Research Paper   **Management**

Right Issues and Price Behaviour: Indian Evidence

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ABSTRACT

Stock market has its own marvels. Fundamental and technical analyses on one hand help market participants to be predicatively able; on the other hand random walk theory stresses upon wondering nature of stock prices. It is always an area of interest for researchers to map the impact of publically available information on stock prices and to find the median point between these two extremes.

In this context, this paper attempts to analyze the impact of right issues made by Indian companies on their share prices. The researcher used phenomena of excess return to map such impact. Excess returns are computed by taking two different models (Market Beta Model and CAPM) for two windows of before and after the event time. Then, the significance of differences is mapped by using paired T-test.

The attempt is made to address the question whether stocks are able to generate excess returns ensuing to right issues.

Keywords : Right Issue, Excess Returns, Market Beta Model, CAPM

Introduction: The key to make money in stock market is predictive ability. Since inception of the market, analysts have tried in all possible manners to identify stock price behavior. Many experts have succeeded in developing different models for analyzing such price patterns. Fundamental Analysis, Technical Analysis and Efficient Market Hypothesis are major tools of price related research, and the efforts for such model development, still continue.

Stock market does not allow its participant to predict price movements perfectly, even by using any tool of analysis. This brings charm to speculators. Many rational investors and analysts have tried to identify the stock price movements, but the movements always remain mysterious. Basically, the analysis of security and its timing to purchase or sell the scrip is having significant importance in the market. The participants in the market have developed their own logic to choose the scrip to invest and timing to enter into the scrip. The former is known as the Fundamental Analysis and the later is called as Technical Analysis by participants.

On one hand, Fundamental and Technical analyses try to facilitate forecasting in the market for its participants; Random Walk Theory contradicts it, by accepting dominance of erratic market psychology or animal spirit of the market which does not follow any rules.

Random Walk Theory: French Mathematician, Louis Bachelier, in 1900, gave new dimension for analyzing stock prices, by writing a paper, which concluded that stock price fluctuations are random and does not follow any regular pattern. This gave a formal birth to Random Walk Theory. Further, in 1953, Maurice Kendall, set a proposition that stock price series is too wondering to identify any predictable patterns, which disturbed the economists. Kendall's support to Bachelier's conclusion, wake up the economists and provoke them to reverse these studies. This gave birth to the Efficient Market Hypothesis, which talks about different types of market reacting differently to the information, which may enable participant to anticipate the price movements up to some extent.

Efficient Market Hypothesis scrutinizes swiftness in following three different forms.

1. Weak Form of Market Efficiency which talks about the market where current prices reflect only past prices and the traded volumes.
2. Semi-strong Form of Market Efficiency which underlines the type of market efficiency which discounts past prices, traded volumes and all those information which are publicly available, as well.
3. Strong Form of Market Efficiency narrate a kind of market which takes into account past prices, traded volumes, all publicly available information and some inside information as well.

Informational Efficiency: Informational Efficiency is mainly described by immediateness of the market to new information. As discussed earlier, if the information is negative, the participants of the market will take immediate decision to clear the long position by selling the security as early as possible, which will let the stock down. Similar is the case in positive information, where participants will try to enter in to the stock as rapidly as they can to gain from the effect of the information. This is the major characteristic of the Informational Efficient Market. This makes it clear that markets are informational efficient. It becomes very interesting to analyze the degree of the impact of information on stock prices.

Literature Review: Nelson (1965) based his study in U.S. for 380 events of rights issues and used monthly data for the period of 1946-1957. He found that there were no effects of rights announcement on stock prices. He also cited that there was no significant difference between share prices before and after six months of rights issues.

Dipchand (1977) put forward the hypothesis that, theoretically, share price after the right issue should decline to reflect quasi-splits (a phenomenon used to describe inherent stock split occurring due to selling shares at less than market price via right issue). He has taken time period of 1956 to 1974 for 323 Canadian companies. He concluded that market appears to be relatively efficient.

Smith (1977) also adopted the similar methodology by using monthly data, for 38 rights issues and 56 rights issues with standby underwriting offerings. This study was based in the US companies for the 5 years' time period from 1971 to

1975. For both the types of rights offerings, he observed that stocks could not generate abnormal returns for one month after rights announcement.

Ball, Brown and Finn (1977) studied 193 listed firms on Melbourne / Perth Stock Exchanges over the period of 12 years from 1958 to 1970. They also employed event study method and used monthly data. They reported that there were positive abnormal returns for the announcement period which indicated the positive reaction of stock prices to the announcement of rights issues. They further concluded that markets were efficient at least on a monthly basis, with respect to the right issue.

