Stock Split And Rights Issue Effect On Indian Stock Market: An Empirical Study

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EFFICIENT MARKET HYPOTHESIS (EMH)

Efficient Market Hypothesis (EMH) signifies that all appropriate information is quickly and fully assimilated in a security's market price; thereby guessing that an investor will obtain an equilibrium rate of return. In other words, an investor in the market should not anticipate an abnormal return. There has been a large body of academic community, mainly economists and statisticians, who subscribe to the hypothesis of random walks in the stock market prices. Random-walk theorists generally start from the premise that the major security exchanges are good instances of efficient markets. A market where consecutive price changes in individual securities are independent is, by definition, called a random-walk market (Fama, 1965). The random walk theory affirms that all information is replicated in the current stock prices. Therefore, any new information would also take little time to be completely incorporated in the prices, and market players, thus, would have little time to exploit this new information to realize above normal profits.

Fama (1970) recognized three forms of market efficiency explicitly; the weak, semi-strong and strong form. Weak form of market efficiency says that current stock prices fully reflect all past information. Hence, any attempt to forecast prices based on historical prices or information is completely futile, as the prices follow random walk process. Semi- strong form expands the idea of efficiency a little further and describes that current stock prices replicate all publicly available information. It also believed that prices adjust to such information very quickly, so above normal returns on a consistent basis cannot be earned. The strong form explicates the situation where all pertinent information, whether it is within the public domain or private domain, will be reflected in the stock market price.

In event studies, it is measured how quickly stock prices respond to different pieces of news, such as corporate earnings or dividend announcement, news of a merger and takeover, or macroeconomic news. Normally, the exploration of semi-strong form of market efficiency has been limited to the study of well-developed stock markets in the world. The aim of this research is to observe the stock price reaction to information release on stock splits and rights issues with a view of examining whether the Indian stock market is efficient in its semi-strong form or not. Over the past half century, event studies have been employed in much research studies across the globe and their superiority has been greatly improved by Dolley (1933), Fama et al. (1969) and Brown and Warner (1985).Similar methodology has been used to contribute additional confirmation on the efficiency features of the Indian stock market.

INDIAN EQUITY MARKET

Many stock market studies have been apprehensive about market efficiency. However, the majority of the markets under examination have been mature markets such as the New York Stock Exchange and London Stock Exchange (Bris et al. (2004); Schwert (2002)). This present study tries to consider the market efficiency of an emerging stock market like India. The Indian equity market has been portrayed as an emerging market (Raju and Ghosh (2004); Mahfuzul et al. (2004); Yartey (2008)) and in the subsequent pages, the author attempts to study whether the Indian market is efficient in its semi-strong form or not through an event study methodology. Indian equity market is mainly executed on the basis of two major stock indices, the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). The benchmark indices in these two exchanges are Sensex (30 stocks) and Nifty (50 stocks) respectively. In both these stock exchanges, trading is being carried on in a dematerialized form. However, there are about 22 stock exchanges in India which regulate the market trends of different stocks in the economy. Securities and Exchange Board of India (SEBI) is the regulatory authority and it controls the functioning of all the stock markets in India. With the liberalization of Indian economy in early 1990s, it was inescapable to boost the Indian stock market trading system on parity with the international standards. In the past few years, with the help of online stock trading

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facility, it has been extremely convenient for investors to trade in Indian stock markets. Hence, over the years, Indian equity market became a lucrative destination for both domestic and foreign investors. Foreign investment in general enjoys a mainstream share in the Indian equity market.

THEORETICAL BACKGROUND OF EVENTS

The semi-strong form of market efficiency guides the security prices to react instantly to any new information. The researches on event studies are enormous in number, and the literature continues to grow further in recent times. Event studies commonly examine the behavior of firms' stock prices around the corporate announcements.

The first event for the present study is **The Stock Split**. **Stock split** means there is a sub-division of a share of large denomination into shares of smaller denominations. The company declares the split ratio on a particular date called the record date. All shareholders whose name appears on the company's record on the record date will be entitled for the extra shares. A few weeks later, the stocks will start trading at ex-split price on the stock exchanges. The fundamental difference between a bonus issue and a stock split is that, bonus issues are the free additional shares issued by companies, accompanied by a book entry to relocate the retained profits or accumulated reserves into paid-up capital in the shareholders' fund section of the company balance sheet. In a stock split, the number of shares increases, but the face value falls. The face value never changes in case of bonus shares. So, stock split is just a technical modification in the face value of the stock. But there is no other change in the company. Here, the only benefit for investors is that they can buy shares of a company which are expensive, at a less price.

