The Journal of Sri Krishna Research & Educational Consortium

INTERNATIONAL JOURNAL OF BUSINESS ECONOMICS AND MANAGEMENT RESEARCH

Internationally Indexed & Listed Referred e-Journal

THE IMPACT OF DIVIDEND ANNOUNCEMENT ON STOCK RETURNS: EVIDENCE FROM NSE

S. SARAVANA KUMAR*; S. GUNASEKARAN**

*****JKK Nattraja College of Engineering & Technology
Komarapalayam – 638183 Namakkal District
E-mail: harisaravanakumar@yahoo.co.in
******Anna University of Technology Coimbatore
JKK Nataraja College of Engineering & Technology
Komarapalayam Namakkal – 638183 Tamilnadu India

ABSTRACT

Investors have accomplished greater gains from stock markets all around the world during the past two decade. Investors have two ways to make profits with stocks: terminal income in the form of capital appreciation and annual income in the form of dividend. Capital appreciation is possible in bullish trend. But in bearish market, the capital appreciation is not possible; the other way to gain profit is dividend. Investors assumed to consider dividend is more important source when there is no capital appreciation in stocks. Academic framework suggests that dividend payments should have no impact on shareholders' value in the absence of taxes and market imperfections. Literature also suggests that market valuation of stocks depends on the expected future dividends. If a company pays out all of the earnings as dividend, funds for future investment will decrease and dividend may not increase in the future. This study is based on samples of dividend paying companies listed on National Stock Exchange, exhibited that investors do not gain value from dividend announcement. Indeed shareholders earned little value over a period of 15 days prior to the dividend announcement through to 15 days after the announcement. The lower return may be partially compensated because of the current dividend yield. This study also indicates that payment of dividend does not convey any useful information to the investing community, which needs to be further reconnoitered.

KEYWORDS: *Dividend announcements, Abnormal returns, Cumulative Abnormal Returns, Event Window, Pre and Post announcement periods, Chart Analysis.*

INTRODUCTION

The objective of every business entities is to maximize the value of shareholders' investment in the firm. Investor makes profit in two ways in stocks i.e., annual income in the form of dividend and capital appreciation. Payment of dividend directly enhances the wealth of shareholders and retained earnings of the company contribute better capital appreciation at the time of realization of investment. Dividend being delivered to shareholders is one of the tools when executives want to communicated with shareholders. The information content of dividends hypothesis asserts that managers use dividend announcements to signal changes in their expectations about the futures prospects of the firm. The impact of dividend over share value has been a controversial issue in financial research over last few decades. In a country like India where the economy is emerging, the issue is still unresolved and there is a diverse substantiation over the matter which has encouraged us to examine the impact of dividend announcement over share price in National Stock Exchange (NSE), which may carry valuable information to the investors, managers and policy makers. Researchers have empirically investigated market reactions to announcements of dividends relating to information issues.

2. REVIEW OF LITERATURE

Severalmodels have been promoted to elucidate the impact of dividend announcements on stock returns. The theoretical foundations for these studies were resulting from Miller and Modigliani (1961), they introduced the information content of dividend hypothesis. They unambiguously suggestthat managers used cash dividend declarations to signal changes in their anticipation about the future prospect of a company when the markets are imperfect. This is reinforced by the cash flow signaling theory (Bhattacharya, 1979, 1980; John and Williams, 1985; Miller and Rock, 1985) which theorized that dividend changes are explicit signals about future earnings, sent deliberately and at some costs by management to the company and its stockholders. Theoretically, cash dividend means giving reward to the shareholders that is something they already own in the company; hence this will be offset by the decline in stock value (Porterfield, 1959 and 1965). Subsequently, Walter (1956) and Gordon (1959) forwarded the dividend relevancy idea, which has been formalized into a theory, postulating that current stock price would reflect the present value of all expected dividend payments in the future. Recently, Miller and Scholes (1981) have argued that the observed relationship between common stock returns and dividends yields is attributable to the favorable information contained in the knowledge that a firm will actually declare any dividend. Also they have examined the relative co-efficient on predicted dividend yield for stocks that announced their dividends prior to the ex-month versus stocks that announced their dividend during the ex-month. They interpret this evidence is supporting their thesis that the dividend yield effects are attributable entirely to the information effect.

