IPO Firms Subsequent Acquisition Activity and IPO Underperformance

Ashish Balapur[1]*, Mary Jessica[2]

[1]Doctoral Student, School of Management Studies, University of Hyderabad, Hyderabad, Telangana, India, [2]School of Management Studies, University of Hyderabad, Hyderabad, Telangana, India. *Email: ashishbalapur@uohyd.ac.in

ABSTRACT

We examine the IPO firm's acquisition activity influence on the long-run performance of IPO during 1994-2015. We find that the IPO acquiring firms are generating positive abnormal returns for the first 2 years of going public and in the third, these firms generate negative abnormal returns, but they perform better than the non-acquiring IPO firms. We further investigate influence acquiring by introducing other factors which influence the performance of IPO, we find that the acquisition activity was not significant or weakly significant and beta values to be positive. We conclude that the investors are confident that the acquisition activity of IPO firms are value enhancing which otherwise believed.

Keywords: IPO Acquirer, *BHAR*, Long-run Performance
JEL Classifications: G24, G34

1. INTRODUCTION

Do IPO firms subsequent acquisition activity influence the long-run underperformance of IPOs? This intrigues from the studies of Brau et al. (2012) and Bessler and Zimmermann (2011), Brau et al. (2012) analysed 3547 US IPOs to determine the impact of the acquisition activity on the performance and reported that the firms which went for acquisitions generated negative returns more than double of that firms which didn't went for acquisitions. Bessler and Zimmermann (2011) reported by investigating 2679 IPOs issued during 1996-2010 in Europe to study the influence of acquisition activity on the IPO firms performance and conclude that the IPO firm's performance which went for acquisition was not significantly different from the IPO non-acquirer firm. Wiggenhorn et al. (2007) reported similar findings that IPO acquirer firms performance was not significantly different from the IPO non-acquirer firm. The present study tests the influence of acquisition activity of IPO firms on the overall IPOs performance in an emerging economy like India.

Indian financial markets are not mature as compared to the western financial markets. They are constantly evolving, to protect the interests of investors. IPO process especially are unique among the other primary markets around the world; it is one of the most transparent process in the world. Securities and Exchange Board of India (SEBI) guidelines direct the IPO allocation as per set rules i.e., 50% to the institutional, 15% to the high net worth and 35% to the retail investors. SEBI guidelines direct the investment banker or underwriter to maintain transparency in terms of price and demand expressed by the institutional investors. Almost all IPOs in India are oversubscribed; this depicts the overreaction of Indian investors towards the public issue. Information asymmetry due to the institutional voids clubbed with the poor financial literacy among the investor's magnitude of underpricing is very high. Marisetty and Subrahmanyam (2010) in their study reported that underpricing of IPOs issued during 1996-2006 is 100% on an average.

M&A literature on the long run performance of acquiring firm is divided. Loughran and Vijh (1997) in their study reports that

acquirer underperforms in the long run. One of the explanations for poorer performance is the hubris hypothesis (Roll, 1986). According Roll (Roll, 1986) managers overconfidence leads them to overestimate the synergistic benefits derived from the acquisition. So they tempt to pay more for the acquisitions which result in the poorer operational performance which ultimately reflected in stock price. Krishnan et al. (2007) conclude that premium paid to the target on its fundamental value leads to the negative performance of the firm. Yang et al. (2019) using Chinese M&A took place during 1998-2015 document that the cash acquisitions are underperforming both in short and long-run, method of payment seems to be not significant, even stock financed M&As performing poorly in long-run (Savor and Lu, 2009). Contrasting finding has been reported by Arikan and Stulz (2016) in their study that the acquirers perform better by taking up wealth creating acquisitions. Loderer and Martin (1992)[1] in their reported that the acquiring firms didn't generate negative returns after acquisition.

