

## **Evidence on Changes in Stock Returns Around Rights Issue Announcement: Banking Sector Analysis**

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**ABSTRACT:** *This paper examines the effect of right issue announcements on stock returns in banking sector during July 2007 to July 2017. For this event study methodology has been used. Daily closing stock price data of five sample banks over the period from 90 trading days before to 10 trading days after the rights issue announcement date are used to ascertain whether there are any abnormal returns associated with rights issue announcements. The event date is defined as the date of right announcement by the banks. Abnormal returns and cumulative abnormal returns are calculated by using market model of event study method. T-test is conducted to test the significance of cumulative abnormal returns. The paper concludes that rights issue announcement yields a mix of positive and negative cumulative abnormal returns around the announcements date; however, these returns are statistically not significant.*

**KEYWORDS:** Abnormal returns, cumulative abnormal returns, event study, Rights issue

### **I. INTRODUCTION**

The capital collected by the firms through promoters' financing, initial public offering and issue of debenture are not always sufficient. It is because large corporate firms need to increase their capital-base from time to time for their establishment, operation, and growth purposes. In such case, companies have to choose the best alternative to collect the additional funds. Among many alternatives to raise funds, right offering is one of the options adopted by the companies. Rights issue is relatively an economical way of raising capital for a corporate company. Earlier studies [1, 2] showed that if existing shareholders plan to retain most of their new shares, then, rights offerings provide the cheapest method of issuing shares. Expected floatation costs vary across firms and are determined by the issuer's characteristics and the type of security offered. When companies opt for the right issue, the existing shareholders are given the privilege to buy the additional shares in the proportion of their holdings. Hence, it is a non-dilutive pro-rata way to raise capital. In right offering, the subscription is generally at a discount to the current market price. Companies generally offer rights to raise the capital bypassing the underwriting fees and flotation costs. In some cases, right issue is used if there are no other viable financing alternatives. In fact, right issue is a right, not an obligation as shareholders can choose either to exercise the right or do nothing or can sell their rights to other persons.

Right issue practice in Nepal has no long history as compared to other developing countries. Nepal Finance and Saving Corporation Ltd. had started the practice of issuing right share in Nepal by issuing the right share for the first time on December 1<sup>st</sup>, 1995 [3]. Thereafter, many financial institutions started to offer the right shares to their existing shareholders in order to increase their paid-up capital. But, the impact of such announcements on share prices, and consequently on stock returns, has not been rigorously investigated yet in Nepal. This study, therefore, attempts to fill up this gap. The objective of this paper is to examine the effect of right issue announcements on stock returns of the commercial banks in Nepal. The paper, also explores the recent trend of right issue practices in Nepal. Analysis of right issue and its impact on the stock market returns, in terms of abnormal returns, is important from the point of view of existing shareholders and potential investors. It is also important from the perspective of the bank's management as their financial objective is to increase shareholders' wealth. For this, following null hypothesis has been set and tested by using t-test at 5 percent significant level.

H<sub>0</sub>: Right issue announcements have no significant positive impact on the stock returns of right issuing firms.

### **II. REVIEW OF RELATED STUDIES**

There are mixed results regarding the reaction of the stock market to the rights issues announcements. White and Lusztig [4] used 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 found that there was a negative reaction of the stock prices to the rights issues announcements. Loderer and Zimmermann [5] analyzed 122 right 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 data. They found that the

shareholders experienced insignificant average abnormal returns around the rights announcement period. This meant that there were no effects of right announcement on stock prices. Rao [6] have found positive abnormal returns around rights offer announcements. Lukose and Rao [7] had a more extensive study of 392 right issues of Bombay Stock Exchange companies spanning 1991-2000 and concluded that market valuation decline during the post-issue period after a run up in the pre-issue period. Their results of the study suggest that people over-investment in the cum-right period and agency models can better explain the decline in performance compared to asymmetric information hypothesis. Malhotra, Thenmozhi and Gopalaswamy [8] used market index model under the event study technique and multivariate regression analysis to study the impact of announcement of right issue in 35 companies for 5 years in Indian stock market. They concluded that Indian stock market reacts positively to the announcement of right issue.

There has been limited research in the area of rights issues in Nepal. A study by Pathak and Giri [3] provides some contrary evidence in Nepalese Stock Exchange. There was generally no run-up prior to announcement. Contrary to the finding of Pathak and Giri, Mehjabeen and Haque's [9] study of 25 right issues in Bangladesh spanning a period of 2001-2008 applying event study methodology, reported that there was run-up prior to the announcement followed by decline. The authors attribute the decline to negative signal indicated by a new stock issue while it appears that they totally ignore the dilution effect. Raheja, Bhadwaj and Priyanka [10] had only 10 samples and reported that the EPS actually went up after right issue, which is contrary to expectation. They also reported a decline in the market price of the issuing firms which is consistent with expectation, but the decline is not proportional to the issue ratio. They did not report whether the differences are significant or not.

