



Case Study

Order Demand Forecasting for a Leading Automotive Supplier

Client

The client is an American automotive and e-mobility company. It is an original equipment supplier to most major automotive OEMs worldwide and develops and manufactures products for conventional gas, hybrid, and electric vehicles.

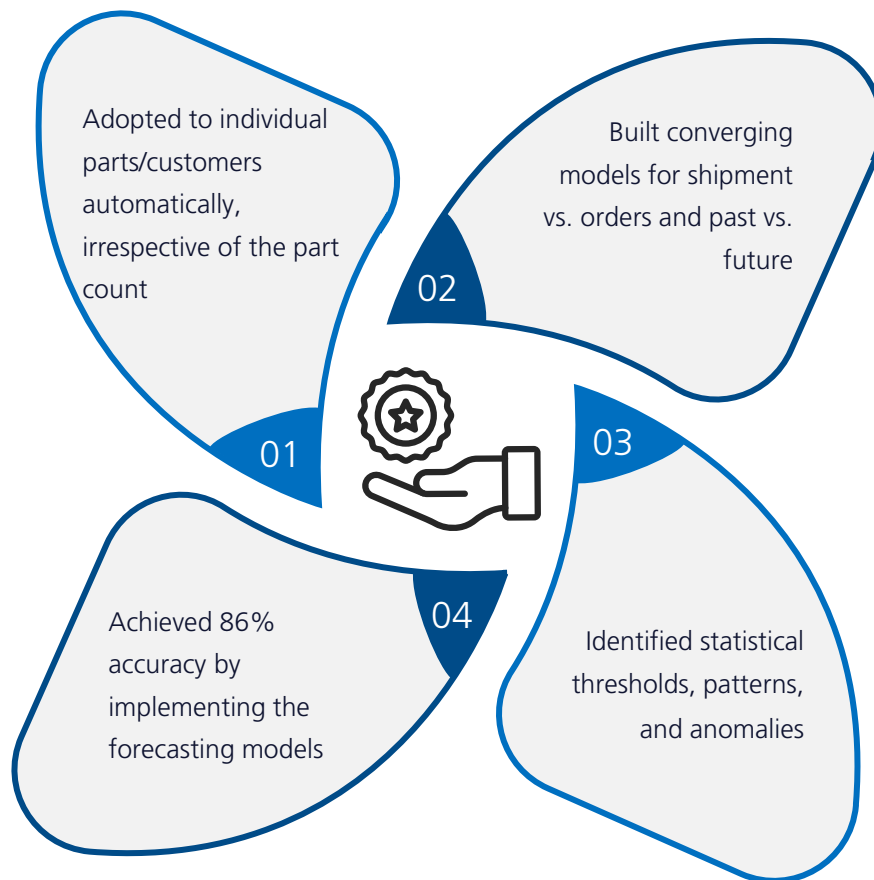
Challenge

The client was looking for a solution to manage large amounts of unstructured order and shipment data to optimize their inventory management operations.

LTIMindtree Solution

- Built two forecasting models with order and shipment data to optimize inventory level.
- Built with the stacking of regression and time series approaches.
- Performed data cleansing in Snowflake and prepossessed data in Python.
- Resampled data to weekly and daily frequency to validate the model performance.
- Feature-engineered the dates into multiple independent variables to build a robust model.
- Implemented the salient features of the model, including 12 major Machine Learning (ML) methods, which cover 20 algorithms/runtime selection of best algorithm/self-learn and self-train model.
- Calculated threshold values with statistical methods by rolling 24 weeks of order data using Quartile values to identify the upper and lower threshold levels of customer orders and intern alert the abnormality of the customer behavior.

Business Benefits



Tools

Snowflake | Python | ML | QlikSense

About LTIMindtree

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 82,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>.