Solving Onion market Instability by Forecasting Onion Price Using Machine Learning Approach

Nowadays in Bangladesh, the price of onion became a hot topic. Unexpected price swings are a warning of market uncertainty. The main aim of this paper is the forecasting the future price of the onion by applying the machine learning approaches based on collected data.

Firstly, they collected the needed data from the website of the Ministry of Agriculture and collected some samples of onion price. The data was numeric and unstructured. Secondly, they analyze the data on the basis of some parameters. By using pandas (machine learning tool) they remove the unwanted data. Then they applied the supervised learning algorithm technique to classified the data and create the dataset. After that, they applied five algorithms (KNN, Naïve Bayes, Decision Tree, SVM, NN) to calculate the forecasting result.

They created table1 to compare the performances. The yellow marked showed the highest accuracy of the five-corresponding model. The performance of the algorithms was quite close. Among them, they got the highest accuracy rate 98.17% by applying Neural Network (NN) and the lowest was 68.84% which they got by applying Naïve Bayes.

Finally, they expectedly predicted the future price but they have some flaws too. They only classified the data on basis of the price of the onions every month but they can also collect the data of demand for onions in the market and the supply amount. Because the price is also dependent on customer demand and how much the market can provide the item to the customer. If the customer demand is high and the market supply is low then the price will go high and If the customer demand is low and the market supply is high then the price will go low.

As our project is to create the value of a product, this paper will help us to forecast the price of the product. We can apply the process of collecting the data and analyzing the data. Because the idea of the work is quite similar to ours project. By reading this paper we can detect their faults so can be careful to not doing the same faults. So, our project will be helpful for both the consumers and the producers.

Oil Price Predictors: Machine Learning Approach

Price is a major concern for financial activities. Every country is using oil or oil products. So, the dynamic oil price is a concern for both producers and consumers. The oil price effects on economically and politically also. It is very important to know the exact price of oil. In this paper, the aim of the researchers is to predict the oil price by applying machine learning approaches. Here, they want to identify the factors which are affecting the price of oil and create an algorithm.

The researchers of this paper used linear regression which is a machine learning algorithm. By using linear regression, they got more accurate predictions of the prices. They build a function to get the results. Then they showed the estimated value which is close to the real values. For coefficient

estimates, there are some standard errors. the reported value is p and the three predictors were used to create the y data set. Then the linear regression algorithm was modified.

As a result, the linear regression improved marginally from 0.92 to 0.93. the accuracy of the model is greatly impaired. The researchers considered two main factors-The factors affecting the price of oil and the forecasting method for it. And build a machine learning algorithm. The results came out quitre significantly.

When ‘Brent’ prices fall the model also worked then. The reason for this was caused by poor data collection. Index R2 is based on the accuracy of the approximation. The rate of accuracy should be 0.97%.

The use of another can be one of the avenues for further study. Machine learning algorithms and the detection of emerging variables influence obtaining more reliable forecasts. By using their mythology, we can build our project for creating the value of the products.