Data Analytics Competition

Dataset Information:

Domain: Sales & Operations (Global Retail)

This dataset represents a global retail company's sales operation, including orders, customers, products, returns, and regional management. Participants are expected to analyze sales performance, profitability, customer behavior, returns, and regional trends using Power BI

Sheet1: **Orders**

Row ID – Unique row identifier

Order ID – Transaction-level identifier (key for relationships)

Order Date – Date when order was placed

Ship Date – Date when order was shipped

Ship Mode – Shipping method (Standard, Second Class, etc.)

Order Priority – Urgency level (Critical, High, Medium, Low)

Customer ID – Unique customer identifier

Customer Name – Customer name

Segment – Consumer, Corporate, Home Office

Market – Global market (APAC, EU, US, etc.)

Region – Regional grouping

Country, **State**, **City**, **Postal Code**

Sales – Revenue amount

Quantity – Units sold

Discount – Discount applied

Profit – Net profit

Shipping Cost – Logistics cost

Sheet2: **Returns**

Order ID – Links back to Orders table

Returned – Yes/No flag

Region – Region where return occurred

Sheet3: **People**

Person – Regional manager or responsible person

Region – Region managed

Competition tasks:

Task1: Sales & Revenue Performance

Objective:
Analyze and visualize how sales and profit change over time and identify major trends and patterns.

Suggestions:

- Create line chart to show monthly and yearly trends in sales and profit.

- Make a bar chart for showing top and bottom 5 sales products.

- Compare trends across markets, regions, or customer segments.

Task 2: Regional & Market Performance

Objective:
Evaluate business performance across different regions, countries, and markets.

Suggestions:

- Use bar charts to compare total sales and profit by region or country.

- Make a pie chart for showing sales by state.

- Identify high-performing and underperforming regions.

- Analyze differences in performance across markets (e.g., Asia Pacific, Europe, US).

Task 3: Product & Category Performance

Objective:
Assess the performance of product categories and sub-categories in terms of revenue and profitability.

Suggestions:

- Use bar or stacked bar charts to compare sales and profit by category and sub-category.

- Identify products or categories with high sales but low or negative profit.

Task 4: Customer Segment Analysis

Objective:
Understand purchasing behavior across different customer segments and identify the most valuable segments.

Suggestions:

- Compare sales and profit across customer segments (Consumer, Corporate, Home Office).

- Make a pie/bar chart for showing sales by segment

- Analyze which segments are more sensitive to discounts or generate higher margins.

Task 5: Shipping & Operational Insights

Objective:
Analyze how shipping modes and order priorities impact cost, profit, and overall performance.

Suggestions:

- Compare profit and shipping cost across different shipping modes.

- Use bar charts to analyze average shipping cost by region or order priority.

- Make a column chart for showing returned order by region.

- Identify whether faster shipping modes consistently lead to higher profitability.

Bonus Challenge (Optional)

Participants are encouraged to propose additional analyses or visualizations that add business value, such as:

- Interactive dashboards with filtering by year, region, category, or segment

- Create KPIs (e.g., Total profit, Total Sales)

Dashboard Expectations:

The Power BI dashboard should:

- Include 3–5 meaningful KPIs

- Include 4–6 relevant visuals

- Use filters or slicers where appropriate

- Be understandable to a non-technical stakeholder

- Focus on decision-making, not just aesthetics

What MUST Be Covered in the Video:

Participants should follow this suggested structure (not strict, but recommended):

- Explain the top KPIs
- What they indicate about business performance
- Major trends
- Anything unusual or important discovered
- What actions should be taken?

Deliverables

Each team must submit the following:

1. Power BI Dashboard (.pbix file)
2. Screen-recorded video presentation (maximum 5 minutes)
3. One-page Insight Summary (PDF or DOC)

Important Note

Participants are not required to complete all tasks. These are just suggestions for your help.
Participants are allowed to include add any other custom insights.
Evaluation will prioritize quality of insights and clarity of analysis over quantity.