Ahkam and Mostafa [11] examined the right offers made between January 2010 to October 2012 by companies listed on the Dhaka Stock Exchange and tested the speed of adjustment in the market price of the issuers to the right issues. They concluded that the adjustment is not immediate, the market price is about 10-11 percent higher than the right adjusted price on the average and the difference is statistically significant. It takes about 15 days for the market price to reach a stage where the difference between the market price and right adjusted price is no longer statistically significant. This delay in adjustment can actually lead to a profitable strategy for investors in which the investor holds the stock till record date and then sells the stocks at the first opportunity after the record date. Bolognesi and Gallo [12] carried out a study on the effects on stock prices of rights issue. The focus is on the market reaction around the *ex-rights date* (the first ex-right trading day) and the *capital increase release date* (the announcement date). Considering 63 companies listed in the Italian Stock Market during the period between 2007 and 2011, the authors observe a positive statistically significant abnormal return on ex-right date. This evidence is mostly due to the highly dilutive effect of the new shares to be issued. Li, Liu, Siganos, & Zhou [13] studied the different market reactions in the U.S. market distinguishing between banking and non-banking sectors. The hypothesis was that the information released by banks is different from the one released by other companies. Furthermore, in the banking sector the regulation imposes a higher mandatory disclosure, which reduces the information asymmetry and the adverse selection between issuers and investors. The authors found that banking sector experienced less negative abnormal returns than the non-banking sectors around the right issue period.

Martino and Busatto [14] analyzed the stock price reaction to seasoned equity offerings through the right issue technique, for Italian listed companies in the period between 2007 and 2016. A few days before the starting date of the capital increase operation, investors are provided with a complete information set of the final characteristics of the equity offerings. The study investigates whether this further information is price sensitive. An event study analysis is performed around two price sensitive dates: the announcement date of the equity issue and the communication date of its final characteristics. It also focused on the reasons underlying the offer and on the industry effect. The findings show a significant negative abnormal return at the communication date for the full sample and for companies collecting financial resources for corporate finance transaction, for capital adequacy and for restructuring. A negative market reaction for all sectors is observed as well. Eventually, the article examined the possible causes underlying the negative stock price reaction at the communication date. The results suggest that the dilutive effect is the main explanation to the stock price overreaction.

The above review of literature shows that there are mixed results regarding the right share announcement effect on share price. Some studies report positive reaction [6, 8, 11, 12], some report negative reaction [4, 7, 10, 13, 14] and others found no significant impact of rights issue announcement on stock prices [5, 15]. This paper attempts to investigate the present status of Nepalese banking sector in this aspect.

### III. DATA AND METHODOLOGY

#### 3.1 Data

A list of the companies that made right issue announcements from July 2007 to July 2017 has been obtained from Security Board of Nepal (SEBON). The announcement dates for rights issues were obtained from

the official websites of SEBON and Nepal Stock Exchange (NEPSE). Daily closing stock price data of individual bank and banking sub-index over the period from 90 trading days before to 10 trading days after the rights issue announcement date were collected from the official quotation list of NEPSE website.

In order to present the practice of rights issuance in Nepal, data of all the rights issuing companies have been collected. The number of these firms varies from year to year as many firms were merged each other and some were acquired by other firms during the study period. But, to assess the impact of rights issue announcement on the stock returns, the rights issue that met the following criteria was selected: 1) The rights issue had to be an issue of new ordinary fully paid securities; 2) The firms remained listed on the Nepal Stock Exchange (NEPSE) during the fiscal years 2007/08 to 2016/017; 3) They performed operations and issued right shares; and 4) They submitted annual reports to NEPSE and Nepal Rastra Bank.

Only the latest right issue made by a company was selected for the purpose of the study. If more than one rights issue was there, only the last one was taken. Twenty-three commercial banks have made right announcements during the study period and all of them have fulfilled the above mentioned criteria. However, only five of them have been chosen randomly for the purpose of the study. The sample banks are - Laxmi Bank, Sunrise Bank, Sanima Bank, Nepal SBI Bank and Agricultural Development Bank.

### 3.2 Methodology

The study used *event study* methodology put forth by Brown and Warner [16] based on Market Model to ascertain whether there were any abnormal returns associated with rights issue announcement. The event date is defined as the date of right announcement by the sample banks. The event window is taken as  $t = -10$  to  $t = +10$  relative to the event day  $t = 0$  (date of announcement of right issue) and the return on the market portfolio is proxied by the banking sub-index. The estimation window is from  $t = -90$  to  $t = -11$  relative to the event day  $t = 0$ . Return on security  $i$  in period  $t$  is given by:

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

Where,  $P_{it}$  is the stock price of firm  $i$  on day  $t$  and  $P_{it-1}$  is the previous day stock price of firm  $i$ , i.e. on day  $t-1$ .

