# Data-Driven Innovations in Supply Chain Management

This SCM dashboard provides a real-time snapshot of the health and performance of the supply chain. It visually displays key performance indicators (KPIs) that track critical metrics across various stages, from inventory management and supplier relationships to logistics and risk mitigation.

By monitoring these KPIs through the dashboard, we gain valuable insights into the efficiency and effectiveness of our supply chain. This allows for:

Early identification of potential issues: Proactive identification of bottlenecks, delays, or inventory fluctuations.

Data-driven decision making: Supporting informed decisions about resource allocation, logistics optimization, and supplier management.

Improved performance monitoring: Tracking progress towards goals and identifying areas for improvement.
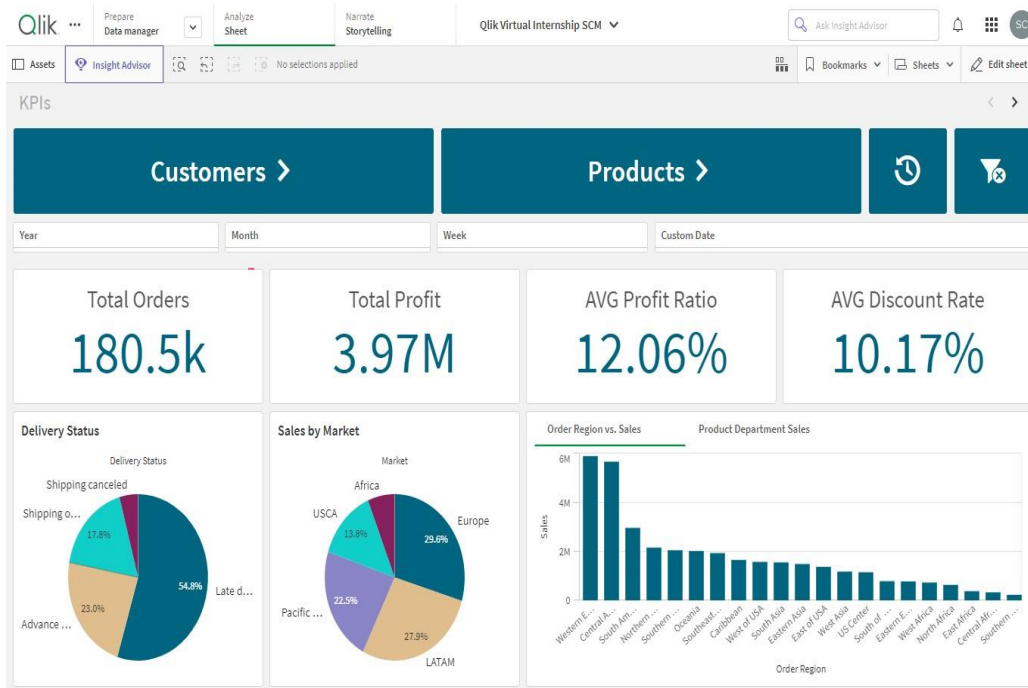
Enhanced communication and collaboration: Facilitating communication and collaboration between different departments involved in the supply chain.
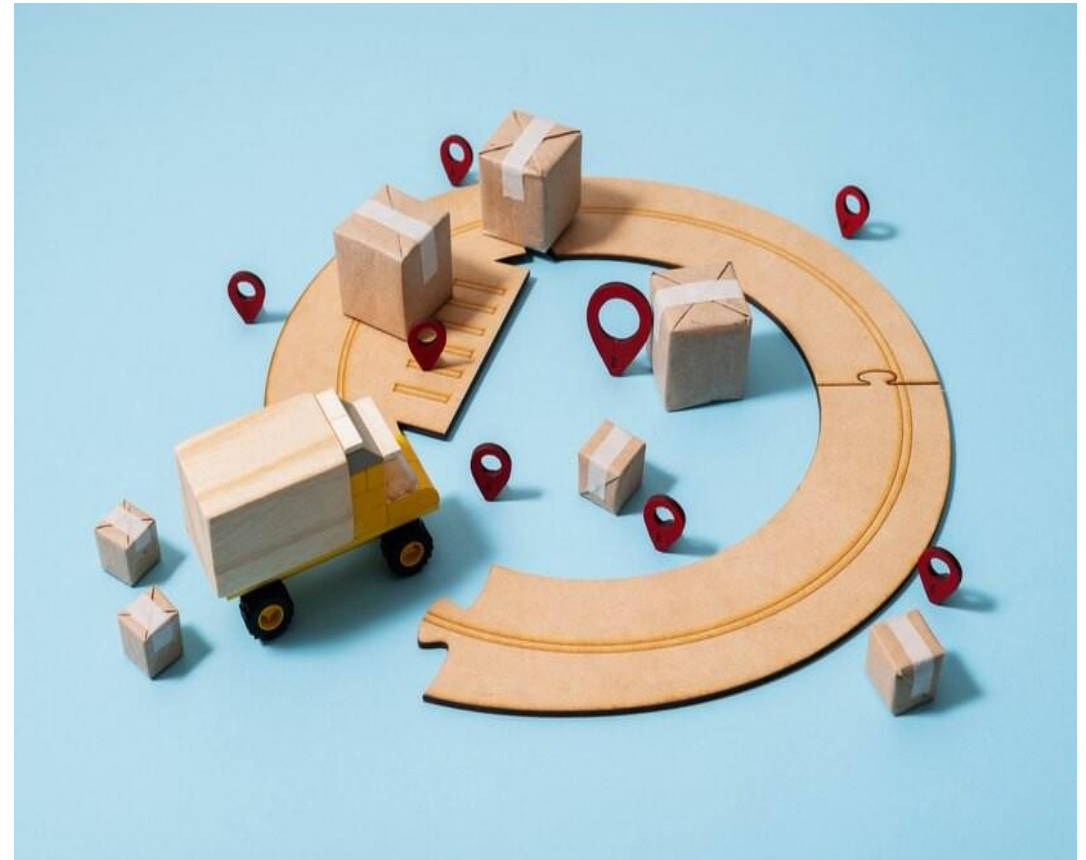
The Dashboard
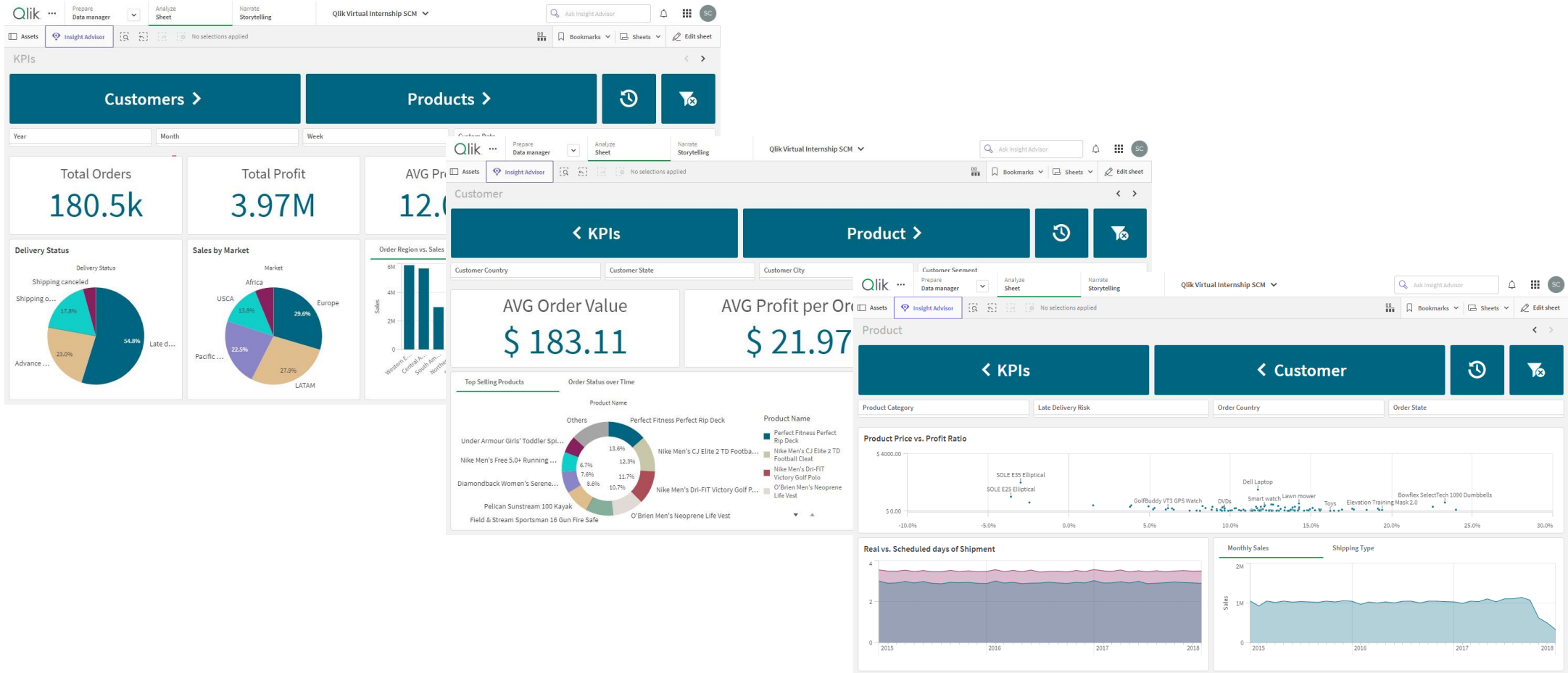
Sheet 1 : KPIs

Main purpose

Provides a high-level overview of key metrics related to overall sales and order performance.

