ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 9, Issue, 11(C), pp. 29626-29632, November, 2018

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

BEHAVIOUR OF STOCK RETURN AND SEASONAL ANOMALIES EFFECT IN SELECTED INDIAN COMPANIES

Senthil Kumar G

Department of Commerce and Management, Yuvakshetra College, Yuvakshetra Institute of Management Studies, Mundur, Palakkad, Kerala-678631. India

DOI: http://dx.doi.org/10.24327/ijrsr.2018.0911.2895

ARTICLE INFO

Article History:

Received 13th August, 2018
Received in revised form 11th September, 2018
Accepted 8th October, 2018
Published online 28th November, 2018

Key Words:

Stock Market, Seasonal Anomalies, Market Efficiency, investment strategy, Share Market.

ABSTRACT

The behaviour of stock returns has been extensively debated over the years. Researchers have examined the efficient market and random walk characterization of returns and alternatives to random walk. The key question investigated in this research is the return behaviour of stocks listed in the Infrastructure Sector of both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). In this research to analyse whether the selected stocks returns of the companies will provide the satisfactory return to the investor and the market efficiency. The researcher studies the stock return behaviour and analyse the existence of seasonal anomalies in the selected Indian companies. The data have been processed through appropriate statistical techniques such as Descriptive Statistics, Dummy Variable Regression, Autocorrelation and Frequency Distribution Analysis. Return pattern gives awareness for an investment strategy and it will enhance the profit or minimize the loss for an investor.

INTRODUCTION

The behaviour of stock returns has been extensively debated over the years. Researchers have examined the efficient market and random walk characterization of returns and alternatives to random walk. The validation of random walk implies that market is informational efficient. In an efficient market, current prices 'fully reflect' available information and hence there is no scope for any investor to make abnormal profits. In respect of empirical evidences, the early studies have found evidences in favour of random walk hypothesis (RWH). In later period, however, studies have supported mean reversion in returns. It has been pointed out that the use of several tests, parametric and non-parametric, each of which having been based on restrictive assumptions, has been a prime reason for lack of consensus. Further, the use of data of different frequencies has also been another reason for divergent findings. The conventional tests such as auto correlation, runs, spectral and variance ratio tests have some limitations. They are capable of detecting only linear correlation in the series. The Great Market Crash of 1987 triggered interest in non-linear dependencies in the return series. Since then researchers have addressed the issue of presence of non-linear dependencies. It may be pertinent to note that rejection of presence of linear correlation does not validate EMH as non- linear dependencies might help to predict the future prices. In this research the study deals with the stock return behaviour of five top performing companies in the stock market belonging to the General Infrastructure sector. The companies selected are Engineers India Ltd., ABB Ltd., L&T Ltd., BHEL and Siemens Pvt. Ltd.

Statement of the Problem

The key question investigated in this research is the return behaviour of stocks listed in the Infrastructure Sector of both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). The behaviour of stock returns has been a field of extensive research in the developed markets. However findings based on studies of well-developed markets cannot be generalised to developing ones due to their different market characteristics and microstructures.

Need for the Study

The main reason investors invest their money in the stocks of enlisted companies is the expectation of a rate of return from the investment. As a result, it is important for the investor to evaluate whether the stocks they have decided to invest in will

Corresponding author:* **Senthil Kumar G
Department of Commerce and Management, Yuvakshetra College, Yuvakshetra Institute of Management Studies, Mundur, Palakkad, Kerala – 678631. India

give them an acceptable return. Since Infrastructure Industry is one of those industries preferable for long term investment, in this research to analyse whether the selected stocks returns of the companies will provide the satisfactory return to the investor and the market efficiency.

Objectives of the Study

- To study the stock return behaviour of selected Indian companies.
- To analyse the independence of stock returns in the selected Indian companies.
- To analyse the existence of seasonal anomalies the selected Indian companies.

REVIEW OF LITERATURE

Globalization of world financial markets has resulted in profound changes in national finance during the current decade. The world equity markets have also experienced a rapid growth in size and strengthened linkage among different national equity markets. The debate regarding the development and validity of asset pricing theory continues to be an issue of central concern in the financial economics literature – see the survey on asset pricing by Dimson and Mussavian(1999)[1], for instance. Probably the most important factor had a direct impact not only on economic science but also on the world of business and international finance. Statman (1980)[2] and Rosenberg et al. (1985)[3] find that average returns in the US Stock Markets are positively related to the ratio of firms book value of common stock to its market value, BE/ME. Chan et al. (1991)[4] also find a similar positive BE/ME and average returns relation in the Japan Stock Market. An important recent development has been the entry of Foreign Institutional Investors (FII) as participants in the primary and secondary markets for industrial securities. In the past several years, among the various investment proposals, the opportunities for equity investment in developing countries have increased remarkably. Among the developing countries, India has received considerable capital inflows in recent years.

