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Week End Effect: Evidence from Indian Stock Market

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Abstract

The study provides the evidence for the presence of seasonality across the days of the week by using the percentage changes of daily closing values of two NSE indices, i.e. CNX 500 index and CNX Sharia 500 index for the period from 1st January 2010 to 31st December 2016.The Kruskall-Wall is nonparametric test (by computing 'H' statistic) is adopted in lieu of parametric one-way analysis of variance in this study to test the week form efficiency of the market.From the results it is observed the market may be inefficient during the short period of time, but in the long run it is efficient. Hence, the investors cannot outperform the market for a long period of time by investing on the particular day of the week.

Introduction

The return behavior of the stock market underwent extensive research in both academic and investment world. Most of the earlier studies observed that the behavior of the stock market is not identical in various time horizons. One of the basic reasons for the changes in stock price is the flow of new information and the investors' reaction to that information. Hence, the term market efficiency is introduced in the capital market theories to explain to what extent the stock prices are reflected to the relevant information.

The Efficient Market Hypothesis (EMH) means the capital market is efficient in processing any information and the current price will incorporate all such information. Fama (1970)formalize the theory of Efficient Market Hypothesis (EMH) and presented the empirical evidence related to the theory. In his further research, Fama (1991) divided the market efficiency into three sub-hypotheses based on the type of information involved as (1)Weak-form of EMH, (2) Semi-strong form of EMH, and (3) Strong-form of EMH.

The weak form of the hypothesis states that the current price incorporate all information contained in the past series of stock prices. Hence, earning abnormal return is impossible simply by looking past behavior of stock prices, that is the price changes are random. On the other hand, if the market is said to be semi-strong then the investors can't make abnormal return from publicly available information like information on money supply, exchange rate, interest rates, announcement of dividends, annual earnings, stock splits, etc. However, the market is said to be strong form in its information efficiency if the investor not able to earn abnormal return even from private information.

There are several researcher attempted already done to explore the week end effect in stock market. Aggarwal et. al. (1989) examined the seasonal and day-of-the-week effects in four emerging stock markets namely Hong Kong, Singapore, Malaysia, and the Philippines.He found the weekend effect in those markets as Monday returns was lower than the Friday return. Sunil (1996) found the week form efficiency in BSE during the period from 2nd January 1987

to 31st October, 1994. Choudhry (2000) examined the day of the week effect by using the GARCH model and found the day of the week effect in India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, and Thailand stock markets from January 1990 to June 1995.Ricky and Venus (2010) found the existence of positive Monday effect and negative Friday effects in Indian stock market. Even though many studies already have done in this area, the question about the information efficiency of the market is perennial issue. Hence, the present study also attempting to test the week form efficiencies of the market in Indian context with CNX 500 index and CNX 500 Sharia index.

Statement of the problem

It is found from the earlier research that the Monday return is significantly negative and Friday experiences a high positive return. This observation is generally referred to as 'the day-of-the-week effect' or 'the week- end effect.' In essence, the stock return across all days of the week widely differ thus suggesting wide variation in stock return distribution. The absence of identical mean return across all days of the week may be attributed to, amongst many other factors, asymmetrical information arrival on each day of the week. For instance, as the stock market is closed during the week-end, i.e., on Saturday and Sunday, the information accumulation and processing on these two days will be delayed up to Monday. This results in flood of information processing on Monday and, thereby, wide price swings may be noticed on this day. Many Researchers documented that the bad news is generally released after the market closure on Friday resulting in wide price variation in Monday. Therefore, it is important to study how the Indian stock market reacts on Monday and whether the investors are making abnormal profit or not. Hence this study is undertaken to test the week end effect on CNX500 index and CNX Shariah 100 index.

Objectives

The objectives of the study are as follows,

- To explore the day of week effect on the Indian stock market after financial crisis.
- To assess the daily stock return in the day of week after financial crisis.

Hypothesis

Based on the above objectives the null hypothesis framed as

- H_0: The mean return across all the five days do not exhibits statistically significant difference.