Market return has been calculated as:

$$R_{mt} = (MP_t - MP_{t-1}) / (MP_{t-1}) \quad (2)$$

$MP_t$  and  $MP_{t-1}$  represent the market price on day  $t$  and  $t-1$  respectively proxied by the index price of the banking sub-index.

The market model assumes a linear relationship between the return of the security to the return of the market portfolio, developed by Sharpe [17] and used by Fama, Fisher, Jensen, and Roll [18], and is free from the criticism of Roll [19]. Brown and Warner [16] have also shown that methodologies based on OLS market model are powerful in detecting abnormal returns as other more elaborate procedures [20]. Regression analysis has been used to estimate the relationship between a firm's returns (dependent variable) and market returns, which is proxied by banking sub-index of NEPSE. The impact on market price due to announcement is estimated by the difference between the realized return and the return predicted by the market model during the event window period.

#### 3.2.1 Abnormal Returns

A number of econometric models are available to calculate the abnormal returns that would be expected if right announcement take place. These include risk-adjusted model, the constant mean return model, the market model, and multi-factors modes. The market model is applied in this study for the analysis of stock market reactions on the rights announcement.

The abnormal return,  $AR_{it}$ , for a given stock  $i$  is the difference between the observed return and expected return. The expected or theoretical return =  $(\alpha_i + \beta_i R_{mt})$ . The abnormal return (AR) for the  $i^{th}$  firm on day  $t$  is given by:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \quad (3)$$

Where,  $R_{it}$  and  $R_{mt}$  are the return of the stock  $i$  and the return of market index at time  $t$  respectively. The  $\alpha_i$  and  $\beta_i$  are the intercept and slope values respectively, calculated using the actual and market returns of the estimation window period of 80 days (i.e. from  $t = -90$  to  $t = -11$ ). The parameters  $\alpha$  and  $\beta$  have been estimated from the following OLS regression:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (4)$$

Where,  $\varepsilon_{it}$  = the error term of stock  $i$ , on day  $t$ .

The null hypothesis for each test is that the mean abnormal return is equal to zero.

#### 3.2.2 Cumulative Abnormal Returns

Mackinlay [21] argues that the abnormal return observations must be aggregated in order to draw overall inferences for the event of interest. To draw overall inferences, it is common to accumulate the abnormal return over the selected event window. Thus, the cumulative abnormal return (CAR) for the  $i^{th}$  firm over the specified event window  $(t_1, t_2)$  is computed as follows:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it} \quad (5)$$

In order to capture the impact on stock returns during a specified period, this study uses various event windows to calculate the CARs of the firms, including the pre-announcement and post-announcement event window.

The average abnormal returns have been aggregated over the event period to get the average CAR. Over an interval of two or more trading days beginning with day  $t_1$ , and ending with  $t_2$ , the cumulative average abnormal return is given as under:

