Title : Forecasting the delivery of goods of Nimseseng Transport 1988 Co.,Ltd. using machine learning.

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ABSTRACT

This study focuses on selecting the most appropriate machine learning forecasting method for the data, using a total of 4 models: Long-Short-Term Memory (LSTM) , Autoregressive Integrated Moving Averages (ARIMA) , Seasonal Autoregressive Integrated Moving Averages (SARIMA) , and Exponential Smoothing (ETS). The accuracy criteria are compared by comparing the RMSE, MSE, and MAE values of each machine learning. The analysis of the shipment data of Nimseseng 1988 Co., Ltd., which was collected daily from January 1 to June 30, 2024, was performed. Before entering the data analysis step, the data in the product column was checked for errors and classified into the following categories. After that, the prepared data was analyzed using machine learning. The products selected for forecasting in this shipment were food and agricultural products because they are perishable. The next step was to randomly select 3 destination stations: D06, D07, and D32. It was found that if the most appropriate machine learning for this data set had to be selected, the time series model should be used. Autoregressive Integrated Moving Averages (ARIMA) or Seasonal Autoregressive Integrated Moving Averages (SARIMA) time series models, which produce the least expected error.

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