There has been some empirical evidence from United States, Japan and Singapore markets. There is a multiple studies found that stock price has a noteworthy positive relationship with the dividend payment Gordon (1959), Kato and Loewenstein (1995) and Lee (1995), while others found a negative relationship, such negative relationship between dividend announcement stock returns is expected due to tax effect, but researchers tended to relate the positive relationship between the stock returns and dividend announcement with the information effect of dividend. The dividend information hypothesis suggests that cash dividend carrier's information regarding the future cash flows of firm that is to be reflected in the market price of stock after announcement of dividend, particularly when dividend increases (Bhattacharya, 1979). Miller and Scholes (1978) have also demonstrated that vehicles exist for compensate for different tax rates on dividends and capital gains. Thus the irrelevancy of dividends in valuation may even hold in a world with taxes. In light of Modigliani and Miller's irrelevance theory, it is surprising to find that dividend research also reports a strong empirical tie between dividend announcements and stock price changes. Miller and Rock (1985) suggested a model with dividends providing information about unobservable earnings that can exist even with rational expectation. They showed that as a result of information asymmetry between managers and investors, dividend can result in market price reaction. Miller and Rock (1985) also motivated dividend announcement effects as occurring because dividends can serve the role of revealing both current and future earnings hence have impact over share price. Bhattacharya (1979) also has attempted to describe the information content of dividends in terms of signaling equilibrium. To explain the observed pricing effects of dividends, a host of theories have been developed that model dividend announcement as a means of conveying information from management to investors. Charest (1978) found that the announcement of a dividend increase generates an excess return.

Aharony and Swary (1980) also observed significant abnormal returns on the day of the announcement of dividends. These abnormal returns were, in average, in the same direction as the change in dividends. A number of other empirical studies have examined whether dividends contain information and thus have impact over the shareholders' wealth. Some recent studies are more conclusive about the market reaction towards dividend announcements. Daine and Paul (2006) find that dividend elicit a greater change in price when the nature of the news goes against the grain of recent market direction during volatile times. Schleicher, Henry and Roland (2003) provide the evidence that announced dividend changes bring new information to the market and that stock prices move in the same direction as dividends. In addition they also find that stock prices react rather quickly to the new information.

3. OBJECTIVES OF THE STUDY

The main purpose of the study is

- To examine the behavior of stock returns around and on the event day.
- To investigate any strategies found in dividend announcement could be used to outperform the market.
- To find the correct path of future trends based on the announcement effect.

In this context, the behavior of stock returns has been examined in the pre and post announcement periods in relations to the dividend announcement.

4. METHODOLOGY

This paper examines the stock market reaction to dividend announcement in the National Stock Exchange of India. A sample of 100 listed companies from different sectors is examined. The finding shows daily abnormal return gets a pick 15 days before the dividend announcement, and 15 days after the dividend announcement.In order to study the impact of dividend announcement on stock returns, present study covers two measures: (i) Daily Abnormal Return (DAR) and (ii) Cumulative Abnormal Return (CAR) during pre-announcement and post announcement period. DAR indicates the relative daily percentage price change in the dividend paying stocks compared to the change in average market price. This study used Nifty index as the proxy of market return. DAR is calculated as follows:

$$DAR_{it} = R_{it} - R_{mt}$$

Where,

$DAR_{it}$is the market-adjusted abnormal return for security i over time periodt.
R_{it} is the time t returns on securityi, calculated as $(S_{it} - S_{it-1})/S_{it-1}$. Where,$S_{it}$ is the market closing price of stock i on day t. S_{it-1} is the market closing price of stock i on day t-1.

R_{mt} is the time t return on the Nifty index calculated as $(I_t - I_{t-1})/I_{t-1}$. Where,I_{it} is the market index on dayt. I_{t-1} is the market index on day t-1.

The daily market adjusted abnormal return (DAR) indicates the change in individual stock's price due to the dividend announcement. As the percentage change in Nifty index is deducted, the remainder gives us the chaotic portion of the value change, which is specific to that individual stock consequential from its dividend announcement. DAR is calculated over a period starting from –15 days to +15 days relative to the dividend announcement day (0 day). The next portion is cumulative abnormal returns (CAR), which measures the security's total return over a time period starting from the pre-announcement of dividend to the post-dividend announcement including the announcement day. This study covers 31-day window period starting from -15 day to +15day relative to the dividend announcement day (0 day). CAR is computed as follows:

$$CAR_t = \sum_{t=1}^{t=j} DAR_t$$

Where, CAR_t is cumulative abnormal return, DAR_t as defined above, j denotes the day -15 through days +15.Finally, this study used parametric test to determine the statistical implication of daily market adjusted average abnormal return of dividend disbursing stocks over the window period. The t-statistics were calculated by using cross-sectional method by employing the standard deviation of abnormal returns of the portfolio of 100dividend paying companies. Moreover, the statistical significance of the cumulative abnormal returns is examined with the help of t-test.

