Truck Sales Analysis and Forecasting

Time series Exam

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Preliminary Analysis / Time Series

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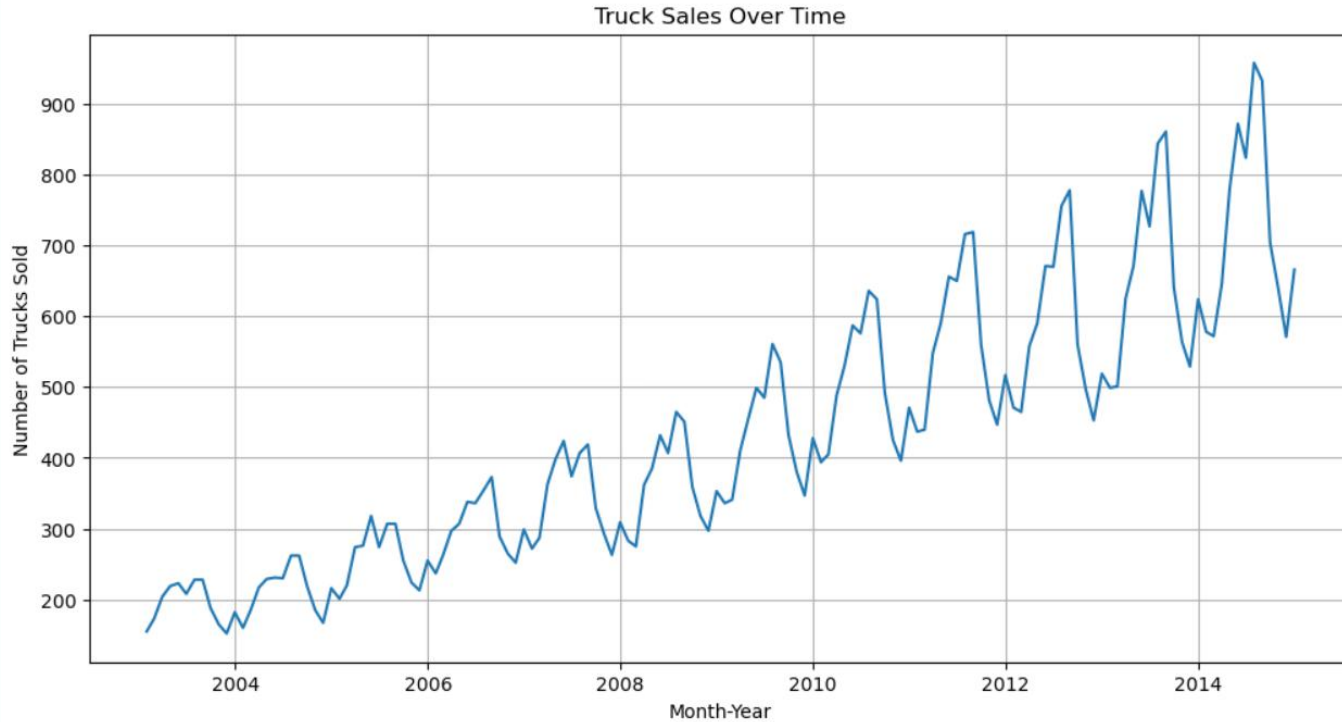Series Decomposition
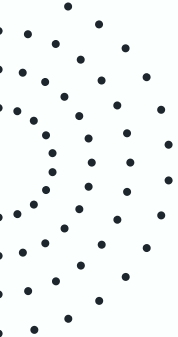
03

