

ABSTRACT

This study makes use of the machine learning algorithms and technical indicators for stock index prediction(S&P 500 and NIFTY 50). Models are trained and tested using Support Vector Machines (SVM), Artificial Neural Networks (ANN) and Multivariate Additive Regression Spline (MARS). Result shows that SVM outperforms ANN and MARS. Also when SVM is used for trading on the tested data, it is found that it outperforms buy and hold strategy by a large margin, which directly contradicts the efficient market hypothesis in any form (strong, weak and semi-strong). Hence Efficient market hypothesis doesn't exist in any form for the two markets under consideration. As Paul Samuelson stated that markets are macro inefficient, our study also shows that for the two markets under consideration markets are inefficient in macro form.