5. SAMPLE AND DATA

The present study covers a period of two years from January 2009 to December 2010 and the returns are based on a sample of different sectors, listed in the National Stock Exchange. The data set contains daily data from the different sectors of 100 dividend paying stocks over the 31-day window period. Three basic time series data have been employed in this study. These are, dividend announcement dates for the whole sample period, daily closing stock prices for the period [-15, to +15] around each dividend announcement day of every stock, value of the NSE Nifty Index in the [-15, to +15] time window for each dividend announcement day of every stock.Information on date of dividend announcements was obtained from the respective company's website, Business Line and Economic Times newspapers.

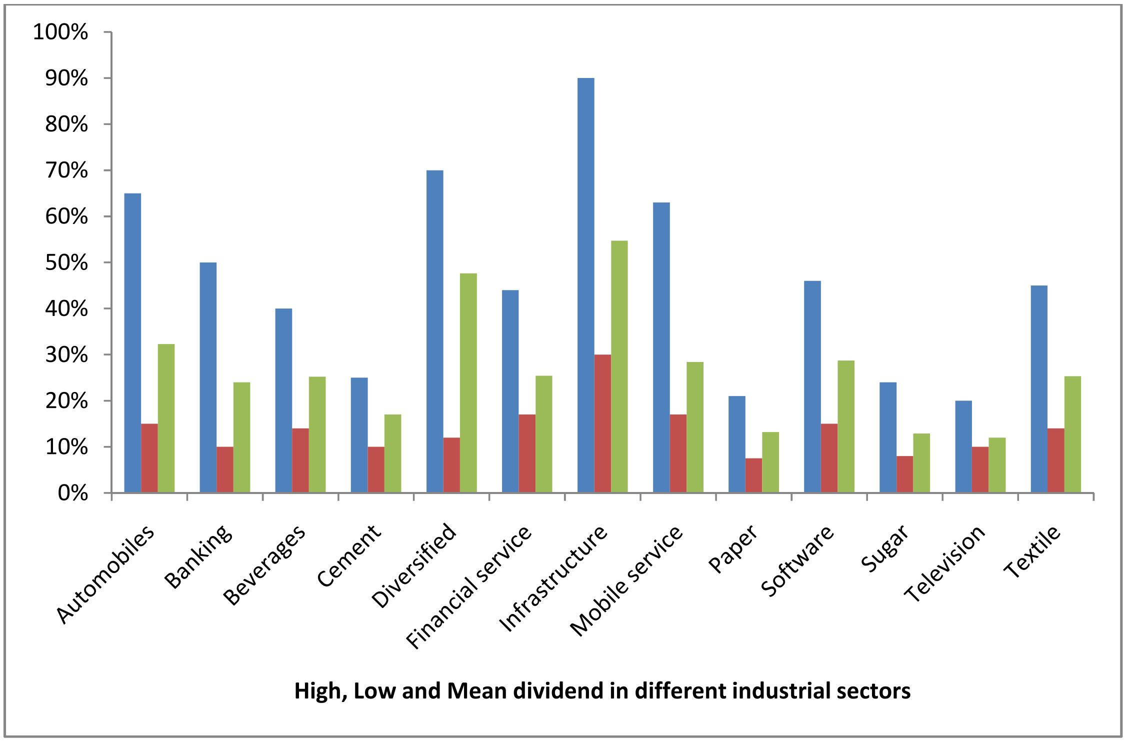
Daily stock prices for returns were obtained from the NSE websites along with the Nifty values for that period. The selection of sample has primarily been guided by two factors, availability of dividend announcement for the sample period, and active and frequent trading of the company in the stock market. A complete breakup of the sample companies according to the industrial sectors is given below in Table 1.

