**PUMP AND DUMP DETECTION IN STOCK PRICES USING NEURAL NETWORKS AND REGRESSION MODEL**

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**Problem**

Stock market return forecasting is practically a complex research prediction practice that is now evolving with new financial instruments, data channels, economies, and algorithms being made available. The predictability of prices still raises significant questions at its heart. As the old stock traders are getting their hands on various techniques in order to gain maximum profit through fluctuating the stock prices that include illegal practices such as pump and dump technique. The techniques for achieving predictive precision are discussed here. To build this process, we compile the average series prices of approximately half the publicly available firms over a ten year period and devise some trading strategies based on their forecast. Proper analysis of these data in combination with the use of the theoretical paradigm for No Free Lunch provides some surprising findings that demonstrate how the a priori less reliable algorithms and inefficient approaches can produce better outcomes than the a priori best solutions in some different subsets of data that provide a good understanding of economic sectors and regions.

**Approach**

A dependent variable relation with more than one independent variables can be modeled using linear regression model. The way we will use linear regression here is by fitting a linear regression model to the previous N values, and using this model to predict the current day value. So we are predicting the stock market prices of publically available shares of various companies by comparing the previous result charts using linear regression model and neural networking mechanism. In this way the stock prices can be predicted so for the future use if a price of some stock rapidly increase then it can be detected as a pump and dump scam so that the buyer can be warned before buying such stocks in order to lessen the loss.

**Experiments**

This project will develop a program of financial data predictors in which all historical stock prices will be stored in a dataset and data will be treated as training sets for the program. The prediction main purpose is to reduce the uncertainty associated with making investment decisions. Stock market follows the random walk, which implies that today's value is the best prediction you can have about the value tomorrow.