The liberalization policy of the Government of India has started yielding results and the country is poised for a big leap in the industrial and economic growth. The economy of the country is mainly based on the development of the corporate sector. Academicians and Researchers explained that stock market research brought out certain anomalies in the research behavior such as January effect, Monthly effect and Weekend effect- and they also pointed out that the market is dependent. It implies that there are patterns or trends in stock market returns. The movement of security prices and security returns attracted the attention of people throughout the world. When a stock is traded in any stock market, there are always movements in its price, either upward or downward. There is a need to measure such movements in the stock market prices. Stock prices are governed by collective investor psychology. The investor psychology is to a large extent determined by public information and another form of financial signaling. The classic studies by Fama (1965)[5] on the behavior of stock returns are well documented concluding that stock markets are independent. Rozeff and Kinney (1976)[6] documented that the mean returns of January exceed the mean returns of other months for a market index of NYSE stocks over the period 1904 – 1974. Rogalski (1984)[7] in his paper on "New Findings Regarding Day of the Week Returns over Trading and Non – Trading Periods: A Note" observed that anomalous price behavior of stocks in January mostly occurs in the first five trading days. Lakonishok and Smidt (1988)[8] examined the seasonality on Dow Jones Industrial Average over a Period of 90 years from 1986 to 1987. They observed that the rate of return on Monday was substantially negative. Schatzberg and Datta (1990)[9] studied the weekend effect and corporate dividend announcements. A sample of 1,38,824 dividend announcements is investigated over 26 years across 3484 firms. Using daily return data they concluded that the weekend effect is not due to dividend announcement per se, Kato (1990)[10] examined the weekly patterns in Japanese stock returns. The daily prices of the Tokyo Stock Exchange were collected for a period from April 1978 to June 1987. He observed that the large negative returns are shown on Tuesday and the high positive returns on Wednesday for the close to close returns. Kato (1990)[11] has tested the weekly patterns related to the size effect on Tokyo Stock Exchange. He found that the small firms' stocks are riskier than the large firms' stocks and as a result experience higher mean returns. Kari Harju (2012)[12] studied the intraday dynamics and inter-market dependencies in international equity markets were investigated. A strong intraday cyclical autocorrelation structure in the volatility process was observed to be caused by the diurnal pattern. A major rise in contemporaneous cross correlation among European Stock Markets was also noticed to follow the opening of the New York Stock Exchange. Furthermore, the results indicated that the returns for UK and Germany responded to each other's innovations, both in terms of the first and second-moment dependencies. In contrast to earlier research, the US stock market did not cause significant volatility spillover to the European markets.

Some other researchers and practitioners questioned the validity of the independence in the market and produced evidence that point out the existence of various anomalies, which go against market independence. The study by Zarowin (1989)[13] presents evidence that stock prices overreact in the short run. He concluded that the stock market is dependent because arbitrageurs who are aware of the market's tendency to overreact could earn huge returns buying losers and selling winners. There are a number of studies available to support/reject the independence of the stock returns, which has, however, not yet come to an end and remain unresolved. In fact, the market is either dependent or independent depending upon the circumstances and existence of some factors. Tak and KeeHui (2005)[14] have devoted to extending the determination of day-of-the-week effect existing in a sample of Asia-Pacific markets such as Hong Kong, Korea, Singapore and Taiwan. At the same time, they also like to test for the presence of weekend effects in developed markets of the US and Japan.in view of recent studies regarding the disappearing day of the week effect for US firms, they will focus their attention on the recent years to better track the presence of weekend effect during and after the Asian financial crisis in 1997 and the recent collapse of the blue chip stocks in the United States. The results reveal that there exists no evidence of the day-of-the-week in all countries except Singapore. For Singapore, it is low returns on Monday and Tuesday and high returns on Wednesday and Friday. Senthilkumar (2013)[15] In this study presence evidence the negative relation between size and the

