



A Study on Market Signalling and Efficiency of Indian Stock Market concerning selected stocks listed in NSE India Limited

Dr. S. Dinesh¹

Abstract

Market signalling has measured based on announcements made by corporates and efficiency has measured with the impact of announcements which may react in the stock prices. Stock markets are indicators to predict the behaviour of the economy. Stock price movements have measured in terms of the market trends, current economic conditions, announcements of the company and other factors. This study is the nature of Empirical research, where there should be existing theoretical design is considered as empirical evidence. This study adopted the Efficient Market Hypothesis (EMH) to test the efficiency of the market based on signalling in terms of the announcements given by the companies. Data for this study has collected from financial services, energy and IT indices listed in NSE India Limited to measure the overall market conditions. These three sectors have selected based on market capitalization. These are, the financial services index has 37.78%, contribution to the overall market capitalization, energy index has 15.29% and IT index has 14.77% contribution to the overall market capitalization. The significant findings of this study focusing on events like profit booking, dividend distribution has a significant impact on stock prices of HDFC Bank Ltd, Reliance Industries Limited and Infosys Limited. Investors can invest in the market based on the events like profit booking announcements, and dividend declaration has a significant and positive impact in the market. Hence, the researcher suggested that investors can invest based on the intensity of information.

Keywords: Efficient Market Hypothesis, Pivot point analysis, market efficiency

1. Introduction

The past few periods have come over the growth of finance with its various associated areas like International finance, corporate finance, Portfolio Management, Financial Services, Bank finance, Insurance finance etc. Ample studies have undertaken to find the pricing behaviour of common stocks with an application of the stochastic process. Mainly, the Efficient Market Hypothesis (EMH) has considered as an unstable area in security analysis. Research conducted in this area become outmoded rapidly. Henceforth in this field, there should constantly be updating. This study has more useful to the investor to make their investments decisions based upon the various information's which is publicly available on the stock price movements. This study is made to find the behaviour of stock prices through market efficiency. The role of the Capital market is to transfer funds between lenders and borrowers effectively and efficiently. A capital market is consisting of broad terms of all operations occurring in the stock market. The supply and demand play a vital role in the determination of stock prices in the capital market.

1.1. Statement of the Problem

This study mainly focuses on whether the market is reacting to the intensity of information or not, for the top three sectors listed in Nifty, which contributes more to the development of the economy. (Fama, Eugene, F. 1965)¹ There is a number of aspects that influence their investment decisions. Based on the prediction, the study may help the investors to make their decisions for making investments in a particular sector or not. Based on these reasons, this particular topic has been chosen for the study.

1.2. Objectives of the Study

Stock prices are a key factor in raising finance for different corporate entities. The stock price is a channel which transforms the savings into investment. This study is mainly focused on the stock price behaviour of the three sectors in Nifty. The objectives of the study are:

¹ Assistant Professor, School of Management, SASTRA Deemed University

Thanjavur- TN Mail id: dinesha1984@yahoo.com

1. To measure the intensity of corporate announcements to the changes in the market price of the stock
2. To find out the risk and return associated with the Financial Services, Energy and Information Technology sectors.
3. To predict the stock prices based on the intensity of information.
4. To suggest the investors for making investment decisions based on the intensity of information.

2. Literature Review

Laabs & Bacon (2013)² tested the semi-strong form efficient market hypothesis by analyzing the effects of increased dividend announcements on the stock price. Specifically, was it possible to earn an above-normal return on a publicly-traded stock when the firm announced an increased dividend? Verification here relied on the positive signal interrelated with the sample of expanding dividend announcements examined. Similarly, the study results followed up the semi-strong form efficient market hypothesis.

Harish S N T. Mallikarjunappa (2015)³, presented the long-run predictability in the Indian stock market based on cointegration analysis and Vector Error Correction Model (VECM) analysis. The results revealed from the study were based on the trace, and maximum eigenvalue tests indicated there existed cointegrating relation involving a stock market index and the macroeconomic variables viz., domestic industrial production, consumer price index, nominal exchange rate, foreign direct investment and long-term interest rate etc.

Soumya Guhadeb & Sagarika Misra (2011)⁴ stated that there was evidence of instability of betas, especially in the shorter time duration and the instability was highly reduced when the beta estimation during the period was increased. In addition to that, the extreme beta showed higher stability than the intermediate range of betas.

Hasan, Md et al. (2011)⁵ report that beta varies across return frequencies. Using returns over the previous 60 months, they conclude that beta differences across frequencies occur even in large and liquid stocks and cannot be explained by microstructure and trading frictions.

Murthy Jogonalapuram (2012)⁶ argue that the security market line accords with the CAPM by taking an upward slope in pessimistic periods but a downward slope in optimistic periods. In particular, high beta stocks become over-priced in optimistic periods. For this reason, CFOs can use the CAPM for capital budgeting decisions in pessimistic periods but not optimistic ones.

