

Impact of Right Issue Announcement on Shareholders’ Return of the Listed Companies in Bangladesh: Evidence from Dhaka Stock Exchange

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***Abstract:** This paper empirically investigates whether there is any significant impact of right issue announcement in shareholders return surrounding the pronouncement date. 35 rights offering from 2001 to 2010 are considered as the database for this study. Following the event study methodology it reveals that before the announcement there is a positive trend of return from the stocks that are going to announce the right issue. But after the announcement this positive trend follows a declining pattern. The study also reveals statistically significant cumulative abnormal and excess returns on the announcement and surrounding dates. This outcome supports the notion of information asymmetry problem in Bangladesh capital market.*

***Keywords:** Right Issue, Abnormal return, Cumulative abnormal return, Excess return.*

1.0 Introduction

Every firm needs adequate capital to perform efficiently. Generally, firms fulfill their financial requirement by issuing equity share, preference share, debentures and long term bonds. Rights issue is one of the instruments to raise additional capital. It can be described that the preemptive right or rights as the privilege offered to existing stockholders for buying specified number of additional shares of the company’s stock before the stock is offered to outsiders for sale. They have value because generally they are offered at a subscription price somewhat lower than the market price of shares that is at discount. In the secondary market, investors are willing to buy the share that has been attached to the preemptive right. But to buy additional number of shares, the shareholder should have his/her name in company’s book before the record date. Similarly existing shareholders generally have no willingness to sell the shares to exercise the rights. Hence before the record date, there is a chance that price may go up because of surge in demand. On the other hand there is a possibility that price might fall if the valuation is incorrect or there is negative perception.

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Theoretically price of share increases after rights offering and decreases after the issue of right share. There are many researchers who have tried to study the impact of rights issue announcement in different countries. Nelson (1965) uses monthly data to examine 380 rights offerings in the U.S.A for the period of 1946-1957, and finds no announcement effects. He documents that there is no significant difference between share prices six months after rights offerings and six months prior to the rights offerings. Smith (1977), using monthly data, examines 38 rights offerings and 56 rights with standby underwriting offerings in the U.S.A for the period of 1971-1975. He finds no significant abnormal returns for either type during the month of the rights offerings. Ball et al. (1977) employ event study method and use monthly data to examine 193 rights issues announced by firms listed on the Melbourne or Perth Stock Exchanges over the period of 1958-1970. They study positive announcement period abnormal returns indicating that the share price reacts positively to announcements of the rights issues. They also conclude that the market is efficient with respect to the announcement of a rights issue, at least on a monthly basis.

So it is required to justify whether there is any impact of right issue announcement on shareholders return of Bangladeshi listed companies.

The broad objective of this study is to identify whether the announcement of right issues has significant impact on the shareholders return during the event period and to examine the stock price reaction to information content of right issues with a view to finding whether Bangladeshi stock market efficiency is consistent with efficient market hypothesis. The partial objectives are following:

- To observe the behavior of average abnormal return around the right share announcement date.
- To observe the behavior of the cumulative abnormal return around the right share announcement date.
- To ascertain whether there is any evidence of pre-announcement information leakage.

2.0 Literature Review

Empirical researchers have studied a number of regularities regarding the security-price performance and earnings behavior around seasoned equity issues. Majority of these results are from developed countries and it can be classified into three major heads the announcement effects, the long-run operating performance, and the long-run security-price performance. In a rights issue, existing shareholders are granted pre-emptive rights to purchase the newly issued shares of the listed firm. In rights offer, current shareholders

are given short term warrants on a pro-rata basis, allowing shareholders the option to either purchase the new shares or sell the warrants in the market before expiration. Unsubscribed shares are offered to the shareholders who wish to purchase more than their pro-rata share of the issue. But in Bangladesh sell of warrants in the market before expiration is not practiced.

When the right issue is announced by a company, there may be a positive or a negative reaction to that announcement. Announcement effect captures that effect which may or may not persist in the market.

Woods (1975) studied the effects of a rights issue of new ordinary shares on the price where it is mentioned that the issuing company's existing ordinary shares should span at least the period from shortly before announcement of the issue to shortly after the shares switch from a cum rights to an ex rights basis on the stock exchange. This is because market price of the old shares might react to the announcement and the shares consists of ex rights should normally be priced lower than they were cum rights. It is possible that insider trading and leakage of information will cause price to react before announcement. It is also possible that inability of the market to forecast the longer term effects of an issue will result in the immediate ex rights price not fully reflecting these effects. It is also depicted that the main price influencing factors of a right issue are subsumed in four which are minimum dividend yield, dividend payout ratio, degree and direction of the financial leverage and the expected return from the newly issued capital.

Ball, Brown and Finn (1977) examined stock price reaction around the announcement of 'stock capitalization changes' (bonus, stock issues, stock splits and right issues) in Australia for the period between 1960 and 1969 using monthly data. They found 20.2% abnormal return for 13 months up to and including the month of bonus issue announcement.

Miglani (2011) showed that actual stock performance for the companies was higher as compared to expected market adjusted returns in the event window of right issue announcement. The results showed that the stock value of the firm increased on the day of announcement of right issue by about 1.42%. The study also revealed statistically significant abnormal returns on the announcement and surrounding dates.

Owen and Suchard (2008) investigated abnormal returns resulting from the announcement of a rights issue of equity in Australia and were the first study outside the U.S.A and the U.K to examine the pricing of rights issues and the determinants of that pricing. Rights issues were met with a significantly negative abnormal return and, on average, were priced at a discount. The determinants of the announcement effect were

analyzed using a two stage approach to control for the endogeneity of the price discount. They first estimated the predicted discount and then included it as an independent variable in the announcement effect regression. The discount was positively related to the offer size and negatively related to underwriter quality, supporting underwriter certification models. They also included variables that had not been tested in any market, such as shareholder concentration which was negatively related to the price discount implying that firms with higher shareholder concentration did not offer a significant discount as their shareholders wish to maintain their percentage holding in the firm. Further, they analyzed the determinants of the abnormal returns and found a negative relationship with the predicted issue price discount, and a positive relationship with the use of proceeds. Finally they found that announcements made by resource firms generate larger negative reactions than other issuers.