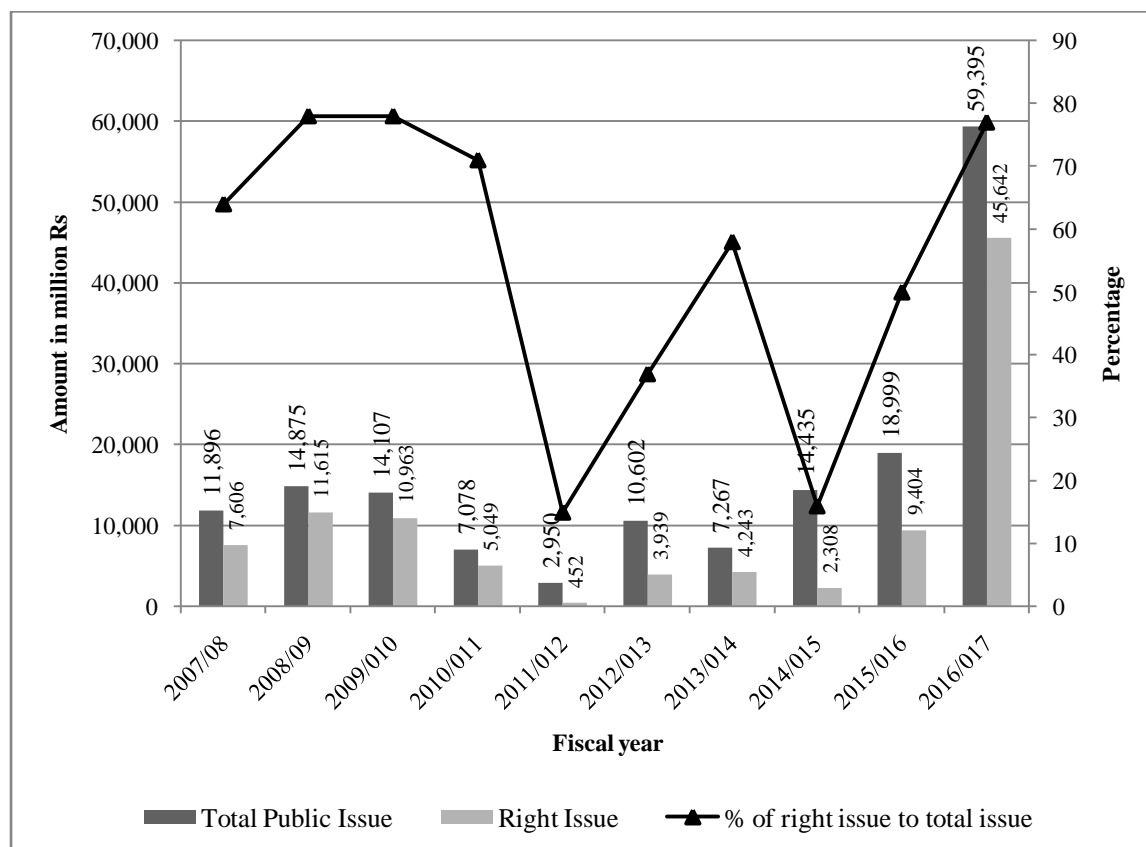
$$\overline{CAR}_{(t1,t2)} = \frac{1}{N} \sum_{i=1}^N \overline{AR}_{(t1,t2)} \quad (6)$$

#### IV. RESULTS AND DISCUSSION

##### 4.1 Contribution of Right Issue on Total Public Issue

Commercial banks, development banks, finance companies, insurance companies, and hydropower companies of Nepal have issued right shares to increase their paid-up capital while manufacturing and processing industries, hotels and others sectors have not issued any right shares during the last 10 years. Right share is the most popular alternative in Nepal to raise the additional capital required for the corporate firms. It covers major proportion of the total public issue. The contribution of rights issue in total public issues of all the sectors during the study period is shown in Fig. 1.

It is observed that the trend of right issue by the listed companies in Nepal is highly fluctuating in the last decade. It ranges from Rs. 452 million to Rs. 45,642 million. On an average, 63 percent of the total public issue amount is covered by right issue amount. Fiscal year 2016/017 marks the highest amount of right issues. The contribution of right issue amount in FY 2016/017 on total public issue is 77 percent. It is the highest contribution of right issue on total public issues during the study period. Fiscal years 2011/012 and 2012/013 observed very less number of right issues.



**Figure 1. Contribution of right share issue on total public issue. Total public issue amount includes the issues of IPO, FPO, right share, debenture and mutual funds.**

##### 4.2 Impact of Rights Issue Announcement on Stock Market Returns

###### 4.2.1 Abnormal Returns

In order to detect the abnormal returns around the announcement period, twenty-one days window spanning, from ten days prior to the announcement to ten days after the announcement (-10, +10), is used to observe market response to the new information. Abnormal returns are obtained deducting the expected returns on each window day from the actual returns on the same event window day. Hence, the abnormal return is the

difference between actual return and expected return. Abnormal returns indicate the additional impact on stock returns due to right share issue over and above normal market movements.

Mix of both negative and positive abnormal returns are observed in Table 1 during the event window period. They range from 5.41 percent (of Laxmi Bank on event day1) to -5.31 percent (of Sunrise Bank on event day 4). The highest mean abnormal return is observed to be 1.03 percent on event day 1 with the standard deviation of 2.59 and lowest mean abnormal return is -1.12 on event day 4 with the standard deviation of 2.42. This indicates that shareholders can achieve highest abnormal (additional) returns by selling their shares on the next day of the right announcements.

All the sample banks experienced negative abnormal returns on more than 50 percent of the days during the event window period. Individually, Laxmi Bank and Sanima Bank obtained positive abnormal returns on 48 percent (10 of 21 days) of the days during the window period. The number of days that other sample banks obtained positive abnormal returns are less than that of obtained by these two banks. Agriculture Development Bank experienced the highest (71%) number of days having negative abnormal returns during the event window period. Sunrise Bank and Nepal SBI bank experienced negative abnormal returns on 62 and 57 percent of the event window period respectively. The above results show that Nepalese stock market reacts rather negatively to announcement of right share issues. But before reaching to such conclusion, it is required to test the statistical significance of the abnormal returns, which is done in the subsequent sections.