IPO firms are prolific acquirers, whether desire to acquire driving firms to go public or after going public opens avenues to acquire remains puzzle. A partial explanation to this puzzle can get from the study of Brau and Fawcett (2006) from the survey done 338 CFOs to find the primary motivation to go public and reported that most of the CFOs answered primary motivation to go public is to acquire a firm. Celikyurt et al. (2010) explains that the recent capital infusion and availability of acquisition currency are driving the newly public firm to take up acquisitions more than the rate of mature firms. It is also observed that newly public which went for acquisitions are investing heavily in acquisition rather than on CapEx or R and D relatively to the non-acquiring firms.

Considering the strong desire of newly public firm to pursue an acquisition and contrasting findings of acquisition performance, we examine whether IPO firm's desire to acquire influence the long-run performance of overall IPO firms. And taking in to account the Indian financial system it should be more pronounced than the western studies due to institutional voids and low financial literacy. As per our knowledge, this study is first to explore acquisition activities of IPO firms and performance of IPOs in emerging economies like India.

The rest of the paper is divided into the following sections. Section I deals with the data and methodology. Section II deals with the results. Section III explains the conclusion.

2. DATA AND METHODOLOGY

2.1. Data
Sample data consists of IPOs which got listed on NSE from 1994-2015. We obtained the IPO data from the NSE website and post-IPO financials we used CMIE prowess database. The initial sample collected from the NSE website has 424 IPOs out of which few IPOs withdrawn, so the sample pruned to 396. From the 396 sample of IPOs, financials available with the prowess were 374. We define

IPO acquirer firm as any firm which pursues acquisitions within 3 years of time after going public. We consider only acquisitions which are completed within 3 years after going public.

Descriptive statistics about the data are provided in Table 1. The largest number of IPOs is issued in the year 2007. Only one IPO issued in the year 1999. The amount of IPOs issued through the book building process quite few before 2005. After 2005 most of the IPOs are issued through the book building process. They are clustering of IPOs during 2006, 2007 and 2010 marked as the hot market where the market is optimistic. Panel B reports details of the sample. This study covers a total sample of 374 IPOs which are issued through the book building process listed on NSE. The sample covers the issues during 1994-2015, the duration of the sample falls between the mandatory grading period, i.e., from 2007 to 2014. IPO grading was made compulsory by the SEBI in 2007 but later it was made option in 2014. Grading was based on fundamentals of firms; it was in the range of 1 to 5, 1 for the poor and 5 for the best fundamentals. There are 88 firms which went for the acquisitions within 3 years span of time after going IPO, out of which 24 are graded, and 64 are non-graded firms.

2.2. Methodology
To analyse the data we use event study methodology, we employed the *BHAR* model to find whether firms generate abnormal returns in the long-run. For measuring long-run returns, *BHAR* model is better than the CAR model (Barber and Lyon, 1997). We define a month as 21 trading days and year as 252 trading days as used by (Ritter, 1991).

$$r_{it} = r_t - r_0$$

$$BHR_i = \prod_{t=1}^{36}(1+r_{it}) \tag{1}$$

We compute three buy hold returns by the above equation, where "r_{it}", by the difference of raw returns of the firm "i" first closing price with the closing price at the time point "t." Raw returns are calculated up to 36 months from the day of listing or to the date of delisting. NSE 500 has been used as a benchmark to calculate the abnormal returns.

$$BHAR_i = \prod_{t=1}^{36}(1+r_{it}) - \prod_{t=1}^{36}(1+r_{mt}) \tag{2}$$

Table 1: Reports the details of sample IPOs listed during Jan 1994-Dec2015

Sample	January 1994-December 2015
Total of IPO	374
Graded IPOs	124
Non-graded IPOs	350
Total acquiring IPO firms	88
Graded acquiring IPO firms	24
Non-graded acquiring firms	64

The data was collected from NSE which went for IPOs through book building process only during 1994-2015, and further criteria were data of those IPOs should be available data in CMIE prowess IQ

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[1] They reported negative returns of acquirer in second and third year after acquisition which significant in 1960s but eventually disappeared by 1980s.