White and Lusztig (1980) employ a pooled cross-sectional time series model and used daily security returns to examine 90 rights issues over the period of 10 years from 1962 to 1972 in the U.S. They documented that there was a negative reaction of the stock prices to the rights issues announcements.

Loderer and Zimmermann (1988) investigated 122 rights issues that were announced by 56 industrial corporations for the period of 10 years from 1973 to 1983, in Switzerland. They employed the event study method and used monthly stock returns to found insignificant average abnormal returns. This meant that there were no effects of right announcement on stock prices.

Malhotra, Thenmozhi and Arun Kumar (2007) used event study technique and multivariate regression analysis to study the impact of announcement of right issue in for 35 companies for 5 years in Indian stock market. They inferred that Indian stock market reacts positively to the announcement of right issue. In this way, they provided evidence on semi strong efficiency of the Indian stock market.

Research Methodology: The study aims to map the impact of right issues on stock prices and hence testing informational efficiency in Indian context. In this context the research includes a sample of BSE – 100 stocks. The aim of this study is further made specific by keeping only those securities in sample which remained as a part of BSE – 100 for the entire study period (from 2004 to 2009). In this process, the sample curtained down to 49 stocks. During the study period there were 8 events of right issues.

In order to map the informational efficiency, the impact of right issueson stock prices are analyzed for short-term as well as for long-term. Here, the short-term refers to 3 days before and after the announcement and long-term refers to the time frame up to ex-date of the said issue.

The researcher has applied the phenomena of Excess Returns, which is the difference between actual returns and expected returns. Expected returns are calculated by using the following two models.

MODEL – 1 (Market Beta Model)

Expected Return = Market Return * Beta of the Security

MODEL – 2 (The CAPM Approach)

Expected Return = Risk free Return + (Market Return – Risk-free Return) * Beta of the Security

Risk free returns are taken at 5 percent. The relevant data is sourced through Prowess database of CMIE (Centre for Monitoring Indian Economy) and www.moneycontrol.com. As the data set is of before / after type, Paired T test is used to measure the significance of differences.

Right Issue and its Impact on Price Behaviour: Right issue is a privilege offered by a company to its existing shareholders at the time of issuing the new equity. Companies offer shares at discounted price to the existing shareholders, before issuing new equities in the market. As these shares are available at a discounted price, it is also regarded as loyalty benefits to the shareholders.

Table 1 Right Issue (Date Sheet)

No.	Company Name	Announce-ment Date	Rights Ratio	Face Value	Ex-Rights Date
1	Aditya Birla Nuvo Ltd.	11/9/2006	2:17	10	1/12/2006
2	Bharat Forge Ltd.	19-01-2004	1:20	10	20-07-2004
3	Hindalco Industries Ltd.	20-06-2008	3:07	1	28-08-2008
		20-09-2005	1:04	1	21-11-2005
4	Indian Hotels Co. Ltd.	13-08-2007	1:05	1	21-02-2008
5	State Bank Of India	14-01-2008	1:05	10	28-01-2008
6	Tata Motors Ltd.	29-05-2008	1:06	10	9/9/2008
7	Tata Steel Ltd.	17-04-2007	1:05	10	29-10-2007

Indian companies seem to be less inclined towards offering such privilege. Out of the total sample of 49 companies, only 7 sample companies have offered right issue during the study period. However, the most important reason for the same can be lack of requirements for new equity for the companies. Even though, Hindalco Industries has offered right shares to its shareholders twice during the research period. Out of 8 issues, 1 (Hindalco), 3 (Indian Hotels, SBI, Tata Steel) and 1 (Tata Motors) issues were in the ratios of 1:4, 1:5 and 1:6 respectively. The ratios of 2:17, 1:20 and 3:7 each, were chosen by other three companies (Aditya Birla Nuvo, Bharat Forge and Hindalco).

Table 2 Excess Returns – Right Issue (Model – 1)

No.	Company Name	Excess Returns in %	
		Before the Announcement	After the Announcement
1	Aditya Birla Nuvo Ltd.	0.85	-3.93
2	Bharat Forge Ltd.	-4.73	-1.20
3	Hindalco Industries Ltd.	2.79	-4.53
4	Hindalco Industries Ltd.	1.48	-4.83
5	Indian Hotels Co. Ltd.	3.39	-2.22
6	State Bank Of India	1.43	5.04
7	Tata Steel Ltd.	1.14	-2.02
8	Tata Motors Ltd.	-6.44	0.41

Right issues are the clear cut benefit to shareholders in normal conditions. According to this proposition, right issues went on to create considerable differences in excess returns before and after the event. There was only 1 sample event wherein, excess returns remained positive before and after the event (SBI) and another 1 sample event (Bharat Forge) has shown negative excess returns for both, before and after time periods. Again, only 1 sample event (Tata Motors) that demonstrated negative excess returns before the event which turned positive after the event. However, the excess returns changed to negative after the event against positive before the event, for as many as 5 times [Aditya Birla Nuvo, Hindalco (in both events), Indian Hotels and Tata Steel].