Mikkelson and Partch (1986) examined the stock price effects of security offerings and investigate the nature of information inferred by investors from offering announcements. They found that stock price decline was unrelated to the amount of new financing, relative offering size. The type of security was the only significant determinant of the price response. Completed offerings were associated with a positive average excess return between the announcement and issuance and a negative average return at the issuance. Conversely, the average return for cancelled offerings was negative between the announcement and the cancellation and was positive at the cancellation. They concluded that the opposite patterns of abnormal stock returns following the announcement of completed versus cancelled offerings suggested that managers issue common stock or convertible debt when in their view shares were overpriced.

Kabir and Roosenboom (2003), studied whether the stock market valuation impact was consistent with subsequent operating performance of firms. They used data for equity rights offerings – the widely adopted flotation method in the Netherlands. They first examined the stock market announcement effect of rights issues and observed that a statistically significant stock price decline took place when companies announced rights issues. Further stock price decline was also observed during the subscription period. They then analyzed post-rights issue operating performance of firms and find that, consistent with the announcement period decline in stock price; rights issuing firms subsequently exhibited a statistically significant decline in their operating performance. Additional investigation of both stock and operating performance decline provided full support for the information asymmetry hypothesis, partial support for the free cash flow hypothesis but no support for the window of opportunity hypothesis.

Empirical evidence from the U.S.A indicates that stock price declines with the announcement of seasoned equity issues. Jung, Kim and Stulz (1996) studied that the

announcement of seasoned offerings of common stocks in the U.S.A leads to a 3-4% average abnormal decline in stock prices in a period of two-days. For rights issues in the U.S.A stock price decline is also observed, but the magnitude is found to be smaller. Hansen (1989) studies excess decline of 2.6% for a sample of 22 industrial underwritten rights offerings. Eckbo and Masulis (1992) documented an excess decline of around 1%.

On the other hand, non-U.S.A evidence on the announcement effect of rights issue is somewhat mixed. Levis (1995) examines 152 rights issues in the U.K and finds a statistically significant two-day excess return of -1.3%. Slovin et al. (2000) distinguished between insured and uninsured rights issues in the U.K. They find a statistically significant two-day excess stock return of -2.90% for 200 insured rights offerings and -4.96% for 20 uninsured rights offerings. Gajewski and Ginglinger (1998) also study significant negative excess stock returns associated with rights offerings in France. Analyzing Norwegian data, Bohren et al. (1997) document an insignificant excess return of -0.4% for 89 standby rights offerings but a statistically significant positive excess return of 2% in case of 37 uninsured rights offerings.

In contrast to these findings, Kang and Stulz (1996) observe a significant positive announcement effect (2.2%) for a small sample of 28 rights issues in Japan. Tsangarakis (1996) investigates 59 rights offering in Greece and also finds a significant excess return of as much as 4%. It is not clear if the positive stock price effect is caused by distinct institutional features of these stock markets like the absence of an active market for rights and highly concentrated / affiliated ownership structure of firms.

Shahid et.al (2010) examined the behavior of information asymmetry around different announcement dates involved in seasoned equity issue process in China. This study contributed three major findings. Firstly, SEOs announcement effects were found more negative on issuance date as compared to different announcement dates. In addition, among different announcement dates more stock price decline was observed on board of directors meeting date. Secondly, the study found support that price decline on announcement dates was due to information asymmetry between the managers and outside investors, in addition, level of information asymmetry decreased on subsequent announcement dates. Finally, the study studied that on issuance date higher stock price decline was due to buying and selling imbalance exerted by supply of additional shares in the market on issuance date

3.0 Research Methodology

Event studies examine the impact of an information release or event on prices. These are also used to measure the economic importance of an information release or event under

the assumption of market efficiency. The methodology of event studies is fairly standard. The research hypotheses examined in this study are tested by applying an event study methodology described by Brown and Warner (1983) and this methodology is followed with a few adjustments considering the capital market in Bangladesh. The period that is covered in this study is 2001 to 2010. The study does not intend to focus on the other subjective factors such as government regulation, regulations by the BSEC, monetary policy etc. that might affect the stock and market return during the event window.

- The right issue declaration date and record date of all companies since 2001-2010 has been collected from DSE Library.
- In the study, 20 days around the event have been taken (e.g., right issue announcement date), and designated -20,-19, -18... -1 as the 20 days prior to the event, zero as the event day, and 1, 2, 3... 20 days after the event.
- The return for each of the firms included in the sample on each of the days being studied has been computed. By "return", it means Holding Period Return (HPR).
- The "abnormal return" for each firm for each of the days being studied is computed. Abnormal return is the difference between the stock's actual return and its expected rate of return.
- The "excess return" for each firm for each of the days being studied is computed. Excess return is the difference between the stock's actual return and actual market return on the date.
- After computation of abnormal return, the Average Abnormal Return (AAR) for all the firms in the sample for each day in the event period has been computed. Similarly Average Excess Return was also calculated.
- Next, the Cumulative average abnormal return (CAAR) and Cumulative average excess return (CAER) from the beginning of the period has been calculated by adding individual day's abnormal return. For a 20-day period, the entry for -3 would be the sum of the daily average abnormal returns for days -20 to -3 and the entry for -1 would be the sum of the daily average abnormal returns for -20 to -1.
- To find out whether there is any significant difference in mean returns around the announcement periods, paired t-test has been applied.

