

## Testing of Semi Strong form of Market Efficiency of Indian Capital Market with Reference to Annual Dividend Announcement



Dr. Sudarshan P<sup>1</sup>, Chethanraj<sup>2</sup>, SangeethaShanuboga<sup>3</sup>, Swathi Shenoy<sup>4</sup>

<sup>1</sup>Associate Professor, MPM Government First Grade College, Karkala, Udupi, Karnataka, India.

ORCID ID:0009-0006-2900-0268

<sup>2</sup>Lecturer, Department of commerce and Management Sharada College, MangaloreKarnataka, India.

ORCID ID:0009-0007-0069-4208

<sup>3</sup>Assistant Professor, Institute of Port shipping and Logistics Management, Srinivas University, MangaloreKarnataka, India.

ORCID ID:0009-0003-6377-066X

<sup>4</sup>Process Execution executive, Swire Digital Center, Bengaluru Karnataka, India.

ORCID ID:0009-0000-0173-395X

**ABSTRACT:** The investment decision is influenced by many factors, of which one such factor is the return. The shareholders may get the return in the form of dividends which affects the share prices. The behavior of stock prices is unpredictable as price movement for different activities will move in different ways. The stock price influence activities can be divided into economic and corporate activities. The impact of economic activities will be more or less the same on all the stock prices, while the impact of corporate action varies from one stock to the other. Dividend payment is one of the essential corporate actions that will impact the behavior of stock prices. This research highlights the impact of dividend payment on the behavior of stock prices and their abnormal returns.

**KEY WORDS:** AAR, Abnormal return, CAAR, Dividend, expected return, Risk, Sensex

### INTRODUCTION

The objective of any business entity is to maximize the wealth of the stakeholders. In the long run, the investment, the financing and the dividend decisions to create value and have an impact on the wealth creation. Of the three, dividend decisions have direct impact on shareholders, apart from being an important determinant of corporate growth and economic development. Dividend refers to a portion of companies earning that is being distributed to the class of shareholders as decided by the board of directors. The dividend policy decision for a firm is very important this the method that managers attain making dividend policy decisions and whether or not they follow and accurate set of guidelines are precise strategies to make these decisions will impact on the future performance of the firms. Financial management goal is shared holders' wealth maximization. This goal can be attained by giving the shareholders a fair payment on their investments. However, the impact of dividend policy on shareholders wealth is still unsolved. The object of the finance management should be to discover and optimal dividend policy that will increase value of the firm. It is often argued that the stock price tends to be reduced whenever there is a decrease in the dividend payments. The announcement of dividend increase makes abnormal positive returns, and announcement of dividend decreases generate abnormal negative returns, A fall in stock price happens because dividend payout is signaling effect. Many researchers form dividend policy under the exemption of asymmetrical information between manager and investors. Dividend can signal information to investors about the firm's future performance. The purpose of this paper is to observe whether stock price reacts to the announcement of dividend in the stock exchange.

The term dividend refers to that part of the profits of a company which is distributed among its shareholders. It may, therefore, be defined as the return that a shareholder gets from the company, out of its profits, on his shareholdings. In short, the corporate net profits distributed among shareholders. When a company generates a profit and accumulates retained earnings,

## Testing of Semi Strong Form of Market Efficiency of Indian Capital Market with Reference to Annual Dividend Announcement

those earnings can be either reinvested in the business or paid out of shareholders as the dividend. The board of directors of the company decides dividend amount to be paid out of the shareholders.

According to the Institute of Chartered Accounts of India dividend is “a distribution to shareholders out of profits or reserves available for this purpose”. The term dividend policy refers to the policy concerning quantum of profits to be distributed as dividend. The dividend policy of a firm determines what proportion of earnings is paid to shareholders by way of dividends and what proportion is ploughed back in form for investment purpose.

### LITERATURE REVIEW

**Thanwarat savanna (2012)** Concluded that the stock prices move upward significantly after dividend announcements. Abnormal return and Cumulative Abnormal Return from the market model are statistically significantly revealed. The results confirm dividend signaling theory as the dividend announcements have significant impact on share prices.

**Nagendra Marisetty (2018)** Concluded that a clear-cut pattern in dividends is not observed around the event date. This phenomenon cannot be clearly expressed as the dividend announcement influence the behavior of investors. The results confirm that the dividend announcement has no significant impact on abnormal returns.

**Poornima B.G., Vassanti morudka, Y.V. Reddy (2019)** In their study found that dividend announcements of public sector banks had a negative impact on stock returns, while the dividend announcements of private sector banks had a positive impact on stock returns. The examination of determinants of dividend policy revealed that in case of public sector banks, only size had a significant effect on the current years dividend payout ratio, while in case of private sector banks, leverage, profitability, risk and last year's dividend had a significant impact on current years dividend payout ratio.

**Archana H N (2019)** observed that in stock markets are efficient and the stock price have factored the dividend information. there was no astonishing behavior of stock price to dividend announcements of said sectors during the period of study. there are no significant abnormal returns associated with dividend announcement information of select sector.

