



CLIENT STORY | GENERATING VALUE THROUGH OPTIMISATION OF THE CLIENT'S SUPPLY CHAIN

**Region :**  
 INDIA

**Consulting Services :**  
 PERFORMANCE IMPROVEMENT, SUPPLY CHAIN OPTIMISATION

## CLIENT SITUATION

- The client is one of the largest float glass manufacturers in India with market leadership in the Automotive Glass segment
- Poor Service levels to depots, high lead times and high breakage were major problems in client's supply chain comprising 4 factories, 1 warehouse and 60 distributor depots
- Avalon Consulting was brought in to create value through the optimisation of the client's supply chain

## OUR APPROACH

- A root cause analysis identified poor inventory planning, clustering of orders and long secondary distances as key drivers for poor DIFOT and lead times
- Breakage was found to be closely correlated with distance. Packaging, loading, transportation / trans-shipment, unloading, storage and leakage were other factors
- The solution was developed in 2 phases – the manufacturing optimization and the supply chain optimization
- First, the economical supply zone of each factory was computed using a typical SKU. Then with capacity and capability constraints, an SKU wise manufacturing plan was drawn up
- Avalon discovered that two of the four manufacturing locations of the client were grossly underutilised in their capacities, increasing the load on a third plant being too high. In the optimized scenario, volumes were distributed evenly between these 3 plants
- After freezing the manufacturing locations, a linear programming model was developed, capturing the various options in logistics architecture, primary and secondary transportation and packaging
- The optimization model sought to minimize the total system costs while ensuring a DIFOT (Delivered In Full load, On Time) of 85%
- Solutions involving pallet and rack based secondary packing with multiple hubs were found to bring about savings of ~30%
- Avalon also assisted the client in defining the organization structure, KPIs, designing the MIS dashboard, defining job standards, building the team and training them

## OUR RECOMMENDATION/ IMPACT

- The impact to the organization in terms of improvement in service levels and reduction in breakages has been substantial –
  - DIFOT improved from below 45% to over 85%
  - Average lead time for the South region reduced from 11 days to 3 days, and
  - Breakage rate reduced from 5% to 3%