Limitations of doing a Stock Market Analysis in Sri Lanka: A Review

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Abstract. Stock Market Analysis and prediction has been a popular research topic that has attracted many researchers and analysts. The stock market is deemed to be a random walk for novices. With the risk involved and the huge amount of money that is put into stake, everyone wants to have an idea of what returns they can get on their investment, before they get into it. Many variables and factors define the price of a stock, and some of them are challenging to factor in when making a prediction. Apart from the fundamentals of financial markets, some local elements are different from one stock market to the other, that changes the way how a stock market analysis should be done on each. According to multiple various research work done around financial markets around the world, there are multiple technologies that are identified as suitable to be used when analysing the behaviours and predicting the trends and possible outcomes in each. To complement and mitigate the limitations of statistical methods that have been used traditionally, new machine learning methods such recurrent neural networks, principal component analysis and sentiment analysis have been used. In the context of Sri Lanka, most of these modern analysing and prediction technologies can take a hit in performance and accuracy due to the volatile behaviour of some local factors that affect the stock market and the economy as whole. In this paper, it is discussed what technologies are used to build stock market analysis, the way external factors such as macroeconomic variables and news sources affect the stock market and the limitations that make it challenging to do a stock market analysis on the Colombo Stock Exchange (CSE), the only stock market established in Sri Lanka.

Keywords: *Stock Market Analysis, Limitations, machine learning.*