

Measuring the Capital Market Efficiency With Reference to Rights Issue of Lakshmi Vilas Bank

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ABSTRACT

Rights issue is the purchase of additional new shares in the company by the existing shareholders, it is shareholders the right to purchase new shares at a discount to the market price on a declared future date. After the rights issue is offered price of that particular stock falls in the stock market. It happens because the number of outstanding shares of that firm increases in the market. If the number of the right issue is relatively higher than the paid-up capital the price falls. How fast the new information (Rights Issue) is incorporating into the security prices is termed as Capital market efficiency. If a market is efficient, stock price movements should follow a random walk and the security price movements in the past should be not related to future price movements. But if the market is inefficient, the price movements are not random; some investors can make use of the inefficiency to gain abnormal returns. The present study considers the impact of rights issue announcement by Lakshmi Vilas Bank on Sept 27th 2017 on its share price in BSE. Impact on share price before and after announcement of Rights issue is analyzed by using Paired T- test. The result shows that, the formulated Null hypothesis is accepted that the stock price of Lakshmi Vilas Bank does not fully reflect on its share price.

Key words- Rights issue, capital market efficiency, paired T-test, Null hypothesis, Abnormal returns.

I. INTRODUCTION

Purchase of additional shares at a discount to the market price is known as Rights issue. Usually, troubled companies use rights issues to pay down debt, especially when they are unable to borrow additional money. But not all companies that pursue rights offerings are in trouble. Some with clean balance sheets use them to fund corporate restructuring. After the rights issue is offered price of that particular stock falls in the stock market. It happens because the number of outstanding shares of that firm increases in the market. If the number of the right issue is relatively higher than the paid-up capital the price falls. In addition, the dividend yield and the PE ratio of that particular stock also fall after the rights offered. Hypothetically the right issue does not give considerable profit to the shareholders in spite of the fact that they get the stock in lesser price. But in practice the shareholders always find the right issue an attractive option to buy the shares of the firm. This is because the presume that the company is going to utilize the additional fund from the right issue for further development and expansion of the business that will ultimately strengthen the financial position of the firm.

II. NATURE OF THE STUDY

The research study involves exploration of equity share announcement on the basis of Right issue is most or least sensitive towards influencing of the firms share prices in efficient capital market. The study involves collecting secondary data through web source of BSE listed company historical share prices by taking the data around the rights issue date compared with BSE SENSEX taken as bench mark. It concentrates mainly on the impact of firms share prices by taking pre event historical values(before Rights issue announcement) and post event historical values to formulating the data in the required format and to apply statistical tools like paired-T-test, Beta, Intercept, Mean, variance, Co-variance, Standard Deviation, etc, to find out whether the share prices are influenced by form of capital markets are really significant in helping the users or not and to convey the same to the end users.

III. RESEARCH METHODOLOGY

- A. OBJECTIVE OF THE STUDY:** The objective of the study was to establish whether there is any statistically significant instantaneous increase in share price resulting from Right equity shares announcement.
- B. HYPOTHESIS**

H₀: Rights issue announcement has no significance impact on the market price of the Lakshmi vilas Bank Ltd.

H_a: Rights issue announcement has significance impact on the market price of the Lakshmi vilas Bank Ltd.

C. STATISTICAL TOOLS APPLIED: The data collected through the secondary sources has been analyzed by using Paired-T-test, which is used to understand the semi-strong form of capital market efficiency by taking share prices movement with the announcement of Right equity shares.

Paired-T-test: T- test is used for the purpose of measuring the influence of an event announcement on the firm's share prices by using pre and post event information. Paired-T- test can use Before-and-after event on the same data. In testing the null hypothesis that the populations mean is equal to a specified value μ_0 , one uses the statistic

$$t = \frac{\bar{x} - \mu_0}{s/\sqrt{n}}$$

Where \bar{x} the sample mean, 's' is the standard deviation of the sample and n is the sample size. The degrees of freedom used in this test are n – 1. The other simple

statistical tools applied for the analysis of the data are Intercept, Slope, Mean, Variance, Co-variance, Standard deviation, Coefficient of Correlation, Coefficient of Determination, Graph, etc.