Predictive Model and Validation

04

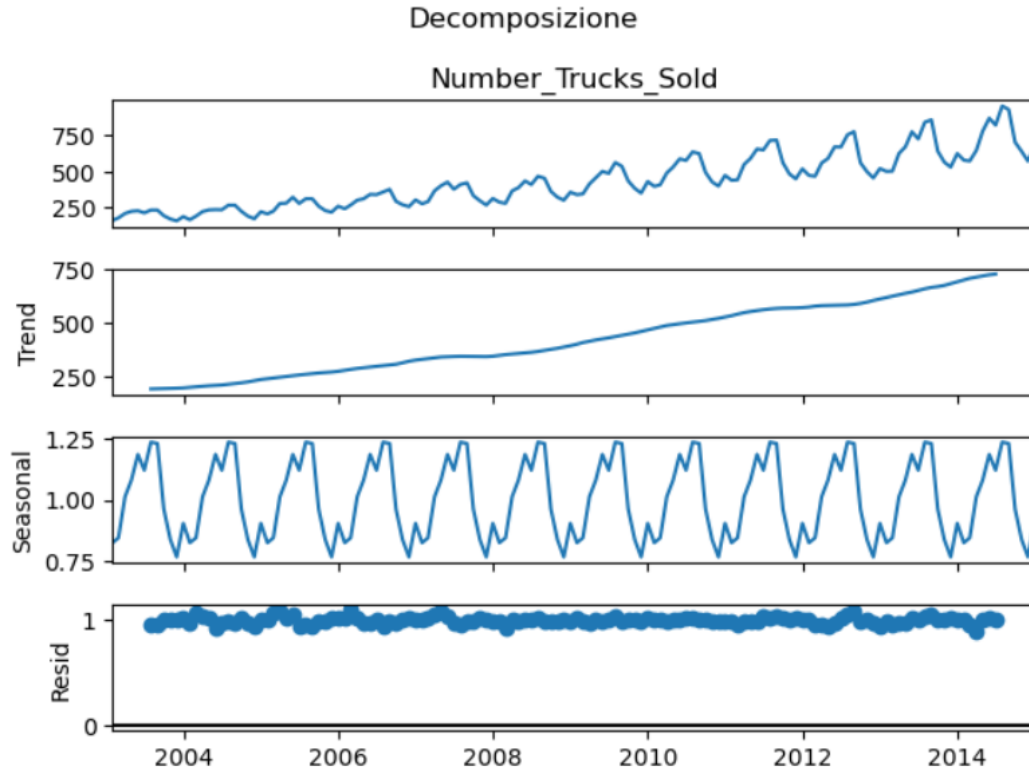Forecast vs. Reality

01 – Preliminary Analysis / Time Series

Truck Sales Over Time

02

Series Decomposition

02 – Series Decomposition

Decomposizione

Number_Trucks_Sold
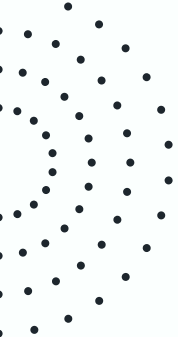
Trend: Increasing

Stagionality: Every 12 months

This confirms that a seasonal model is the right choice.

03

Predictive Model and Validation
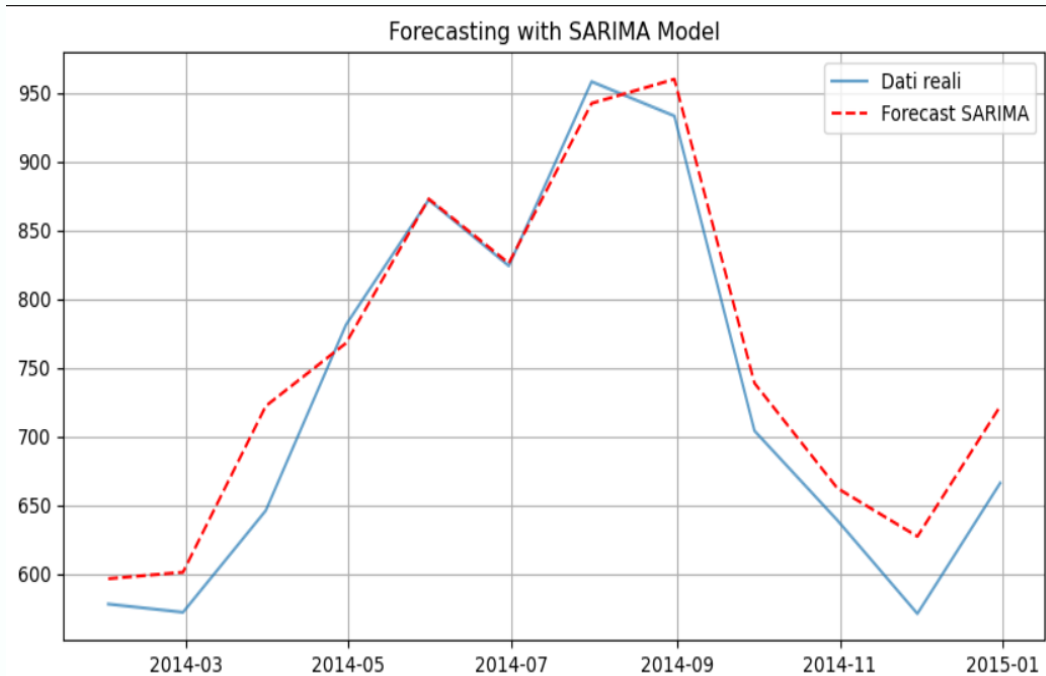
03 – SARIMA

