

Future Forecasting and Analysis of Sri Lankan Tea Exports in Terms of Driving Forces Using Data Mining Concepts

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In order to identify new research directions and gaps in the body of knowledge for the time period under consideration, this study concentrated on collecting data specifically related to the Future Forecasting and Analysis of Sri Lankan Tea Exports in Terms of Driving Forces Using Data Mining Concepts. For individuals working in the sector, this research analyses and projects tea exports depending on the types of tea exported. Finding the elements that lead to fluctuations in tea export volume is made easier by examining the link between tea export and important variables. The prices and volumes of various tea types over that time period, as well as monthly data on tea exports from the previous ten years were used in this study. These historical data were utilised to assess and establish the strength of the correlation between the important variables and their patterns of variation in order to forecast tea export volume using WEKA software. Out of a variety of prediction and forecasting techniques, the Multilayer Perceptron, a form of Feed Forward Artificial Neural Network (FFANN), was determined to be the most efficient method for creating an accurate prediction model. A confusion matrix was used to gauge the accuracy of the results. With a 98 percent accuracy rate, this forecasting model is deemed suitable for predicting the volume of tea exports. It is also discovered that year, month, and tea types have the highest level of connection among the components in determining Sri Lankan tea export.

Keywords: *economic conditions in Sri Lanka, machine learning and varieties of tea*