3.1 Dimensions of Analysis

Observing the stock price movement is an area of research that attracted the attention of various academicians and scholars. Perhaps no other area of finance has been subject to

so much empirical investigation during the last four decades as the behavior of stock prices. The present study attempts to contribute positively to the understanding of the behavior of Bangladeshi stocks return in relation to the right issue announcements. From some empirical study it can be argued that Right issue announcements usually are considered as the positive signal to the shareholders and its positive impact on the share prices is also expected. To examine the stock market reaction to right issue information, this study entails the announcement of right issue from 2001 to 2010. This section is divided into two parts: Data sources and data design. The data sources section explains the criteria applied in this study and data collection process. The data design section, on the other hand, describes the procedure of event study conducted in this research. The research hypotheses examined in this study are tested by applying an event study methodology described by Brown and Warner (1983) and a slight modification adjusting the capital market of Bangladesh.

3.2 Data Sources

The time period that is considered in this study is 2001 to 2010. The companies that issued right share in this period are the subject matters of this study. There are 65 right issues during this period. Appendix 1 shows all the name of the stocks and announcement date in the period of 2001-2010. But all the companies cannot be chosen in this study. Some of the shares declared stock dividend and cash dividend along with right issues announcement. This announcement of stock and cash dividend may have significant impact on share prices. So including all those shares may hamper the basic objectives of this study. To find out the absolute impact of right issue announcement, only the right issue announced stocks in the period of 2001 to 2010 are considered. There are 35 listed securities that announced only right issue in the period of 2001 to 2010.

The following are several criteria enforced in this study:

- Shares of the company have to be traded publicly in DSE (Dhaka Stock Exchange).
- The return on company's securities is available from at least 20 days prior to 20 days after the announcement date.
- Shares of any price sensitive information except right issues during the event period are excluded from the study.

Based on the above criteria 35 securities are selected for the study. The name and the announcement date according to year are given in the table 1.

Table 1: List of 35 stocks that issued only right share in the period 2001-2010

SL No.	Year	Company Name	Right Issue	Announcement Date
1	2001	Islami Bank Bangladesh Limited	1R:1	12/07/2001
2	2001	BD Thai Alluminium ltd.	1R:1	16/08/2001
3	2002	Oriental Bank Ltd.	1R:1	31/07/2002
4	2002	City Bank Ltd.	1R:1	19/02/2002
5	2003	Islami Bank	2R:1	30/01/2003
6	2003	Al Arafah Islami Bank	1R:1	06/03/2002
7	2004	City Bank Bangladesh Limited	1R:1	29/06/2004
8	2004	Midas finance Limited	1R:1	28/10/2004
9	2004	Green Delta Insurance Limited	1R:200tk	17/05/2004
10	2005	Eastland insurance Limited	1R:2	09/03/2005
11	2005	Central Insurance Limited	1R:2	27/04/2005
12	2005	Aftab Automobiles Limited	1R:2	21/07/2005
13	2006	Keya Cosmetics Limited	1R:5	14/11/2006
14	2006	Keya Detergent Limited	1R:1	14/11/2006
15	2006	Social Islami Bank Limited	1R:1	16/03/2006
16	2007	Summit Power Limited	4R: 5	13/08/2007
17	2008	Social Islami Bank Limited	1R:1	24/07/2008
18	2009	South East Bank Limited	1R:2	11/08/2009

19	2009	Sino Bangla Industries Limited	1R:1	20/01/2009
20	2009	S. Alam Cold Rolls Steel Mills Limited	1R:2	24/02/2009
21	2009	Peoples Insurance Limited	1R:1	27/07/2009
22	2009	One Bank Limited	1R:3	24/06/2009
23	2009	NCCBL	1R: 2	20/08/2009
24	2009	Metro Spinning	3R:1	23.08.2009
25	2009	Mercantile Bank	2R:3	29/06/2009
26	2009	Karnafully Insurance	1R:1	18/05/2009
27	2009	Fu-wang Ceramic	1R:2	8/11/2009
28	2009	Delta Spinning Mills ltd.	1R:1	18/05/2009
29	2009	Central Insurance	1R:5	15/03/2009
30	2009	BD.com Online	1R:1	11/08/2009
31	2010	Agm System	1R:2	14/02/2010
32	2010	BD welding	2R:1	05/07/2010
33	2010	CMC Kamal	2R:1	20/09/2010
34	2010	Fu-wang foods	1R:1	14/02/2010
35	2010	Makson Spinning	2R:1	28/02/2010

Source: Dividend Archive, DSE Library

The information about the companies issuing right shares and their announcement dates are obtained from “Dividend Archive” of DSE library. The individual firm’s security return and market return were also gathered from daily share price and index document of DSE library. Treasury bill rates were gathered from Bangladesh Bank website.

Four sets of data have been used in this study. The first set of data consists of right issue announcement made by the sample companies. This includes the dates on which the Board of Directors approves and announces the right issue of the company.

The second set of data consists of daily adjusted closing prices of the stocks selected for the study at the Dhaka Stock Exchange for the period covered by this study. Daily-adjusted closing prices are used in the study as these are assumed to reflect the consensus of the market participants regarding price of the stock at the end of the trading.

The third set consists of the DGEN index and DSE All Share Price Index of ordinary share prices compiled and published by the Dhaka Stock Exchange on daily basis. Data is collected from DSE library.

The fourth set consists of 364 days Treasury bill rates of which are regularly auctioned by the Bangladesh Bank and published in the Bangladesh Bank web site.

3.3 Average Abnormal Return

In this study two-stage approach is used to test the stock price responses to right issue announcement. The first stage consists of estimation of parameter like beta based on the ex-post returns on stocks and market index, and expected returns on each of the stocks based on the market model. In the second stage these estimated parameters are used to calculate abnormal returns around the event day. In this study, the date of right issue announcement is defined as day 0 or event day. If event day is a non-trading day then the immediately following trading day is considered as an event day. 20 trading days prior to the dividend announcement date, i.e., days -20 to -1 and 20 trading days after the dividend announcement i.e., days +1 to +20 are considered as the event window. Thus, the event window of 41 trading days has been taken (including day 0 as the event day). The estimated abnormal returns are averaged across securities to calculate average abnormal returns (AARs) and average abnormal returns are then cumulated over time in order to ascertain cumulative average abnormal returns (CAARs).