The second event undertaken in the study is the **Rights Issue**. It is the issue when a listed company proposes to issue new securities only to its existing shareholders at a price. The rights are typically offered in a particular ratio to the number of securities held by the shareholders' prior to the issue. As a result, each shareholder gets to acquire a certain number of shares, based on his current holding. Rights issues are not free shares of the company, but the shareholders get complete right to own those shares at a price. The amount per right share is generally less than the current stock price. Given this, the shareholders will exercise their right and the number of shares will increase, thus reducing the earning per share. This route is appropriate for companies who would like to mobilize capital without diluting stake of its existing shareholders.

ABNORMAL RETURNS, CONFOUNDING EVENTS AND LIQUIDITY

Abnormal returns are impartial estimates of changes in the market value of the firm during the event period, which replicate the price reaction to the event. It is the return that an investor gets over and above the normal returns. There are several common alternatives for estimating normal return- for instance, market model and mean-adjusted normal return model. In the present study, market model is used to estimate normal returns. Normal returns are the returns an investor gains due to his standard course of trading. It means that the period during which any event, that can influence his returns, has not occurred. Now, once some event transpires, it may contaminate the usual course and results in an abnormal return. The process of calculating normal and abnormal return is discussed in the subsequent methodology section.

To study the impact of a particular event on share prices, the event study methodology followed by researchers isolates events from each other. To execute the procedure appropriately, all confounding events around the event window, a period prior and subsequent to the event date, need to be controlled for. Confounding events comprise of movements in the overall market and/or firm- specific events like acquisitions or divestitures or bonus announcement or stock split or rights issue. If the bonus announcement or other major firm- specific events takes place within the event window, the firm is usually removed from the sample. This is because to confirm the abnormal return calculated is due to bonus announcement or any other firm-specific event declared on the same day. However, if all the events are kept, the researcher exercises some other approach to control for the influence of the confounding event on the study's results (see, Lijleblom, 1989). But in the present study, the author has removed the firms which witnessed some confounding events. Market liquidity is a significant factor which affects market efficiency. It is an indicator of market depth and demonstrates the absorption power of risk premium. The market liquidity can be considered as one of the factors influencing the price discovery function. Over the years, many researchers demonstrated the relation between corporate events and its impact on liquidity. With regards to stock split and liquidity issues, more support for the liquidity effect is found from Schultz (2000). He found that the frequency and volume of small trades enhance

following a stock split. Other previous research has also recognized positive price performance following the stock splits. Grinblatt et al. (1984) and Lamoureux and Poon (1987) uphold the signaling hypothesis that firms use stock splits to indicate future positive earnings. While other studies, such as Lakonishok and Lev (1987) find that volume declines subsequent to a split.

LITERATURE REVIEW

Event studies have a long history, comprising the original stock split event study by **Fama et al. (1969)**. Managers use financial decisions such as stock split and bonus issues to convey a favourable private information about the current value of the firm as suggested by **Ross (1977) and Leland and Pyle (1977). Eades et al. (1984)** found that there is a significant positive ex-date return by companies listed on the New York Stock Exchange during the period between 1962 to 1980 for a sample of 2110 stock dividends and stock splits. Their results were accounted not just for the ex-day, but also for the five days either side of it. However, it was found that ex-day itself exhibited the largest average abnormal return and indicated that positive abnormal returns were also significant on the day prior to it and on the two days subsequent to it. In the similar line, **Lakonishok and Vermalen (1986)** reported a substantial positive abnormal return for a sample of 2558 stock dividends and stock splits. They considered each of the five days prior to the ex-day, the ex-day itself and the two days subsequent to it and found that the largest abnormal return is explained on the ex-day itself.

Several studies in market efficiency do not distinguish between stock split and stock dividend. But the researchers like **Wulff (2002) and Rankine and Stice (1997)** found that the announcement effect is more pronounced for stock dividend than for stock split. In the similar line **Grinblatt et al. (1984)** propose that stock dividend signal has greater future earnings expectations than stock split. **Eisemann and Moses (1978) and Baker and Gallagher (1980)** surveyed manager's views regarding stock dividends and stock splits respectively. They described that firms' issue stock split with an intention of keeping stock price in an optimal range whereas, the stock dividend is related to preserve cash and to convey confidence in the firm and to enlarge the number of shareholders.