TABLE 1: DISTRIBUTION OF SAMPLE COMPANIES

Sector	No of companies	Percentage of Dividend		
		Maximum	Minimum	Mean
Automobiles	8	65%	15%	32.3%
Banking	12	50%	10%	24%
Beverages	4	40%	14%	25.2%
Cement	4	25%	10%	17%
Diversified	16	70%	12%	47.6%
Financial service	7	44%	17%	20.4%
Infrastructure	11	90%	30%	54.7%
Mobile service	4	63%	17%	28.4%
Paper	3	21%	7.5%	13.2%
Software	12	46%	15%	28.7%
Sugar	4	24%	8%	12.9%
Television	5	20%	10%	12.%
Textile	10	45%	14%	25.3%

Source: Business Line

FIGURE 1: HIGH, LOW AND MEAN DIVIDEND IN DIFFERENT INDUSTRIAL SECTORS



It is clear from the above table and figure that the highest average dividend was paid in the Infrastructure sector, followed by that in the diversified companies. The highest dividend was announced in the infrastructure sector and lowest in the paper sector. The lowest dividend distribution included in this study is belongs to paper mill sector and highest dividend distribution is belongs to diversified sector. During the sample period, single dividend announcement of a company only considered. It is important to note that out of 100 companies, 58 companies announced dividend in 2009 and the rest 42 in 2010.

6. EMPIRICAL ANALYSIS AND FINDINGS

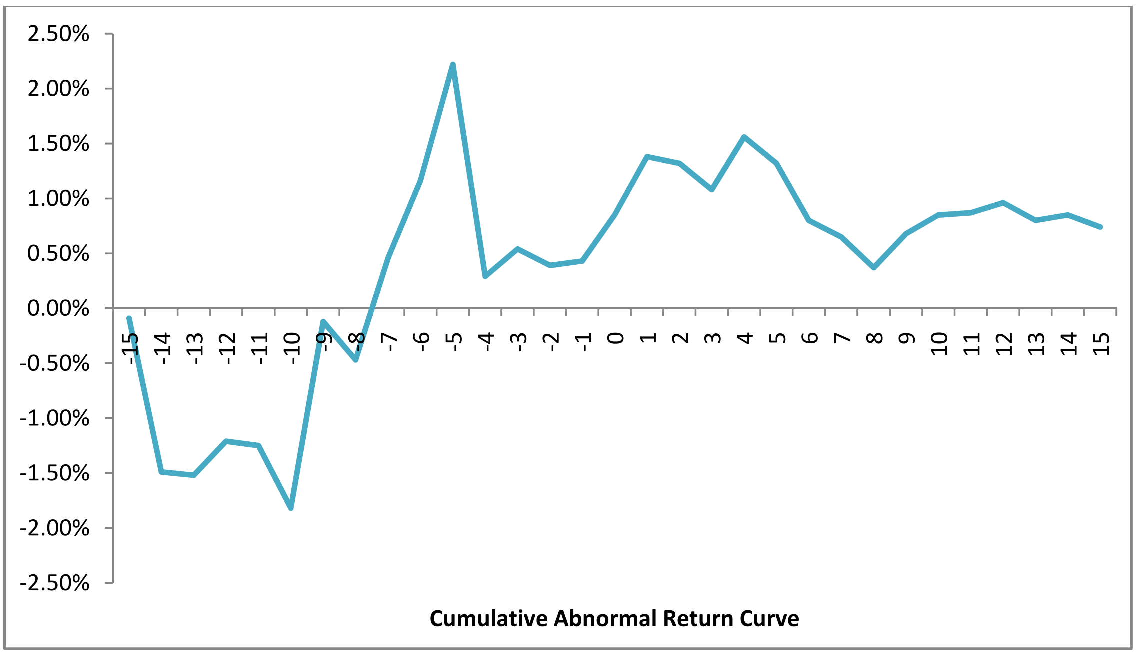
The table 2 shows that the average daily market adjusted abnormal returns (ADAR) on the day of dividend announcement was only 0.42percent, which is not statistically significant. One point is clearly evident from that analysis, the fact that the information content of dividend announcement of a company often leaks out to the market a few days before the announcement made by the company. Hence, this trend shows the dividend announcement normally carries no useful information to the market participants on the event day. Therefore, it is evident from the ADARs of the day -6, and -5 are about 0.70% and 1.06% respectively. It is clear from the table 2 that market reacts earlier than the actual announcement of dividend.