Data and Methodology

The stock market indices are fairly representative of the various industry sectors and trading activity mostly revolves around the stocks comprising the indices. Thus, the sample of the study consists of the two most prominent domestic market indexes viz., CNX 500 index and CNX Shariah 500 index. The CNX 500 index is India's first broad benchmark of the Indian capital market and CNX Shariah 500 index is one of the family indices of Shariah index which is the complete benchmark for Indian stock market. The daily closing values of the indices was collected from NSE web site for the period of four years from 1st January 2010 to 31stDecember 2016. The daily return of the indices is calculated by using following formula.

$$R = \frac{p_t - p_{t-1}}{p_{t-1}}$$

Here,

R= Daily return of the index

p_t= The closing value of the index at the time t

p_{t-1}=The closing value of the index at the time t-1

Kruskall-Wallis Test

Jason (1996) suggested that the Kruskall-Wallis test is an appropriate one for the data which is having non-normality and theheteroscedastic variance like the security returns. Hence, The Kruskall-Wallis nonparametric test (by computing

'H' statistic) is adopted in lieu of parametric one-way analysis of variance in this study. The accepted model for return is:

$$R_u = \mu + \tau_j + \varepsilon_{ij} \qquad i=1,2,\ldots\ldots n_j \quad J=1,2,\ldots\ldots 5$$

Where μ is the overall daily mean, τ_j Jquantifies the day effect whose expected value is '0,' and is mutually independent random variable. The null hypothesis for the given model would be that the population means are all equal.

$H0$: $\mu 1 = \mu 2 = \mu 3 = \mu 4 = \mu 5$ or

$H0$: $\tau_j = 0$ for $j = 1, 2 \ldots 5$ and

$H1$: $\mu 1 \neq \mu 2 \neq \mu 3 \neq \mu 4 \neq \mu 5$ or

$H1$: $\tau_j \neq 0$ for at least one value of j

The Kruskall-Wallis test requires the entire set of observations being ranked, higher the value, higher is the rank and vice-versa, then arranged into $n_j \times 5$ matrix where n_j represents the rank of the return and columns represent the day-of-the-week, i.e. Monday through Friday. The formula for calculating the test statistic 'H' is as under:

$$H = \left[\frac{12}{N(N+1)} \times \sum_{j=1}^{5} \frac{R_j^2}{n_j}\right] - 3(N+1)$$

Where R_j= sum of the ranks in the jth column

n_j= number of cases in the jth column

N = sum of observations in all the columns.

Since the sampling distribution of 'H' is asymptotically x^2 based on four degrees of freedom, the critical value is 9.488 at 5 per cent level of significance for the given four degrees of freedom. If the computed 'H' is greater than the critical value then the null hypothesis will rejected.

The descriptive statistics such as mean, median, skewness and kurtosis also used to understand the return series characteristics of CNX500 index and CNX Sharia 500 index.However, the study ignored the holiday effect adjustments as it requires long time for calculation and to collect the information about the stock market holiday. But, the ignorance of holiday effect may not have great influence on the result and the general conclusion as the study covers long period of time i.e. four years, with daily data.

Results and Discussion

From the Table 1 it is observed that the mean return of Monday (0.394) is higher than all other days with standard deviation of 0.884. However, highest standard deviation of 1.077 is observed in Wednesday with the mean return of 0.070. On the other hand, the lower mean return is observed in Tuesday. The negative skewness for Tuesday to Friday indicates the returns are negatively skewed, whereas Monday is slightly positively skewed. The all days mean return is 0.054 with S.D 0.964. It is also observed that the returns are negatively skewed during the period from 1st January 2010 to 31st march 2010.