Kothare (1997) and Bae and Jo (1999) carried out their study particularly in US market (NASDAQ and NYSE respectively) on rights issues and volatility in the market. **Kothare** founds that there is no change in volatility in the stock price after rights issue announcement whereas, **Bae and Jo** find decreasing volatility following rights issues. A probable explanation for the different finding can be that Bae and Jo used shorter pre- and post-issue periods. In the same framework, some researchers argue that there is a small increase in the number of shareholders following rights issues for the Norwegian and Finnish stock exchanges **(Bohren et al. (1997); Hansson (1999))**.

Other studies on rights issues have accounted negative announcement period returns **(see Burton et al. (2000); Suzuki (2000) for UK; Singh (1997) for US; Marsden (2000) for New Zealand; Kabir and Roosenboom (2003) for Netherlands)**. Conversely, positive announcement period abnormal returns immediate to rights issues are reported by **Tsangarakis (1996)** for Greece market, **Bohren et al. (1997)** for Norway market and **Kang and Stulz (1996)** for Japanese market rights issue announcements.There are few researchers who investigated the semi-strong form of market efficiency in India. **Ramachandran (1985)** studied the impact of bonus issue announcements on Indian equity stock prices. He found a varied evidence of semi-strong form efficiency in the Indian stock market. **Obaidullah (1992)** accounted a positive stock market reaction to bonus issue announcements and supported the semi-strong form of market efficiency. **Rao (1994)** suggested that the Indian equity market responds in an expected direction to firm announcements and supported the semi-strong form of efficient market in India. He projected a cumulative abnormal return of 6.3 percent around the three days of bonus issue announcement. **Srinivasan (1993)** in his study established enormously large positive abnormal returns on ex-bonus and ex-rights dates for Indian stocks. **Mishra (2005)** found that there is a significant positive abnormal return for a five-day period prior to bonus announcements.

RESEARCH METHODOLOGY AND DATA

From the above literature, it is evident that lot of work has been done on event study in the developed and emerging markets (including India) considering a single event. In the present paper, the author considered two events (i.e. stock splits and rights issues) to find the market reaction during the same period. In addition to this, the present paper also tries to study the impact of events on liquidity. In order to carry out an event study, the author determined the

investigation window as t=-30 to t=+30 relative to the event day t=0 (date of announcement of stock split/rights issue). This section is divided into two logical parts. The first part outlines the data source and hypothesis, whereas the methodology followed to prove the hypothesis is enumerated in the second part.

DATA SOURCE AND HYPOTHESIS

The stock market data for the analysis is taken from Prowess database published by Centre for Monitoring India Economy (CMIE). The stock data includes the stocks which have been listed in the National Stock Exchange (NSE) and declared stock splits and rights issues from April 1996 to March 2008. The daily adjusted share price data of the sample companies has been collected for two events. It is revealed that there are 351 and 177 companies that went for stock splits and rights issues respectively during the period April 1996 to March 2008 in the Indian market. The sample companies are taken after removing the confounding events of the respective companies.

For the purpose of the study, a null hypothesis is constructed for abnormal returns. The null hypothesis (H_0) is that the Indian market is efficient in its semi-strong form and there is no significant average abnormal return around the event dates for two events (stock splits and rights issues) and the alternative hypothesis (H_1) being that the Indian market is not efficient in semi-strong form and there is a significant average abnormal return around the event dates for two events. The change in liquidity is also tested for all the events considering the same t=-30 to t=+30 days window.

Here, the null hypothesis (H_0) being there is no significant change in liquidity of stocks for any of the two events (stock splits and rights issue). Whereas, alternative hypothesis (H_1) being there is a significant change in liquidity of stocks for the events considered.

METHODOLOGY ADOPTED

To devise an event study, the event, event window, estimation window, investigation widow and the estimation model should be determined. An event is what the investigators would like to study, and it conveys the information that potentially influences the stock market prices. An event window is the period in which an event occurs in the market. The event window in this research is combined with the day of announcement of the event and the days preceding and succeeding the announcement day, which are numerically expressed as -1, 0 and +1. The period of data used for estimation of parameters is known as an estimation window. The estimation window in this study is identified from -230 days to -31days before the announcement date i.e. "0" day. The investigation window is an extension of the event windows, from -30 days through +30 days for all the three corporate events.