TABLE 2: ADAR, CAR AND T-STATISTIC VALUE FOR THE 31-DAY WINDOW PERIOD

Event Window	ADAR	CAR	t-statistic
-15	-0.09%	-0.09%	-0.17
-14	-1.40%	-1.49%	-3.58
-13	-0.03%	-1.52%	-3.65
-12	0.31%	-1.21%	-2.90
-11	-0.04%	-1.25%	-3.01
-10	0.07%	-1.18%	-2.83
-9	2.20%	1.02%	2.48
-8	-0.35%	0.67%	1.63
-7	0.01%	0.68%	1.66
-6	0.70%	1.38%	1.35
-5	1.06%	2.44%	1.92
-4	-1.93%	0.51%	1.23
-3	0.03%	0.54%	1.20
-2	-0.15%	0.39%	0.99
-1	0.04%	0.43%	0.87
0	0.42%	0.85%	0.43
1	0.53%	1.38%	1.06
2	-0.06%	1.32%	1.49
3	-0.24%	1.08%	1.31
4	0.48%	1.56%	1.08
5	-0.24%	1.32%	1.20
6	-0.52%	0.80%	2.11
7	-0.15%	0.65%	1.18
8	-0.28%	0.37%	0.89

9	0.31%	0.68%	0.70
10	0.17%	0.85%	0.32
11	0.02%	0.87%	2.01
12	0.09%	0.96%	0.59
13	-0.16%	0.80%	0.34
14	0.05%	0.85%	0.78
15	-0.11%	0.74%	0.54

FIGURE 2: CUMULATIVE ABNORMAL RETURN FOR THE 31-DAY WINDOW PERIOD



The above table presents the abnormal returns of the dividend announcements for the years of 2009 and 2010. Market reacts to the dividend announcements on the event day in a manner consistent with the information content in the dividend announcements. If dividend declared is more than the market participant's expectation, the reaction of the market for that particular scrip follows bullish trend and vice versa. Prior to dividend announcement, highest DAR found in day -5, and then the percentage return on all other days is less than that on the day -5. Hence, it is clear from above table, the stock market reacts a few days before the announcement of dividend is made. The day followingthe dividend announcement, the market generated a return of 0.53%, the very next day to the dividend announcement is not generated any positive income to the market participants. During the post announcement periods, all DARs are insignificant except those on day +6, and +11.

Stock market is always influenced by money flows and information flows. During the 31-day window period, the market gets affected by several macro-economic information and money supply forces from the domestic and foreign institutional investment.Hence the dividend announcement event is supported by several adverse effects which are not incorporated under this study. It is very hard to make superior return by taking this announcement information. By taking CAR for that 31-day window period, considerable return found in the day -5 prior to the dividend announcement. In the post announcement period, the investors may harvest their funds in the stock market during the first 5 days after the announcement of dividend. Although the result tends to suggest that investors may have positively reacted to the dividend announcement, the evidence seemed to gain some value from the dividend announcements. This study shows that investors earn more value in the post announcement period that the return gained in the pre-announcement period.

7. CONCLUSION

The findings of the present study basically highlight as to how the market evaluates equity returns. It is simply not true, that dividend announcement data can provide a profitable guide to investment timing or improve a portfolio’s rate of return. Information is reflected in stock prices so rapidly that published data tells the investor virtually nothing about the future change in stock prices. Not only do stock returns reflect the firm’s dividend data when published but they also anticipate future dividend growth to some extent. The growth factor is taken in terms of percentage which increase profit over the previous year performance, was supposed to be an important performance indicator that is likely to affect the stock returns.

The study is made to find out whether the announcement of dividend result is having any influence on the stock return. There are variety of factors that influence the movement of share price and hence the return. The performance of the company as disclosed by the dividend result is one among them. In this study it is tested whether the announcement of result is having any influence in the company return. Normally a higher dividend than the previous year dividend should be welcomed by the market. This should be associated with greater return after the result is announced. All higher return after the announcement cannot say to be due to the dividend results. To find out the impact of results on returns, the impact of other factors in returns is to be segregated. The impact of other factors in return is taken from the index which is nothing but the market return. The announcement of dividend is unique and specific to a company. To study its impact on the market place, the impact of other factors is removed, that is why the period is limited to 32 days and the return is calculated for 31 days.

This study examines abnormal returns of dividend announcement during the pre-announcement and post announcement period. In pre-announcement period highest dividend yield bracket experienced the largest negative abnormal returns. Investors experienced a little abnormal return on the day of the dividend announcement. In post announcement period, the investors harvested a slight return from their investment. In academic literature, it is suggested that dividend payment have no impact on the value in the absence of taxes and other market imperfections. A dividend is the income to the shareholders but it reduces firms' resources for investment. This study indicates that investors do not benefit from dividend announcement. Over the 31-day window period, earned only 0.74 percent of stock value. Thisminimum return is partially compensated by the current year dividend payment. The evidence from National Stock Exchange tends to support Miller and Modigliani (1961) hypothesis of irrelevancy theory of dividend.

