INFORMATIONAL EFFICIENCY OF INDIAN STOCK MARKET: A COMPARATIVE STUDY WITH GLOBAL REPRESENTATIVE MARKETS

ABSTRACT

The informational efficient market is one in which stock prices adjust quickly when new information arrives, and the current prices of stocks reflect all information about the stock. The concept of informational efficiency has given rise to theoretical and empirical research, which has broad and significant relevance to stock markets, traders, and investment firms.

The recent studies on the informational efficiency of the stock market have focused majorly on measuring the unpredictability in the market correlated with long-term hidden trends, volatility, and local trending behavior. In this dissertation, three different methodologies have been considered to empirically analyze the informational efficiency of stock markets, which include Hurst Exponent, Shannon entropy and price discovery. In addition to these particular methodologies, a composite efficiency index has been defined considering all methods together and compared the market efficiency based on the composite index.

This study has considered closed price of 8 stock markets and corresponding financial sector indices from China (SSE SHCOMP), India (NIFTY 50), US (NYSE NYA), UK (LSE FTSE 100), Japan (NIKKEI TSE), Hong Kong (HKEX HSI), Singapore (STI), Brazil (BOVESPA-IBOV) over a period of 11 years starting from 2005 to 2016, and draw comparisons of Indian stock market along with the Indian financial sector index with the indices from the developing as well as developed markets. The study has also been extended to analyze the impact of a recent economic event (Brexit) on the informational efficiency of these stock indices and corresponding financial sector indices.

It has been observed from the analysis using the individual methodologies and the composite efficiency index that the informational efficiency of Japan (NIKKEI TSE) is higher in comparison to other stock markets. The analysis has also established that the informational efficiency of US (NYSE NYA) and the UK (LSE FTSE 100) are most impacted due to Brexit. In the context of Indian stock market and financial sector index, it has been observed that the

market is not entirely random, showing a persistent behavior, taking a long time for approaching full price adjustment and less impacted by the uncertainty as well as the Brexit.

Keywords: *Informational Efficiency, Hurst Exponent, Range to Standard Deviation, De-trended Fluctuation Analysis, Fractal Dimension, Shannon Entropy, Price Discovery, Efficiency Index, Brexit*