For the purpose of studying the impact of right issues on share prices abnormal returns are computed. Abnormal returns are obtained by finding the difference between actual returns of the security *i* on day *t* and expected returns of security *i* on day *t*. The following is the formula for OLS market model to compute abnormal returns:-

$$AR_{it} = R_{it} - ER_{it}$$

Where, AR_{it} = Abnormal return of security i on day t; R_{it} = Actual return on security i on day t; and ER_{it} = Expected return on security i on day t

Actual return on security j in period t is computed as follows:-

$$R_{it} = \frac{(P_{it} - P_{it-1})}{P_{it-1}}$$

Where, P_{it} = Price of security i on day t; P_{it-1} = Price of security i on day prior to day t

Expected return on security j in period t is computed as follows:

$$ER_{it} = a_i + b_i \times R_{mt}$$

Where, a_i = Risk free rate of return i.e. Treasury bill rate of Bangladesh Bank; b_i = Relative riskiness of the security to market index i.e. DGEN index and R_{mt} = the rate of return on market index on the day t.

Beta can be estimated for individual companies using regression analysis against a stock market index. Beta is calculated through the following formula:

$$b_i = \frac{\text{Covariance}(R_i, R_m)}{\text{Variance}(R_m)}$$

After computation of abnormal return, Average Abnormal Return (AAR) has been computed for all the firms in the sample for each day in the event period. The reason is it would normally like to observe the average effect of the announcement rather than examine each firm separately. Because, other events are occurring at the same time, therefore averaging across all firms will minimize the effect of these other events, which will allow a better examination of the event under study. However, for studies where the magnitude of the announcement should vary across firms (such as earnings surprise) it may be useful to examine individual firm behavior as well. The abnormal returns of individual security are averaged for each day surrounding the event day i.e., 20 days before and 20 days after the event day. The AAR is the average deviation of actual returns of a security from the expected returns. The following model is used for computing the average abnormal returns (AARs):

$$AAR_{it} = \frac{\sum_{i=1}^N AR_{it}}{N}$$

Where, i = the number of securities in the study; N = total number of securities in the portfolio and t = the days surrounding the event-day

Since the security's overall reaction to the right issue announcement or the event will not be captured instantaneously in the behavior of average abnormal return for one specific day, it is necessary to accumulate the abnormal returns over a long period. It gives an idea about average stock price behavior over time.

3.4 Cumulative Average Abnormal return

Next, CAAR has been calculated from the beginning of the period by adding individual day's abnormal return. For a 41-day period, the entry for -3 would be the sum of the daily average abnormal returns for days -20 to -3 and the entry for -1 would be the sum of the daily average abnormal returns for -20 to -1.

To find out whether there is any significant difference in mean returns between pre-announcement and post-announcement periods, paired t-test has been applied. The method applied for the T-test statistics are elaborating in the later section of this chapter.

Generally, if market is efficient, the CAAR should be close to zero. The model used to ascertain CAAR is:

$$CAAR_t = \sum_{t=-20}^k AAR_{it}$$

Where, $t = -20, \dots, 0, \dots, +20$

3.5 Average Excess Return

To test the stock price responses to right issue announcement, excess return methodology is also used. This method is also similar to the abnormal return. The basic difference between the abnormal return and excess return are:

- Abnormal return calculates on the basis of expected return where else excess return is calculated on the basis of actual market return.
- The difference between the stocks actual return and actual market return is the excess return.

In case of excess return it is not required to calculate beta. Risk free rate is not required too. Just the actual market return is required. The formula of excess return is following:

$$ER_{it} = R_{it} - R_{mt}$$

Where, R_{it} = Actual return on security i on day t and R_{mt} = The rate of return on market index on the day t

After computation of excess return, Average Excess Return (AER) has been computed for all the firms in the sample for each day in the event period. The reason is it would normally like to observe the average effect of the announcement rather than examine each firm separately. Because, other events are occurring at the same time, therefore averaging across all firms will minimize the effect of these other events, which will allow a better examination of the event under study. However, for studies where the magnitude of the announcement should vary across firms (such as earnings surprise) it may be useful to examine individual firm behavior as well. The excess returns of individual security are averaged for each day surrounding the event day i.e., 20 days before and 20 days after the event day. The AER is the average deviation of actual returns of a security from the actual returns of the market. The following model is used for computing the average excess returns (AARs):

$$AER_{it} = \frac{\sum_{i=1}^N ER_{it}}{N}$$

Where, i = the number of securities in the study; N = total number of securities in the portfolio and t = the days surrounding the event-day

3.6 Cumulative Average Excess Return

Next, CAER has been calculated from the beginning of the period by adding individual day's excess return. For a 41-day period, the entry for -3 would be the sum of the daily average excess returns for days -20 to -3 and the entry for -1 would be the sum of the daily average excess returns for -20 to -1.

To find out whether there is any significant difference in mean returns between pre-announcement and post-announcement periods, paired t-test has been applied. The method applied for the T-test statistics are elaborating in the later section of this chapter.

Generally, if market is efficient, the CAER should be close to zero. The model used to ascertain CAER is:

$$CAER_t = \sum_{t=-20}^k AER_{it}$$

Where, $t = -20, \dots, 0, \dots, +20$

3.7 Significance Test

T test is used to determine the statistical significance of $CAAR_t$, AAR_t , $CAER_t$ and AER_t . For computation of t statistics the aggregate event period standard deviation of abnormal returns of all the securities is computed. Individual company's event standard deviation i.e. (from -20 to +20) is computed and then aggregation is done. The formula for estimation of event period standard deviation of daily abnormal and excess return is as follows:

$$\sigma_i = \sqrt{\frac{\sum_{t=-20}^{20} (AR_t - AAR_i)^2}{t}}$$

Where, σ_i = Standard deviation of abnormal returns of security i estimated from event measurement period; t = Number of days in event period and AAR_i = Average of abnormal return of security i estimated from event period.

