

#### **Abstract**

Our solutions helped an MNC manufacturer reduce the inventories in their Asian region by 10%, while improving their SLAs in an 8-week time frame. We achieved this by implementing machine learning to automate all data connections and by creating a global inventory view. Structured and methodical processes involving data collection, modeling, visualization and root cause analysis successfully created a data-driven and cognitive supply chain improvement.

# **Challenges**

- High stock-outs to regional distributors and end customers
- Fragmented supply chain with in/out-sourced distribution
- Lack of data standards and no end-to-end inventory visibility

# **Approach**

### END-TO-END PROCESS USING VALUE STREAM MAPPING (VSM)



Data Extraction from multiple systems & Data Modeling to identify Co-relation

Visualization and Root-Cause Analysis

Prediction with Live Data

### Solution

- Followed a structured, step-by-step process that provided automated, data-driven, cognitive supply chain improvement
- Created end-to-end process using Value Stream Mapping to identify potential failure points, systems and data needs
- Carried out Data Extraction from multiple systems and Data Modeling for identifying correlation
- Used machine learning to automate the connecting of data and creating a global inventory view within 8 weeks' time
- Used trained models to create end-to-end visual flow of the inventory and predict the failure points
- Trained the ops team to predict the live data on the prediction models

#### Outcome

- Better service levels to customers and distributors
- Reduction in inventory level by 10% with better node positioning