

Available online @ www.iaraindia.com

RESEARCH EXPLORER-A Blind Review & Refereed Quarterly International Journal

ISSN: 2250-1940 (P) 2349-1647 (O)

Impact Factor: 3.655(CIF), 2.78(IRJIF), 2.77(NAAS)

Volume XIII, Issue 43

July- 2024

Formally UGC Approved Journal (63185), © Author

EFFECTIVENESS OF BONUS SHARES PERFORMANCE ON SELECTED OIL AND PETROLEUM INDUSTRIES

Dr. S. TAMILSELVAN

Assistant Professor & Head

Department of Commerce

St. Thomas College Of Arts and Science, Koyambedu, Chennai.

Abstract

In the world of growing economy and competition, if companies want to gain competitive advantage, they would go in for diversification or an integration of their existing business. This process would require additional capital being brought into the business. The companies may raise the required capital through issue of shares either through rights issue. To increase the reputation of the company among existing shareholders and as a means of sharing their profit, companies may go in for issue of bonus shares to the existing shareholders. Such issues would bring out impact on return of the company and market in several ways. An attempt has been made in this study, to analyze the behavior of the share prices in the Indian equity market towards the announcements of bonus issue, taking into account the price movements of the Nifty Index stocks that has announced its bonus issue, and to find out the impact of the price behavior by comparing the stock performance with the performance of the market index.

Keywords: existing Business, Oil and Petroleum Company, Bonus Shares, stock returns

Introduction

It is observed from the study that the scrip's in the Nifty Index having higher bonus ratio witness a positive impact and perform better than the market Index. But at the same time if the bonus issue is smaller in size, it fails to attract the investors and hence delivers a negative impact. The research study has also proved that the performance of hat scrip's having

lesser bonus ratio is underperforming compared to the market performance.

In this paper, we analyses market reaction surrounding announcement and ex-bonus days in post global financial crisis era in Indian markets. Our results show that bonus announcement leads to some buzz in the market and it reacts positively to such announcements. If, market is efficient in its semi-strong form,

such positive reaction associated with bonus announcement should be restricted on announcement day only, however, we can see that market gets some hint of such potential announcement at least two days before but the biggest positive market reaction is observed on announcement day itself and not on any of the following day in the announcement window. That indicates that bonus announcement do carry positive information content and that is getting reflected just before and immediately on its announcement and that provides support for information content and some evidence of Indian stock market is efficient in its semi-strong form.

Identified Problems

Investors would be in confusion in investing their funds in a particular stock because of publicly available information like bonus issues, stock splits etc.. Most of the investors feel that once the bonus is issued they may get the profit and market is in good condition.

Need For the Study

- ✓ To find out how do companies diversify their existing Business
- ✓ To study on how additional capital is bought into the Oil and Petroleum company
- ✓ If it is through corporate action of Bonus Shares, what is the Issue proportion they will announce.
- ✓ How does the corporate action event of Bonus Issue have an impact on stock returns?
- ✓ To analyze how do the companies' scripts perform in the market on such announcements.

Objectives of the Study

Primary Objective

To study about the effectiveness of corporate action event of Bonus Share announcements of Oil and Petroleum industries/Firms.

Secondary Objectives

- To study the impact of firm-specific factors on market returns before and after the specified event with reference to selected scripts.
- To determine the pre and post reaction of the market related factors with reference to selected scripts.
- To identify the Volatility of stock returns of selected scripts before and after the event announcement.

Scope of the Study

The scope of study is to analyze the Bonus and Rights Issues trends and its impact on Abnormal Returns on share prices for last 5 years from 2016- 2020. The study will be useful for identify the variables which are affecting the Returns and identify the share price fluctuations based on Bonus and Rights Issues. Such analysis should be conducted in order to determine share price fluctuations in the market.

Limitations of the Study

- The period of the study is only 5 years. If it is increased, the study could be more effective and keen in its results.
- The advanced tools could also be used for the better output.
- If the event window is been increased, it may be more keen in its result.

Review of Literature

Corporate Actions and Impact on Stock Markets Prices - An Empirical Study of Indian Markets: The purpose of this study was to analyze the impact of announcement of corporate actions of

Stock Split, Consolidation and Share buyback on the traded volumes of the shares on the stock exchanges. This study concluded that corporate actions are having significant impact on the market price of stocks.

This study explores the impact of right shares issued by Indian companies that took place during 2005 & 2010. The samples of 32 right issues have been used to study the announcement effect. The study examines the stock price reaction to information content of right issues with a view of finding whether Indian stock market is semi-strong efficient or not. The standard event study methodology has been used for the purpose of examining the right issue announcement reaction. The study reveals statistically significant abnormal returns on the announcement & surrounding dates.

Methodology of the Study

This study is primarily Analytical and Empirical in nature. Analytical research is used for analyzing the secondary data for the study. In this study, hypothesis is tested and hence it is empirical in nature. Target Companies: The Study is based on the sample drawn the Oil and Petroleum Industries/Firms who has issued Bonus Share in the recent 5 Years (2017 – 2018 to 2020 - 2021).

