

# FUNCTIONAL REQUIREMENTS DOCUMENT (FRD)

## 1. Project Title

### Supply Chain & Sales Performance Dashboard

---

## 2. Dashboard Sections

- **Overview Section**

A high-level performance summary showing total sales, total profit, shipping efficiency, delivery performance, and key trends over time.  
This page helps executives quickly understand business health.

- **Section 1 — Sales & Product Insights**

Detailed analytics for product performance, customer behaviour, category-level sales, and revenue contribution.  
Helps sales teams identify best-selling products and improvement areas.

- **Section 2 — Supply Chain & Delivery Performance**

Focus on logistics: shipping delays, late delivery risk, delivery status, and shipping-mode performance.  
Ensures supply chain managers can identify bottlenecks and operational issues.

- **Section 3 — Geographic Insights (Optional)**

Map-based visualization of customer distribution, regional sales, and delivery behaviour.

---

## 3. Data Requirements

Dashboard Section	Data Fields Needed	Source
Overview	Sales per customer, Benefit per order, Late delivery risk, Delivery Status, Real vs Scheduled shipping days	DataCo CSV
Page 1 — Sales & Product Insights	Product Price, Product Name, Category Name, Department Name, Sales per customer, Customer segment	DataCo CSV
Page 2 — Supply Chain Performance	Shipping Mode, Delivery Status, Days for shipping (real), Days for shipment (scheduled), Late delivery risk	DataCo CSV
Page 3 — Geographic Insights	Customer City, Customer Country, Customer Zip code, Delivery Status, Sales per customer	DataCo CSV

---

## 4. Filters / Slicers

Users should be able to filter by:

- Date Range (Order Date / Shipping Date)
  - Product Category
  - Product Department
  - Customer Segment
  - Shipping Mode
  - Country / City
  - Delivery Status
- 

## 5. Visuals / Charts

Dashboard Section	Visual Type(s)
Overview	KPI cards, Sales trend line, Category bar chart, Delivery Status donut chart, Late delivery risk bar
Page 1 — Sales & Product Insights	Bar charts, Pareto chart, Tree map, Scatter plot, Top 10 product chart
Page 2 — Supply Chain Performance	Dual-axis chart (scheduled vs real), Heatmap, Bullet chart, Shipping mode performance bar
Page 3 — Geographic Insights	Filled map, Symbol map, regional delivery performance map

---

## 6. Interactivity

The dashboard must support the following interactions:

- **Cross-filtering:** Selecting any chart updates all other charts.
  - **Drill-downs:** Category → Product → Customer level navigation.
  - **Highlight actions:** Hovering highlights related products or regions.
  - **Navigation buttons:** Move between Overview → Sales → Supply Chain pages.
  - **Tooltips:** Show detailed values on hover.
-

## 7. Calculations / Measures

Calculation Name	Formula	Purpose
Shipping Delay	DATEDIFF ('day', [Scheduled Shipping Date], [Actual Shipping Date])	Measure delay per shipment
On-Time Delivery Flag	IF [Shipping Delay] <= 0 THEN 'On Time' ELSE 'Late' END	Categorize delivery performance
Total Sales	SUM ([Sales per customer])	Total revenue
Total Profit	SUM ([Benefit per order])	Overall profit analysis
Sales Contribution %	[Sales per customer] / TOTAL (SUM ([Sales per customer]))	Identify top-selling items
Late Delivery %	SUM([Late_delivery_risk]) / COUNT ([Order Id])	