iJRASET
International Journal For Research in Applied Science and Engineering Technology

# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

**Volume:** 7 **Issue:** IX **Month of publication:** September 2019

**DOI:** http://doi.org/10.22214/ijraset.2019.9025

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
*ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177*
*Volume 7 Issue IX, Sep 2019- Available at www.ijraset.com*

# Stock-IT

Pratik Pushkar[1], Rahul Singh[2], Sagar Kandrikar[3], Nidhi Tiwari[4], Prof. S. M. Malode[5]
[1, 2, 3, 4]*Student,* [5]*Assistant Professor, Technology, K. D. K. College of Engineering, Nagpur, India*

***Abstract:*** ***In a financially volatile market, as the stock market, it is important to have a very precise prediction of a future style. Because of the financial crisis and scoring profits, it is mandatory to have a secure prediction of the values of the stocks. Predicting a non-linear signal requires advanced algorithms of machine learning. The project contains studies with different machine learning algorithms such as ANN (artificial neural networks) with different feature selection. The results of this study will show that the algorithm of classification SVM (Support Vector Machines) with the help of feature selection PCA (Principal component analysis) will have the success of making a profit.***
***Index Terms: Artificial Intelligence, Stock Market, Python.***

## I. INTRODUCTION

Stock market prediction is the act of trying to determine the future value of a company stock or other financial instrument traded on an exchange.

Stock-IT is a machine learning web app that allows the user to compete against the AI in buying/selling stocks. Random stocks and a random date in the past is chosen. The stock price starts trending from that date and continues for 365 days. While the stock price trends, the user competes against the AI in buying or selling stocks. The Finance industry is an earlier pioneer of adopting AI, contrary to the belief that it's the most risk averse Banks have started to harness AI to meet ever-growing regulatory demands while minimizing the cost of human capital Citigroup estimates that the biggest banks have doubled the number of people they employ to handle compliance and regulation, costing the banking industry 270 billion a year and accounting for 10 percent of its operating costs.

## II. PROBLEM STATEMENT

This project addresses the various risks involved in stock market. It also reduces the chances of fraud and helps in detecting it in a sophisticated manner. One of the major problem faced in trading of stocks is the stock brokers and it helps the prospective buyer in buying and selling of stocks while reducing the price incurred in between. Fraudulent behavior, suspicious transactions, potential future attacks.

How can this be mitigated? A I can analyze huge volumes of security data and scale to the size of a company as it grows So much valuable company data is being stored online. More and more. Using machine learning, systems can detect unique activities or behaviors and flag them for security teams. Given the unmeasurable high number of ways that security can be breached, genuinely "learning" systems will be a necessity in the five to ten years ahead.

According to a 2015 study by research firm Javelin Strategy, wrong declines, legitimate transactions that are wrongly rejected, account for 118 billion in losses for retailers. A third of wrong decline cases result in lost customers, and in US alone they incur damage that is worth 13 times the value of actual fraud. By analyzing various data points, machine learning algorithms can detect fraudulent transactions that would go unnoticed by human analysts while improving the accuracy of real-time approvals and reducing false declines.

## III. LITERATURE REVIEW

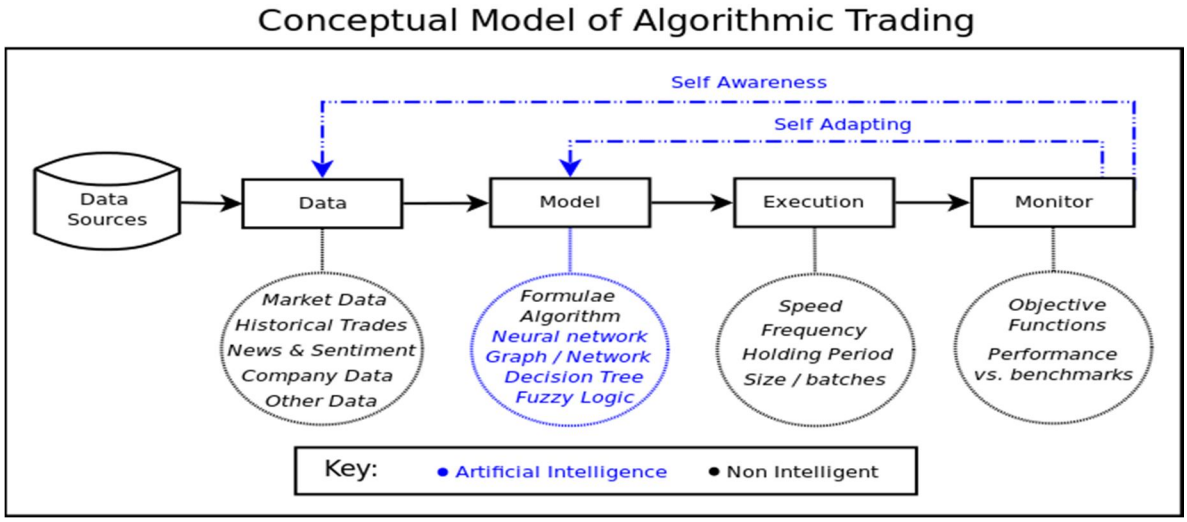
In this paper, previous studies featuring an artificial neural networks based prediction model have been reevaluated. The main purpose of this review is to examine studies which use directional prediction accuracy.