Tools for Analysis

In statistics, linear regression is a linear approach to modeling the relationship between a scalar response (or dependent variable) and one or more explanatory variables (or independent variables). The case of one explanatory variable is called simple linear regression.

This term is distinct from multivariate linear regression, where multiple correlated dependent variables are predicted, rather than a single scalar variable. The most commonly used form of regression is linear regression. It uses the values from an existing data set consisting of measurements of the values of two variables, X and Y, to develop a model that is useful for predicting the value of the dependent variable, Y for given values of X.

Person Correlation Analysis –

In statistics, the Pearson correlation coefficient also referred to as Pearson's r , the Pearson product-moment correlation coefficient the bivariate correlation, is a measure of the linear correlation between two variables X and Y. According to the Cauchy–Schwarz inequality it has a value between +1 and -1, where 1 is total positive linear correlation, 0 is no linear correlation, and -1 is total negative linear correlation. It is widely used in the sciences. It was developed by Karl Pearson from a related idea introduced by Francis Galton in the 1880s and for which the mathematical formula was derived and published by Auguste Bravais in 1844. The naming of the coefficient is thus an example of Stigler's Law. It is generally used to check whether multicollinearity exists between independent variables.

Data Analysis and Interpretation

Market Related Variables

- Cumulative Abnormal Return= $((\text{current closing price} - \text{previous closing price}) / \text{previous closing price}) * 100$
- Volatility of Index Return= (standard deviation of 100 days closing price)

Firm Related Factors

- Value of Collateral Assets=Intangible assets/Total assets
- Return on equity=Profit after Tax/ Net worth
- Price-Earnings ratio
- Market Capitalization=No of shares*market price of the share
- Firm size=Log (Market capitalization)
- Debt-Equity ratio

VIR- Volatility of Index Return

Volatility of Index Return= (standard deviation of 100 days closing price)

Table showing the Bonus issued companies with Bonus ratio and their Market Related variables

COMPANY	<u>Market Related Variables</u>	
	CAR	VIR
TIDE WATER	-0.011130663	413.086705
IOC	-1.272037481	470.3472802
OIL INDIA	0.558527093	447.6835722
CASTROL OIL	-0.082500735	411.9804769
ONGC	-0.338609378	417.5963977
Panama Petrochem	1.665475754	611.0281203
Petronet LNG	1.33642532	560.2437919
GP Petroleum	-1.793378974	253.9873344
GAIL	-0.408859799	633.566979
BPCL	0.249228771	614.7218559
HPCL	1.302257877	603.1302255

CAR-Cumulative Abnormal Return

Cumulative Abnormal Return= ((current closing price- previous closing price)/ previous Closing price)*100

VIR- Volatility of Index Return

Volatility of Index Return= (standard deviation of 100 days closing price)

Table showing the Bonus issued companies with Bonus ratio and their Firm Related variables Volatility of stock Returns

Before= (Standard deviation of 100 days closing price before event announcement)

After= (Standard deviation of 100 days closing price after event announcement)

Table showing the Bonus issued companies with Bonus ratio and their Volatility related variables

COMPANY	<u>Volatility of Stock Returns</u>	
	Before	After
TIDE WATER	4542.587793	387.8572051
IOC	12.79705054	7.154244005
OIL INDIA	14.6343713	10.2409665
CASTROL OIL	15.11902981	9.722519561
ONGC	24.52164568	20.63136163
Panama Petrochem	6.132169088	14.13866746
Petronet LNG	40.94696674	20.18218899
GP Petroleum	2.718046684	1.996678808
GAIL	35.08126166	18.64525151
BPCL	50.48376612	20.4602227
HPCL	36.72824869	30.93928551

Volatility of stock Returns

Before= (Standard deviation of 100 days closing price before event announcement)

After= (Standard deviation of 100 days closing price after event announcement)

Pearson Correlation Analysis

It is generally used to check whether multi co linearity exists between independent variables.

Table showing the relationship between all independent variables

Correlations										
	CAR	VIR	VCA	ROE	PE ratio	MC	Firm size	DE ratio	Volatility	
									Before	After
CAR	1	.671*	-0.116	0.209	0.596	-0.393	-0.057	0.218	-0.033	0.008
VIR	.671*	1	0.495	0.061	0.517	0.030	0.220	0.417	-0.218	-0.175
VCA	-0.116	0.495	1	-0.097	0.030	0.060	0.078	0.157	-0.158	-0.140
ROE	0.209	0.061	-0.097	1	0.555	0.067	0.378	0.409	0.176	0.184
PE ratio	0.596	0.517	0.030	0.555	1	0.025	0.501	0.138	0.307	0.335
MC	-0.393	0.030	0.060	0.067	0.025	1	.697*	0.446	-0.149	-0.169
Firm size	-0.057	0.220	0.078	0.378	0.501	.697*	1	0.554	-0.115	-0.108
DE ratio	0.218	0.417	0.157	0.409	0.138	0.446	0.554	1	-0.248	-0.222
Before	-0.033	-0.218	-0.158	0.176	0.307	-0.149	-0.115	-0.248	1	.998**
After	0.008	-0.175	-0.140	0.184	0.335	-0.169	-0.108	-0.222	.998**	1

Interpretation

From the above Table, it can be interpreted that, the values of correlation coefficient is negative or negligible for almost all the variables. It can be observed that if value is negative it proves that there exists no dependent relationship between independent variables. Hence there exists no multicollinearity between any of the independent variables. The test is statically significant and the significant level of this test is 1%.