**Table 1**  
**Abnormal Return on Rights Announcement**

Event window	Abnormal return (AR) in %					Mean	S.D.
	LBL	SRBL	SANIMA	NSBI	ADBL		
-10	-0.02	-1.22	0.83	0.71	-1.68	-0.28	1.13
-9	-0.13	-0.93	-0.78	-0.12	0.29	-0.33	0.51
-8	0.85	-0.74	-0.16	1.55	-0.96	0.11	1.07
-7	-0.19	0.22	-0.59	-1.52	-0.66	-0.55	0.65
-6	0.02	2.19	-1.04	1.30	-0.16	0.46	1.28
-5	-0.85	-0.71	-0.03	3.17	-1.44	0.03	1.83
-4	1.45	-0.43	-0.10	0.09	0.85	0.37	0.76
-3	0.19	-0.34	0.31	-0.37	-2.61	-0.56	1.18
-2	-4.76	2.36	1.99	0.90	-1.96	-0.29	3.02
-1	-2.74	-0.37	1.48	1.57	0.62	0.11	1.78
0	0.87	0.47	0.05	-0.65	-0.37	0.07	0.61
1	5.41	0.72	-1.42	-0.08	0.54	1.03	2.59
2	1.12	1.54	0.25	-0.89	-1.50	0.10	1.29
3	1.43	-0.96	0.40	-0.61	-0.01	0.05	0.93
4	-0.15	-5.31	0.80	0.02	-0.97	-1.12	2.42
5	-2.96	-0.54	-1.40	-0.34	0.02	-1.04	1.19
6	0.51	-0.76	-2.07	0.91	-1.36	-0.55	1.25
7	4.33	0.67	-3.34	-0.09	0.44	0.40	2.73
8	-3.31	0.75	-0.48	-0.63	-0.34	-0.80	1.50
9	-2.17	-1.45	0.42	-0.93	-0.81	-0.99	0.95
10	-0.64	-1.40	1.03	-1.59	-3.01	-1.12	1.48

Note: LBL = Laxmi Bank Ltd., SRBL = Sunrise Bank Ltd., SANIMA = Sanima Bank Ltd., NSBI = Nepal SBI Bank Ltd., ADBL = Agricultural Development Bank Ltd.

#### 4.2.2 Cumulative Abnormal Returns



In order to mark the informational efficiency, the impact of right issues on stock return has been analyzed calculating the cumulative abnormal returns (CAR) for short-period as well as for long-period. Here, the short-period refers to any two consecutive days during the event window period and long-period refers to the time frame of more than two days.

Table 2 presents the CARs of five banks for very short window periods of two consecutive days around the right share announcement period. They are calculated by summing up the abnormal returns of the given two consecutive days. Calculated t-statistics are in parentheses. The t-value greater than the respective table value is significant at 5 percent level for the given degree of freedom. The degree of freedom and the table value (two-tails) for each CAR is given in row 3 and 4 respectively. All the CAR values are in percentage. Cumulative average abnormal returns (CAARs) in the last column are derived by calculating cross-sectional average of the CARs of five banks for the corresponding window period.

The CARs, calculated for a very short period of two consecutive days, ranges from 6.53 percent to -7.50 percent. Both the highest and lowest CARs were experienced by the shareholders of Laxmi Bank on window periods of (1,2) and (-2,-1) respectively. The shareholders of Nepal SBI Bank, Sanima Bank, Sunrise Bank and Agricultural Development Bank obtained highest CARs on event window period of (-6, -5), (-2, -1), (-7,-6) and (-1,0) days respectively. However, the highest CAR of Agricultural Development Bank is only 0.25 percent, which is the least among all the sample banks.