Stock prediction with data mining is one the most important issues in finance being investigated by researchers across the world. Data mining techniques can be used extensively in the financial markets to help investors make wise decision.

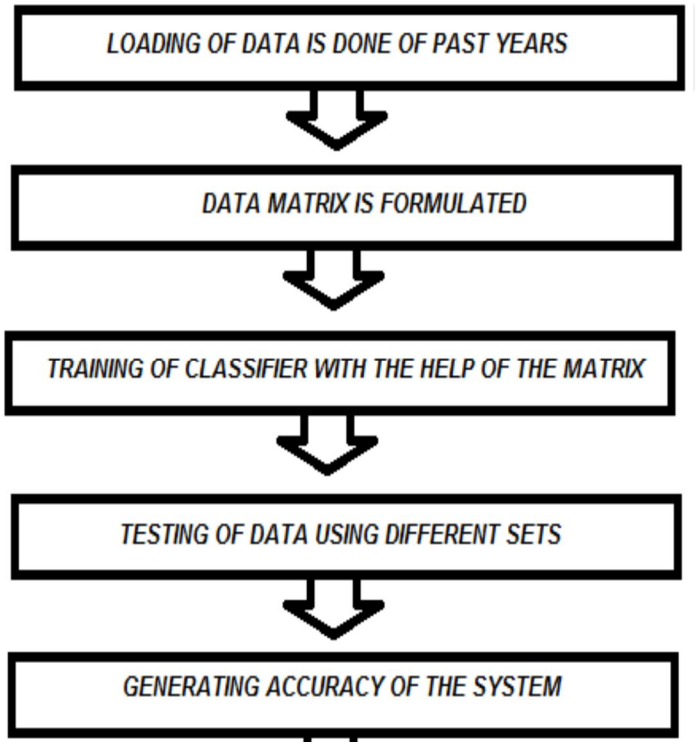
©IJRASET: All Rights are Reserved

*ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177*
*Volume 7 Issue IX, Sep 2019- Available at www.ijraset.com*

