Real Industry Use Case #12

CAMELOT Analytics Use Cases

E-Commerce Compatible Demand Forecasting

Project blueprints for quick & powerful insights

BENEFITS

- Roadmap for a successful implementation of the solution in AWS
- Robust algorithms that outperform every classical deterministic forecast
- 25% reduction of lead times for overseas shipments
- 95% of item availability

E-Commerce Compatible Demand Forecasting

The e-commerce industry is facing many challenges. Their impact is both tremendous and business-critical, ranging from simple stockouts to lost profits. Data science and data engineering can help to improve the accuracy of forecasts by generating an algorithm based on a wide range of data (including market data, weather, customs, live traffic and many more), which provides probabilities for the occurrence of possible future scenarios.

Know and act upon the demand of highly stochastic products

CHALLENGES

- Using general average-based forecasting created issues to meet customer demand
- Increased lead times for phase-out products
- Stockouts for products shipped from overseas factories
- Lost profits as big eCommerce companies were penalizing our customer due to stock-outs

APPROACH

- Process and responsibilities data analysis, data cleansing, look for external data that could improve the analysis, probabilistic forecast
- Data analysis (IBP data, eCommerce market data, inventory and sales data, external data such as weather, customs, and live traffic in key points)
- Generate probabilistic forecast algorithm that provides probabilities of occurrence for every possible future scenario within expected lead time

RESULTS

- Outperform classic forecasts
- Analysis results based on sales history, inventory, IBP and external data
- Probabilistic forecast model
- Outperform every previous forecast used
- Potential IT solution and implementation roadmap in AWS

95%
of item availability ensured

SETUP

INDUSTRY
eCommerce

REVENUE
~ €120 m.

EMPLOYEES
~ 100K

TIME TO VALUE
5 months

APPLIED AREA
Data science