

Supply and Demand Planning

Supply and demand planning is continuously performed during the manufacturing and distribution process to ensure planned production will meet forecasted demand and the appropriate amount of raw materials and goods are available for production runs. Beyond basic analysis of current supply and past demand, supply and demand planning requires predictive modeling, statistical forecasting and the ability to drill into demand detail by region, customer segment or product category. Shortfalls in supply can be detected or predicted, with automatic alerts sent to managers or triggering a reorder process.

Key Performance Indicators

- Predicted Demand
- Required Materials
- Supply on Hand
- Geographic Trends
- Pricing Analysis
- Inventory Turn Rate
- % Change to Sales Forecast
- Days on Hand

Sample Report: Product Demand and Component Inventory

Titanium Driver: Product Demand and Component Inventory
 Period: Q3 2003

	Forecast Demand (units)	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5
Product A	2835	4	1		2	5
Product B	4712			6	2	3
Product C	1372		2			4
Total Components Required	11340	5579	28272	15094	33799	
Inventory on Hand	13688	4892	36899	28999	29112	
		reorder			reorder	

This sample report tracks forecasted demand to required product components. Combining the forecasted demand with actual inventory on hand, the report highlights areas where inventory shortfalls are present. This type of report can be generated daily and e-mailed to a Production Manager or be part of a dashboard as a starting point for planning production. HTML links in the report allow users to drill into components to determine why there is a shortfall, identify the suppliers, and quote prices of the items required in order to meet production schedules. Reorder links allow immediate action to ensure correct supply.

COMMON BUSINESS QUESTIONS

- What materials are used in the production of each product?
- How many products by type did we sell over the last five years?
- What was the geographic demand for our products?
- How many suppliers do we rely on for our products?
- Does regional manufacturing capacity align with demand?
- How is demand impacted by seasons?
- Which material(s) have the most price volatility by vendor?
- What customers will demand which products? Are there customer segment patterns?