## IV. ARCHITECTURE




## V. DESIGN IMPLEMENTATION




## VI. CONCLUSION

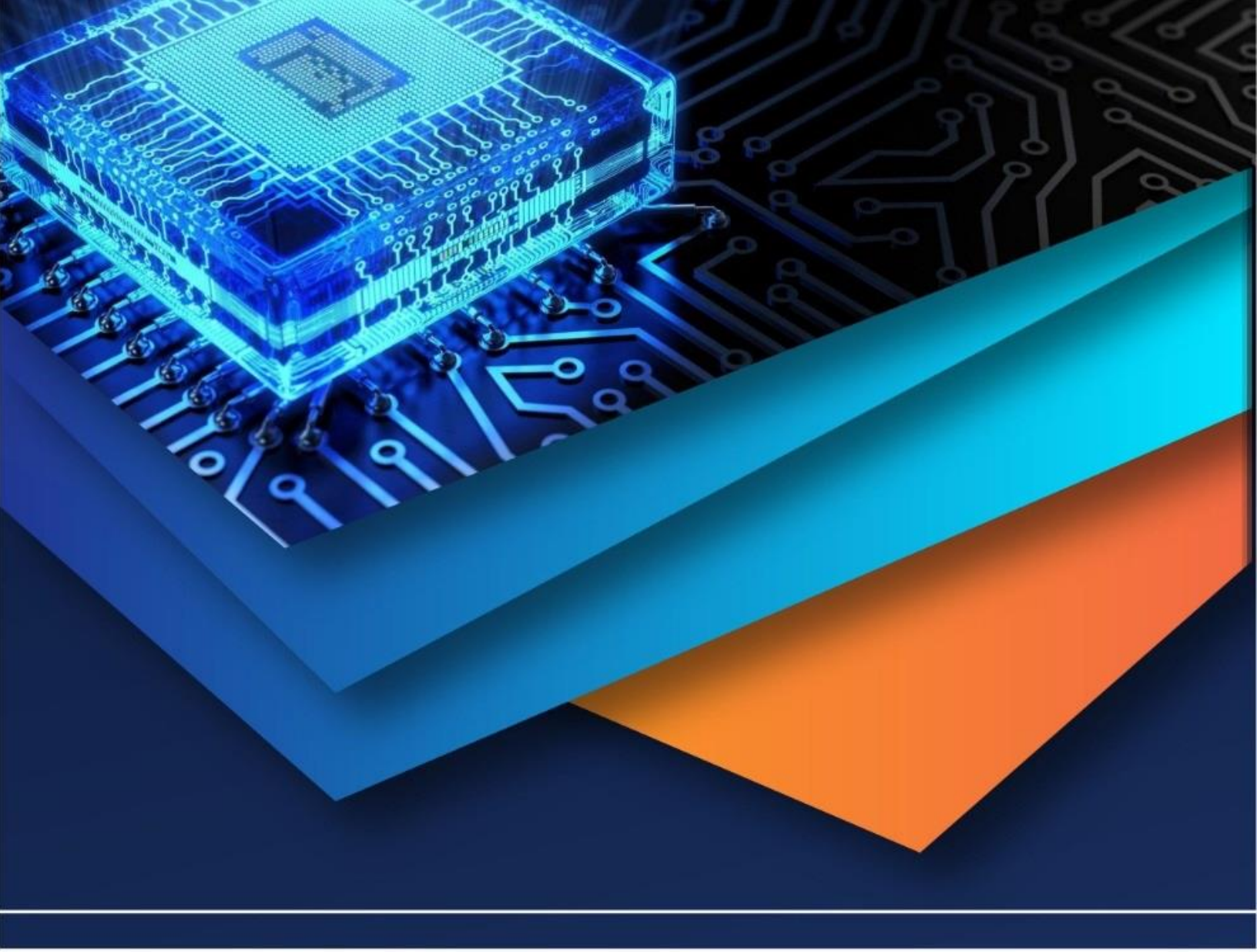
A large body of work was presented in this report. Two of the most widely used methods, Fundamental Analysis and Technical Analysis showed little promise in the experiments carried out. Technical Analysis specifically shows little to no potential of ever producing any statistically significant result when the correct methodology is applied. Machine learning methods were then tested on a wide range of data sources. The result of some models looked hopeful, but ultimately failed when they were put through realistic trading simulations. This highlights that the stock markets prone to differences between theory and practice. If there is anything that this report shows, it is that profitable stock mar-ket prediction is an extremely tough problem. Whether it is possible at all ultimately remains an open question. After completing the project, it is the firm belief of the author that the only viable trading strategy for a casual investor is a passive buy and hold strategy in index funds and ETFs.

©IJRASET: All Rights are Reserved

## REFERENCES

[1] Azoff, E.M. Neural Network Time Series Forecasting of Financial Markets John Wiley and Sons Ltd, 1994.
[2] Forecasting the Stock Market Index Using Artificial Intelligence Techniques Lufuno Ronald Marwala, 2011.
[3] Applying Data Mining Techniques to Stock Market Analysis Gabriel Fiol-Roig, Margaret Miró-Julià, Andreu Pere Isern-Deyà.
[4] Prediction of Stock Market using Data Mining and Artificial Intelligence G. S. Navale, Nishant Dudhwala , Kunal Jadhav .
[5] Shen, Shunrong, Haomiao Jiang, and Tongda Zhang."Stock market forecasting using machine learning algorithms."Department of Electrical Engineering, Stanford University, Stanford, CA (2012): 1-5.
[6] Bonde, Ganesh, and Rasheed Khaled."Extracting the best features for predicting stock prices using machine learn-ing."Proceedings on the International Conference on Artificial Intelligence (ICAI). The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (World Comp), 2012.
[7] Dai, Yuqing, and Yuning Zhang. "Machine Learning in Stock Price Trend Forecasting." (2013).
[8] Vantage, Alpha.,Alpha Vantage - Free Apis For Realtime And Historical Financial Data, Technical Analysis, Charting,And More!Alphavantage.co. N.p., 2017. Web. 19 Nov. 2017.
[9] Pedregosa et al.,Scikit-learn: Machine Learning in Python.JMLR 12, pp. 2825-2830, 2011.
[10] Technical Indicator Reference. Fmlabs.com. N.p., 2017. Web. 19 Nov. 2017.

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)