Calendar Variances in Indian Stock Market – Conceptual Perspective through Literature Survey (Day-of-the-Week Effect)

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Abstract

The stock markets are vital economic institutions in developing countries like India, since they facilitate the transfer of private savings into business investment and provide liquidity to investors. They are associated with wealth creation and capitalism. Stock exchanges, which in turn are the engines of the market, provide a medium for the facilitation of business transactions, though they are also referred to as trends or benchmarks in the market. They are important for investors as well as for financial managers.

The weak form of the theory states that public market information is fully reflected in prices and that past performance has no relationship to future returns. In other words, trends don’t matter. The semi-strong form says that stock prices are updated to reflect both market and non-market public information. The strong form states that all public and private information is fully and immediately factored into prices and that past performance doesn’t matter. The semi-strong EMH has very important implications for investors as well as for financial managers.

The day-of-the-week effect describes a situation in which returns are significantly different on one day of the week compared to other days. Negative Monday returns and positive Friday returns are the most common. The day-of-the-week effect has been one of the most frequently studied variances over the years.

1. Introduction

The Efficient Market Hypothesis (EMH), popularly known as the Random Walk Theory, is the proposition that current stock prices fully reflect available information about the value of the firm, and there is no way to earn excess profits. Current stock prices fully reflect available information about the value of the firm, and there is no way to earn excess profits.

2. Variances in Indian stock market

A market anomaly in a financial market is a price and/or rate of return distortion that seems to contradict the efficient-market hypothesis.

3. Review of Literature

Day – of – the – Week Effect

The literature review will give an idea about the existence/non-existence of Day-of-the-week effect in the Indian Stock Market.
• P. Srinivasan and M. Kalaivani in their study entitled “Day-of-the-Week Effects in the Indian Stock Market” analysed empirically the Day-of-the-Week effect on stock returns and volatility of the Indian stock Markets. They chose two indices – BSE Sensex and NSE Nifty. The analysis was done for the period ranging from 1st July 1997 to 29th June 2012. GARCH, EGARCH and TGARCH Models were utilized to indicate the existence of the Day-of-the-Week effects on stock returns. The study revealed Positive Monday and Wednesday and Negative Tuesday Effects. Moreover the average return of Monday is significantly higher than average return of Wednesday. The study also signifies that the traders have a great opportunity for predicting the future prices and earning abnormal profits in the Indian Stock Markets because of the Day-of-the-Week variances.

• Dr. Vandana Khanna in her study “An Analysis of Day-of-the-Week Effect in Indian Stock Market” examined the effect of trading days in the Indian Stock Market by analysing the daily closing prices of BSE – Sensex for the period January 31, 2006 to December 31, 2010. Descriptive Statistics and ARIMA models were used for the analysis. The study observed that there is a significant relationship between the returns of different trading days of the week. Maximum average positive returns were present on Tuesday. The study proved the existence of Day-of-the-week anomaly in the Indian stock market.

• Dr. Sanjeet Sharma in his study entitled “Day Of Week Effect: Evidences From Indian Stock Market” attempted to test the existence of Day-of-the-Week effect in Indian Stock Market. For this purpose, data was collected for the period from January 2008 to December 2009 for two indices: Sensex and Nifty. Unit Root Tests, Runs Test, Kolmogorov-Smirnov Test, T-test and ANOVA were used for the purpose of analysis. Contradictory to the previous studies, the result of this study showed that the the Day-of-the-Week effect do not exist in the Indian Stock Market. However the scope of the study was limited since it was carried out with data for two years only.

• A research was carried out by Geetha Sulur Nachimuthu and Shanmuga Priya Sulur Nachimuthu on “Day of the Week effect in Indian Stock Markets An Analysis across Major Sectors in National Stock Exchange, India” by analysing the daily closing values of S&P CNX Nifty and indices of ten major industrial sectors for a period of 5 years from January 2009 to December 2013 to investigate the weak form efficiency across various sectors of Indian stock market. Tools used for the study were Descriptive Statistics, Kruskal Wallis Test and Regression Equation. The study provided evidence for seasonality of returns with high returns on Wednesday in majority of the Indices.