average return is significant; the inclusion of market-to-book equity seems to absorb the role of size in selected industries of Indian companies in stock returns. Size and market to book equity still capture substantial variation in the cross section of average return, whereas when controlling for market-to-book equity there is no size effect. Abhijeet Chandra, (2012)[16] this paper is to examine the direction of causality between Foreign Institutional Investment (FII), trading volume and stock market returns in the Indian context. It is found that FII trading behavior resulting in heavy trading volumes may cause variation in the stock market returns only in the very short term, but afterward, it is the stock market returns which cause changes in FII trading behavior. Returns behavior in one time period is influenced by the return behavior in the past. This supports the concept that the market is dependent. The behavior of stock returns has been influenced by seasonal anomalies. In recent years there has been a proliferation of empirical studies documenting unexpected or anomalous regularities in stock returns. The issue of seasonalities in the stock market has attracted the attention of researchers in the US and other developed markets. Senthil Kumar (2016)[17] in this study examines the behavior, anomalous patterns, and independence in stock returns. The study is based on secondary data and the daily average share price (the average of high and low) data of 15 most actively traded companies included in Bombay Stock Exchange SMALLCAP, MIDCAP and LARGECAP were collected for the study. The data have been processed through appropriate statistical techniques. Based on the findings, the distribution of the mean returns is asymmetric and it is concluded that the daily stock returns show significant variation across all days of the week and the expected stock returns and size reveal no significance in size effect. This return pattern gives an idea for an investment strategy. This will enhance the profit or minimize the loss for an investor. The seasonalities observed in stock returns in those countries can be classified as a day of the week effect[18], and the size effect[19]. Again these studies have shown the existence of market seasonalities. Even though there is mounting evidence concerning seasonal anomalies in US and other developed markets, there are very few studies undertaken in India. Hence an attempt is made in this study to examine the behavior, anomalous patterns, and independence in stock returns.

Sources of Data

Secondary data were used in this research article; it refers to the data that was collected by someone other than the user. The database used in this study consists of monthly high and low prices of the stock returns from April 2008 to March 2018 for the selected companies. This was collected from the official website of National Stock Exchange (NSE).

Statistical Tools Used For Data Analysis

For the purpose of analysis, returns were calculated for individual shares. The data have been processed through appropriate statistical techniques such as Descriptive Statistics, Dummy Variable Regression, Autocorrelation and Frequency Distribution Analysis.

Descriptive Statistics

Summary statistical measures comprise of mean, standard deviation, range, the coefficient of variation, skewness, and kurtosis. Mean is a measure of average stock returns over a period of time. Standard deviation is a measure of variation of stock returns. The range is the difference between the minimum and maximum returns on a stock. Skewness explains the concentration of observations at one end or other of the distribution, while kurtosis provides a measure of peakedness of a distribution of daily, weekly and monthly stock returns.

Dummy Variable Regression

In this study, regression on dummy variables is used to test whether the anomalous pattern in returns is uniform across all months of the year. Gibbons and Hess method of regressing monthly returns by using 12 dummy variables for 12 months of the year (i.e. January through December) is used in this study. The dummy variable regression equation is as follows:

$$R_t = \beta_1 J_t + \beta_2 F_t + \cdots + \beta_{12} D_t + \varepsilon_t$$

Where,

$R_t$indicates the return on index at time t

J_t, F_t,… D_t denote the dummies for January through December.

β_1 - β_{12}indicate regression parameters for mean monthly returns, and

$\varepsilon_t$denotes the error terms.

The dummy variable regression model identifies which month exhibits the highest stock return among the months of the year.

Autocorrelation Analysis

Autocorrelation analysis is a parametric test. In order to establish statistical independence autocorrelation coefficients are computed. Autocorrelation coefficients provide important information about the pattern of in time series data and its sub-components namely trend, seasonality and randomness. For testing the randomness in the return series, autocorrelation coefficient for lags 1-10 is calculated.

Autocorrelation coefficients provide important information about the pattern in time series data and its sub-components (mainly trend, seasonality, and independence). Autocorrelation analysis or serial correlation is a parametric test., which is used to describe the association of mutual dependence among the values of the same variable at different time periods. Autocorrelation provides a measure of the statistical relationship among observations at different time periods showing the direction and the strength of the relationship between successive returns. The following formula is used for computation of autocorrelation coefficient of time lag *k*:

$$r_k = \frac{\sum_{t=1}^{n-k}(X_t - \bar{X})(X_{t+k} - \bar{X})}{\sum_{t=1}^{n}(X_1 - \bar{X})^2}$$

Where, $r_k$denotes the autocorrelation coefficient

k is the length of the time lag $X_t$is the value of the variable at time t, &
n denotes the number of observations $\bar{X}$ is the mean of all observations.