Forecasting with SARIMA Model

Legend: Dati reali, Forecast SARIMA
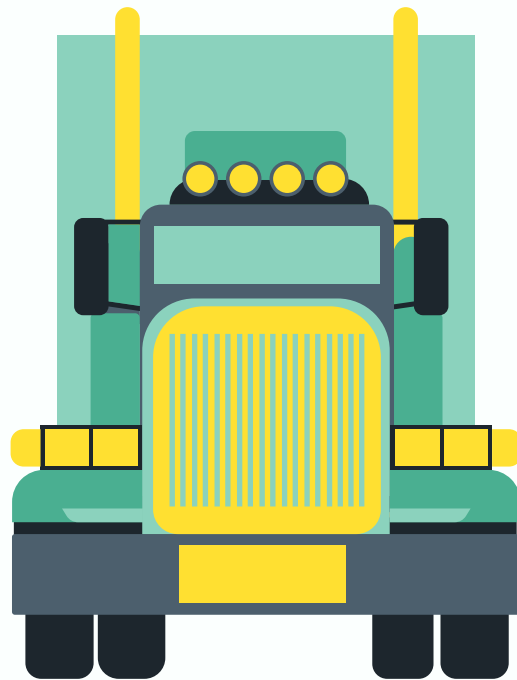
Method Used: SARIMA

MAE: 29.338
RMSE: 36.667

To honestly test its accuracy, we trained the model on 80% of the data (the training set) and used the remaining 20% (the test set) as a benchmark.
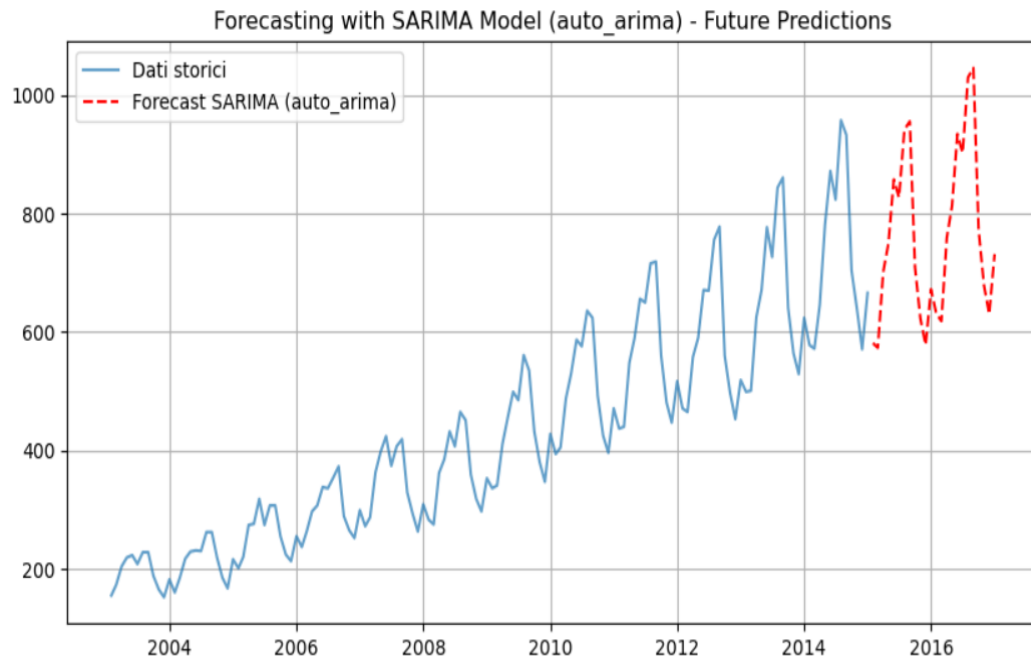
04

Series
Forecast

04 – Series Forecast

Forecasting with SARIMA Model (auto_arima) - Future Predictions

MAE Auto ARIMA: 15.226
RMSE Auto ARIMA: 21.253

Thanks