To study the influence of acquisition activity on the performance of IPO, we employed multivariate regression model.

$$BHAR_i = \alpha_0 + \beta_1 acqdummy + \beta_0 x_i \qquad (3)$$

BHAR returns are used as a dependent variable, "acqdummy" is the dummy variable where if there is acquisition activity it is given "1" value otherwise "0." X_i is other control variables which influence the performance of the firm.

We identify determinants from the existing literature which influence the performance of the IPOs. Issue size has been as a control variable in many studies (Deb and Marisetty, 2010; Jain and Kini, 1999). We use age as a log of 1+ age as the control variable. Other variables include promoter holding, non-promoter holding, grading as a dummy variable where grading above three is given "1" or else "zero" and market capitalisation as control variables.

3. RESULTS

As reported in Table 2, overall sample performance of the IPOs during the 1st year the mean abnormal returns are positive, but the

Table 2: Reports the mean abnormal returns of overall IPOs, IPO acquirer firms and IPO non-acquirer firms for three after going IPO

Variable	Overall IPO	Acquiring firms	Non-acquiring firms
	Mean value	Mean value	Mean value
1 year abnormal returns	0.0225	0.1190	−0.0131
2nd year abnormal returns	−0.0714	0.0830	−0.1284
3rd year abnormal returns	−0.1130	−0.0388	−0.1407

Table 3: Reports mean of control variables

Variable	Overall sample	Non-acquirer	Acquirer
	Mean	Mean	Mean
Issue size (millions)	1175.6025	1269.9016	914.6353
Age (years)	17.5864	18.5000	15.0581
Sales (millions)	5733.1698	5084.1660	7529.2500
Listing day returns	0.3602	0.3474	0.3957
Ownership (%)	59.5031	59.4546	59.6371
Market cap (millions)	40448.7928	34758.3233	56196.8363
Ownership non-promoter (%)	12.1254	11.6120	13.5464

Age of the firms is calculated from the year of incorporation to the date of listing. The issue size is the proceeds firm received from the IPO. Sales, ownership both promoter and non-promoter and market cap data is collected fiscal year following the IPO. Listing day returns are calculated as the difference between listing day closing and offer price whole divided by offer price

IPO non-acquirer firms performance is negative while IPO acquirer firms performance is positive in the 1st year. It can be interpreted that the high-quality firms are going for acquisition; that's the reason why the IPO acquirer are yielding positive returns. While the overall sample of IPOs and IPO non-acquirer sample generate negative abnormal both second and 3rd year but IPO acquirer firm are generating negative abnormal returns in 3rd year only. Mean performance of IPO acquirer firms are positive in the 2nd year, and average underperformance of IPO acquirer firms is less than that of IPO non-acquirer firm's underperformance. The results depict that the investors perceive that the IPO acquirer firms are making synergy building acquisitions, so they retain confidence in those firms.

We further examine the results by introducing other variables which influence the performance of the IPO firms after going public. We use a multivariate regression model to evaluate the influence of acquisition activity on the IPO firm's performance. Table 3 reports the mean of the issue size (Millions), age (Years), sales (millions), listing day returns, ownership (%), market cap (millions) and ownership non-promoter (%). Mean issue size of the acquiring firm is less than that of non-acquiring but rest of all variables are better than non-acquiring firms. Underpricing is more among the acquiring firms; this might due to get subscribe fully to tap the capital market to pursue the acquisitions (Amor and Kooli, 2013). IPO acquiring firms have strong sales; they are high performing firms. Market valuation of the acquiring firm is

Table 4: Reports the beta value and significance level values of various variables