The autocorrelation coefficient is significant at 5 percent level if its value exceeds two times its standard error value.

Similarly, the coefficient is significant at 1 percent if its value exceeds three times or more of its standard error value.

Frequency Distribution Analysis

Frequency tables give an idea about the nature of data. Raw data will not give any idea, but when arranged in a frequency distribution it will give a better idea about the nature of the data such as lowest and highest value and the classes in which values are concentrated. Hence, the frequency distribution for the companies was constructed in this study.

Calculation of Stock Returns

The investors may get returns on their equity investment n dividends and/or appreciation of capital assets over the holding period. When calculating stock returns, the cash dividends are not considered because of difficulties in collecting the details of the same. The rate of return on a stock for the given day is typically calculated by subtracting the average of high and low price on the previous day (P_t) and then dividing the resulting number by the average price as of the previous trading day$(P_{(t-1)})$:

i.e. Stock Return = $\left[\frac{(P_t - P_{(t-1)})}{P_{(t-1)}}\right] \times 100$

whereP_t = Price of a security at time t and

$P_{(t-1)}$ = Price of the security in the previous time.

Hypothesis

There is no significant difference in stock returns across the months of calendar year.

Analysis and intrepretation

Descriptive statistics

The results of the summary statistical analysis such as mean, standard deviation, coefficient of variation, minimum, maximum, range, skewness and kurtosis of monthly stock returns of 5 Infrastructure sector companies are presented in Table 1.

Table 1 Summary of Descriptive Statistical Measures: Monthly Returns of Companies.

Company	Mean	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis	Coefficient of Variation	N
BHEL	-0.05	0.39	-4.19	0.21	-9.86	103.93	-769.14	120
L&T	-0.02	0.18	-1.47	0.33	-4.94	38.34	-995	120
Siemens	-0.03	0.27	-2.44	0.28	-6.74	58.01	-821.27	120
Engineers India	-0.04	0.32	-3.21	0.26	-8.34	81.72	-884.16	120
ABB	-0.02	0.18	-1.61	0.25	-5.8	48.88	-997.16	120

Interpretation

It is observed that during the observation period, L&T and ABB has the highest mean return of -0.02 percent while the remaining companies have higher negative percentage in mean returns. Mean measures the average stock returns over a period of time. Hence the lowest mean returns during the period was of BHEL with a rate of -0.05.Standard deviation measures the variation in stock returns over a period of time. The highest dispersion of return of 0.39 percent is found in BHEL which means there is a relatively higher variation in the stock prices of BHEL than any other company. The least variation in stock prices is seen in L&T as a result of which it has the lowest standard deviation of 0.18 percent.

The lowest rate of return during the 10 years compared to the 5 stocks was that of BHEL with a value of -4.19 followed by Engineers India at -3.21. The highest rate of return during the 10 years was provided by L&T with a rate of return of 0.33 followed by Siemens at 0.28. The highest skewness is found in the case of L&T (-4.94) and the lowest in BHEL (-9.86) which indicates that the distribution of mean returns are scattered and positively skewed to the long right tail. The higher negative values indicate the distribution of mean returns as scattered and negatively skewed to the long left tail. Thus the distribution of mean returns is asymmetric. Hence, it is concluded that the monthly stock returns of the companies are not normally distributed.

The highest kurtosis is found in the case of BHEL (103.93) which indicates that some of the mean returns have very high value. So the distribution of mean return is more peaked with fat tails (leptokurtic). The lowest kurtosis is noticed for L&T (38.34) which indicates that the mean returns are scattered and hence the distribution of mean returns is less peaked with thinner tails (platykurtic).The coefficient of variation of monthly return is least negative for BHEL while the negative value is higher for others. The highest coefficient of variation is maintained by BHEL (-769.14 percent) which indicates high volatility in monthly returns during the study period.