Where there are a few positive values for correlation coefficient meaning some variation in the independent variable, Regression can be used to test the exact impact of the dependent variables on independent variables.

Regression

The most commonly used form of regression is linear regression. Linear regression uses the values from an existing data set consisting of measurements of the values of two variables, X and Y, to develop a model that is useful for predicting the value of the dependent variable, Y for given values of X.

Elements of a Regression Equation

The regression equation is written as $Y = a + bX + e$

- ❖ Y is the value of the Dependent variable (Y), what is being predicted or explained
- ❖ a or Alpha, a constant; equals the value of Y when the value of X=0
- ❖ b or Beta, the coefficient of X; the slope of the regression line; how much Y changes for each one-unit change in X.
- ❖ X is the value of the Independent variable (X), what is predicting or explaining the value of Y
 - ❖ e is the error term; the error in predicting the value of Y, given the value of X.

Hypothesis

Ho: The independent variables are not good enough to predict the value of dependent variable.

H1: The independent variables are good enough to predict the value of dependent variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 ^a	0.996	0.961	0.213185639

Predictors: (Constant), After, Firm size, VCA, ROE, VIR, DE ratio, MC, PE ratio, Before, After

From model summary, it can be interpreted that the value of R2 being 0.996, the independent variables chosen contribute almost 99.6% to the study. Thus, there are other variables that influence around 0.4% to the study. The reliability of regression can be extended by including those variables that influence the dependent variable to a greater extent.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.575	9	1.286	28.299	.145 ^b
	Residual	0.045	1	0.045		
	Total	11.621	10			

Dependent Variable: CAR
 Predictors: (Constant), After, Firm size, VCA, ROE, VIR, DE ratio, MC, PE ratio, Before

From ANOVA, it can be seen that the significance value is 0.145, which is far higher than 0.05, and hence the null hypothesis is accepted which means the independent variables are not good enough to predict the value of dependent variable, Cumulative Abnormal Return.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.855	2.982		3.64	0.171
	VIR	0	0.002	-0.028	-0.137	0.913
	VCA	-64.02	25.181	-0.237	-2.542	0.239
	ROE	-3.674	0.939	-0.624	-3.913	0.159
	PE ratio	0.068	0.013	1.521	5.351	0.118
	MC	-7.69E-13	0	-0.393	-2.828	0.216
	Firm size	-0.961	0.22	-0.855	-4.365	0.143
	DE ratio	3.734	0.776	1.018	4.814	0.13
	Before	0.004	0.002	5.122	2.17	0.275
	After	-0.052	0.023	-5.47	-2.306	0.26

Dependent Variable: CAR

As seen in Coefficients, the significance value is greater than 0.05, for all the variables, thus the test may not be reliable at 95% confidence level to predict the value of dependent variable, Cumulative Abnormal Return of Market

Index. Here positive coefficient implies that to what extent dependent variable is expected to increase and in case of negative coefficient it indicates vice versa.

Findings, solution and conclusion

Findings

- The study of Bonus Issue announcement does not have much impact on stock returns of those scripts selected for study. The event related factors considered for study included bonus issue ratio as well as firm specific factors which include Value of collateral Asset, Return On Equity, PE ratio and Market Capital does not influence the stock returns of those scripts that were studied.

Suggestions

The variables considered covered a time period of just five years. If the study is done for an extended time period, still finer details of the impact of variables on abnormal returns could be studied.

A detailed study demands inclusion of more event related and market related factors influencing the stock returns, as well as some of the macroeconomic factors including tax rates, inflation rates and other political factors that could bring out the influence the volatility of stock prices and stock returns.

Conclusion

This study focused on the impact of bonus and rights issues announcement over the market returns and individual returns. The study covered for a period of five years and this has brought out some of the very important conclusions that the firms must consider other variables like Macro economic factors, bank rates with bonus issues and rights issues. Though multi collinearity didn't exists between the

variables, regression shows that the variables chosen may not fully explain the effect over the dependent variable called Cumulative Abnormal Returns. This could be extended for a larger time period, considering more number of firms and the related variables that influence the announcement of bonus and rights issue. The study with sufficient evidences finally concludes that the stock returns are not much influenced by the event & firm related and market condition & industry-related factors.

References

1. Affecting abnormal returns around bonus and rights issues announcement”, The IUP
2. Balachandran B, Faff L and Jong L (2005), “Announcements of Bonus Share Options:
3. http://finmin.nic.in/capital_market/capital_market.asp
4. <http://www.moneycontrol.com/stocks/marketinfo/rights/>
5. <https://www.financialexpress.com/market/stock-market/bonus-issues/>
6. <https://www.nseindia.com/>
7. In respect of bonus announcement”, Asia pacific journal of finance & bankingresearch.Feb2010, Vol. 4 Issue 4, p1-14.