Visualizations used

KPIs: Displays key metrics like total orders, total profit, average profit ratio, and average discount rate in a clear and concise format.

Pie Chart: Shows the breakdown of order status (e.g., completed, pending, canceled) and sales distribution across different markets. This helps identify areas that require attention.

Bar Graph: Compares order volume and sales figures across different regions and product departments. This allows for an analysis of regional performance and product popularity.

Sheet 2 : Customer

Main purpose

Analyzes customer behavior, order trends, and product preferences.
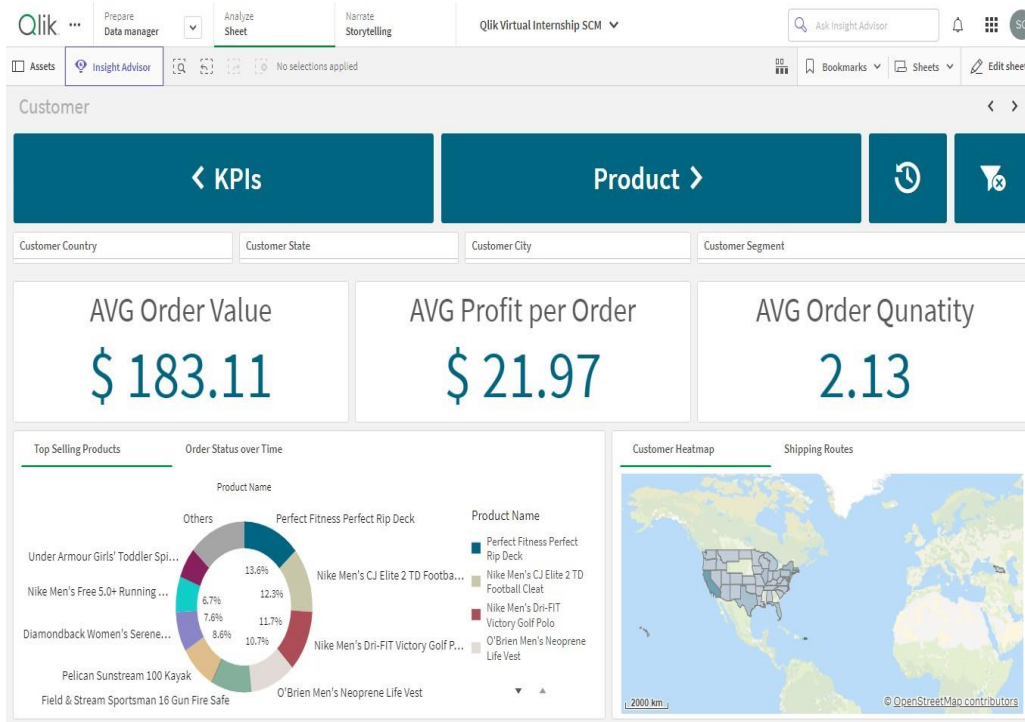
Visualizations used

KPIs: Tracks customer-centric metrics like average order value, average profit per order, and average order quantity.

Donut Chart: Highlights the best-selling products based on unit sales, allowing for strategic product promotions or inventory management.

Treemap: Visualizes the distribution of order statuses over time, providing insights into potential bottlenecks or delays.

Map: Offers two functionalities:
- **Customer Heatmap:** Identifies areas with high customer concentration, informing marketing and sales strategies.
- **Shipping Routes:** Visualizes shipping routes, potentially aiding in logistics optimization and cost analysis.

Sheet 3 : Product

Main purpose

Analyzes product profitability, sales trends, and shipping efficiency.

Visualizations used

Scatter Plot: Reveals the relationship between product price and profit ratio. This can help identify pricing strategies that optimize profits.

Stacked Area Graph: Compares actual shipping days against scheduled days, highlighting potential delays or inefficiencies in fulfillment.

Line Chart: Tracks monthly sales trends, allowing for forecasting and inventory planning.

Treemap: Visualizes the distribution of shipping types based on the quantity of items shipped. This helps analyze the effectiveness of different shipping methods for various product volumes.