

Effects of Weather Factors on Indian Stock Market¹

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Abstract

A psychological state, the mood, feelings, emotion and sentiment, are known to play an important role in people's decision making and judgment. Besides, the weather has a significant influence on the people's mood and sentiment, and in turn, people's decision and behavior, are affected due to the weather effect. More to this, the literature of market anomaly has suggested that weather factors affect individuals' mood and sentiment and in turn influence investors' rational decision makings. Behavioural finance also argues that market anomalies can be explained by assuming investors are not always fully rational. Moreover, there are links between weather factors and stock prices via human mood. The study employed the secondary daily data of weather factors in five sample cities and two stock indices in India from January 1, 2001, to December 31, 2019.

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I. Introduction

THE EMOTIONS AND sentiments of people influence the decision that they make; also, the weather of a place is a factor that has an impact on the mood and feeling of the people, which in turn, affects the people's decisions and behavior. Moreover, market anomalies affect the emotions and feelings of people and influence the rational decisions of investors in their turn (Kathiravan C, Selvam, Kanniah, Lingaraja and Thanikachalam 2019). Behavioral finance argues that market anomalies are explained by assuming investors are not always rational. Traditionally, the decision-making process depends on the level of risk and uncertainty (Markowitz, 1952). But many

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V. Conclusion

Behavioral finance explains deviations from the efficient market hypothesis. The current study examined the relationship between weather and stock index returns for the Indian BSE Sensex and NSE Nifty between January 1, 2001, and December 31, 2019. With the help of descriptive statistics, the GARCH Model, the Pearson Correlation Coefficient, the Granger Causality Test, and the OLS Results model, an attempt has been made in this study to examine the effects of weather in the top five metro cities on two stock indices. Descriptive statistics through normal distribution confirmed the data for the sample variables. The examination of the GARCH model for volatility revealed that just one weather factor, the temperature in Bangalore, Chennai, Delhi, and Kolkata, caused changes in two sample indices over the study period out of the three weather elements present in the five sample cities. The OLS data undoubtedly demonstrated that the humidity factor in Bangalore and Delhi had a beneficial impact on BSE Sensex and CNX Nifty, and the temperature factor in Bangalore, Chennai, Delhi, and Mumbai did have a substantial impact as well. In other words, only temperature and humidity out of the three meteorological factors humidity, temperature, and wind speed had any bearing on the returns of the sample stock indexes throughout the study period. Retail investors must establish their investing strategy following the study's suggestions if they want to profit from stock trading over the long run.

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