After reviewing the above research article, it could be observed that the past studies have proved different results. **Archana h N (2019) and Nagendra marisetty (2018)** proved that Indian capital market is semi strong efficient, whereas **Thanwarat savanna (2012)** and **Poornima B.G., Vassanti morudka, Y.V. Reddy (2019)** prove that is not.

This has motivated the researchers to Undertake the present study.

### OBJECTIVE OF THE STUDY

The objective of the study is to find out the reaction of stock market for the corporate dividend announcement.

### HYPOTHESIS

H0: Stock price movement of the companies is independent of their cash dividend announcement.

H1: Stock price movement of the companies is dependent on their cash dividend announcement.

### SCOPE OF THE STUDY

- The present study is undertaken to find out the impact of cash dividend announcement on stock return.
- The study period is 2 years. The study covers 40 companies which have announced cash dividend during April 2024.
- It is an event study; the period of event window is 61 days covering 30 working days prior to the announcement of cash dividend plus 30 working days after the announcement of the cash dividend plus the day of the event. The estimation window is 200 working days prior the event window.

### RESEARCH METHODOLOGY

The study is purely based on secondary data. The secondary data were collected from books and websites. The prices of individual stock and Sensex are collected from money control website. The sample units were chosen from the companies which announced cash dividend during April 2024. The total number companies announced cash dividend in the month of April 2024 were 101 and the sample size is 40 companies selected randomly. There were several companies announced dividend during this period.

It is an event study and the event window is 61 days. The estimate window is 200 working days. The pre-event window days are denoted by minus (-) signs and the days of the post event window are denoted by plus (+) signs. The day of the event is denoted by

## Testing of Semi Strong Form of Market Efficiency of Indian Capital Market with Reference to Annual Dividend Announcement

Zero (0).

Regression model is used for calculating the expected return and the difference between actual returns and expected returns is considered as the abnormal returns.

### LIMITATIONS OF THE STUDY

- The entire study based on secondary data and hence the study would be affected by the limitation of the secondary data.
- It is assumed that the price behaviour of the stock is affected only by the event under study and assumed other factors remain constant.

### DATA ANALYSIS AND INTERPRETATION

In this part of the study, the data collected for the study are analysed and interpreted

**Table 1: Daily AAR, CAAR, T test result**

Day	AAR	CAAR	T value	Sig.	Day	AAR	CAAR	T Value	Sig.
-30	0.03	0.03	1.28	0.62	0	0.03	0.93	0.88	0.52
-29	0.03	0.06	0.94	0.60	1	0.02	0.96	0.92	0.51
-28	0.03	0.09	1.04	0.64	2	0.02	0.98	0.86	0.52
-27	0.03	0.12	1.12	0.54	3	0.03	1.01	1.02	0.57
-26	0.03	0.15	1.12	0.57	4	0.03	1.04	1.02	0.53
-25	0.03	0.18	1.22	0.55	5	0.04	1.07	1.32	0.46
-24	0.03	0.21	1.00	0.63	6	0.02	1.10	0.91	0.52
-23	0.03	0.24	1.20	0.54	7	0.04	1.14	1.49	0.50
-22	0.02	0.27	0.98	0.59	8	0.03	1.17	1.14	0.62
-21	0.03	0.29	1.01	0.52	9	0.03	1.20	1.08	0.57
-20	0.03	0.33	1.17	0.61	10	0.04	1.23	1.27	0.60
-19	0.04	0.36	1.34	0.59	11	0.03	1.26	1.20	0.58
-18	0.04	0.40	1.34	0.55	12	0.03	1.29	0.97	0.54
-17	0.04	0.44	1.45	0.52	13	0.02	1.31	0.82	0.50
-16	0.03	0.47	1.07	0.49	14	0.03	1.35	1.21	0.55
-15	0.04	0.50	1.30	0.62	15	0.03	1.37	1.13	0.60
-14	0.03	0.54	1.17	0.57	16	0.03	1.40	1.04	0.55
-13	0.03	0.57	1.21	0.49	17	-0.00	1.40	-0.15	0.50
-12	0.02	0.59	0.83	0.50	18	0.01	1.41	0.22	0.54
-11	0.03	0.62	1.10	0.58	19	-0.01	1.40	-0.29	0.58
-10	0.03	0.65	1.17	0.60	20	-0.00	1.40	-0.19	0.55
-9	0.04	0.69	1.25	0.54	21	-0.01	1.39	-0.23	0.51
-8	0.04	0.72	1.31	0.46	22	0.00	1.39	0.06	0.48
-7	0.03	0.75	0.88	0.45	23	-0.00	1.39	-0.04	0.54
-6	0.03	0.78	1.10	0.49	24	0.00	1.39	0.12	0.54
-5	0.02	0.80	0.75	0.53	25	-0.01	1.38	-0.28	0.60
-4	0.03	0.83	0.97	0.50	26	-0.00	1.38	-0.12	0.61
-3	0.02	0.85	0.90	0.47	27	0.01	1.39	0.24	0.56
-2	0.03	0.88	1.05	0.56	28	-0.00	1.39	-0.02	0.58
-1	0.03	0.91	1.15	0.43	29	0.00	1.39	0.06	0.56
-0	0.03	0.93	0.88	0.52	30	0.00	1.39	0.12	0.57

*Source: Author's Compilation*

Table 1 presents the Average Abnormal Returns; Cumulative Average Abnormal Returns and the T test results for each day of the event window. It can be observed from the table that all the abnormal returns are positive during the pre-event window and twenty-two positive abnormal returns found in the post event window. The average abnormal return during the pre-event window is 0.03, whereas during the post event window, it is 0.02. CAAR for the event window is positive, i.e., 1.39. Daily abnormal returns

## Testing of Semi Strong Form of Market Efficiency of Indian Capital Market with Reference to Annual Dividend Announcement

were tested for their significance by using the t test and it could be observed that none of the daily abnormal return is significant.