Aggregate event standard deviation is computed as follows:-

$$\sigma_N = \sqrt{\frac{\sum_{i=1}^N \sigma_i^2}{N^2}}$$

Where, σ_N = Aggregate event standard deviation

The t- test for AAR is as follows:-

$$AAR_t, (t - stat.) = \frac{AAR_t}{\sigma_N}$$

But the significance test of $CAAR_t$ and $CAER_t$ is little bit different from the AAR_t t-statistics method. The above approach can be applied to the CAAR t- test statistics. But it does not consider the covariance of stocks. Dimson and Marsh (1986) covered this issue in their papers. The following is the formula to test the cumulative abnormal return that better reflects the critical values of t.

$$t - statof CAAR_t = \frac{CAAR_t}{\sqrt{Var(CAAR_t)}}$$

Where, $CAAR_t$ = Cumulative abnormal return of t day and $Var(CAAR_t)$ = Variance of Cumulative abnormal return of t day.

To calculate the variance of $CAAR_t$ the following formula is used:

$$Var(CAAR_t) = T * Var(CAAR_{tt}) + 2 * (T - 1) * Cov(CAAR_{tt}, CAAR_{t(t-1)})$$

Where, $CAAR_{tt} = CAAR_t - CAAR_{(t-1)}$; $CAAR_{t(t-1)} = CAAR_{tt} - CAAR_{(tt-1)}$ and $T=1, 2, 3, \dots, 41$

4.0 Empirical Results

The main empirical results are shown in the following four tables. It presents the results of the entire sample consisting of 35 right issues in two different dimensions.

4.1 Average Abnormal Return Pattern

For each of the 41 days in the experimental period it studies the Average daily Abnormal Returns (AARs) for day's t_{-20} to t_{+20} along with the summary statistics for the tests of null hypothesis. The first column in the table shows the pre event period which is subdivided into the event day, average abnormal returns on the event day and the t-statistic values corresponding to the AARs are given in the third column. Similarly the second column in the table shows the three subdivided section for the post event period.

Table 2: Average abnormal return of 41 event days along with t-statistics

t	AAR	T- AAR
-20	1.221	1.776*
-19	0.359	0.523
-18	0.475	0.691
-17	0.226	0.329
-16	0.694	1.01
-15	-0.671	-0.977

-14	0.36	0.524
-13	0.099	0.143
-12	0.076	0.111
-11	0.328	0.476
-10	0.198	0.287
-9	1.001	1.457
-8	0.054	0.078
-7	0.351	0.511
-6	1.174	1.708*
-5	0.768	1.117
-4	0.82	1.192
-3	-0.025	-0.036
-2	0.111	0.161
-1	1.569	2.282*
0	2.772	4.031**
1	0.775	1.128
2	-1.447	-2.105*
3	-0.83	-1.208
4	-0.408	-0.594
5	-0.903	-1.313
6	0.357	0.519
7	-0.34	-0.494
8	-0.03	-0.043
9	0.041	0.06
10	0.401	0.583
11	-0.285	-0.414
12	-0.241	-0.35

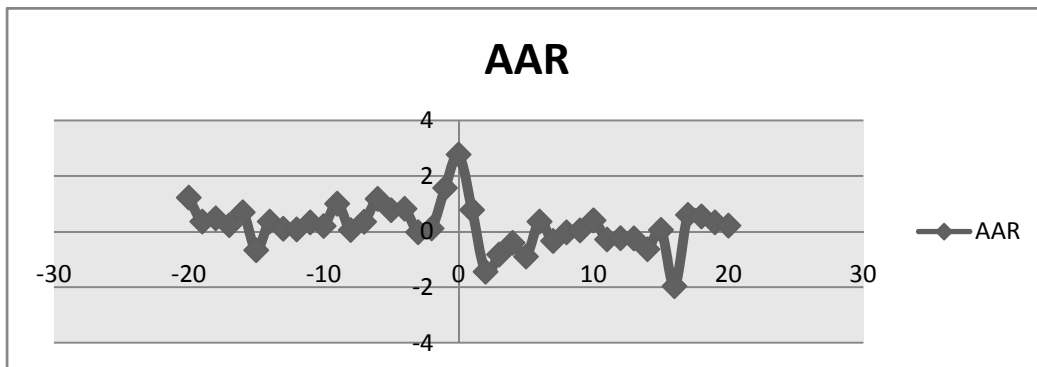
13	-0.248	-0.361
14	-0.637	-0.927
15	0.057	0.083
16	-1.968	-2.863**
17	0.597	0.869
18	0.544	0.792
19	0.329	0.478
20	0.212	0.308

Note: The symbol * denotes statistical significance at 5% level and ** denotes statistical significance at 1% level

The table shows that for the 20 days before the announcement date there is a consistent pattern of abnormal returns of the companies engaging in right issue. Only t_{15} and t_3 have a negative abnormal return. Other than this two all results have a positive abnormal return in the pre event period. Although 18 days among the pre event 20 days are positive, but three of them are significant which are t_{20} , t_6 and t_1 . These three pre event date are significant at 5% level of significance.

The AARs after the announcement date show no consistent pattern. After the announcement date there were ten negative returns and ten positive returns. Among the first 15 days of post event period nine of them are negative. After the announcement t_{+2} and t_{+16} are statistically significant. It is also evident that on the announcement day average abnormal return is positive and statistically significant. The following figure shows the pattern of average abnormal return of the study.

