

# Retail Sales Performance Analysis

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# Problem Statement

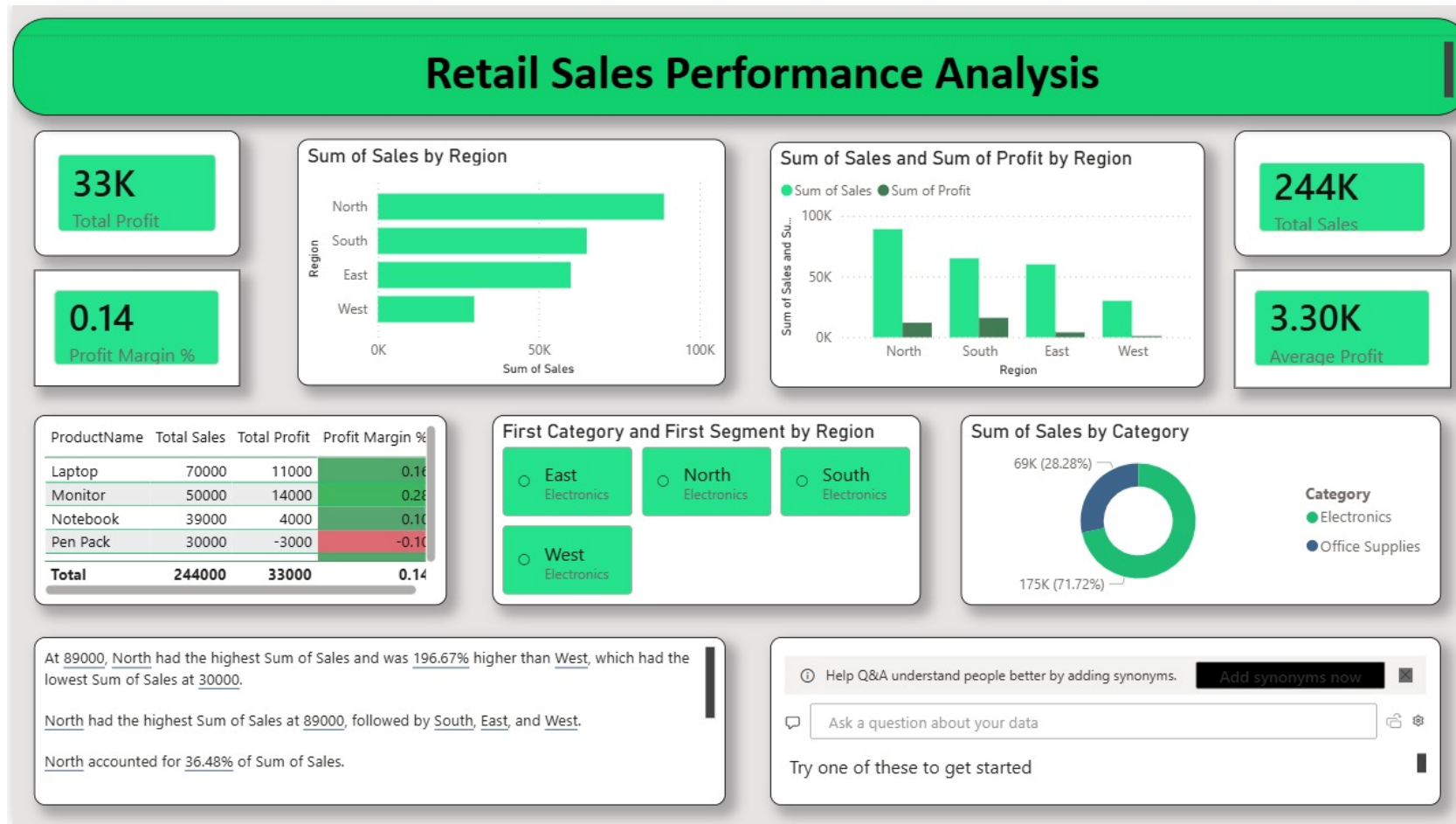
- A nationwide retail company operates multiple stores across four regions (North, South, East, West). The business sells electronics and office supplies to different customer segments.
- Senior management has noticed that overall revenue is growing, but profit margins are inconsistent across regions and products. Some regions report high sales but low profits, while others perform steadily.
- The leadership team wants a single Power BI dashboard that:
  - Cleans and validates raw sales data
  - Identifies profitable and non-profitable products
  - Highlights regional performance gaps
  - Supports data-driven decisions for promotions and inventory planning
- You are assigned as a Data Analyst to explore the data, build a robust data model, apply DAX calculations, and present actionable insights.