**Table 2 Short Period Cumulative Abnormal Return (CAR) on Rights Announcement**

DAYS	CAR in %					CAARs
	LBL	SRBL	SANIMA	NSBI	ADBL	
<b>Degree of freedom</b>	1	1	1	1	1	4
<b>Table value (two-tails)</b>	12.706	12.706	12.706	12.706	12.706	2.776
<b>(-10, -9)</b>	-0.16 (-1.36)	-2.15 (-7.41)	0.05 (0.03)	0.59 (0.71)	-1.39 (-0.70)	-0.61 (-1.22)
<b>(-9, -8)</b>	0.71 (0.73)	-1.66 (-8.79)	-0.94 (-1.52)	1.43 (0.86)	-0.67 (-0.54)	-0.23 (-0.40)
<b>(-8, -7)</b>	0.66 (0.63)	-0.51 (-0.54)	-0.75 (-1.74)	0.03 (0.01)	-1.62 (-5.4)	-0.44 (-1.15)
<b>(-7, -6)</b>	-0.17 (-0.81)	2.41 (1.22)	-1.62 (-3.62)	-0.22 (-0.08)	-0.82 (-1.64)	-0.08 (-0.12)
<b>(-6, -5)</b>	-0.83 (-0.95)	1.48 (0.51)	-1.07 (-1.06)	4.47 (2.39)	-1.60 (-1.25)	0.49 (0.44)
<b>(-5, -4)</b>	0.60 (0.26)	-1.14 (-4.07)	-0.13 (-1.86)	3.26 (1.06)	-0.59 (-0.26)	0.40 (0.52)
<b>(-4, -3)</b>	1.64 (1.3)	-0.77 (-8.56)	0.21 (0.51)	-0.28 (-0.61)	-1.76 (-0.51)	-0.19 (-0.34)
<b>(-3, -2)</b>	-4.57 (-0.92)	2.02 (0.75)	2.30 (1.37)	0.53 (0.42)	-4.57 (-7.03)	-0.86 (-0.55)
<b>(-2, -1)</b>	-7.50 (-3.71)	1.99 (0.73)	3.47 (6.8)	2.47 (3.69)	-1.34 (-0.52)	-0.18 (-0.09)
<b>(-1,0)</b>	-1.87 (-0.52)	0.09 (0.12)	1.53 (1.07)	0.92 (0.41)	0.25 (0.25)	0.19 (0.32)
<b>(0,1)</b>	6.29 (1.38)	1.18 (4.76)	-1.37 (-0.93)	-0.73 (-1.28)	0.17 (0.19)	1.11 (0.81)
<b>(1,2)</b>	6.53 (1.52)	2.26 (2.76)	-1.17 (-0.7)	-0.97 (-1.2)	-0.96 (-0.47)	1.14 (0.76)
<b>(2,3)</b>	2.56 (8.23)	0.58 (0.23)	0.65 (4.33)	-1.50 (-5.36)	-1.51 (-1.01)	0.15 (0.20)
<b>(3,4)</b>	1.28 (0.81)	-6.28 (-1.44)	1.20 (3.00)	-0.61 (-0.94)	-0.98 (-1.02)	-1.08 (-0.78)
<b>(4,5)</b>	-3.11	-5.86	-0.61	0.02	-0.95	-2.10

	(-1.11)	(-1.23)	(-0.27)	(-0.89)	(-0.96)	(-1.95)
(5,6)	-2.45	-1.30	-3.47	-0.32	-1.34	-1.77*
	(-0.71)	(-5.91)	(-5.18)	(0.46)	(-0.97)	<b>(-3.28)</b>
(6,7)	4.83	-0.08	-5.40	0.58	-0.92	-0.20
	(1.27)	(-0.06)	(-4.26)	(0.82)	(-0.51)	(-0.12)
(7,8)	1.02	1.42*	-3.82	0.82	0.10	-0.09
	(0.13)	<b>(17.75)</b>	(-1.34)	(-1.33)	(0.13)	(-0.10)
(8,9)	-5.48	-0.70	-0.06	-0.72	-1.15	-1.62
	(-4.81)	(-0.32)	(-0.07)	(-5.2)	(-2.45)	(-1.65)
(9,10)	-2.82	-2.85*	1.45	-1.56	-3.82	-1.92
	(-1.84)	<b>(-57.00)</b>	(2.38)	(-3.82)	(-1.74)	(-2.10)

Note. \*Significant at the 5% level.

It is observed in Table 2 that CARs were negative in more than 50 percent of the days during the event window period. However, except two exceptional cases of Sunrise Bank, none of the CARs were statistically significant at 5 percent level of significance. Shareholders of Sunrise Bank received statistically significant positive CARs of 1.42 percent on window period of (7,8) and statistically significant negative CARs of 2.85 percent on window period of (9,10).

Among the sample banks, Nepal SBI Bank obtained comparatively more number of positive CARs on the announcement of right share issue. It had obtained positive CARs on 11 event periods out of 20 observed days, but none of the CARs are statistically significant. Nepal SBI Bank is followed by Laxmi Bank with 10 positive CARs (statistically insignificant). Agricultural Development Bank experienced the lowest number of positive CARs during the event window period, which counts only 15 percent of the observed days. It is only on event window days of (-1,0) and (7,8) high number of banks (4 banks) obtained positive CARs, while in the rest of the window days, less number of banks (less than 4 banks) obtained positive CARs.

Looking at the last column of Table 2, it is observed that the highest cumulative average abnormal return (CAAR), which is derived by computing cross-sectional average of the CARs of five banks for the corresponding window period, is 1.14 percent on window period of (1,2). It implies that shareholders can enjoy abnormal gains by buying the stock on the announcement day (day 0) and selling it two days after the announcement day. However the investors would bear highest abnormal loss of 2.10 percent if they buy and hold the stock on fourth and fifth days of the right announcement date. Out of the observed 20 short window periods of two consecutive days, CAARs were positive on only 6 such window periods.