Geetha et al. (2012)⁷ in their research paper titled "Capital Market in India: A Sectoral Analysis" had attempted to compare and contrast the risk-return characteristics of ten major industrial sectors which account for 88.74% of the economy's industrial production. It was observed that the sectoral indices exhibited a significant difference in their risk-return characteristics, and they also followed business cycles of recession, recovery and boom in their performance.

Balakrishnan & Rekha Gupta (2012)⁸ showed that most of the portfolio betas were not regressed to the value one and also they proved the individual securities beta and portfolio betas are not related to each other.

Ratna (2013)⁹ evaluated the performance of information technology scripts with the banking stocks and different statistical techniques have been used for examining the hypothesis with descriptive analysis and t-test, suggested to hold stocks to accomplish the optimistic consequences.

Harish S and N T. Mallikarjunappa (2015)¹⁰ studied the beta is based on a market index which remains constant over a period of time is a debated issue in the stock market. The results show that the beta value which varies across time periods and portfolio betas are less stable compared to those of the individual stocks.

3. Research Design

Empirical research is as any research where decisions of the study are strictly drawn from completely empirical proof, and therefore "verifiable" evidence. Here the secondary data is collected from Nifty. The NIFTY is a diversified 50 stock index accounting for 12 sectors of the economy. It is used for purposes such as benchmarking fund portfolios, index-based derivatives and index funds. NIFTY is owned

and managed by NSE Indices Limited. NSE Indices is India's specialized company focused upon the index as a core product.

3.1. Selection of Scripts

In this study, three major sectors reflecting overall market situations. These data are collected from NSE India, which is computed using the free-float market capitalization method. The three sectors which have more weight are Financial Services- 37.78%, Energy -15.29% and Information Technology- 14.77%. The weight for these three is 67.84% since it has the significant contribution to the economy these sectors are chosen for the analysis. Researcher has to measure the intensity of information to the stock prices movement. It is calculated based on the Efficient Market Hypothesis (EMH). In this study, the major three sectors have topmost 10 companies which contribute more to the economy.

4. Summary of Findings

In this study, T statistics is 0.059 and it means this information has a significant and positive impact to determine the price movement of the market during the event HDFC Bank has declared its Q3 Net Profit of Rs 5,586 Crore on January 20, 2019.

ICICI Bank in the second-quarter profit which falls, lags estimated on October 27, 2017 and it is inferred that the T statistics is 0.046 and it means this information has a significant and positive impact to determine the price movement.

The interest rate for the saving accounts balance above Rs 1 crore as well as up to Rs 5 crore was cut by 50 basis points to 5.5% from 6% with effect on 4 August 2017 and it is inferred that the T statistics is 0.055 and it means this information has a significant and positive impact to determine the price movement.

Infosys has announced that they signed an agreement for divestment of its total investment in ANSR Consulting Holdings Inc. a Delaware corporation for the total consideration of USD 1000000 on 29 December 2017 and it is inferred that the T statistics is 0.010 and it means this information has a significant and positive impact to determine the price movement.

TCS Standalone December 2019 Net Sales at Rs 30,964.00 crore, up 27.54% on January 10, 2019 and it is inferred that the T statistics is 0.009 and it means this information has a significant and positive impact to determine the price movement.

5. Recommendations

HDFC Bank has declared its Q3 Net Profit of Rs 5,586 Crore. Market price of this Stock increases from the pivot point value of Rs.1038.95, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs.1046.50 and it will further reach to (Resistance level 2) Rs.1053.64. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs.1031.81 and further decline of (Supporting level 2) Rs.1024.25.

ICICI Bank second-quarter profit falls, lags estimated. Market price of this Stock increases from the pivot point value of Rs. 137.08, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 138.73 and it will further reach to (Resistance level 2) Rs. 140.45. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 135.36 and further decline of (Supporting level 2) Rs. 133.71.

Infosys has announced that they signed an agreement for divestment of its entire investment in ANSR Consulting Holdings Inc. a Delaware corporation for a total consideration of USD 1000000. Market price of this Stock increases from the pivot point value of Rs. 490.95, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 495.91 and it will further reach to (Resistance level 2) Rs. 500.48. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 486.39 and further decline of (Supporting level 2) Rs. 481.43.

The Board of Directors (BoDs) of Infosys Limited has approved during the meeting for buyback of its fully paid equity shares of Rs 5 each for an amount not exceeding Rs 13000 crore. Market price of this Stock increases from the pivot point value of Rs. 482.51, Investors are advised to buy this stock with the

expectation of (Resistance level 1) Rs. 488.65 and it will further reach to (Resistance level 2) Rs. 495.60. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 475.56 and further decline of (Supporting level 2) Rs. 469.42.