• J. Sudarvel, Dr. R. Veimurugan and Dr. K. Kumuthadevi in their study “Day of The Week Effect in Indian Stock Market” attempted to investigate the existence of Day-of-the-Week effect in Indian Stock market by utilizing the Daily return data of BSE – Sensex and NSE – Nifty Index for the period April 2015 to March 2016. The data collected were analysed by applying Ordinary Least Square (OLS) and Descriptive Statistics. The study revealed that Indian Stock market is full of anomalies and Day-of-the-week effect patterns in return and volatility can enable investors to take advantage of relatively regular market shifts by designing trading strategies.

• A study made by Vandana Sharma and Balwinder Singh on “Day-Of-The-Week Effect And Indian Stock Market” revealed the presence of Weekend effect i.e., negative Monday and positive Friday returns. For this purpose, data was collected for a period of 14 years from January 1992 to October 2005. The study was based on daily closing prices of Sensex. Tools used for the study were Descriptive Statistics and ARIMA models.

• Amitabh Gupta in his study entitled “Day-of-the-Week Effect on the Indian Stock Market: New Evidence” re-examined the Day-of-the-Week Effect on the Indian Stock Market after the introduction of the compulsory rolling settlement for a three year period April 1 2002 to March 31 2005 for BSE -100 and S&P CNX 500 Index. Non-parametric test was used for the analysis and the study proved the existence of the Day-of-the-Week effect and showed that the returns on Friday was the highest compared to other trading days.

• Nagesh Malavalli and S Sathyanarayana in their study entitled “An Analysis of the Day-of-the-Week Effect in the Indian Stock Market: Evidence from Bombay Stock Exchange” attempted to empirically analyse the Day-of-the-week effect in the Indian Stock Market by choosing the BSE – Sensex index for the period April 2004 to March 2014. The tools used for the study were Unit Root test, Descriptive Statistics, OLS Regression Models and ANOVA. Contrary to the other studies, the study failed to support the existence of Day-of-the-Week Effect in Indian Stock Markets. This again might be due to the fact that the study was conducted for a long period of time.

• Prateek Verna in his study “An Empirical Analysis of Day of the Week Effect in BSE BANKEX” explored Day-of-the-Week effect in BSE – BANKEX. The Index has been analysed for a period of 10 years from 1st April 2005 to 31st March 2015. The tools used for analysis were dummy variable regression and ANOVA. BSE BANKEX is an important representative index of top banks in India. The Empirical results of the study revealed that there is no day of the week effect in Indian Stock Market with respect to BSE – BANKEX.
These stock returns are linked to a specific day of the week effect. The study employed the daily mean index value for generating the daily returns. A Non parametric test – Kruskall Wallis test using ‘H’ Statistic was employed to test the seasonality. The study concluded that Indian stock markets do manifest seasonality in their returns' pattern.

### Findings

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### 4. Conclusion

Stock Market efficiency is a very important concept while attempting to understand the working of the capital markets. The day-of-the-week effect refers to the existence of a pattern on the part of stock returns. These stock returns are linked to a particular day of the week. This study attempts to understand the concept of volatility in the prices of stock market and to provide a conceptual framework of Analysis of Calendar Variances in Indian Stock Market with the evidence of several literature. The study is limited only to the available literature on this specific area, but the scope for further investigation is very high. While Reviewing Literature, the studies relating to the analysis of Day-of-the-week effect alone were chosen. The indices mostly chosen for the study were BSE – Sensex, S&P CNX Nifty and Indices for selected sectors.

Majority of the articles reviewed suggest the existence of calendar anomalies. This study suggests to investors that the existence of calendar variances may provide opportunities to formulate profitable trading strategies so as to earn abnormal return and adopt a fair return for risk strategy but SEBI should take necessary steps to increase the efficiency of Indian Stock Markets and thereby protect the genuine investors.

### References

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