Figure 1: Average Abnormal Return of pre and post event period of the study



Here it is found that the average normal return followed a consistent pattern in the pre event period except the 2 or 3 days before. However it does not show any consistent pattern in the post event period.

4.2 Cumulative Average Abnormal Return Pattern

The analysis of CAAR shows that during pre-event window on 20 days CAAR was positive, indicating the positive reaction of the market in anticipation to right shares. But CAARs before announcement day are statistically insignificant for t_{-20} to t_{-6} days. But it is significant from the t_{-5} days to t_{+11} days. The pattern of CAAR after the announcement is also positive. After the announcement for first 11 days CAAR is significant. After 11 days of post event period CAAR's are not statistically significant. This indicates a positive announcement impact of right issues on the stock return.

Table 3: Cumulative Average abnormal return of 41 event days along with t-statistics

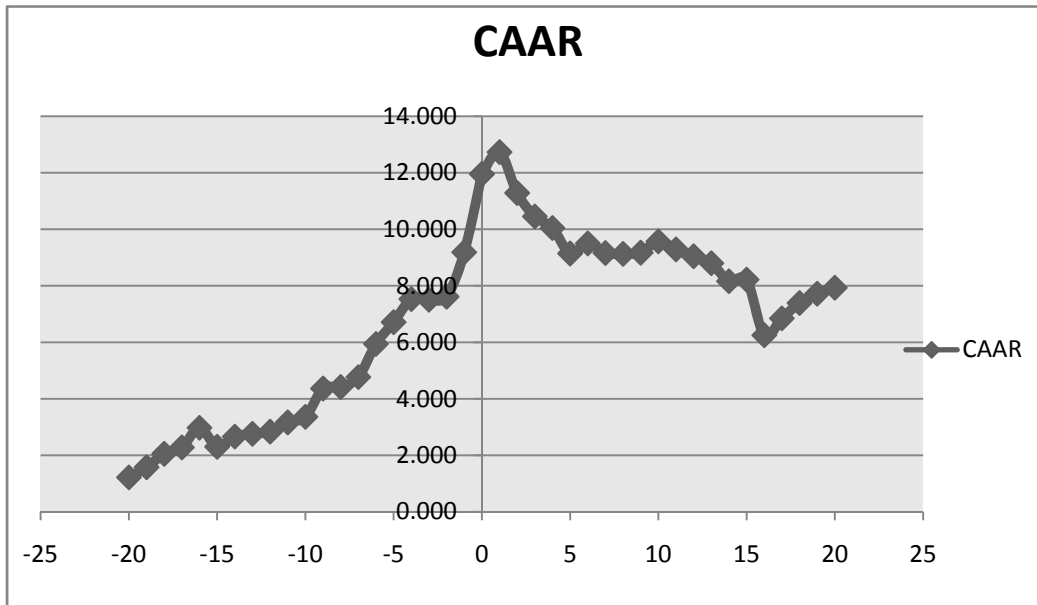
t	CAAR	T-CAAR
-20	1.221	1.56
-19	1.581	1.25
-18	2.056	1.279
-17	2.282	1.208
-16	2.976	1.395
-15	2.305	0.979
-14	2.665	1.043
-13	2.764	1.008
-12	2.84	0.974
-11	3.167	1.029
-10	3.365	1.04
-9	4.366	1.29
-8	4.42	1.253
-7	4.771	1.302
-6	5.945	1.566

-5	6.714	1.711*
-4	7.533	1.861*
-3	7.509	1.802*
-2	7.62	1.779*
-1	9.188	2.090*
0	11.96	2.653**
1	12.735	2.759**
2	11.288	2.391**
3	10.458	2.167*
4	10.049	2.040*
5	9.146	1.820*
6	9.503	1.855*
7	9.163	1.756*
8	9.134	1.720*
9	9.175	1.698*
10	9.575	1.743*
11	9.29	1.664*
12	9.05	1.596
13	8.802	1.529
14	8.165	1.398
15	8.222	1.388
16	6.253	1.041
17	6.851	1.125
18	7.395	1.199
19	7.724	1.236
20	7.936	1.254

*Note: The symbol * denotes statistical significance at 5% level and ** denotes statistical significance at 1% level*

The following figure shows the pattern of CAAR pattern of the study

Figure 2: *Cumulative Average Abnormal Return of pre and post event period of the study*



Here it is seen that the CAAR in the pre event period follows an increasing trend but in the post event period it shows a decreasing trend. It implies that before the announcement it is possible to gain profit by taking position in the stocks that are intended to announce right issue.

4.3 Average Excess Return Pattern

In the above two discussion average abnormal return and cumulative average abnormal return are considered. In this study excess return from the market or market adjusted return (Hamid 2003) is also considered. The table in the following page shows the average excess return (AER) and respected t- statistics for examining the significance.

It is evident from the table that there are only three negative returns in the pre event period. All other returns in the pre event period are positive. It depicts that before announcement one can get positive returns from the stocks which are intended to declare right share issue. However t_{-20} and t_{-1} pre-event excess returns are statistically significant. After the announcement period it is evident that 11 of the 20 post event days show negative returns. But only t_{+16} and t_{+2} excess returns are statistically significance.