Frquency Distribution Analysis

Table 2 Frequency Distribution Analysis of Monthly Returns

Company Name	Below -0.25	-0.25 to -0.15	-0.15 to -0.05	-0.05 to 0.05	0.05 to 0.15	0.15 to 0.25	Above 0.25	Total
Bhel	5	5	28	59	19	4	0	120
L&T	3	5	31	43	31	6	1	120
Siemens	5	5	23	50	29	7	1	120
Engineers India	6	8	19	51	27	6	3	120
ABB	3	5	31	45	29	7	0	120
Total	22	28	132	248	135	30	5	600

Interpretation

Table 4.2 shows the frequency distribution of monthly stock returns of the companies. Uniform class interval of seven classes with prices -0.25 to +0.25 was followed. The monthly returns of the companies with their maximum number of observations are concentrated between -0.15 to -0.05 and 0.05 to 0.15 class intervals. In the class interval of returns Above 0.25 Engineers India has the highest number of observations which is 3. It also has the highest number of observations in the class interval of returns below -0.25.

More than 41% of observations for the monthly returns are concentrated in the class interval -0.05 to 0.05 and 22.5% of the observations for the monthly returns are concentrated in the class interval 0.05 to 0.15. Only 3.67% of the observations fall below -0.25 and 0.83% of the observations fall above 0.25 class interval.

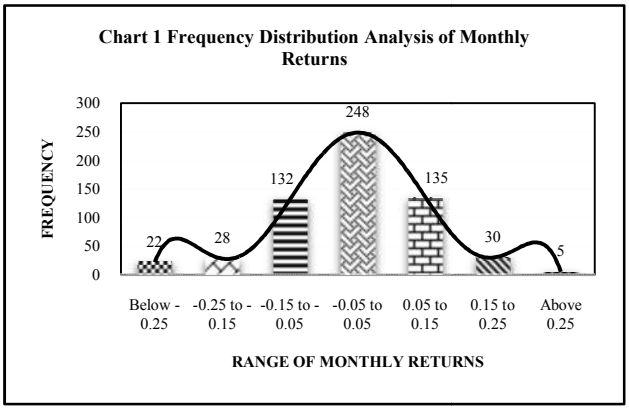

Chart 1 Frequency Distribution Analysis of Monthly Returns

Autocorrelation Analysis

The autocorrelation results for the monthly returns of the Infrastructure Companies are shown in Table 3. Here the first order coefficients (Lag 1)

Table 3 Autocorrelation Analysis – Monthly Returns

Company	Lags									
	1	2	3	4	5	6	7	8	9	10
Bhel	-0.503	0.027	-0.013	-0.034	0.026	-0.017	0.032	-0.012	-0.008	-0.007
L&T	-0.313	-0.208	-0.040	0.113	0.022	-0.040	-0.015	-0.116	0.120	0.047
Siemens	-0.317	-0.158	-0.016	-0.031	0.021	-0.024	0.014	0.042	-0.003	-0.017
Engineers India	-0.337	-0.146	-0.036	0.046	-0.058	0.023	0.008	0.000	0.017	-0.029
ABB	-0.219	-0.295	-0.052	0.046	0.020	-0.004	0.021	0.011	-0.037	0.008

Interpretation

Autocorrelation analysis is used to check market efficiency of the stock. It checks whether the present price is dependent on the previous price. The autocorrelation value should not be more than 3 times the value of standard error. The standard error value is 0.91 3 times of which is 2.73. If the autocorrelation are value exceeds the set limit it means that the price are dependent i.e., the present price is dependent upon the previous price. If not it means that prices are independent and is completely based on market performance.

The results of autocorrelation of all 5 companies show that none of the values cross the set limit. This means that each monthly share prices are independent and they don't have any dependence to one another whatsoever.

Month Effect Results

The month effect results for the coefficient of returns of the Infrastructure companies are shown in Table 4.

