

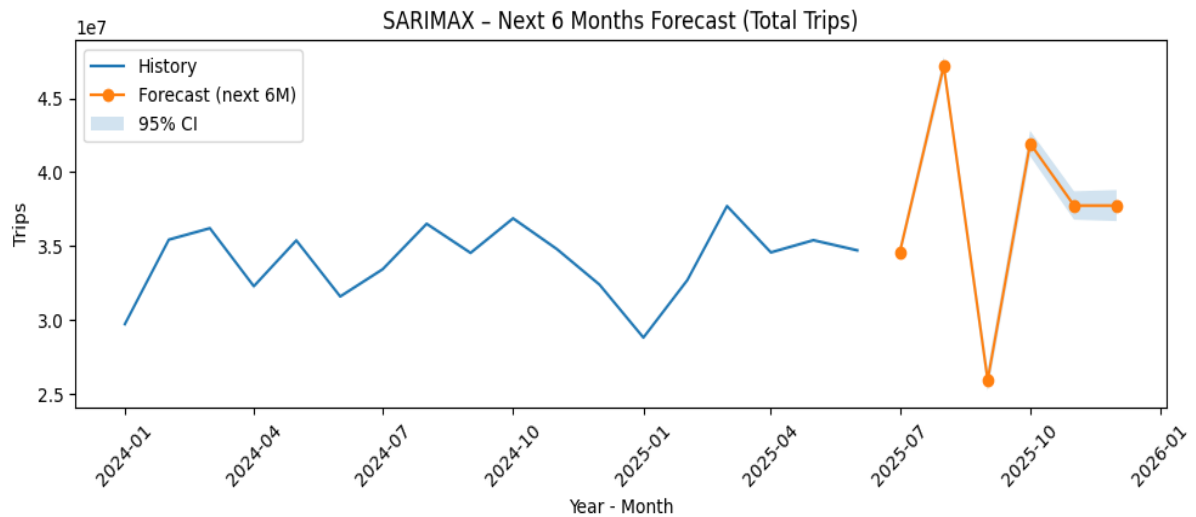
Transport Trips Forecast – SARIMAX Model Update

Model Used: SARIMAX

Best Parameters by AIC: order = (0, 1, 0), seasonal_order = (0, 1, 0, 12)

Performance on Test Data:

- MAE: 4.3M trips — much lower than SARIMA's 8.17M
- RMSE: 4.4M trips — shows fewer large deviations from actuals
- MAPE: 12.40% — predictions are on average within ~12% of actual trip counts



Final Prediction (Next 6 Months):

The SARIMAX model projects fluctuations in total trips with confidence intervals narrowing after the first two months. The predictions indicate seasonal variations but remain significantly more accurate compared to SARIMA baseline. The forecasted range highlights peaks and dips in demand, providing stakeholders with actionable insights for resource planning.