Table 4: Average excess return of 41 event days along with t-statistics

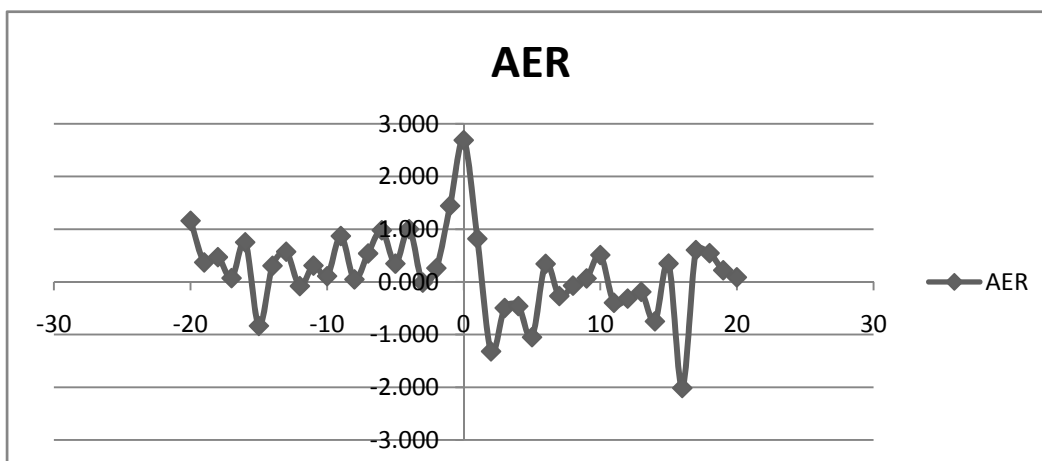
t	AER	T-AER
-20	1.161	1.685*
-19	0.371	0.539
-18	0.471	0.683
-17	0.073	0.106
-16	0.753	1.093
-15	-0.835	-1.212
-14	0.307	0.446
-13	0.574	0.832
-12	-0.079	-0.114
-11	0.311	0.451
-10	0.11	0.159
-9	0.871	1.265
-8	0.048	0.07
-7	0.541	0.785
-6	0.981	1.424
-5	0.347	0.504
-4	1.002	1.454
-3	-0.013	-0.018
-2	0.262	0.38
-1	1.444	2.096*
0	2.691	3.906**
1	0.82	1.19
2	-1.319	-1.914*
3	-0.494	-0.718
4	-0.46	-0.667
5	-1.049	-1.523
6	0.343	0.497
7	-0.267	-0.388

8	-0.07	-0.102
9	0.068	0.098
10	0.511	0.742
11	-0.395	-0.573
12	-0.316	-0.458
13	-0.189	-0.274
14	-0.749	-1.087
15	0.349	0.507
16	-2.015	-2.924**
17	0.605	0.878
18	0.546	0.793
19	0.221	0.321
20	0.087	0.127

Note: The symbol * denotes statistical significance at 5% level and ** denotes statistical significance at 1% level

The following figure shows the average excess return pattern of the 35 stocks that were issued right in the period of 2001-2010. The figure looks similar to the average abnormal returns figure. Although there is a consistent pattern observed in the pre event period but in the post event period it is not.

Figure 3: Average Excess Return of pre and post event period of the study



4.5 Cumulative Average Excess Return Pattern:

The cumulative average excess returns are positive for the pre event and post event period.

Table 5: Cumulative average excess return of 41 event days along with t-statistics

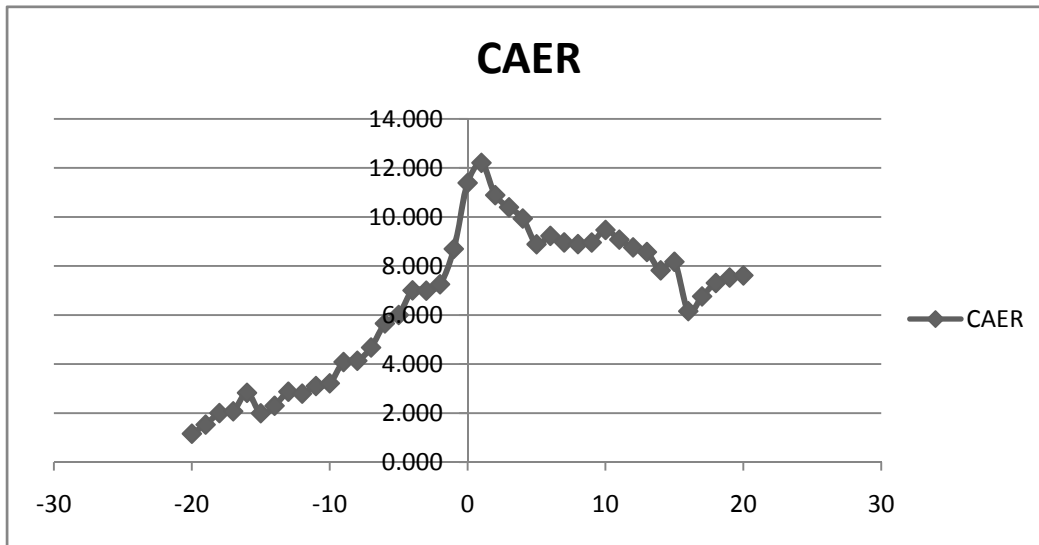
t	CAER	T-CAER
-20	1.161	1.502
-19	1.532	1.282
-18	2.003	1.332
-17	2.076	1.181
-16	2.83	1.429
-15	1.995	0.915
-14	2.302	0.974
-13	2.875	1.135
-12	2.797	1.039
-11	3.107	1.093
-10	3.217	1.078
-9	4.088	1.31
-8	4.136	1.272
-7	4.677	1.385
-6	5.658	1.618
-5	6.006	1.662*
-4	7.007	1.880*
-3	6.995	1.823*
-2	7.256	1.840*
-1	8.7	2.149*
0	11.392	2.745**

1	12.212	2.874**
2	10.893	2.507**
3	10.398	2.342**
4	9.938	2.193*
5	8.889	1.923*
6	9.232	1.959*
7	8.964	1.868*
8	8.894	1.820*
9	8.962	1.803*
10	9.473	1.875*
11	9.078	1.768*
12	8.762	1.680*
13	8.574	1.62
14	7.825	1.457
15	8.174	1.5
16	6.159	1.115
17	6.764	1.208
18	7.31	1.289
19	7.531	1.311
20	7.619	1.31

*Note: The symbol * denotes statistical significance at 5% level and ** denotes statistical significance at 1% level*

T-Statistics shows that the first 15 days CAER of pre event period is not statistically significant. From t-5 days to t+12 days CAER are statistically significant. It is also evident that after the t+12 days to t+20 days the CAER are not statistically significant.