Dependent variable	Parameter	B	Sig.
1 year returns	Intercept	−0.747	0.008
	Issue size	8.434E-006	0.422
	Grading dummy	−0.116	0.298
	Acquisitons	0.109	0.321
	Sales in millions	1.542E-006	0.635
	Ownership (promoter)	0.006	0.071
	Ownership (non-promoter)	0.021	0.000
	Market cap	−6.717E-007	0.290
	Listing day returns	0.000	0.607
	Age	0.074	0.300
2nd year returns	Intercept	−1.131	0.000
	Issue size	8.161E-006	0.448
	Grading dummy	−0.023	0.843
	Acquisitons	0.217	0.055
	Sales in millions	1.408E-006	0.672
	Ownership (promoter)	0.006	0.074
	Ownership (non-promoter)	0.019	0.000
	Market cap	−6.831E-007	0.293
	Listing day returns	0.000	0.515
	Age	0.174	0.018
3rd returns	Intercept	−1.179	0.000
	Issue size	8.041E-006	0.444
	Grading dummy	0.017	0.880
	Acquisitons	0.122	0.267
	Sales in millions	2.561E-006	0.431
	Ownership (promoter)	0.005	0.093
	Ownership (non-promoter)	0.014	0.003
	Market cap	−7.485E-007	0.239
	Listing day returns	0.000	0.314
	Age	0.213	0.003

quite high than non-acquirer. Non-promoter holding in acquiring firms is high; this can be construed that IPO firms are making value-enhancing acquisitions to protect their investment.

Table 4 reports the multivariate analysis results for the abnormal returns generated during the 1st, 2nd and 3rd year. The analysis report there is no significant impact of the acquisition on the performance of the IPO firms subsequently after IPO for the 1st and 3rd year, but in the 2nd year, it is significant at 10%. The acquisition has the positive beta value which shows that investors are confident that the acquisitions of the IPO firms are value improving, this finding is inline with the studies (Arikan and Stulz, 2016; Bessler and Zimmermann, 2011; Wiggenhorn et al., 2007). Arikan and Stulz (2016) reported that the young firm's performance subsequently was better than that of mature firms. In their study define young firms as the which are acquiring within a 4 year subsequently after going public. Non-promoter or institutional investor holding seems to be significant in the 3 years, institutional investors have superior information about the firm hence their trading activity is closely watch by the retail investor. Retail investors react swiftly to the trading of institutional investors. Promoter holding weakly significant at 10% and positive. It is in line with the earlier studies (Craswell et al., 1997; Lichtenberg and Pushner, 1994). The findings report that the acquisition activity of IPO firms subsequently after going public does not explain the underperformance of the IPOs in long-run.

4. CONCLUSION

The present study provides evidence that acquisition activity doesn't explain the underperformance of the IPOs. The abnormal returns of the acquiring firms in the first 2 years is positive and overall IPOs in the 1st year doesn't generate the negative abnormal which is contrasting from the western scenario, similar findings was reported by Kumar (2007). Investors in India see the acquisitions as value-enhancing deals hence the IPO firm's abnormal returns are positive or less negative returns than that of non-acquirers in the 3rd year.

Multivariate analysis was performed to investigate the acquisition activity influence on IPOs by controlling the other influence factors like age, issue size, grading, promoter, non-promoter holding, sales, market cap and listing day returns or under-pricing. After controlling these factors, the acquisition was not significantly influencing the IPOs performance. It was weakly significant at 10%. Overall the acquisition activity does not affect the performance of the IPOs. This study contributes to the literature by testing the relationship between acquisition activity of IPO and overall IPO performance, acquisition activity are positively contributing to the IPO acquirer performance which in contrast with the (Brau et al., 2012). Retail investors in India perceive acquisitions as value adding both in short run and long run, they perform positively over and above the market returns (Chakrabarti, 2007). Non-promoter or institutional investors holding found to be significant in the study, this shows that the retail investors in emerging economies like India follow the buying behaviour institutional investors because lack of financial literacy and mature institutions, retail investors follow the institutional investor's holdings in the hunch that they have superior information about a firm. Further researchers can delve by taking fixed and book building IPOs and check the results.

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