PREDICTION OF STOCK TRADING SYSTEM USING NEWS AND USER FEEDBACK

S.sowmya [A], G.Illanchezianpandiyan [B]

[A]*PG Scholar, Ganadhipathy Tulsi's Jain Engineering College, Kaniyambadi, Vellore*

[B] *HOD of computer science engg, ganadhipathy Tulsi's Jain Engineering college, Kaniyambadi,*

Vellore

sowmics18@gmail.com

ABSTRACT- **An automated framework for soothsaying the stock market investment is presented on this paper. It is intended to analyze the share predicated on day, week, month, and yearly substructure.The framework analyses the shares predicated on the RSS feeds from the news. The RSS tracker is implemented via the API associated with it. Only the financial market alone is focused through the RSS tracker. Though to make still utilizer amicable and convenient to the utilizer, the utilizer interest about the particular few tasks are amassed from the utilizer at the initial stage, and the RSS is obtained only for that particular stocks. The key conception of this project is to offer a secured and remuneratively lucrative platform to the investors in order to make a positive gain towards their share on return. The presage and suggestion is mainly predicated on the impact of a share about its liquidity flow and the news events about the particular share. Since the presage cannot be preceded only with the news events, the concept of obtaining the utilizer feedback from the authentic time shareholders is introduced. The feedback about each and every task is obtained and converted in terms of ration and stored on the backend databases. Hence determinately both datasets (via RSS and Utilizer feedback) are analyzed via genetic programming and the shares are suggested for a utilizer. The impact of news on liquidity and automated trading is critically examined. Determinately we explore the interaction between manual and automated trading.**

INDEX TERMS-Genetic algorithm, MACD EMA, RSS, Web text analysis

I.INTRODUCTION:

The financial market is mainly dependent on information, which makes the customers and investors to ken about the current financial status. So when information is taken in to consideration, the main source is News, which are telecasted and published by sundry media agencies through different sources like television. Hence as the information sources are incremented day to day, the arduousness in mining the data from the data source increases. It results in high volumes of news. Adscititiously, given that this information is time-sensitive, especially in the context of financial markets, culling and processing all the pertinent information in a decision-making process, such as the decision whether to buy, hold, or sell an asset is an especially challenging task. In this case, the desideratum for automating the process to mine the information from the data source arises. Among the data source, NEWS plays a vital factor to obtain the information about the financial market. So far, the works had done deals with the lexico-

syntatic patterns, which define the information extraction from news, that elongates the well-kenned lexica-syntactic patterns with semantic aspects. Utilizing information extracted from text in a financial context recently incrementing attention. Thus, the qualitative data may emerge from different sources, and can be utilized for the prognostication of different financial aspects of organizations amelioration.

II.RELATED WORK:

In respect of association between the news and stock market, we believe there is a witness that a relation ship exist between news reports and financial market and the impact of events on financial market are quantified and the list of relevant events can be identified.

Q-learning for Daily Stock Trading[1] approach deals with applying machine learning and observing concept for the authentic world data mining scenario. Hence the quandary of stock prognosticating and analysis is taken in to consideration. The interest of applying machine learning techniques towards financial quandaries subsists for a long time among several people. Hence this paper deals with designing a multiagent system that aims to provide an efficacious decision support for daily stock trading quandary. The proposed approach, which was denominated MQ-Trader, defines multiple Q -learning agents in order to efficaciously divide and surmount the stock trading quandary in an integrated environment. A cognition framework along with state representations for the cooperative agents of MQ-Trader are defined in this approach and the detailed algorithm is described. Furthermore, in an endeavor to address the involution quandary that arises when considering a substantial amount of data to compute long-term dependence among the stock prices, incipient state representation scheme is proposed on this approach, which was denominated TP matrix.

