

# Project Review

## On

## E-Commerce Sales Dashboard

### By:

### Group 8 Members

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## 1. Executive Summary

- The dashboard reveals that overall e-commerce performance is strong with a **total sales amount of 9.68M**, driven mainly by high-performing states like **California and New York**, while profitability remains relatively low with a **profit margin of 2.56%**.
- Sales are highest during the **end of the year** and gradually decline toward the beginning of the next year, and categories such as **Technology and Office Supplies** contribute the most to total revenue, whereas sub-categories like **Copiers and Phones** show the strongest profit levels.

## 2. Objective

- The objective of this report is to analyze the overall performance of the e-commerce business by evaluating key metrics such as total sales, profit, quantity sold, and profit margin.

- It aims to identify top-performing states, categories, and sub-categories, understand monthly sales trends, and assess year-wise growth in both sales and profitability.
- This analysis helps in uncovering patterns, highlighting strengths, and providing insights that can support data-driven decision-making for improving business performance.

### 3. Key Metrics/ KPI's

The dashboard uses several important KPIs to evaluate e-commerce performance, including

- **SumofAmountByYear%ProfitMargin**



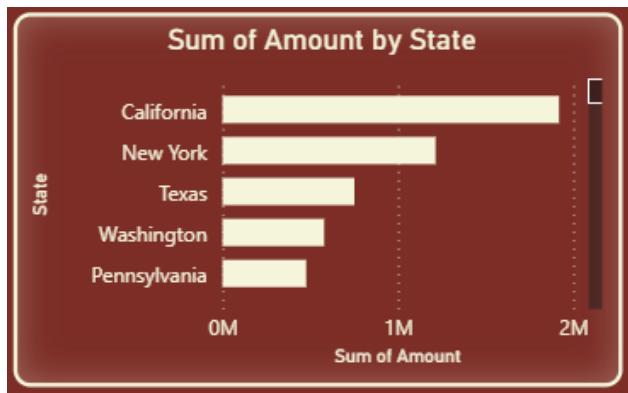
- **TotalProfitBySubCategory**



- **Profit Margin%**



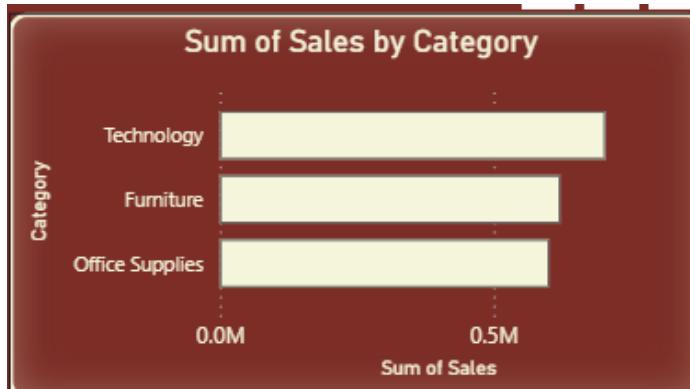
- **SumOfAmountByState**



- **TotalSaleByMonth**



- **SumOfSalesBy Category**



## 4. Insights and Findings

- a) California is the highest revenue-generating state:

California contributes the largest share of total sales compared to all other states.

This indicates strong market potential and customer demand in that region.

Increase inventory availability, strengthen marketing campaigns, and introduce targeted offers in California to further boost revenue.

**b) Profit Margin is low at only 2.56%:**

- Despite high sales (9.68M), the overall profit margin remains low.
- Low profitability reduces long-term sustainability and may indicate high costs or poor pricing strategy.
- Review product pricing, reduce operational costs, optimize discount strategies, and focus on higher-margin products.

**c) Technology and Office Supplies lead in total sales:**

These categories generate the highest revenue among all product segments.

Identifying top-performing categories helps prioritize stock planning and marketing.

Expand these product lines, introduce bundle offers, and invest in category-specific promotions.

**d) Sub-categories like Copiers and Phones show strong profit performance:**

These sub-categories generate higher profit compared to others. High-profit items are essential for improving overall profit margins.

Promote these items more aggressively, improve visibility on the store, and explore upselling opportunities.

**e) Monthly sales trend shows decline from December to February:**

Sales drop consistently at the start of the year. Seasonal dips affect cash flow and resource planning.