The following figure shows the pattern of CAER of the study.

Figure 4: Cumulative Average Excess Return of pre and post event period of the study

From the figure it can easily predict that before the announcement there is a positive trend of CAER. After the announcement the trend of CAER is reversed. The CAER after the announcement follow a declining trend which is almost similar to the pattern of CAAR in the earlier discussion.

4.6 Observed Findings:

After studying empirical results of 35 right issue announcements from 2001 to 2010, it is found that there is a negative reaction in the market after announcement in both average abnormal return and average excess return case. Although different researchers found in the earlier that there are no announcement effects in the USA (Nelson 1965), however in Australia it was found that there is a positive reaction of the right share announcement at least in the monthly basis (Ball et al, 1977). From the analysis it can be concluded that investors can get abnormal profit before event period from the stock that intend to announce the right issue in the near future. But it cannot be possible for the investor to get the profit from holding the stock after the event period. So from that part of findings the hypothesis of not getting abnormal profit in the post event period is accepted. An efficient market hypothesis suggests that before announcement there is no price sensitive reaction to be incurred. But the cumulative abnormal return and cumulative excess return show that before announcement there is a positive trend follows which can help the investors to get the profit. It can be inferred that the information regarding the announcement was leaked before had. The analysis of Indian listed companies by

Miglani(2011) showed that actual stock performance for the companies was higher as compared to expected market adjusted returns. The results showed that the stock value of the firm increased on the day of announcement of right issue by about 1.42%. Although the study finds the result similar to the Indian listed companies but it is not consistent with the US, Australia and some other developed nations result. For that we need further extensive research.

5.0 Conclusion

In academic literature, it was suggested that dividend declaration, right share announcement, stock split have no impact on the shareholders' value in the absence of taxes and other market imperfections. But the imperfection of different market shows different outcomes regarding the announcement effect. Following event study methodology the impact of right share announcement in the 41 days around the announcement date is studied here. For this study the right announcement of 35 listed companies in the period 2001to 2010 of Dhaka Stock Exchange are considered. The study reveals that before the announcement there is a positive trend of return from the stocks that are going to announce the right issue. But after the announcement this positive trend follows a declining pattern. The study also reveals statistically significant cumulative abnormal and excess returns on the announcement and surrounding dates. This outcome complies that the capital market of Bangladesh is still facing the problem of information asymmetry.

References:

- Ball, R., Brown, P. and Finn, F.J. (1977), 'Share capitalization changes, information and the Australian equity market,' *Australian Journal of Management*, Vol. 2, pp 105-125.
- Bohren, C. F., R. Luebers, H. S. Langdon, & F. Hunsberger. (1997). 'Microwave-absorbing chiral composites: Is chirality essential or accidental.' *Appl. Optics* 31:6403–6407.
- Brown, S. & Warner, J. (1983), 'Using daily stock returns: the case of event studies', *Journal of Financial Economics*, March, pp 3-31.
- Dimson, E. and P. Marsh (1986), 'Event study methodologies and size effect-the case of UK', *Journal Financial Economics*.
- Eckbo B. and Masulis R. W. (1992), 'Adverse selection and the rights offer paradox, *Journal of Financial Economics* 32, 293-332.
- Gajewski, J. F and Ginglinger, E. (1998) 'The information content of equity issues in France', *Working Paper* (University of Grenoble, 1998).

- Hansen R. S. (1989), 'The Demise of the Rights Issue.', *The review of financial studies* (Fall 1989). pp. 28 & 300.
- Jung K., Kim Y. C. and Stulz R. M. (1996), 'Timing, investment opportunities, managerial discretion and the securities issue decision', *Journal of Financial Economics* 42, 159-185.
- Kabir, R. and Roosenboom, P. (2003). 'Can the stock market anticipate future operating performance? Evidence from equity rights issues', *Journal of Corporate Finance*, 9, 93–113.
- Kang, J. K., and R. M. Stulz (1996), "How Different Is Japanese Corporate Finance? An Investigation of the Information Content of New Security Issues." *Review of Financial Studies*, Vol.9, No.1, pp.109-139
- Miglani, P. (2011), 'An empirical analysis of impact of right issues on shareholders returns on Indian listed companies', *International Refereed Research Journal* Vol.– II, Issue –4, Oct. 2011 [169]
- Mikkelson, Wayne H. and Partch M.M. (1986), 'valuation effects of security offering and the issuance process', *Journal of financial economics*, 15.31-60.
- Nelson J. Russell (1965), 'Price effects in right offerings', *The Journal of Finance*, vol. 20, issues 4, Pages 647-650.
- Owen, S. and Suchard, J.-A. (2008), 'The Pricing and Impact of Rights Issues of Equity in Australia', *Applied Financial Economics*, vol. 18, no. 14, pp. 1147-1160.
- Shahid H. et al. (2010), 'Behavior of Information Asymmetry during SEOs Issue Process: Evidence from China', *Asian journal of management research*.
- Slovin, M., Sushka, M., Lai, K., (2000). 'Alternative flotation methods, adverse selection, and ownership structure: evidence from seasoned equity issuance in the UK.' *Journal of Financial Economics* 57, 157-190.
- Smith, C. W., (1977), "Alternative methods for raising capital: Rights versus underwritten offerings", *Journal of Financial Economics*, 5, pages 273-307.
- Tsangarakis, N., (1996), "Shareholder wealth effects of equity issues in emerging markets: evidence from rights offerings in Greece", *Financial Management* 25, pp 21– 32.
- Wood, I.R. (1975), "An analysis of the possible effects of a right issue on the issuing company's share price", *The Penrose Press*, pp. 33-40.