TCS Standalone December 2019 Net Sales at Rs 30,964.00 crore, up 27.54% Y-o-Y. Market price of this Stock increases from the pivot point value of Rs. 958.31, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 968.29 and it will further reach to (Resistance level 2) Rs. 978.34. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 948.27 and further decline of (Supporting level 2) Rs. 938.28.

TCS reports 22.6% jump in consolidated net profit at Rs 79.01 bn. Market price of this Stock increases from the pivot point value of Rs. 1032.35, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 1044.74 and it will further reach to (Resistance level 2) Rs. 1056.76. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 1020.34 and further decline of (Supporting level 2) Rs. 1007.94.

HCL Technologies (HCL) Limited has announced that they have entered a strategic partnership with the Siemens on Industry 4.0. It is a solution with a strategic collaboration on the Siemens Industry Software Suite. Market price of this Stock increases from the pivot point value of Rs. 422.50, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 427.34 and it will further reach to (Resistance level 2) Rs. 432.72. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 417.12 and further decline of (Supporting level 2) Rs.412.29.

HCL Technologies (HCL) Limited has announced that they had won a five-year IT infrastructure services contract from the Jardine Lloyd Thompson Group (JLT). It is one among the world's leading providers of insurance reinsurance and employee benefits related advice brokerage and associated services. Market price of this Stock increases from the pivot point value of Rs. 436.71, Investors are advised to buy this stock with the expectation of (Resistance level 1) Rs. 441.65 and it will further reach to (Resistance level 2) Rs. 446.83. If the market price of this stock, falls below the Pivot point, Investors are advised to sell the stock with the expected market price of (Supporting level 1) Rs. 431.53 and further decline of (Supporting level 2) Rs. 426.59.

6. Conclusion

The prime purpose of this research is to find out the intensity of information and its effect on the stock market. Major findings of this study are, T statistics for HDFC Bank Q3 Net Profit is 0.059, and it means this information has a significant and positive impact on determining the price movement of HDFC bank by 5.9 per cent. T statistics for HDFC home loans increased lending rates is 0.20%, and T statistics is 0.058. It means this information has a significant and positive impact on determining the price movement of HDFC by 5.8 per cent. This study recommends the investors to make investment decisions based on the market analysis. The market price of HDFC Bank increases from the pivot point value of Rs.1038.95, Investors are advised to buy, and the prices fall below the pivot point, Investors are advised to sell the stock. The market price of TCS increases from the pivot point value of Rs. 1032.35, Investors are advised to buy, and the prices fall below the Pivot point, Investors are advised to sell. Investors are advised to make some attempt to analyze the information before going to take investment decisions.

References

1. Fama, Eugene, F. (1965b). Random walks in stock market prices. *Financial Analysts Journal* 21(5), 55–59, Reprinted in 1995 as *Random Walks in Stock Market Prices*, *Financial Analysts Journal* 51 (1), pp 75–80.
2. Harish S N T. Mallikarjunappa (2015). *An Examination of Beta Stability in the Indian Capital Market*, Twelfth AIMS International Conference on Management, ISBN: 978-81- 924713-8-9.
3. Soumya Guhadeb & Sagarika Mishra (2011). Are equity betas stable? Evidence from Indian Equity Market”, *The IUP Journal of Applied Finance*, Vol.17, No.04, pp 05 – 25.

4. Hasan, Md & Kamil, Anton & Mustafa, Adli & Baten, Md Azizul. (2011). Validity Test in Capital Asset Pricing Model for the Dhaka Stock Exchange, *Journal of Applied Sciences*. 11. 3490-3496. 10.3923/jas.2011.3490.3496.
5. Murthy Jogalapuram (2012). Beta estimation on different return intervals – Evidence from Indian stock market, *The International Research Journal of Economics & Business Studies*, Vol.01. No.07, pp 44-55.
6. Geetha et al. (2012). Capital Market in India: A Sectoral Analysis *South Asian Academic Research Journals*, Volume 2, Issue 10, pp 28-40.
7. Dr Balkrishnan & Dr Rekha Gupta (2012). Testing stationarity of beta and beta regression tendencies in Indian stock market, *International journal of research in commerce, IT & Management*, Vol.No.2, Issue 4, pp 65 – 69
8. Ratna Sinha (2013). From the study exhibits analysis of Risk and Return in Equity Investment in the Banking industry. *International Journal of Current Research*, 5(8), 2337-2338.
9. Harish S N T. Mallikarjunappa (2015). From the study shows an Examination of the Beta Stability in the Indian Capital Market, *Twelfth AIMS International Conference on Management*, ISBN: 978-81- 924713-8-9.