The cognation between news broadcast and monthly returns is withal investigated in [2]. Several stocks are culled with atleast one news story in a certain month. The news messages are divided into 'news winners'(price incremented after promulgation) and 'news losers'(price decremented after promulgation).The anomalous returns are quantified for 36 months after the month when the news was published. The author conclude the stocks exhibits anomalous returns after public news.

III.AUTOMATED TRADING FRAMEWORK:

The proposed system has been developed in the framework of soothsaying stock market by utilizing news and utilizer feedback. It explores the asset classes which are best suited for computer trading. Then critically analyze the role of different classes of traders and categorize it according to their desideratum. In order to have the customary monitoring of financial status, people rely on news. Technically, the financial markets are plenarily driven by information. That information's are victual to the public via incipient channels.

As there is a gradual increase in the count and content of information sources, it culminates up with high volumes of data sources in this stage; the manual processing of the cognizance being conveyed becomes a highly arduous task
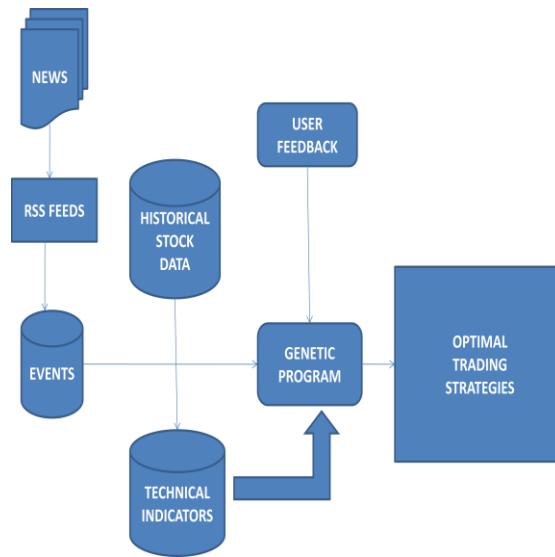
Figure 1: Trading framework

For getting resolved from all these kind of issues, it is intended to analyze the quota predicated on day, week, month, and yearly substructure through the automated framework proposed in this project. The framework analyses the portions predicated on the RSS victuals from the news. The RSS tracker is implemented via the API associated with it. Only the financial market alone is focused through the RSS tracker. Though to make still utilizer amicable and convenient to the utilizer, the utilizer interest about the particular few tasks are accumulated from the utilizer at the initial stage, and the RSS is obtained only for that particular stocks. The key conception of this project is to offer a secured and remuneratively lucrative platform to the investors in order to make a positive gain towards their quota on return. The prognostication and suggestion is mainly predicated on the impact of a portion about its liquidity flow and the news events about the particular share. Since the presage cannot be preceded only with the news events, the concept of obtaining the utilizer feedback from the authentic time shareholders is introduced. The feedback about each and every task is obtained and converted in terms of ration and stored on the backend databases. Hence determinately both datasets (via RSS and Utilizer feedback) are analyzed via genetic programming and the portions are suggested for a utilizer. The impact of news on liquidity and automated trading is critically examined.

We fixate on information presented in textual format, i.e., financial news messages with a particular fixate on companies listed under the INDIA Cements stock index. The research question addressed is how the information communicated through textual news messages can be automatically incorporated into trading strategies For this case, a three step implementation is presented. They are i)Extracting the germane events, as well as the involved entities, from the text of the news messages ii) Associating an impact with each of the extracted events, and iii)

Making utilization of the impact of news events in trading strategies. Upon extracting the events and associating these with a predefined impact, trading rules predicated on news can be derived

IV.TECHNICAL TRADING:

Technical indicators are mathematical representation of market patterns and behavior .It is a series of data points that are derived by applying a formula to the price data of security. Price data includes any combination of open,high,low or close over a period of time.

Some indicators may use only closing prices, while others incorporate volume and open interest into their formulas. The price data is entered into the formula and a data point is produced. The indicators included in this study are : the simple moving average (SMA),the Bollinger band(BB), the exponential moving average(EMA),the rate of change(ROC) and moving average convergence divergence(MACD).The choice of these indicators is based on their widespread use in technical trading.