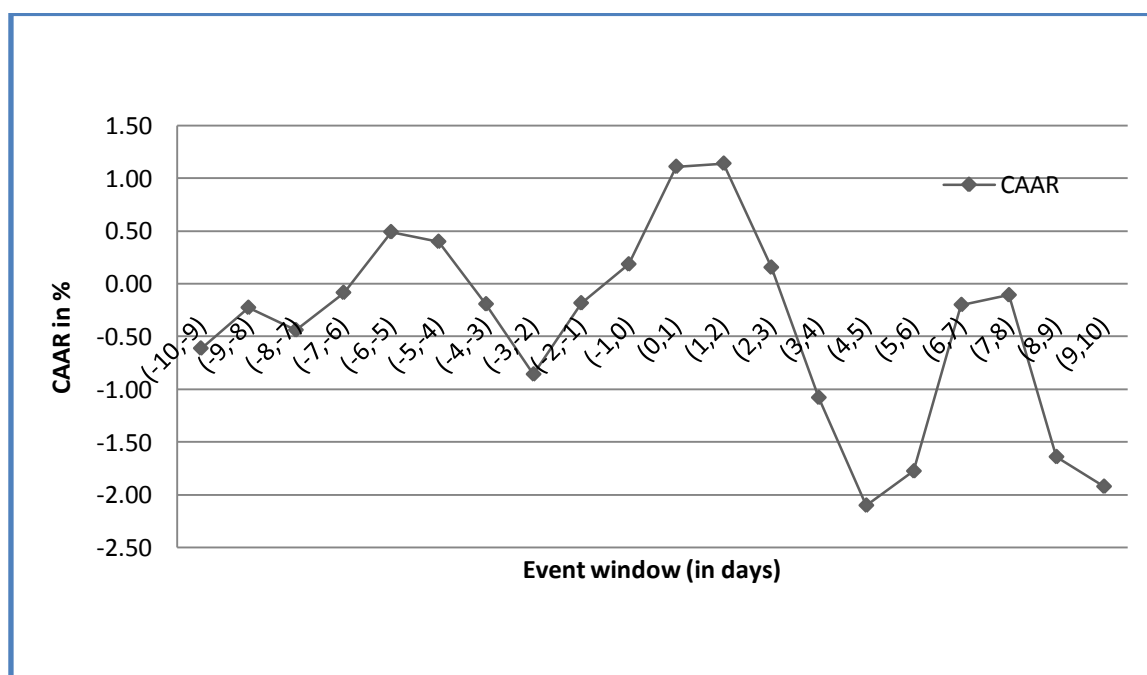


Figure 2. Short period CAARs over event window

Fig. 2 shows the CAARs data over the event window is both positive and negative before announcement date. The CAAR after the right announcement is significant but negative for one window event days only. After the rights announcement the CAARs are positive up-to the third day of the announcement. After the third day CAARs are negative for rest of the event days. It means CAARs are statistically insignificant and inconsistent.

Table 3 presents the longer period CARs for different event window periods of (-1,+1), (-2,+2), (-5,+5), (-10,+10), (-2,-1), (-5,-1), (-10,-1), (1,10) and (-10,+1). Calculated t-statistics are in parentheses. The t-value greater than the respective table value, is significant at 5 percent level for the given degree of freedom. The degree of freedom and the table value (two-tails) for each CAR is given in row 2 and 3 respectively. The degree of freedom and the table value (two-tails) for CAARs presented in the last row are 4 and 2.776 respectively. CAARs are derived by calculating cross-sectional average of the CARs of five banks for the corresponding window period. All the CAR and CAAR values are in percentage.

CARs calculated for different longer window periods ranges from 7.28 percent to -15.08 percent during the event window. Nepal SBI Bank obtained the highest CARs of 7.28 percent in event window of (-10,-1) and Agricultural Development Bank experienced the lowest CARs of -15.08 percent in event window of (-10,+10). This negative CARs obtained by Agricultural Development Bank is statistically significant at 5 percent level.

