

Integrating Sentiment Analysis and Predictive Modelling for Stock Forecasting: A Case Study on Sentiment-Sensitive Industries in the Colombo Stock Exchange

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Stock price forecasting is challenging as factors like economic shifts, political changes, and investor behavior influence it. Although numerous studies have explored sentiment analysis and predictive modelling, a critical gap remains in understanding how different sectors react uniquely to financial news. This study takes an innovative approach by focusing on the Colombo Stock Exchange (CSE), characterized by unpredictable market movements. We intend to identify the five most sentiment-sensitive industries within the CSE from a broader set of 20 sectors. We will use this knowledge to develop a forecasting model that captures industry-specific responses to sentiment by analyzing daily stock prices alongside sentiment data extracted from approximately 100,000 financial news articles from 2016 to 2023. We aim to develop an adaptable forecasting model that enhances prediction accuracy, offering actionable insights for investors, particularly in the volatile CSE market. Our approach addresses industries' unique sensitivity to sentiment and provides a more nuanced understanding of market dynamics. The result will be a robust, industry-focused forecasting tool that better equips investors to navigate the complexities of the CSE, ultimately leading to more informed decision-making in volatile market conditions.

Keywords: *stock market forecasting, sentiment analysis, predictive modelling, colombo stock exchange, industry sensitivity, financial news.*