

Project Report

On

E-Commerce Return Rate Reduction Analysis

By

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Introduction:

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.

Abstract: This report analyzes e-commerce sales performance through an interactive dashboard showcasing key metrics and trends. It evaluates

total sales, profit, quantity sold, and profit margins while identifying high-performing states, categories, and sub-categories. Monthly and year-wise patterns are examined to understand demand cycles and business growth. Using KPIs and visual insights, the report highlights strengths, inefficiencies, and opportunities for improvement, supporting data-driven decisions to boost profitability and operational efficiency.

Tools Used: Python, Power Bi, Excel and SQL.

Steps Involved in Building the Project:

- Imported the dataset into the dashboard tool.
- Cleaned and prepared the data (removed nulls, fixed formats).
- Created relationships and structured the data model.
- Calculated key KPIs like Sales, Profit, Quantity, and Margin.
- Built visualizations such as maps, bar charts, and line charts.
- Designed the dashboard layout for clarity and easy navigation.
- Applied formatting, colors, labels, and slicers.
- Analyzed visuals and extracted insights for the final report.

Conclusions:

The dashboard analysis offers a clear view of e-commerce performance across sales, profits, categories, and regions. While revenue is strong, low profit margins highlight the need for better pricing and cost control. Seasonal trends and growth patterns provide useful guidance for planning. Overall, the insights support data-driven strategies to improve profitability, efficiency, and market performance.