**Table 3 Longer Period Cumulative Abnormal Returns (CARs)**

Name of banks	CAR (-1,+1)	CAR (-2,+2)	CAR (-5,+5)	CAR (-10,+10)	CAR (-2,-1)	CAR (-5,-1)	CAR (-10,-1)	CAR (+1,+10)	CAR (-10,+1)
Degree of freedom	2	4	10	20	1	4	9	9	11
Table value (two-tails)	4.303	2.776	2.228	2.086	12.706	2.776	2.262	2.262	2.201
LBL	3.55 (0.50)	-0.09 (-0.01)	-0.98 (-0.11)	-1.75 (-0.16)	-7.50 (-3.71)	-6.71 (-1.23)	-6.19 (-1.07)	3.57 (0.39)	0.09 (0.01)
SRBL	0.82 (0.83)	4.71 (2.02)	-3.59 (-0.56)	-6.32 (-0.86)	1.99 (0.73)	0.51 (0.18)	0.03 (0.01)	-6.82 (-1.12)	1.22 (0.30)
SANIMA	0.11 (0.05)	2.36 (0.79)	2.33 (0.68)	-3.85 (-0.69)	3.47 (6.77)	3.65 (1.72)	1.91 (0.62)	-5.81 (-1.29)	0.55 (0.16)
NSBI	0.84 (0.42)	0.84 (0.36)	2.81 (0.71)	2.39 (0.46)	2.47 (3.70)	5.36 (1.73)	7.28 (1.78)	-4.24 (-1.97)	6.55 (1.51)
ADBL	0.79 (0.82)	-2.67 (-1.02)	-6.83 (-1.79)	-15.08* (-3.08)	-1.34 (-0.52)	-4.54 (-1.31)	-7.72 (-2.10)	-6.99 (-2.05)	-7.55 (-1.94)
CAARs	<b>1.222</b> (2.044)	1.03 (0.837)	-1.252 (-0.689)	-4.922 (-1.689)	-0.182 (-0.09)	-0.346 (-0.149)	-0.938 (-0.342)	-4.058 (-2.061)	0.172 (0.076)

\*Significant at the 5% level.

For the shareholders of Laxmi Bank, event period of (-1,+1) and (+1,+10) are the right times to hold the stock because the cumulative abnormal returns are very high in these periods. For the shareholders of Sunrise Bank, event period of (-2,+2) is the best period. Similarly, the shareholders of Sanima Bank, Nepal SBI Bank and Agricultural Development Bank could achieved the highest cumulative abnormal returns on event periods of (-5,-1), (-10,+1) and (-1,+1) respectively. Except on the window period of (+1,+10) the shareholders of Nepal SBI Bank had received positive CARs in all the window periods. While the shareholders of Agricultural Development Bank had experienced negative CARs in all the window periods except in (-1,+1). By and large, event period of (-1,+1) is the best period for the shareholders of Nepalese commercial banks to hold share, as on this period stock market provides positive CARs, and (-10,+1) is better and (-10,+10) and (+1,+10) are worse periods for holding the shares from the view point of achieving cumulative abnormal returns.

Interestingly, out of the nine different event window periods, no any bank gained statistically significant CARs on the following eight window periods of (-1,+1), (-2,+2), (-5,+5), (-2,-1), (-5,-1), (-10,-1), (1,10) and (-10,+1). It is obvious from the analysis that leaving one exception, none of the right share announcements produced statistically significant CAR regardless of the event periods used. The results are consistent with the results found by Loderer and Zimmermann [5] who reported that the shareholders in Switzerland experienced insignificant average abnormal returns around the rights announcement period. The result is also consistent with the finding of Smith [15], who reported that the impact of the announcement of right issue does not hold any significant difference on the movements of the share price and no significant abnormal return is gained during the event window period.



To test whether a right issue announcement is value enhancing, the cumulative average abnormal returns (CAARs) to sample banks have been examined in last row of Table 3. Surprisingly, none of the window period provides statistically significant positive CAARs to the shareholders on the announcement of rights. It means the abnormal returns earned by shareholders of sample banks are not statistically different from zero. Thus the null hypothesis that 'right share announcements have no significant positive impact on stock returns' could not be rejected.

## V. CONCLUSION

Right offering is the rapidly emerging practice in Nepal. Nepalese corporate firms have passed only 23 years since their first issuance of right shares. Right share amount covers more than half portion of total public flotation during the study period. Banking and financial sectors are more active regarding the issue of right share than the other sectors of Nepal. In order to meet the regulatory requirements of minimum paid-up capital all the banking and financial sectors are using right share issue as the most appropriate alternative to raise the required additional funds.

Right issue announcements in Nepal do not bring any significant difference on the movements of the share price, and hence, shareholders do not gain statistically significant abnormal returns around the right announcements. This study is an attempt to establish a relationship between seasoned capital issue announcements and stock price movement. This association is importance because it is documented that there is insignificant effect of the rights issue announcements on the share price and it conveys either the Nepalese stock market is in weak-form efficiency or there is anomaly in the market. This issue is a subject of future study. The major limitation of this paper is that it incorporates only five banks in the sample. More rigorous study can be done in the future by increasing the sample size and including development banks and finance companies also in the sample.

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