Business Thesis - Team 22

After analysis based on the model, our team recommends investing in the stocks for 3M.

With the advancement of technology, people are paying more attention as to how it can be of use in real life applications, which is “predicting” the stock market price in this case.

When analyzing possible factors affecting the variation in stock price, we categorized them into quantitative and qualitative data. Quantitative includes the actual stock prices from 2009/01/01 to 2019/12/31, while qualitative includes news articles pulled from the New York Times, and tweets from the respective companies.

To have a more accurate estimation of the stock price, we used natural language processing on APIs from twitter and the New York Times, and combined with the Arima Model to predict the daily stock price. The prediction shows that 3M has the most potential in an increase in stock price, and Honeywell ranks second, while Bayer and Synchrony Financial both have a possibility to face a decline. Thus, our group’s prediction model recommends investing in the stocks for 3M.