Table 1: Descriptive statistics and Kruskall-Wallis H statistics for CNX500 index from 01/01/ 2010 to 31/12/2010

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	0.394	-0.164	0.070	0.031	-0.060	0.054
Std. Dev.	0.884	0.866	1.077	0.942	0.988	0.964
Kurtosis	0.049	0.470	2.037	1.297	0.422	1.011
Skewness	0.058	-0.589	-0.871	-0.798	-0.596	-0.566
Count	50	51	49	52	48	250
H Value			8.799			

Kruskall-Wallis 'H' statistics is employed to test whether the differences in mean return across the weekdays are statistically significant or not. The calculated value of 'H' for CNX500 index from 1st January 2010 to 31st December 2010 is 8.799 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

Table 2:Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 1/1/ 2010 to 31/12/2010

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	0.351	-0.143	0.099	0.029	-0.075	0.051
Std. Dev.	0.831	0.839	0.963	0.907	0.908	0.899
Kurtosis	0.667	0.499	0.921	0.728	0.169	0.594
Skewness	0.133	-0.630	-0.573	-0.615	-0.326	-0.401
Count	50	51	49	52	48	250
H Value	7.584					

From the Table 2 it is observed that the mean return of Monday (0.351) is higher than all other days with the standard deviation of 0.831. However, the highest standard deviation of 0.963 is observed in Wednesday with the mean return of 0.099. On the other hand, the lower mean return is observed in Friday. The negative skewness for Tuesday to Friday indicates the returns are negatively skewed, whereas Monday is slightly positively skewed which is similar to the pattern of CNX 500 index. The mean return of the calendar year 2010 is 0.051 with standard deviation of 0.899. However, the calculated value of 'H' for CNX Sharia 500 index from 1st January 2010 to 31st December 2010 is 7.584 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

Table 3: Descriptive statistics and Kruskall-Wallis H statistics for CNX500 index from 01/01/ 2011 to 31/12/2011

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	-0.102	-0.087	0.142	-0.317	-0.245	-0.033
Standard Deviation	1.309	1.196	1.076	1.203	1.346	1.107
Kurtosis	0.214	0.226	-0.314	0.503	-0.533	0.347
Skewness	0.353	0.450	0.363	-0.597	0.585	-0.094
Count	50	50	49	47	51	247
H Value	4.144					

Table 3 exhibits that the mean return of Monday (-0.102) is negative with standard deviation of 1.309. However, highest standard deviation of 1.346 is observed in Friday with the negative mean return of -0.246. On the other hand, the lower mean return is observed in Thursday. The range in all day return is higher than any other day. Moreover, the sum of return is negative for all week days except for Wednesday. The calculated value of 'H' for CNX500 index from 1st January 2011 to 31st December 2011 is 4.144 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

Table 4: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/ 01/ 2011 to 31/12/2011

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	-0.082	0.022	0.170	-0.267	-0.298	-0.019
Standard Deviation	1.172	1.090	0.968	1.084	1.173	1.009
Kurtosis	-0.045	-0.065	-0.249	0.677	-0.443	0.193
Skewness	0.330	0.357	0.323	-0.540	0.460	-0.085
Count	50	50	49	47	51	247
H Value	6.328					

Table 4 shows that the total sum of the daily return is negative in Monday, Thursday and Friday and Wednesday registered the highest sum of return during the year 2011.The mean return of Monday (-0.082) is negative with standard deviation of 1.172. However, Friday registered the highest standard deviation of 1.173 with the negative mean return of -0.298. On the other hand, the lower mean return is observed in Thursday. Also it is observed that except Thursday all other days returns are positively skewed. The all days return is negative (-0.019) with standard deviation of 1.009. The calculated value of 'H' for CNX Sharia 500 index from 1st January 2011 to 31st December 2011 is 6.328 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

The mean return of Monday (-0.133) is negative with standard deviation of 0.931 for the year 2012 which is observed from the Table 5. However, for the same year, highest standard deviation of 1.041 is registered in Friday with the mean return of 0.141. It clearly indicates that the Friday return is high volatile than the other day's return.The skewness is negative for Monday and Thursday and positive for the remaining day's returns.During the calendar year 2012, Tuesday gives the highest total return of 23.004 percent where as Monday registered the negative return of -6.79 percent. The calculated value of 'H' for CNX500 index from 1st January 2012 to 31st December 2012 is 9.817 which is higher than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is rejected and concluded that there is significant difference in the mean return of weekdays.