For any Time series data analysis, all data series must be stationary. To study the stationarity of data series, the author carried out unit root test, which shows whether the data series is stationary or not. The Stationarity condition has been tested using Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests. [Dickey and Fuller (1979), Gujarati (2004), Phillips and Perron (1988)]. Preliminary, Augmented Dickey Fuller (ADF) and Phillips- Perron (PP) tests failed to reject stationarity in case of all the individual stock returns and market return variables.

Brown and Warner (1980) reported that 'a simple methodology based on the market model is well-specified and relatively powerful under a wide variety of conditions. Following Brown and Warner, the market model is employed to compute the abnormal returns that are derived from the following equation:

$$\mathbf{R_{jt} = \alpha_j + \beta_j R_{mt} + e_{jt}}$$

Where, $R_{j,t}$ = the daily return security j at day t

R_{mt} = the daily return on Indian stock market at day t

α_j and β_j = OLS intercept and slope coefficient estimators, respectively

e_{jt} = the error term for security j at day t

The NSE market index (Nifty) is taken here as the proxy for computing the market return. To compute daily market return, the logarithm method has been followed.

$$\mathbf{R_{mt} = Log\ (I_t/I_{t-1})}$$

The daily return for individual security "j" is:

$$\mathbf{R_{jt} = Log\ (R_t/R_{t-1})}$$

$\acute{\alpha}_j$ and β_j are derived from the market model over 200 days prior to the event month and assumed to be constant for the event window considered in the study (t-30 to t+30). The expected returns for security j at day t are defined as,

$\mathbf{ER_{jt} = \alpha_j + \beta_j R_{mt}}$

Where α_j, β_j are OLS estimators of (α_j, β_j).

The daily abnormal return is calculated as $AR_{jt} = R_{jt} - ER_{jt}$. For each event date t, the cross sectional average abnormal returns for all firms are defined as:

$$\mathbf{AAR_t = 1/n \sum_{J=1}^{n} e_{jt}}$$

t = -30 to +30

n = 351 for stock splits and177 for rights issues

To test the statistical significance of results pertaining to abnormal returns obtained, the t-test recommended by Brown and Warner (1985) in the presence of event clustering of cross-sectional correlation is conducted.

In order to see if the events affect liquidity of the security, a simple paired t-test is used in the study. Total volume traded in the market is taken as the proxy for liquidity of the stock. The author has also made an attempt to see whether there is any significant difference in the total traded volume in the pre and post event dates of the events (stock split and rights issues) for the event window t=-30 to t=+30 days.

RESULT ANALYSIS

This result analysis section is presented in two sub-sections. First deals with the results obtained for testing efficiency of the market with respect to two events and the second enumerates the findings of liquidity in pre and post of these events.

MARKET EFFICIENCY

In the study, the author considered the event window of 61 days consisting of t-30 to t+30 relative to event day t_0. Event date is the date of announcement of stock split or rights issue.

The objective of the study being exploring semi-strong form of market efficiency characteristics of the Indian stock market, it attempted to investigate, whether the Average Daily Abnormal Returns are indicating any pattern or not. In addition to this, whether any sample company delivers abnormal returns on and around announcement date is also investigated in the research.

The results concerning the event study in respect of stock splits and rights issues are depicted in Table 1 and 2 respectively. It is revealed that on announcement date, there is positive average abnormal return of 2.4% and 1% for stocks split and rights issue respectively. Both the positive returns are also statistically significant at 5% level. This shows that there is a strong impact of stock splits than rights issues on the stock price in the Indian market. Table 3 recapitulates the impact stock splits and rights issues on share price performance. It is found that 58% of sample companies have positive returns during the event window in respect of stock splits, whereas that is 60% for rights issues. On announcement date, 56% of sample companies reported positive return in case of stock splits compared to 55% in case of rights issues. Thus, it is evident that reaction of market players to stock split and rights issue announcements are more pronounced in the Indian market. It is also observed from Table 1 and 2 that in respect of stock splits, there are 20 days out of 61 days that reported statistically significant return, whereas in case of rights issue, it is 17 days out of 61days that reported statistically significant return excluding the event date. During the post 30 days from the event announcement date, there are 16 days and 14 days that reported statistically significant return in respect of stock split and rights issue respectively. In case of stock splits, there are positive average abnormal returns for three days in a row after the event date and t+1 AAR is statistically significant. Likewise, in respect of rights issue, there are positive average abnormal returns repeatedly for six days after the event date, but returns are not statistically significant, while t-1 day AAR is statistically significant. These results suggest that chances are more to earn abnormal return during the stock split and rights issue announcements in the Indian market. In a similar line, Lakonishok and Vermalen (1986) found that there is positive impact of stock split announcements on share returns. In case of rights issue the effect starts one day prior to the event announcement and continues till subsequent six days. This shows that the reaction of market players towards rights issues is more sensitive than the stock split. Similar findings are also supported by Bohren et al. (1997) and Hansson (1999). Other studies like Kothare (1997) and Tsangarakis (1996) for Greece market; Bohren et al. (1997) for Norway market; and Kang and Stulz (1996) for Japanese market show that a