Launch New Year promotional campaigns, apply seasonal discounts, and offer loyalty rewards to stabilize early-year demand.

**f) Year-wise analysis shows fluctuating profit margin despite rising sales:**

Sales increase in later years, but profit margin shows inconsistent growth.

Increasing revenue without improving profitability is not sustainable.

Re-evaluate cost structure, focus on high-margin categories, and optimize logistics and operations.

## 5. Supporting Visuals:

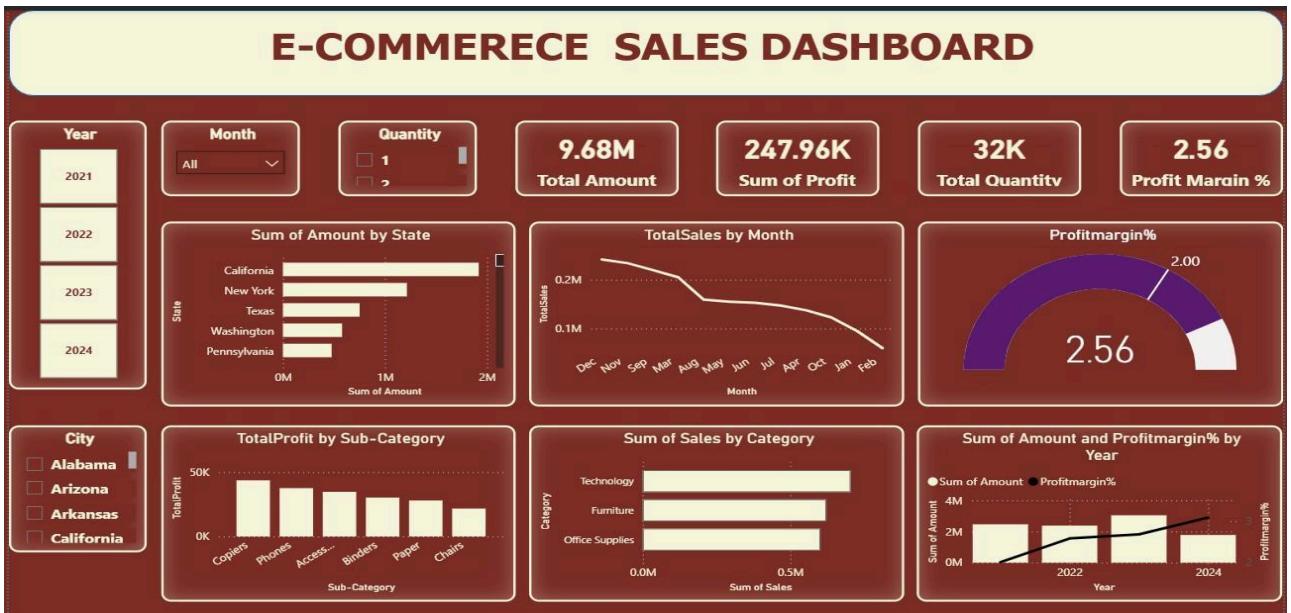
The dashboard includes several visual elements that help interpret the data effectively and support the insights presented in this report.

These visuals include:

- **KPI Cards** : It displays **Total Sales Amount**, **Total Profit**, **Total Quantity Sold**, and **Profit Margin (%)** to give a quick overview of business performance.

- **Sales by State Map** showing geographical distribution of revenue and highlighting **high-performing regions such as California**.
- **Sales by Category Bar Chart** comparing performance across key product categories like **Technology, Office Supplies, and Furniture**.
- **Profit by Sub-Category Chart** illustrating which product groups contribute the most to profitability.
- **Monthly Sales Trend Line Chart** showing fluctuations in customer demand throughout the year.
- **Year-wise Sales and Profit Margin Comparison** providing a clear view of growth trends over different years.

These visuals work together to offer a comprehensive understanding of sales performance, profitability, and regional or product-level patterns, supporting informed business decision-making.



## Conclusion:

This dashboard clearly shows the overall performance of the e-commerce business. Sales are high, especially in states like

**California**, and categories like **Technology** and **Office Supplies** perform well. However, the profit margin is **very low at 2.56%**, which means the company needs to improve its cost control and pricing strategies. The monthly and year-wise trends also help us understand seasonality and long-term growth. Overall, the dashboard gives a clear picture of where the business is strong and where improvement is needed