D. LIMITATIONS OF THE STUDY: A research study of the nature could not be carried without any limitation. Hence this research study is also having limitations. The study considers only one internal event announcement i.e. Rights issue. The study is confined to 15 days of pre-event and 15 days of post-event historical share price. S&P BSE SENSEX is taken as benchmark to study the firm's share price movement around event announcement time. The patterns are drawn based on share price movement in this period. Despite the above limitations, the researcher put in all his best efforts to overcome the limitations and completing the study.

IV. DATA ANALYSIS & INTERPRETATION

Data analysis is based on the historical information collected from the secondary sources. To test the market efficiency, pre and post-event data has analyzed in BSE listed company i.e. Lakshmi Vilas Bank Ltd. The share prices performance has compared with BSE SENSEX taken as bench mark. The history of Rights announcement, Rights ratio, face value, premium, Record date and Ex-Rights date are given in the following table.

Announcement Date	Rights Ratio	Face Value	Premium	Record Date	Ex-Rights Date
27-09-2017	1:3	10	112	06-12-2017	05-12-2017
16-07-2014	5:6	10	40	28-07-2014	25-07-2014
14-05-2009	1:1	10	44	25-09-2009	24-09-2009
06-07-2006	1:1	10	40	24-11-2006	17-11-2006
28-01-2005	7:10	10	45	06-05-2005	29-04-2005
13-08-1994	1:1	-	25	11-01-1995	-
30-09-1992	1:2	-	30	22-02-1993	08-02-1993

Source: : Dion Global Solutions Limited, www.moneycontrol.com

Data analysis has made for the recent Rights issue announcement i.e on 29th Sept, 2017. Lakshmi Vilas Bank Ltd has informed in its meeting of the Board of Directors held on 29th Sept, 2017, to consider the terms for issue of equity shares of face value of Rs 10 each at 1:3 ratio through rights issue. The existing shareholders will be offered equity shares in the ratio of one share for every three equity shares held by them. The record date

has been fixed as Dec 6th, 2017 to be eligible to participate by the investor in corporate events like receiving dividend, bonus shares, etc.

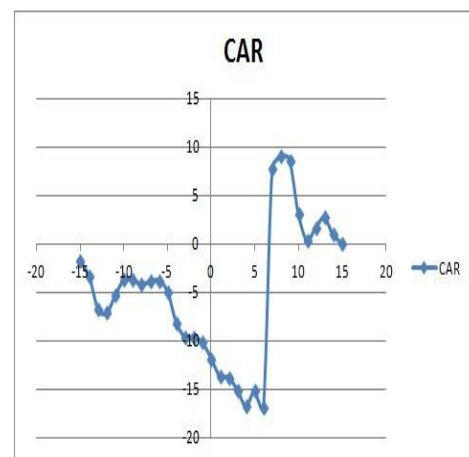
Effect of RIGHTS ISSUE ANNOUNCEMENT of LAKSHMI VILAS on Market Efficiency						
Date	BSE-MARKET RETURN (%)	LAKSHMI VILAS ACTUAL RETURN (%)	LAKSHMI VILAS EXP. RETURN (%)	ABNORMAL RETURN (%)	CUMULATIVE ABNORMAL RETURN (%)	TIME (DAY BEFORE & AFTER RIGHTS ISSUE ANNOUNCEMENT)
05- Sept-17	-	-	-	-	-	-
06- Sept-17	-0.22	0.71	-1.10	-1.80	-1.80	-15
07- Sept-17	-0.99	-0.70	-2.27	-1.57	-3.37	-14
08- Sept-17	0.15	2.77	-0.55	-3.32	-6.69	-13
11- Sept-17	1.25	1.51	1.12	-0.39	-7.08	-12
12- Sept-17	0.40	-1.98	-0.16	1.82	-5.26	-11
13- Sept-17	1.27	-0.46	1.15	1.61	-3.65	-10
14- Sept-17	-0.07	-0.83	-0.87	-0.04	-3.69	-9
15- Sept-17	0.54	0.51	0.04	-0.47	-4.16	-8
18- Sept-17	0.53	-0.28	0.03	0.31	-3.85	-7
19- Sept-17	-1.98	-3.86	-3.77	0.09	-3.76	-6
20- Sept-17	-0.54	-0.43	-1.58	-1.15	-4.91	-5
21- Sept-17	-0.28	2.04	-1.20	-3.24	-8.14	-4
22- Sept-17	-1.37	-1.43	-2.84	-1.42	-9.56	-3
25- Sept-17	-0.07	-0.82	-0.87	-0.05	-9.61	-2
26- Sept-17	0.89	1.12	0.57	-0.55	-10.16	-1
27-Sept-17	1.27	2.79	1.15	-1.64	-11.80	0
28- Sept-17	0.04	1.12	-0.70	-1.83	-13.63	1
29- Sept-17	0.31	-0.19	-0.30	-0.11	-13.74	2
02-Oct-17	0.29	0.97	-0.34	-1.31	-15.05	3
03- Oct-17	1.21	2.71	1.05	-1.66	-16.71	4
04- Oct-17	0.47	-1.65	-0.06	1.59	-15.12	5

