

Supply Chain Analytics Dashboard – Project Summary

By Priya Christina M

Objective

Designed an end-to-end Power BI dashboard to analyze demand performance, service level efficiency, and inventory optimization across products and customers.

Key Business Metrics

- 500 Total Orders | 348K Units
- Fill Rate: 88%
- Inventory Value: 3.2M
- Inventory Turnover: 0.47
- DIO: 396 Days
- Stockout Rate: 0.4%

Problem Statement

Business faced:

- Suboptimal service levels
- High inventory holding
- Working capital inefficiency
- SKU concentration risk

Solution Approach

- Built Star Schema data model
- Created custom Date Table for time intelligence
- Developed advanced DAX measures:
 - Fill Rate %
 - Order Cycle Time (AVERAGEX + context transition)
 - Inventory Turnover
 - Days Inventory Outstanding (DIO)
 - Stockout Rate
 - Contribution % using ALL
- Implemented ABC Classification logic

Key Insights

- Extremely low turnover indicates excess inventory

- High DIO (~397 days) suggests capital lock-up
- A-class SKUs contribute major inventory value
- Service level stable but below ideal benchmark

Business Impact

- Identified working capital optimization opportunities
- Highlighted SKU rationalization scope
- Improved visibility into service performance
- Enabled demand volatility tracking

Skills Demonstrated

- Data Modeling
- Advanced DAX
- Time Intelligence
- KPI Design
- Business Insight Generation
- Supply Chain Analytics

Tools Used

Power BI | DAX | Power Query | Data Modeling