9. REFERENCES

1. Aharony, J, andSwary, I, (1980), Quarterly Dividend and Earnings Announcements and Stockholders' Returns: An Empirical Analysis", *Journal of Finance*, 35(l), 1-12.

2. Ball, R. and P. Brown, (1968), "An Empirical Evaluation of Accounting Income Numbers", *Journal of Accounting Research*, 6 (2), 159-178.

3. Bhattacharya, S. (1979), "Imperfect Information, Dividend Policy and the Bird in the Hand Fallacy", *Bell Journal of Economics*, 1 (l), 259-270.

4. Bhattacharya, S. (1980), "Non-dissipative Signaling Structures and Dividend Policy", *Quarterly Journal of Economics*, 95, 1-24.

5. Brown, S.J. and J.B. Warner, (1985), "Using Daily Stock Returns: The Case of Event Studies", *Journal of Financial Economics*, 14, 3-31.

6. Charest, G,(1978), "Dividend Information, Stock Returns and Market Efficiency", *Journal of Financial Economics*, 6, 297-330.

7. Chaturvedi, H.Om, (2000), "Empirical Anomalies Based on Unexpected Earnings: The Indian Experience", *ICFAI Journal of Applied Finance*, 6 (1), 52-64.

8. Fama, E.F., L. Fisher, M.C. Jensen and R. Roll, (1969), "The Adjustment of Stock Prices to New Information", *International Economic Review*, 10 (1), 1-21.

9. Foster, G., C. Olsen and T. Shevlin, (1984) "Earnings Releases, Anomalies, and the Behaviour of Security Returns", *Accounting Review*, 59 (4), 574-603.

10. Gordon, M. J., (1959), "Dividend, Earning, and Stock Prices", *The Review of Economics and Statistics*, Vol. 41, 99-105.

11. John, K. and Williams, J, (1985), "Dividends, Dilution and Taxes: A Signaling Equilibrium", *Journal of Finance*, 40, 1053-1070.

12. Lee, B. S, (1995), "The Response of Stock Prices to Permanent and Temporary Shocks in dividend", *Journal of Financial and Quantitative Analysis*, Vol. 30, 1-22.

13. Lo, A. W., and MacKinlay, A. C. (1988), "Stock market prices do not follow random walks: Evidence from a simple specification test". *Review of Financial Studies*, vol. 1, no. 1, 41-66.

14. Mallikarjunappa, T. and Iqbal, (2003), "Stock Price Reactions to Earnings Announcement", *Journal of IAMD and IUCBER*, 26 (1), 53 – 60.

15. Miller, M. and Rock, K. (1985), "Dividend Policy under Asymmetric Information", *Quarterly Journal of Economics*, 95, 1031-1051.
16. Miller, M. H. and Modigliani, E (1961), "Dividend Policy, Growth and the Valuation of Shares" *Journal of Business*, 34(4), 411-433.

17. Patell, J.M. and M.A Wolfson, (1984),"The Intra-day Speed of Adjustment of Stock Prices to Earnings and Dividend Announcements", *Journal of Financial Economics*, 13, 223-252.

18. Porterfield, J. T. S., (1959), "Dividend, Dilution, and Delusion", *Harvard Business Review*, Vol. 37, 56-61.

19. Rao, K.C., and M. Manickaraj, (1993), "Information Content of Financial Statements and Equity Stock Prices in India", *Finance India*, 7 (2), 333-343.

20. Saravanakumar S, (2001), "The impact of announcement of corporate quarterly results on Stock returns**",***M.Phil., dissertation submitted to Bharathiar University, Coimbatore*.

21. Sharpe, W.F, (1963), "A Simplified Model for Portfolio Analysis", *Management Science*, 9 (2), 277-293.

22. Srinivasan, R, (1997), "Security Prices Behavior Associated with Rights Issue-Related Events", *ICFAI Journal of Applied Finance*, 3 (1), 50-62.

23. Walter, J. E. (1956). "Dividend Polices and Common Stock Prices", *The Journal of Finance,* 16, 29-41.

24. Watts, R.L, (1978), "Systematic Abnormal Returns after Quarterly Earnings Announcements", *Journal of Financial Economics*, 6, 127-150.