05- Oct-17	0.48	1.64	-0.05	-1.69	-16.80	6
06- Oct-17	-0.55	-26.17	-1.60	24.57	7.77	7
09- Oct-17	-0.52	-2.79	-1.55	1.23	9.00	8
10- Oct-17	0.37	0.12	-0.21	-0.34	8.67	9
11- Oct-17	-0.74	3.61	-1.88	-5.50	3.17	10
12- Oct-17	-1.60	-0.42	-3.18	-2.76	0.41	11
13- Oct-17	0.95	-0.66	0.67	1.33	1.74	12
16- Oct-17	0.72	-0.67	0.32	0.98	2.72	13
17- Oct-17	-0.94	-0.43	-2.18	-1.76	0.96	14
18- Oct-17	-0.30	-0.37	-1.22	-0.85	0.11	15

SOURCE: Author computations from BSE historical information

When the market return is Zero, Lakshmi Vilas Bank Ltd Share return will be 1.51%. The above table shows the data of Fifteen days before and after the event (Rights issue) announcement. When the market return was -0.22% the security return was 0.71%. It shows from the above table that the CAR was -10.16 until the Rights issue announcement (in time 0). After Rights issue was announced, CAR decreased to about -1.64% and has been changed every day during next Fifteen days. Security CAR is in anticipation of the Rights issue announcement at time 0.

Summaries of Regression Parameters for LAKSHMI VILAS vs BSE Returns		
Intercept	-0.7738	
Slope	1.51715	
Coefficient of Correlation	0.25833	
R ²	0.06673	
Covariance	1.06854	
	Market	Security
Returns	0.03	-0.73
Variance	0.72779	25.1029
Standard Deviation	0.8531	5.01028



SOURCE: Author computations from the data

Beta (slope) from the Table, Lakshmi Vilas Bank Ltd has β of 1.51 based on the daily returns during 05- Sept-17 to 18- Oct-17. A beta of greater than 1 means that Lakshmi Vilas Bank Ltd returns are more volatile than the market (BSE) returns. **Alpha (Intercept)** The intercept is -0.77. Lakshmi Vilas Bank Ltd has negative -0.77% return when market return is Zero. The **Coefficient of Correlation** is 0.25. The positive correlation indicates that when the market return goes up, Lakshmi Vilas Bank Ltd return also goes up. **Coefficient of determination (cor^2)** is 0.06. It indicates the percentage of the variance of Lakshmi Vilas Bank Ltd return explained by the changes in the market returns. Thus, Market explains 6% of Lakshmi Vilas Bank Ltd risk (the variance of returns). The 94% unexplained variance is the firm-specific variance. **Variance** of the security is a measure of total risk. The variance of Lakshmi Vilas Bank Ltd returns is 25.10 and the market returns is 0.72. The **Covariance** of the Lakshmi Vilas Bank Ltd returns and market returns is 1.06.

Paired T-test analysis shows at 5% significance level, using the table of T-distribution at 28 degree of freedom, the computed value of T is 0.175 which is less than table value (2.048).

Computed Value < Table Value => Accept H_0

Thus, we accept H_0 and conclude that there is no significant difference in returns of the SENSEX and the firm around Rights announcement date. Hence we can infer that Rights issue announcement does not fully reflect the share price of Lakshmi Vilas Bank Ltd.

V. CONCLUSION

The analysis reveal that the information release of Right issue do not influence the security returns in any significant manner. From the study of event information it is clear that announcement of internal event do not have any significant effect on security price, particularly rights issue announcement by the Lakshmi Vilas Bank and volume traded when the market is stable on an average. So the investor cannot earn abnormal returns upon the release of new corporate information, irrespective of the nature of such information. As regards the informational efficiency of the market, the results of the study suggest that the Indian capital market tends to indicate semi- strong form of efficiency.

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