positive market reaction to the rights issue announcements. On Indian market, the research studies like Obaidullah (1992), Rao (1994) and Mishra (2005) suggested that the Indian equity market responds in an expected direction to firm announcements and supported the semi-strong form of efficient market. However, this present research failed to admit the Indian market efficiency under stock splits and rights issue announcement.

LIQUIDITY RESULTS

Table 4 shows the results achieved as part of testing the change in liquidity of the securities pre and post the events in respect of stock splits and rights issues. It is found that the null hypothesis of no significant difference in liquidity pre and post event date is rejected at 1% level for stock splits. This shows that there is a significant difference in liquidity concerning the stock splits announcement. This may be due to the fact that the split of a stock makes it affordable for a

Table 1 : Event- Stock Split

Days	Mean Abnormal Return	t-Statistics		Days	Mean Abnormal Return	t- Statistics
-30	-0.018	-1.7534		0	0.0237	2.0791*
-29	0.0034	1.9909		1	0.0092	2.0863*
-28	-0.0021	-1.0948		2	0.0031	0.4942
-27	-0.0027	-0.3478		3	0.0049	1.0355
-26	-0.0004	-0.2019		4	-0.0089	-3.4939*
-25	0.0011	0.5113		5	-0.0097	-3.3909*
-24	0.0049	1.8363		6	-0.0019	-3.0694*
-23	-3.01E-05	-0.0089		7	-0.0175	-0.0994
-22	-0.003	-1.3391		8	-0.018	-3.3792*
-21	0.00234	1.1925		9	-0.0063	-2.5752*
-20	-0.0028	-1.0181		10	-0.0048	-2.3575*
-19	0.00031	0.1541		11	0.0045	1.6216
-18	-0.0024	-1.0071		12	-0.0018	-2.3397*
-17	-0.0002	-0.0825		13	-0.0029	-2.8195*
-16	0.00218	0.8572		14	0.0023	0.5974
-15	0.0028	1.1617		15	-0.0047	-2.8325*
-14	-0.0028	-0.8372		16	0.0007	0.3533
-13	-9.21E-06	-0.0065		17	0.0052	2.8672*
-12	0.00327	1.1297		18	-0.0054	-1.8381
-11	0.0021	0.7578		19	-0.0085	-2.971*
-10	0.0045	2.3526*		20	0.0019	0.8488
-9	0.0022	0.6922		21	-0.0043	-2.7551*
-8	0.0034	2.0283*		22	-0.0074	-3.0782*
-7	0.0039	1.4683		23	0.0046	1.4117
-6	0.0026	2.0351*		24	-0.0049	-2.0812*
-5	0.0015	2.6194*		25	-0.0067	-1.2879
-4	0.0082	0.7182		26	-0.0021	-0.6202
-3	-4.10E-06	-0.0017		27	-0.0074	-2.8418*
-2	0.00415	1.7953		28	0.0026	0.6441
-1	-0.0153	-1.0997		29	-0.0056	-1.8887
				30	-0.0021	-0.9764

Note- (*) indicates statistically Significant at 5% level.