# Questions

- Identify missing values and duplicates in the Sales dataset. What cleaning steps are required?
- Perform univariate analysis on Sales and Profit. What distribution patterns do you observe?
- Which product categories contribute the highest revenue and profit?
- How does sales performance vary across regions?
- Create a star schema using Sales, Customer, and Product tables. Why is this model effective?
- Write a DAX measure to calculate Total Sales and Total Profit.
- Calculate Profit Margin (%) using DAX and identify low-margin products.
- Design a dashboard to show regional and category-wise performance.
- Which products should be discontinued or promoted based on analysis?



# Financial Expense Dashboard



# Executive Dashboard Overview

## KPI Overview

### Total Sales

- Displays the **overall revenue generated** across all regions and products.
- Helps assess the **business scale and sales performance**.

### Total Profit

- Shows the **total profit earned** after costs.
- Indicates the **overall profitability** of sales operations.

### Profit Margin %

- . Represents the **percentage of profit relative to sales**.
- Helps evaluate **pricing efficiency and cost control**.

3.30K

Average Profit

0.14

Profit Margin %

33K

Total Profit

# Trends & Distribution

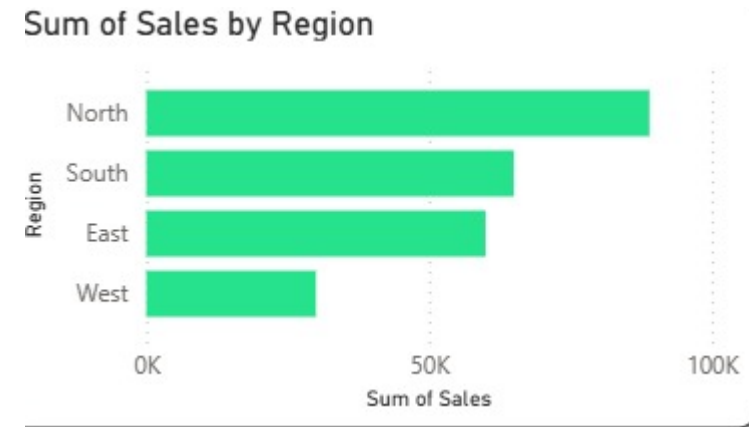
## Column Chart – Sum of Sales & Profit by Region



- Displays **sales and profit together** for each region.
- Highlights regions with **high sales but lower profit margins**.
- Helps identify **profitability gaps**.

# Bar Chart – Sum of Sales by Region

- Compares total sales across **North, South, East, and West** regions.
- Identifies **top-performing and low-performing regions**.
- Helps in **regional sales strategy planning**.



# Donut Chart – Sum of Sales by Category

Sum of Sales by Category

69K (28.28%)



175K (71.72%)

**Category**

● Electronics

● Office Supplies

- Visualizes **sales contribution by category**.
- Highlights **Electronics as the major revenue driver**.
- Helps compare category performance easily.

# Table – Product-wise Sales & Profit

ProductName	Total Sales	Total Profit	Profit Margin %
Laptop	70000	11000	0.16
Monitor	50000	14000	0.28
Notebook	39000	4000	0.10
Pen Pack	30000	-3000	-0.10
<b>Total</b>	<b>244000</b>	<b>33000</b>	<b>0.14</b>

Provides detailed insight into **product-level performance**.

Identifies:

- High-profit products (e.g., Monitor, Laptop)

- Loss-making products (e.g., Pen Pack)

Supports **product portfolio optimization**.

# Key Insights

- **North region leads sales** with the highest contribution, while West records the lowest sales.
- **Total sales of 244K** generated a **total profit of 33K**, showing overall positive performance.
- **Electronics dominate sales**, contributing the majority share compared to office supplies.
- **Profit margin of 14%** indicates moderate profitability with scope for improvement.
- **Negative profit observed in select products** (e.g., Pen Pack), highlighting pricing or cost issues.



Thank You