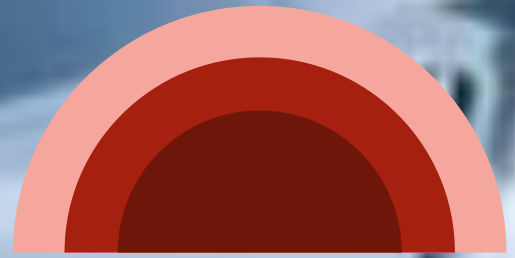
Automotive sales forecasting

INVESTIGATION
Our client, a major European car distributor, was experiencing difficulties in controlling vehicle supply and demand on a regular basis. Management needed a tool to confidently forecast sales, drive inventory management improvement and introduce a numbers-based decision making process.

IMPLEMENTATION
We mobilized a team of data scientists and market researchers to build a forward-looking model focused on the coming 12 months. The model combined multiple data collection methods and forecast vehicle sales on a monthly basis. We managed to achieve high granularity, reporting at segment, sub-segment, model and model-year level.

IMPACT
The model predicted actual sales with 95% accuracy and it became one of the most widespread tools used by the client's management across a variety of functions within the organization. Supply and demand discrepancies became a thing of the past and inventory stock levels are now efficient and match distributor needs.



Main baseline

Based on historical growth and "organic" unknown factors and it's formed by using ARIMA modelling

Main adjustment factors

Actual model sales are tested against some major internal drivers using multiple regression (price, ATL, discounts)

Additional adjustment factors

A deep dive analyses on some non-typical factors e.g. new MY launches, aggressive competition campaigns, etc.

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