Table 2: Event- Rights Issue

Days	Mean Abnormal Return	t-Statistics		Days	Mean Abnormal Return	t- Statistics
-30	0.0067	1.5080		1	0.0029	0.8108
-29	0.0073	1.3353		2	0.0074	0.8909
-28	0.0036	0.5754		3	0.0060	2.7586*
-27	-0.0038	-0.8431		4	0.0087	0.2019
-26	0.0060	1.0566		5	0.0071	2.7804*
-25	0.0053	1.7496		6	0.0018	0.7972
-24	0.0073	1.2322		7	-0.0131	-3.6352*
-23	-0.0043	-0.7925		8	0.00006	2.0069*
-22	-0.0072	-1.2201		9	0.00002	2.1047*
-21	-0.0060	-0.8915		10	-0.0109	-3.3846*
-20	-0.0054	-0.5692		11	0.00064	0.2706
-19	0.0019	0.3812		12	0.000022	2.0103*
-18	-0.0053	-2.1658*		13	-0.0033	-0.6579
-17	0.0132	2.5069*		14	-0.0024	-2.4986*
-16	-0.0067	-0.9780		15	0.0019	2.5386*
-15	0.0071	0.9101		16	-0.0056	-2.7395*
-14	0.0052	0.8574		17	0.0037	0.2903
-13	-0.0067	-1.7739		18	0.0045	2.6519*
-12	-0.0092	-1.8894		19	-0.0056	-2.4468*
-11	0.0037	0.2773		20	0.0012	2.0763*
-10	-0.0091	-1.2764		21	0.0076	1.7956
-9	0.0082	0.9605		22	0.0079	1.8648
-8	-0.0029	-0.7826		23	-0.0056	-2.8966*
-7	-0.0039	-0.7298		24	-0.0012	-0.3408
-6	0.0174	0.6691		25	-0.0016	-0.2344
-5	0.0081	1.6806		26	0.0086	1.9808
-4	0.0098	0.8819		27	-0.00018	-0.0548
-3	0.0348	1.5569		28	0.0015	0.4374
-2	0.0045	0.9415		29	-0.0074	-1.9749
-1	-0.0022	-2.5950*		30	-0.0092	-1.3536
0	0.0102	3.1083*				

Note- (*) indicates statistically Significant at 5% level.

Table 3 : Impact of Event (Stock Splits and Rights Issues) Announcement on Share Price Performance

Particulars	Stock Splits		Rights Issues	
	No. of Companies	Percentage	No. of Companies	Percentage
Companies having positive mean return during event window	204	58%	107	60%
Companies having negative mean return during event window	147	42%	70	40%
Companies having positive return on announcement date	196	55.8%	98	55%
Companies having negative return on announcement date	155	44.2%	79	45%
Total	**351**	**100%**	**177**	**100%**

large section of investors and so they over react to the event in terms of huge trading. With regards to stock split and liquidity issues, more support for the liquidity effect is found from other earlier studies like Schultz (2000), Grinblatt et al. (1984) and Lamoureux and Poon (1987). The outcomes found with respect to rights issue shows that the "t" statistics is -0.275 and the corresponding probability is of around 0.74. Therefore, the possibility of committing a type 1 error if the null is rejected is 74%, which is not satisfactory. There is thus no evidence to reject the null hypothesis. As a result, it can be concluded that there is no change in liquidity pre and post rights issue in the Indian market.

Table 4: Liquidity Test

Events	t-statistics	Probability
Stock Split	5.671*	< .0001
Rights Issues	-0.275	.7487

Note- (*) indicates statistically significant at 1% level

FINDINGS AND CONCLUSION

This paper examines the announcement effects of stock splits and rights issues on the Indian stock market during the period April 1996 to March 2008 period. An event study is conducted using a 61-day event window. The study rejects the null hypothesis for both the events (stock splits and rights issues). This study proves that the Indian market is not efficient in its semi-strong form- neither in case of stock split, nor in respect of rights issue. The study finds a positive AAR of 2.4% and 1% in respect of stock splits and rights issues respectively on event announcement date. Both stock split and rights issues returns are statistically significant at 5% level on the announcement date. Moreover, it is found that 58% of sample companies have positive returns during the event window in respect of stock splits and 60% for rights issues. Thus, it is evident that the reaction of market players to stock split and rights issue announcements are more pronounced in the Indian market. These findings are in line with the earlier studies conducted by Bohren et al. (1997), Hansson (1999), Kothare (1997), Tsangarakis (1996), Bohren et al. (1997) and Kang and Stulz (1996).

In case of liquidity, it is found that the null hypothesis of no change in liquidity is rejected in case of stock splits but accepted in case of rights issues. One possible reason may be quoted here is that the affordability level of Indian investors increases due to the stock split. But for rights issues, there is no evidence to reject the null hypothesis of no difference of liquidity in pre and post event. In the overall study, it can be concluded that the efficient market hypothesis failed to prove market efficiency in India concerning the stock splits and rights issues announcements, where investors still can make abnormal returns.

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