Table 4 Month Effect Results

Months	Variables	BHEL	L&T	Siemens	Engineers India	ABB	Total
January	β - Coefficient	-0.017	-0.075	0.004	0.046	-0.006	-0.048
	t - value	-0.183	-0.823	0.047	0.506	-0.069	-0.522
February	β - Coefficient	-0.034	-0.042	-0.052	-0.06	-0.016	-0.204
	t - value	-0.366	-0.465	-0.563	-0.664	-0.172	-2.23
March	β - Coefficient	-0.031	-0.008	-0.041	-0.022	-0.036	-0.138
	t - value	-0.334	-0.089	-0.446	-0.238	-0.396	-1.503
April	β - Coefficient	0.004	0.065	0.012	0.027	0.076	0.184
	t - value	0.04	0.715	0.129	0.297	0.827	2.008
May	β - Coefficient	-0.004	0.039	0.021	-0.074	0.027	0.009
	t - value	-0.048	0.429	0.223	-0.823	0.293	0.074
June	β - Coefficient	-0.051	0.062	-0.061	-0.318	-0.058	-0.426
	t - value	-0.556	0.68	-0.657	-3.51	-0.637	-4.68
July	β - Coefficient	0.017	0.021	-0.256	0.01	-0.261	-0.469
	t - value	0.191	0.233	-2.769	0.109	-2.842	-5.078
August	β - Coefficient	-0.019	-0.088	-0.026	-0.03	-0.071	-0.234
	t - value	-0.207	-0.966	-0.282	-0.327	-0.775	-2.557
September	β - Coefficient	-0.003	-0.028	0.018	0.02	0.062	0.069
	t - value	-0.032	-0.304	0.199	0.218	0.672	0.753
October	β - Coefficient	-0.295	-0.28	0.001	0.015	-0.013	-0.572
	t - value	-3.219	-3.077	0.012	0.169	-0.138	-6.253
November	β - Coefficient	-0.011	0.003	-0.002	-0.004	-0.04	-0.054
	t - value	-0.119	0.036	-0.023	-0.05	-0.431	-0.587
December	β - Coefficient	-0.006	-0.016	-0.039	-0.001	-0.009	-0.071
	t - value	-0.064	-0.179	-0.422	-0.01	-0.103	-0.778

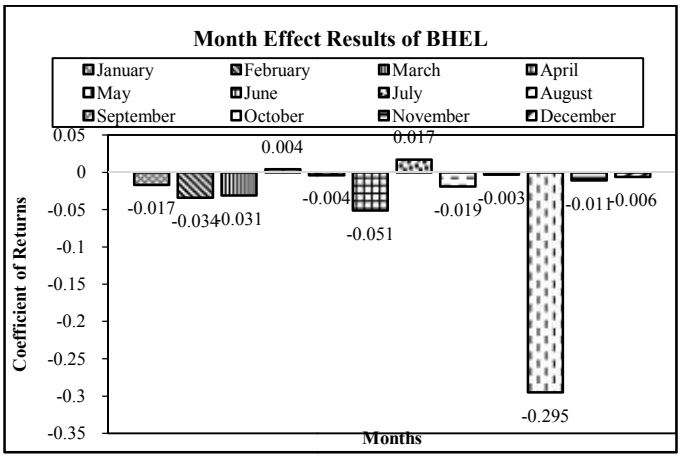

Chart 2 Month Effect Results of BHEL

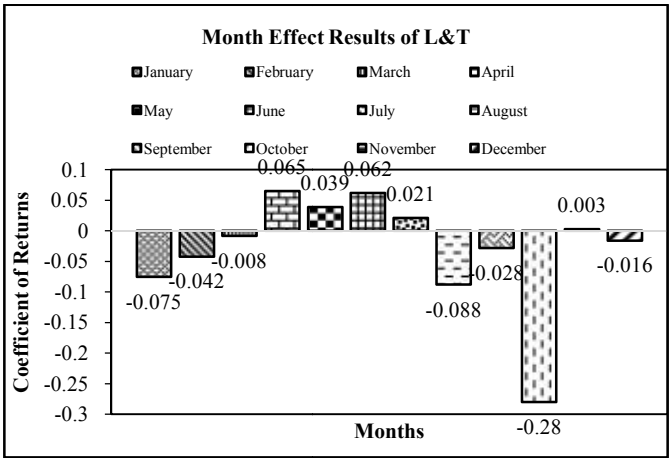

Chart 3 Month Effect Results of L&T

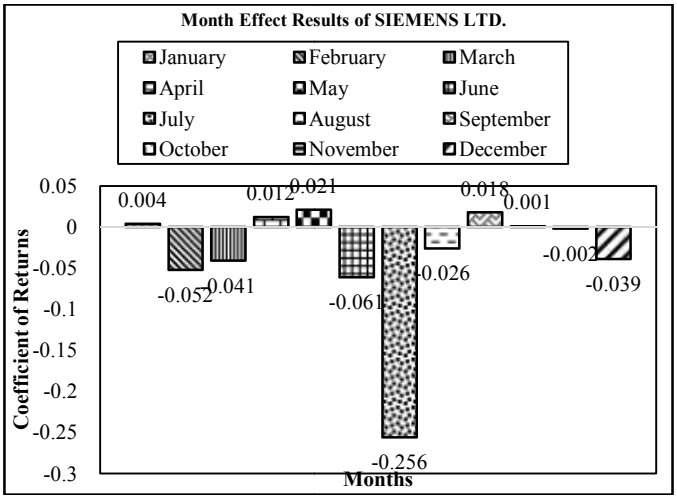

Chart 4 Month Effect Results of Siemens Ltd.

