

Clients Requirements:

Superstore Time-series Analysis – Sales Forecasting (For 15 Days)

OBJECTIVE:

To contribute to the success of a business by utilizing data analysis techniques, specifically focusing on time series analysis, to provide valuable insights and accurate sales forecasting.

1. Key Performance Indicator (KPI) Requirements (Executive View)

ID	Requirement	Rationale	Dashboard Element Used
KPI.1	Display the aggregate Sales and Profit figures for the selected region(s).	To quickly assess the financial health of the business segment.	Sales (1.6M), Profit (175K)
KPI.2	Track the total Quantity of products sold and average Delivery Days.	To measure sales volume and operational efficiency at a glance.	Quantity (22K), Delivery Days
KPI.3	Allow filtering by Region (Central, East, South, West) to analyze local performance.	Regional Managers need to see their specific performance metrics and trends.	Regional Filter Buttons

2. Time-Series Analysis Requirements (Finance & Operations)

ID	Requirement	Rationale	Dashboard Element Used
TS.1	Display Monthly Sales Year-over-Year (YoY) for trend analysis.	To identify seasonality, track growth, and compare current performance against the previous year.	Monthly Sales YoY Chart
TS.2	Display Monthly Profit Year-over-Year (YoY).	Profit is the ultimate health check; YoY comparison shows if growth is profitable.	Monthly Profit YoY Chart
TS.3	Enable comparison between 2019 and 2020 data (or two selected years) on all time-series charts.	Essential for calculating YoY percentage change and understanding performance variance.	Year (2019, 2020) Legends

3. Sales Breakdown Requirements (Marketing & Product Management)

ID	Requirement	Rationale	Dashboard Element Used
SB.1	Visualize the distribution of Sales by Customer Segment (Home, Corporate, Consumer).	To help Marketing focus their campaigns on the most profitable or highest-volume customer types.	Sales by Segment Donut Chart
SB.2	Visualize the distribution of Sales by Ship Mode (Standard, First Class, etc.).	To optimize logistics costs and understand customer preference for delivery speed.	Sales by Ship Mode Donut Chart & Bar Chart
SB.3	Display Sales performance by Top 5 Sub-Categories in a bar chart format.	For Inventory Managers to ensure adequate stock levels for the most popular products.	Sales by Sub-Category Bar Chart

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SB.4	Display the total sales value for each major Product Category.	To identify the highest-revenue-generating categories (Office Supplies, Technology, Furniture).	Sales by Category Bar Chart
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4. Geographical & Operational Requirements (Sales Management)

ID	Requirement	Rationale	Dashboard Element Used
GO.1	Display Sales and Profit visually on a map, broken down by individual State.	To help Regional Managers allocate sales resources and identify underperforming geographical areas.	Sales and Profit by States Map
GO.2	Include a breakdown of sales by Payment Mode (Cards, COD, Online).	To inform the Finance/E-commerce teams about preferred transaction methods.	Sales by Payment Mode Donut Chart