Table 5: Descriptive statistics and Kruskall-Wallis H statistics for CNX500 index from 01/01/2012 to 31/12/2012

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	-0.133	0.469	0.087	0.025	0.141	0.017
Std. Dev.	0.931	0.925	0.869	0.816	1.041	1.055
Kurtosis	0.571	0.725	1.697	0.749	-0.241	0.480
Skewness	-0.726	0.073	0.126	-0.575	0.497	-0.107
Count	51	49	47	49	51	247
H Value	9.817					

Table 6 exhibits the results of descriptive statistics and H Statistics for the calendar year 2012 for CNXSharia 500 index. During the year 2012, highest standard deviation of 1.919 is observed in Friday with the mean return of 0.084. The returns are negatively skewed in Monday and Thursday due to extreme returns are presents left side to the mean return. The mean return of the year 2012 is 0.0105 with the standard deviation of 0.9312.The calculated value of 'H' for CNX Sharia 500 index from 1st January 2012 to 31st December 2012 is 13.025 which is higher than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is rejected and concluded that there is significant difference in the mean return of weekdays.

Table 6: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/01/2012 to 31/12/2012

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	-0.162	0.378	0.106	-0.047	0.084	0.0105
Standard Deviation	0.733	0.700	0.646	0.613	0.919	0.9312
Kurtosis	0.616	0.522	0.181	0.911	-0.213	0.4375
Skewness	-0.534	0.143	0.296	-0.864	0.203	-0.1130
Count	51	49	47	49	51	247
H Value	13.025					

Table 7: Descriptive statistics and Kruskall-Wallis H statistics for CNX500 index from 1st January 2013 to 31st December 2013

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	0.062	-0.114	-0.068	0.143	0.078	0.020
Standard Deviation	0.910	1.187	0.846	1.265	1.100	1.075
Kurtosis	-0.261	1.710	0.508	-0.163	2.509	1.064
Skewness	-0.089	-0.250	0.417	-0.008	-0.563	-0.136
Count	50	53	46	51	48	248
H Value	1.929					

Table 7 shows that the returns are negatively skewed except for Wednesday. However, lowest standard deviation on Wednesday (0.846) indicates that the return of Wednesday is less volatile than any other day. The Kurtosis values are less than three which indicates the probability for extreme values is less than for a normal distribution, and the returns are wider spread around the average returns. The calculated value of 'H' for CNX500 index from 1st January 2013 to 31st December 2013 is 1.929 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays. Hence, investors can not earn abnormal return by buying on Monday and selling on Friday.

Table 8: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/01/2013 to 31/12/2013

	Monday	Tuesday	Wednesday	Thursday	Friday	All Days
Mean	0.059	-0.009	0.049	0.080	0.138	0.023
Standard Deviation	0.777	0.980	0.769	1.020	0.995	0.926
Kurtosis	-0.225	2.028	0.743	-0.362	2.590	0.588
Skewness	0.194	-0.532	0.030	0.266	-0.774	-0.138
Count	50	53	46	51	48	248
H Value	0.983					

From the Table 8 it is observed that the mean return for Monday is 0.059 per cent with the standard deviation of 0.777. However, Monday registered the lowest standard deviation which indicates the return on Monday is less volatile than any other day during the period. The daily returns are positively skewed except Tuesday and Friday. The less value of kurtosis for Monday indicates that the returns are distributed around the mean and the risk is very less. The all days mean return is 0.023 with the S.D of 0.926.The calculated value of 'H' for CNX Sharia 500 index from 1st January 2013 to 31st December 2013 is 0.983 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

Table 9: Descriptive statistics and Kruskall-Wallis H statistics for CNX 500 index from 1st January 2014 to 31st December 2014

