IPOs. The year 2007 also had the largest number of IPOs cap wise i.e. large, medium and small which was 21%, 22% and 29% respectively. Years 2012-2014 had a decline in IPO activity which can be attributed to the global economic slowdown thereby decreasing the IPO activity in the financial market. The gross proceeds is defined as the amount of money raised by the IPO activity is reported in Table 2. Highest gross proceeds were reported in the year 2010 by large cap stocks which were about 21% of the total proceeds in the ten year time horizon chosen for the study. Overall the total amount of money raised by IPO activity from 2006 to 2016 by 339 firms in the sample is about rupees 1.8 trillion

Insert Table 1 about here

Insert Table 2 about here

METHODOLOGY

Initial Public Offerings are analyzed by their initial returns which are also known primary returns. These primary returns are useful in determining is the IPO is underpriced. Then comparison of the selected IPO stocks was done on the basis of Primary Market Returns, Abnormal Returns on the day IPO stock listed and Cumulative Abnormal Returns three years after the IPO listing

1. Primary Market Returns: The change in the offer price to the listing price on the day of listing is called primary returns.
2. Abnormal Returns: The difference between the returns on the IPO and the returns on the benchmark is called as abnormal returns.
3. Cumulative Abnormal Returns: Cumulative abnormal returns are calculated by utilizing the standard event methodology on value weighted and equally weighted basis.

Analysis of Initial and Abnormal Performance of IPOs

The initial abnormal returns are reported in Table 3. The average initial market returns for the data are 13%. The highest returns of 30% have been reported in the year 2014 while the lowest returns are 2.1% in 2013. This can be attributed to the economic slowdown which resulted in negative market sentiment. The cap wise analysis reveals the highest initial returns in the large cap sector for the year 2014 have been 52.2%.

Insert Table 3 about here

The Cumulative Abnormal Returns (CAR) are calculated for days three, six and ten days after the listing of an IPO denoted by CAR 3, CAR 6 and CAR 10 represent CAR for three, six and ten days after listing. T statistic is calculated and reported in Table 4. The hypothesis tested is that the cumulative abnormal returns are equal to zero.

Factors Influencing IPO performance

Underpricing is measured by abnormal returns which are the excess returns on IPO when compared with the benchmark. Independent variables are issue price which is the final price at which the IPO was listed, number of times issue was subscribed, primary market returns: the

returns on the first day listing and offer price. Ex ante uncertainty refers to the standard deviation of the daily returns of the firm one year after listing. Money left on the table is the difference between the offer price and the closing price on the day of listing of an IPO.

Table 10 shows the descriptive and correlation matrix of the parameters and summary statistics for variables

Determinants of initial abnormal performance

The following regression equation is estimated

$$ar_i = \alpha + \beta_1 price_i + \beta_2 timesub_i + \beta_3 inireturns_i + \beta_4 exante_i + \beta_5 MLOTT_i + \beta_6 Size_i + \varepsilon_i$$

Where

ar_i is the abnormal returns is the initial excess return of the firm i when compared with the benchmark, $price_i$ is the issue price of the IPO, $timesub_i$ is the number of times IPO was subscribed, $inireturns_i$ is the IPO returns, $exante_i$ is the ex ante uncertainty associated with the IPO, $MLOTT_i$ is the money left on the table by the IPO of firm i , size is the number of shares

RESULTS

CAR is significant at 1%, 5% and 10% level for large, medium and small cap stocks. Table 5 contains the year wise analysis of t test. Years 2006, 2007, 2008, 2010 and 2016 have significant t values at 1 percent level of significance. These years are also marked by increase in IPO activity. For the years with low IPO activity, t statistic is not found to be statistically significant. Results obtained from Table 4 and Table 5 are extended for study of IPOs by dividing them into categories of large, medium and small. Analysis of Variance (ANOVA) is used to analyze the difference in the three year returns of IPO categories small, medium and large. A simple t test cannot be used for analysis because the number of categories is more than two therefore Turkey multiple comparison test is used Turkey (1977). Table 6 reports the descriptive statistics of the data. Levene statistic is not significant this implies that variance among the groups is approximately equal and our categories have homogeneous data. Both Welch and Brown and Forsythe tests have a p value less than 0 which means that there is a significant difference in the 3 year return in between the categories. To analyze which categories perform better or worse Kruskal Wallis and Mann Whitney U test was conducted. P value is less than 0.05 for all the groups therefore it can be concluded that there is significant difference in the performance of small category IPOs when compared to mid and large category IPOs and mid category and large category IPOs.

5.1 Regression Results

The results of regression are reported in table 13. The effect of various IPO characteristics is on abnormal returns is analyzed. The variables viz. initial Returns, ex ante uncertainty and money left on the table seem to have a positive relation with abnormal returns. Issue price, number of times the IPO was subscribed has a negative relation with abnormal IPO returns. Size of the issue does not effect the abnormal returns of the IPO. The adjusted R squared is 61.7% and the F value is 89.160 which is significant at 1 percent level of significance.

Statistically significant relationships were found between abnormal returns and issue price, initial returns, number of times the issue was subscribed and money left on the table at 1 percent level of significance whereas as ex ante uncertainty was significant at 10 percent level of significance.

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