V.EXPERIMENTS:

In this section we provide an overview of the validation of the proposed framework for including news in stock trading system.First,we fixate on the RSS feeds and then in amalgamation with each of the technical indicators we consider.
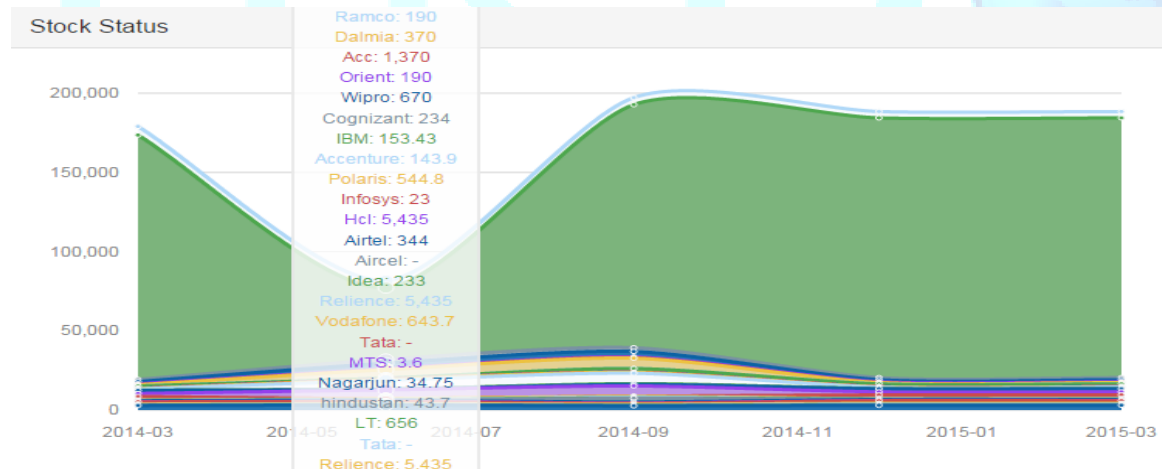

Figure:2.Stock status

The The dataset employed consists of a database of historical company share prices as well as amassment of news messages cognate to these companies.

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Figure3:Stock status using Technical indicator

Stock Number	Stock Symbol	Stock Name	Recent Date	Previous Rate
1	UCLQF	Ultratech	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	3045.00 INR
2	PRISMCEM	Prism	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	108.00 INR
3	AMBUJACEM	Ambuja	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	261.00 INR
4	RAMCOCEM	Ramco	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	333.00 INR
5	N / A	Dalmia	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	477.00 INR
6	ACC	Acc	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	1664.00 INR
7	ORIENTCEM	Orient	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	171.00 INR
8	WIT	Wipro	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	661.00 INR
9	CTSH	Cognizant	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	61.00 INR
10	IBM	IBM	Thu Feb 26 2015 17:11:56 GMT+0530 (IST)	162.81 INR

Figure4: RSS Feeds

VI.CONCLUSION:

This approach is implemented as a framework for automated trading predicated on news and the utilizer feedback adscititiously the bid survey of the public on asset classes and conclusively the results of validating the framework is discussed. On the system, the main and foremost drawback seems to be data presage. Though the genetic algorithm is productive and sensitive. The data provided on the newspapers and other content changes found to be in precise, because of this, the automatic stock prognostication becomes erroneous and the people feel inconsistently erratic and unreliable to utilize the application. Hence to surmount this quandary, we evaluate the utilizer feedback on the particular stock apart from the news detail. Determinately we embed both in the opportune module and then it is victualed to the genetic programming to make it better results.

Future work will fixate on including more indicators, technical or non-technical in nature then the feedbacks will withal amassed via twitter or other convivial networks.

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