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.031	0.011	0.021	0.032	0.025	0.024
Standard Deviation	0.987	0.954	0.566	0.921	1.200	1.018
Kurtosis	0.991	0.949	-0.292	0.107	0.196	0.676
Skewness	-0.414	-0.911	-0.001	0.204	-0.065	-0.305
Count	49	49	51	46	47	243
H Value	4.078					

Table 9 exhibits the descriptive statistics and Kriskall Wallis H test for the return of CNX 500 index for the calendar year 2014. It is observed from the result that the average daily return is positive for all the day of the week in the year. However, low values of Kurtosis indicate the distribution of the return is around the mean return and having less risk. Moreover, the calculated H-Value of 4.078 is lesser than the table value of 9.488, which leads to accept the null hypothesis and concluded that there is no significant difference in the mean return of different day of the week.

Table-10: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/01/ 2014 to 31/12/2014

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.02	0.005	0.012	0.012	0.023	0.015
Standard Deviation	0.075	0.828	0.638	0.825	0.832	0.745
Kurtosis	-0.522	1.322	-0.618	1.052	-0.527	0.489
Skewness	-0.156	-0.516	-0.270	-0.163	-0.196	-0.296
Count	49	49	51	46	47	243
H Value	2.159					

From the Table 10 it is observed that CNX Sharia 500 index registered the lowest average return on Tuesday. The negative values of skewness indicate that the distribution of CNX Sharia 500 index return is negatively skewed for the calendar year 2104. The calculated H-Value of 2.159 is much lesser than the critical value of 9.488. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of week days.

Table 11: Descriptive statistics and Kruskall-Wallis H statistics for CNX 500 index from 1st January 2015 to 31st December 2015

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	-0.011	-0.031	0.020	0.03	0.012	0.021
Standard Deviation	1.031	0.902	0.962	0.929	0.911	1.025
Kurtosis	10.798	1.202	0.954	0.171	-0.230	7.171
Skewness	-2.345	-1.074	-0.687	0.058	-0.048	-1.385
Count	51	50	51	49	46	248
H Value	47.434					

Table 12: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/01/ 2015 to 31/12/2015

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	-0.01	-0.01	0.02	0.01	0.003	0.04
Standard Deviation	1.301	0.985	0.812	0.845	0.931	0.945

Kurtosis	12.963	1.079	0.397	-0.304	-0.524	9.484
Skewness	-2.721	-1.037	-0.330	-0.172	0.014	-1.653
Count	51	50	51	49	46	248
H Value	47.196					

Table 11 and 12 show the descriptive statistics and Kruskall-Wallis H statistics for CNX 500 index and CNX Sharia 500 index respectively. Both the indices registered the highest negative skewness on Monday and positive average daily return for Wednesday, Thursday and Friday. However, the calculated value of Kruskall-Wallis H test is 47.434 for CNX 500 index and 47.196 for CNX Sharia 500 index which is higher than the table value of 9.488. Hence, the null hypothesis is rejected and concluded that there is a day of the week effect in the calendar year 2015 for both the selected index.

Table 13: Descriptive statistics and Kruskall-Wallis H statistics for CNX 500 index from 1st January 2016 to 31st December 2016

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.034	0.039	0.041	-0.134	0.120	0.020
Standard Deviation	1.001	1.021	0.998	1.009	0.944	1.040
Kurtosis	0.354	1.955	0.132	1.612	2.026	1.234
Skewness	0.082	0.007	0.066	-0.870	-0.709	-0.296
Count	47	48	50	50	50	246
H Value	29.237					

Table 14: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 index from 01/01/2016 to 31/12/2016

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.022	0.008	0.071	-0.097	0.091	0.020
Standard Deviation	1.901	0.933	1.001	0.989	0.975	0.945
Kurtosis	0.379	2.156	0.104	1.438	2.111	1.180
Skewness	0.047	-0.396	-0.187	-0.846	-0.572	-0.396
Count	47	48	50	50	50	246
H Value	28.428					

Table 13 and 14 exhibits the results of descriptive statistics and H Statistics for the calendar year 2016 for CNX 500 index and CNX Sharia 500 index respectively. The returns are negatively skewed on Tuesday, Wednesday, Thursday and Friday for CNX Sharia 500 index whereas the returns were negatively skewed only for Thursday and Friday due to extreme returns are presents left side to the mean return.The calculated value of 'H' for CNX 500 index and CNX Sharia 500

index is 29.237and 28.428 respectively which are higher than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is rejected and concluded that there is a significant difference in the mean return of the weekdays.