Table 3 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean	Correlation
Pair 1	Model1before	-0.0113	8	3.5733	1.2633	-0.283
	Model1After	-1.6600	8	3.2352	1.1438	

Table 4 Paired Samples Test

Model1 before - Model1 After	Paired Differences						T	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			Mean	Std. Error Mean
	Lower	Upper	Lower	Upper	Lower	Upper	Upper
Pair 1	1.6487	5.4559	1.9289	-2.9125	6.2100	0.855	0.421	

The calculations shown in Table 5.5 suggest rejection of the null hypothesis. This means that there are significant differences in the excess returns before and after the announcement right issue.

Table 5 Excess Returns – Right Issue (Model - 2)

No.	Company Name	Excess Returns in %	
		Before the Announcement	After the Announcement
1	Aditya Birla Nuvo Ltd.	2.76	-2.02
2	Bharat Forge Ltd.	-4.81	-1.28
3	Hindalco Industries Ltd.	5.31	-2.01
4	Hindalco Industries Ltd.	4.01	-2.31
5	Indian Hotels Co. Ltd.	3.69	-1.92
6	State Bank Of India	2.04	5.65
7	Tata Steel Ltd.	4.58	1.42
8	Tata Motors Ltd.	-5.22	1.63

There were no major changes in the excess returns according to model – 2 in the comparison of model – 1. In the data of excess returns, there was 1 sample observation wherein excess returns remained negative before and after the event (Bharat Forge). There was again 1 sample observation, wherein excess returns turned to positive after the event from negative before event (Tata Motors). 2 sample events shown positive excess returns before and after the event (SBI and Tata Steel) and 4 sample events have shown positive excess returns before the event which turned negative after the event [Aditya Birla Nuvo, Hindalco (in both events) and Indian Hotels].

The results of excess returns as per model – 1 as well as model – 2 help the researcher to find out that investors generally sell the shares as soon as the announcement is done. This can be because of incorrect prices offered by companies, which may have led to negative sentiments for the investors.

Table 6 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean	Correlation
Pair 1	Model2 before	1.5450	8	4.17366	1.47561	-0.190
	Model2 After	-0.1050	8	2.81041	0.99363	

Table 7 Paired Samples Test

Model2 before - Model2 After	Paired Differences					T	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		Mean	Std. Error Mean
	Lower	Upper	Lower	Upper	Lower	Upper	Upper
Pair 1	1.65000	5.45719	1.92941	-2.9123	6.2123	0.855	0.421

In the line of model – 1, the statistics shown in Table 7 suggest rejecting null hypothesis and accepts the alternate hypothesis, which means investors can generate excess returns around the announcement of right issue.

Table 8 Excess Returns – Right Issue (Ex-date)

No.	Company Name	Excess Returns in %	
		Model – 1	Model – 2
1	Aditya Birla Nuvo Ltd.	17.46	19.37
2	Bharat Forge Ltd.	3.32	3.24
3	Hindalco Industries Ltd.	-20.04	-17.52
4	Hindalco Industries Ltd.	-28.21	-25.69
5	Indian Hotels Co. Ltd.	-29.86	-29.55
6	State Bank Of India	8.56	9.17
7	Tata Steel Ltd.	2.53	-17.63
8	Tata Motors Ltd.	-17.77	-16.55

The time period taken by companies to execute the scheme of right issue varies from 15 days to as many as 6 months averaging around 4 months. In case of model – 1, 4 sample observations found to tender positive excess returns during the said time period and another 4 sample observations gave negative excess returns. Simultaneously, as per model – 2, 3 sample companies have tendered positive excess returns and 5 sample companies have given negative excess returns.

The direction of the said movements does not confer any common conclusion, but however, researcher finds it interesting to tender that the magnitude of these movements were quite significant in negative as well as positive direction. This clearly shows the high trading interest around right issue.

Conclusion: In this study, the researcher concludes that there was a lot of trading interest around right issue in some selected stocks. However, all the sample companies did not have the same advantage. Hypothesis testing also suggests that investors were able to generate excess returns around the time of right issues. Moreover, the data of excess returns till ex-date implies considerably higher trading activities after right issue.

Different studies conducted by Nelson (1965), Smith (1977), Loderer and Zimmermann (1988) etc. conferred contradictory observations to this study. They found that right issues were not able to generate statistically significant excess returns. Researcher confers that the reasons underlying this contradiction are the time frame and the national economic set up under which the studies are conducted.

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