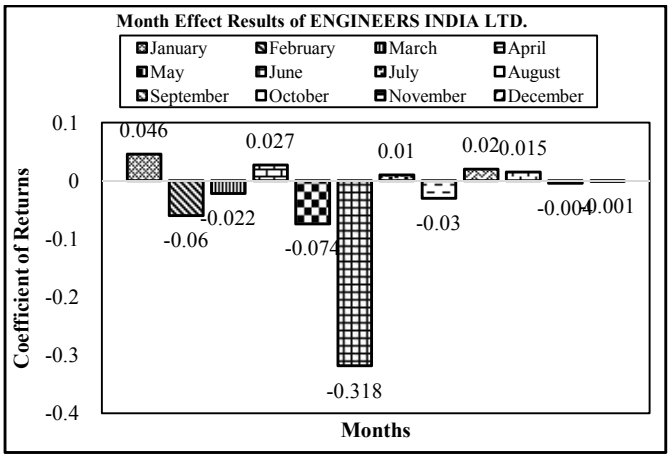

Chart 5 Month Effect Results of Engineers India Ltd

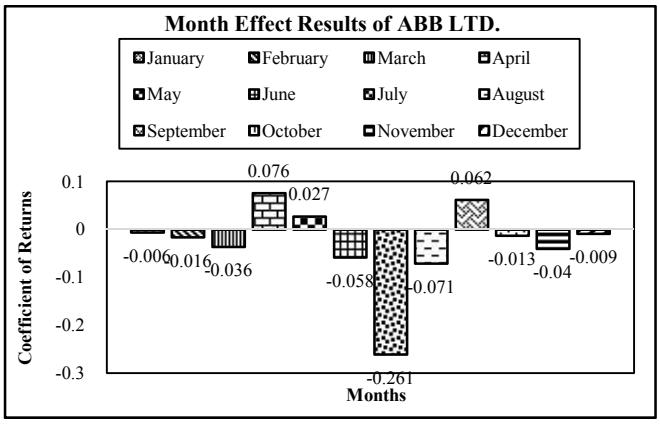

Chart 6 Month Effect Results of ABB Ltd**.**

Interpretation

The month wise results for the co-efficient of returns of the selected companies are shown in Table 2. From the Chart 2 we can see that for BHEL, the coefficient of returns for all months except for July is negative. The lowest value falls on October which is -0.295and the highest value is for July which is 0.017.Chart 3 shows the coefficient of returns of L&T for 12 months. The returns in April, May, June, July and November have been positive while it has been negative in all other months. The lowest value falls on October which is -0.28 and the highest value is for April which is 0.065.Chart 4 shows the coefficient of returns of Siemens Ltd. the returns has been fluctuating into positives and negatives. The lowest value falls on July which is -0.256 and the highest value is for May which is 0.021.Chart 5 shows the coefficient of returns in the case of Engineers India Ltd. The highest value of coefficient of return is 0.046 which is attained during the month of January and the lowest value is -0.318 which resulted during the month of June.

The coefficients of return of ABB Ltd. for 12 months have been depicted in Chart 6. The company has a high value of 0.076 during the month of April and lowest value during the month of July which is -0.261. The return is positive during the months of April, May and September.

CONCLUSION

Based on the above analysis and interpretation, the distribution of mean returns is asymmetric and it is concluded that monthly stock returns of the five companies are not normally distributed. The autocorrelation results of the monthly returns shows independence. The dummy variable regression analysis of returns for the five companies shows significant variation all over the year. The month effect analysis for the companies show evidence for significant variation across the month of the calendar year. Return pattern gives awareness for an investment strategy and it will enhance the profit or minimize the loss for an investor.This research concentrates only on selected Indian companies. Hence, further studies may concentrate on the comparison of Indian industries, as well.

References

Dimson, E. Mussavian, M, 1999, Three Centuries of Asset Pricing. *Journal of Anking and Finance* 23, pp. 1745-1769

Stattman, D, 1980, Book Values and Stock Returns. Chicago MBA: A Journal of Selected Papers, 4, pp. 25-45.

Rosenberg, Barr, Reid K. and Lanstein, R, Persuasive Evidence of Market Inefficiency, *Journal of Portfolio Management*, Vol. 12, 1985, pp. 9-16.