Table 15: Descriptive statistics and Kruskall-Wallis H statistics for CNX 500 Index from 1st January 2010 to 31st December 2016

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.326	0.124	0.336	-0.147	-0.123	0.105
Standard Deviation	0.788	0.821	0.725	0.818	0.861	0.803
Kurtosis	2.921	3.731	4.038	3.515	2.502	3.295
Skewness	0.001	-0.043	0.041	-0.577	0.029	-0.124
Count	348	350	343	344	341	1726
H Value	1.918					

The descriptive statistics and Kruskall-Wallis H statistics for CNX500 index during the entire study period from 1st January 2010 to 31st December 2016 is exhibited in Table 15.Friday registered the highest variability with standard deviation of 0.861 and the lowest average return is observed in Thursday. The negative skewness for Tuesday and Thursday indicates the returns are negatively skewed.The calculated value of 'H' for CNX500 index from 1st January 2010 to 31st December 2016 is 1.918 which is lower than the table value of 9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays for the overall study period.

Table 16: Descriptive statistics and Kruskall-Wallis H statistics for CNX Sharia 500 Index from 01/01/ 2010 to 31/12/2016

	Monday	Tuesday	Wednesday	Thursday	Friday	Overall
Mean	0.243	0.342	0.603	-0.276	-0.234	0.145
Standard Deviation	0.690	0.707	0.632	0.703	0.771	0.702
Kurtosis	3.010	3.691	3.404	3.653	2.397	3.227
Skewness	0.214	-0.164	0.184	-0.551	-0.192	-0.140
Count	348	350	343	344	341	1726
H Value	3.258					

Table 16 exhibits the results of descriptive statistics and Kruskall-Wallis H statistics for the CNX Sharia 500 index during the study period from the calendar year 2010 to 2016.Highest standard deviation of 0.771 is noted in Friday with the negative mean return of -0.-0.234. This clearly indicates that the market is more volatile in Friday than any other days. The return of the CNX Sharia 500 index is negatively skewed except for Monday and Wednesday. The Kurtosis indicates that the return is leptokurtic. The calculated value of 'H' for CNX Sharia 500 index from 1st January 2010 to 31st December 2016 is 3.258 which is lower than the table value of

9.488 at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that there is no significant difference in the mean return of weekdays.

Conclusion

The present study aims at exploring the presence of seasonality in the Indian stock market returns after financial crisis of 2008. The study provides the evidence for the presence of seasonality across the days of the week by using the percentage changes of daily closing values of two NSE indices, i.e. CNX 500 index and CNX Sharia 500 index for the period from 1st January 2010 to 31st December 2016. For the overall period, the study accepts the null hypothesis and concluded that that there is no significant difference in the mean return of weekdays. However, for the calendar year 2012, 2015 and 2016, there is an evidence of significant difference in the weekday returns. During the calendar year 2012 the market were in sideway, the year 2015 the market was under the control of bear and the year 2016 the market enjoyed the bull run. On the other hand, the year 2010 and 2011 were not registered the significant weekday difference in their returns. The result clearly indicates that the market may be inefficient in the short term, but in the long run the market is efficient.Hence, the investors cannot outperformance the market and enjoy the super normal profit consistently for long period of time. Moreover, the results consistent with the earlier studies as the leptokurtic distribution of equity returns; presence of highest variance on Friday and regularity of returns across the weekdays.

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