### TESTING OF HYPOTHESIS

Following is the Hypothesis of the study:

H<sub>0</sub>: stock price movement of the companies is independent of their cash dividend announcement.

The hypothesis is tested by using two parametric tests, namely, One Way ANOVA and Paired Comparison t test.

**Table 2: Result of One-Way ANOVA test**

Source of variation	SS	df	MS	F	P-value	F crit
Regression	0.003042	1	0.003042	21.28115	2.35E-05	±4.012973
Residual	0.008004	56	0.000143			
Total	0.011045	57				

*Source: Author's Compilation*

Table 2 reveals the facts of One-way ANOVA result. The test was conducted at 5% level of significance. It can be observed from the study that the calculated F value is greater than the critical value and it lies in the rejection region. Therefore, the hypothesis can be rejected.

**Table 3: Result of paired Comparison t test**

Particulars	Pre-Event Abnormal Return	Post Event Abnormal Return
Mean	0.030217	0.015371
Variance	2.39E-05	0.000256
Observation	30	30
Pearson Correlation	0.254619	
Hypothesized Mean Difference	0	
Df	29	
T Stat	5.244529	
P(T<=t) one-tail	6.43E-06	
t Critical one-tail	1.699127	
P(T<=t) two-tail	1.29E-05	
T Critical two-tail	2.04523	

*Source: Author's Compilation*

The Researchers has also used Paired Comparison t test for testing the hypothesis. The calculated t value is 5.244529 and the critical value ±2.04523. As the calculated t value is greater than its critical value, we have to reject the hypothesis.

### FINDINGS AND CONCLUSION

Corporate dividend is one of the significant corporate decisions. It plays a crucial role in creation of wealth to the business. There are two types of corporate dividend: cash dividend and stock dividend. Cash dividend is paid in the form of cash and whereas the stock dividend is paid in the form of company shares. Each has its own reason to issue and advantages to the firm and the shareholders. In this study, the researcher has tested the significance of corporate cash dividend announcement on the abnormal returns and by that way the semi-strong market efficiency is being tested. We can be observed from the study that the daily abnormal returns are insignificant and the result of the hypothesis tested reveals that the Indian capital Market is inefficient in semi-strong with respect to corporate Cash Dividend Announcement.

## Testing of Semi Strong Form of Market Efficiency of Indian Capital Market with Reference to Annual Dividend Announcement

### REFERENCES

- 1) Arumugam, N. Research Methodology for Arts, Science, commerce and Engineering. Saras Publication
- 2) Balla, V.K. (2002). *Portfolio Analysis and Management*. New Delhi: Sultan Chand Company Limited.
- 3) Bhat, Sudhindra. (2008). *Security Analysis and Portfolio Management*. New Delhi: Excel Book.
- 4) Chandra Prasanna (2008), *Financial Management*, Seventh Edition, Tata McGraw-Hill Publishing Company Limited, New Delhi.
- 5) Chandra, Prasanna. (2008). *Investment Analysis and Portfolio Management* (3<sup>rd</sup> Edition). New Delhi: Tata McGraw-Hill.
- 6) Fisher. E. Donald, & Jorden, J. Ronald. (2006). *Security Analysis and portfolio Management*. Pearson Prentice Hall.
- 7) Gupta, S. (2009). *Statistical Methods*. New Delhi: Sultan Chand & Sons.
- 8) Kevin, S. (2016). *Security Analysis and Portfolio Management*. New Delhi: PHI Learning.
- 9) Kothari, C., & Garg, (n.d). *Research Methodology*. New Age International Publisher.
- 10) Maheshwari. S.N. (2010). *Financial Management*, Fourteenth Revised and Enlarged Edition, Sultan Chand & Sons, New Delhi.
- 11) Santhakumaran, A. *Fundamentals of Testing Statistical Hypothesis*. Altanic Publishers & Distributors Pvt. Ltd.
- 12) <https://mmb.moneycontrol.com/forum-topics/stocks-1.html>
- 13) <https://www.moneycontrol.com/stockmarketsindia/>
- 14) <https://www.moneycontrol.com/stock-scanner/>
- 15) [https://www.moneycontrol.com/india/stockmarket/notices/15/14/source/N\\_SE?classic=true](https://www.moneycontrol.com/india/stockmarket/notices/15/14/source/N_SE?classic=true)
- 16) <https://www.aims-international.org/AIMSijm/papers/12-1-1.pdf>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.