Chan, L. K. C., Hamao, Y, Lakonishok, J, 1991, Fundamentals and Stock Returns in Japan, *Journal of Finance* 46, pp. 1739-1764.

Fama, E. F., The Behaviour of Stock Market Prices, Journal of Business, Vol. 38, 1965, pp. 34-104.

Rozeff, Michael. S and William. R. Kinney Jr., Capital Market Seasonality: The Case of Stock Returns, *Journal of Financial Economics*, Vol. 3, October 1976, pp. 379-402.

Rogalski, New Findings Regarding Day of the Week Returns Over Trading and Non-Trading Periods: A Note, Journal of Finance, Vol. 39, No. 5, December 1984, pp. 1603-1614.

Lakonishok and Smidt, Are Seasonal Anomalies Real? A Ninety –Year Perspective, The Review of Financial Studies, Vol. 1, No. 4, 1988, pp. 403-425.

John. D. Schatzberg and ProbitDatta, The Weekend Effect and Corporate Dividend Announcements, *Journal of Financial Review*, Vol. 15, No. 1, Spring 1990, pp. 69-76.

Kato, Weekly Patterns in Japanese Stock Returns, Management Science, Vol. 36, No. 9, September 1990, pp. 1031-1043.

Kato, (1990), op. cited.

Kari Harju, Syed MujahidHussain, Intraday Return and VolatalitySpillovers Across International Equit Markets, International Reseach *Journal of Finance and Economics*, Issue 22, 2012, pp. 205-220.

Zarowin. P, Short-run Market Overreaction: Size and Seasonality Effects, Journal of Portfolio Management, Vol. 15, 1989, pp. 26-29.

Tak and KeeHui, Day-of-the-week effects in US and Asia-Pacific stock markets during the Asian Financial Crisis: A Non-Parametric Approach, Omega, Vol. 33, Issue 3, June 2005, pp. 277-282.

G. Senthilkumar, Behaviour of Stock Return in Size and Market –to-Book Ratio: Evidence from Selected Indian Industries, *International Research Journal of Finance and Economics*, ISSN 1450-2887, Issue 33, November 2009, pp. 142-153.

Abhijeet Chandra, Cause and Effect Between FII Trading Behaviour and Stock Market Returns: The Indian

Experience, *Journal of Indian Business Research*, Vol. 4 Iss: 4, pp. 286-300.

G. Senthilkumar, A Study on Stock Return Behaviour in Selected Indian Software Companies – Evidence from Bombay Stock Exchange*, International Research Journal of Finance and Economics*, ISSN 1450-2887, Issue 150, July 2016, pp. 29-44.

French, Kenneth, Stock Returns and the Weekend Effect, Journal of Financial Economics, Vol. 8, No. 1, March 1980, pp, 55-69; Gibbons and Hess, Day of the Week Effects and Asset Returns, *Journal of Business*, Vol. 54, No. 4, October 1981, pp. 59-96;

Lakonishok and Smidt, Are Seasonal Anomalies Real? A Ninety –Year Perspective, The Review of Financial Studies, Vol. 1, No. 4, 1988, pp. 403-425;

Jaffe, Westerfield and Christopher, A Twist on the Monday Effect in Stock Prices: Evidence from the US and Foreign Stock Exchange Market, *Journal of Banking & Finance*, Vol. 13, No. 415, September 1989, pp. 641-650.

Roll R, A Possible Explanation of the Small Firm Effect, The Journal of Finance, Vol. XXXVI, No. 4, September 1981, pp. 879-88; Kato, Weekly Patterns in Japanese Stock Returns, Management Science, Vol. 36, No. 9, September 1990, pp. 1031-1043

Chan. K. C. and Nai-Fu Chen, Strucutral and Return Charactersitics of Small and Large Firms, The Journal of Finance, No. 4, Septmeber 1991, pp. 1647-1484; Keim and Stambaugh, A Further Investigation of the Weekend Effect in Stock Returns, *The Journal of Finance*, Vol. XXXIX, No. 3, July 1984, pp. 819-840.

How to cite this article:

Senthil Kumar G.2018, Behaviour of Stock Return and Seasonal Anomalies Effect in Selected Indian Companies. *Int J Recent Sci Res.* 9(11), pp. 29626-29632. DOI: http://dx.doi.org/10.24327/ijrsr.2018.0911.2895

****