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Title of the thesis: **An analysis of returns of Indian Stock Indices: A study of National Stock Exchange and Bombay Stock Exchange**

ABSTRACT

S&P CNX Nifty and Sensex are two most reported indices and belong to two main stock exchanges of India i.e. National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) respectively. Fifty stocks listed at NSE have been combined by free float market capitalization method to constitute S&P CNX Nifty and thirty stocks listed at BSE have been taken for Sensex. Any stock moves for two possible reasons at stock market – news about the company and news about the country. Combination of many stocks mitigates the first effect from any index but not the second one. Hence both S&P CNX Nifty and Sensex bear only the news of India. That is why they are used as information source to many economic researches and benchmark for any news at NSE and BSE. Any index composition method will be able to mitigate the individual stock's effect from the same index if all of its contained stocks reflect all news perfectly and immediately. This implies that the Indian stock market needs to be efficient. But all stock exchanges of India are well known for their weak form of efficiency. Again the concept of efficient stock market stands on three unrealistic assumptions. Relaxation of these assumptions generates investors' sentiment. If sentiment controls the movement of Indian stock indices then their purposes will not be fulfilled. Therefore present study has tried to check the applicability of the assumptions of efficient market on NSE and BSE. By building up sentiment indices separately for BSE and NSE this study has also checked its relationship with S&P CNX Nifty and Senex.

Major Findings

1. Both NSE and BSE are well regulated and governed by Security Exchange Board of India, Department of Economic Affairs, Ministry of Company Affairs and Reserve Bank of India. But stock price manipulation is possible at both NSE and BSE.

2. Five years daily closing price from 1st January 2004 to 31st December 2008 has been taken for analysis. Histogram of these two indices is negatively skewed and they have fat tails. Therefore the distribution is not normal. Run test, serial correlation test, unit root test and variance ratio tests have been used to check the random walk behaviour. But all tests do not support this hypothesis. Hence no confirm conclusion about behaviour of the data could be drawn.
3. Therefore the types of investors involved in Indian stock market and their decision making process has been checked. It has been shown that there are two types of investors – noise and rational. Large number of both noise and rational traders' decision process will be affected by mental biases like hindsight, confirmation, loss aversion, over confidence and self attribution.
4. Arbitrage will not be possible because rational traders' decision process will also be guided by these biases. Therefore bullish or bearish sentiment will exist at Indian stock market at any point of time.
5. Spearman rank correlation coefficient between rank of daily return and volatility of content stocks of S&P CNX Nifty and Sensex has been used as the sentiment index for NSE and BSE. Using ordinary Least Squares method the study has showed that sentiment indices can explain nearly seventy percent of both the indices returns.