Sales Data Analysis of a Commercial Store

Introduction

This project aims to analyze the sales performance of a commercial store using Power BI. It includes visual insights into key performance metrics like total sales, profit, and quantity sold. The project uses real-world data to extract patterns, understand customer trends, and provide actionable insights for business decision-making.

Objectives

- To analyze sales data using visualization techniques
- To track total and regional sales performance
- To identify top-selling categories and subcategories
- To provide easy-to-understand insights using Power BI dashboards

Dataset Used

Sample commercial store sales data (Superstore dataset)
- https://www.kaggle.com/datasets/vivek468/superstore-dataset-final

Includes information on Order ID, State, Category, Sub-Category, Sales, Profit, Quantity, Region, Discount etc.


Tools Used

- **Power BI** – for data visualization and dashboard creation
- **Microsoft Excel** – for initial data cleaning and preprocessing
- **GitHub** – for version control and project sharing

Dashboard Overview

The Power BI dashboard consists of multiple visuals designed to give a comprehensive view of sales performance across different dimensions. These include:

- KPI cards showing Total Sales, Profit, Quantity, and Orders
- State-wise map showing regional sales performance
- Bar charts and pie charts for category and subcategory-level analysis
- Sales trend chart across time
- Top 10 products by sales and profit
- Scatter chart to show Profit vs Discount insights
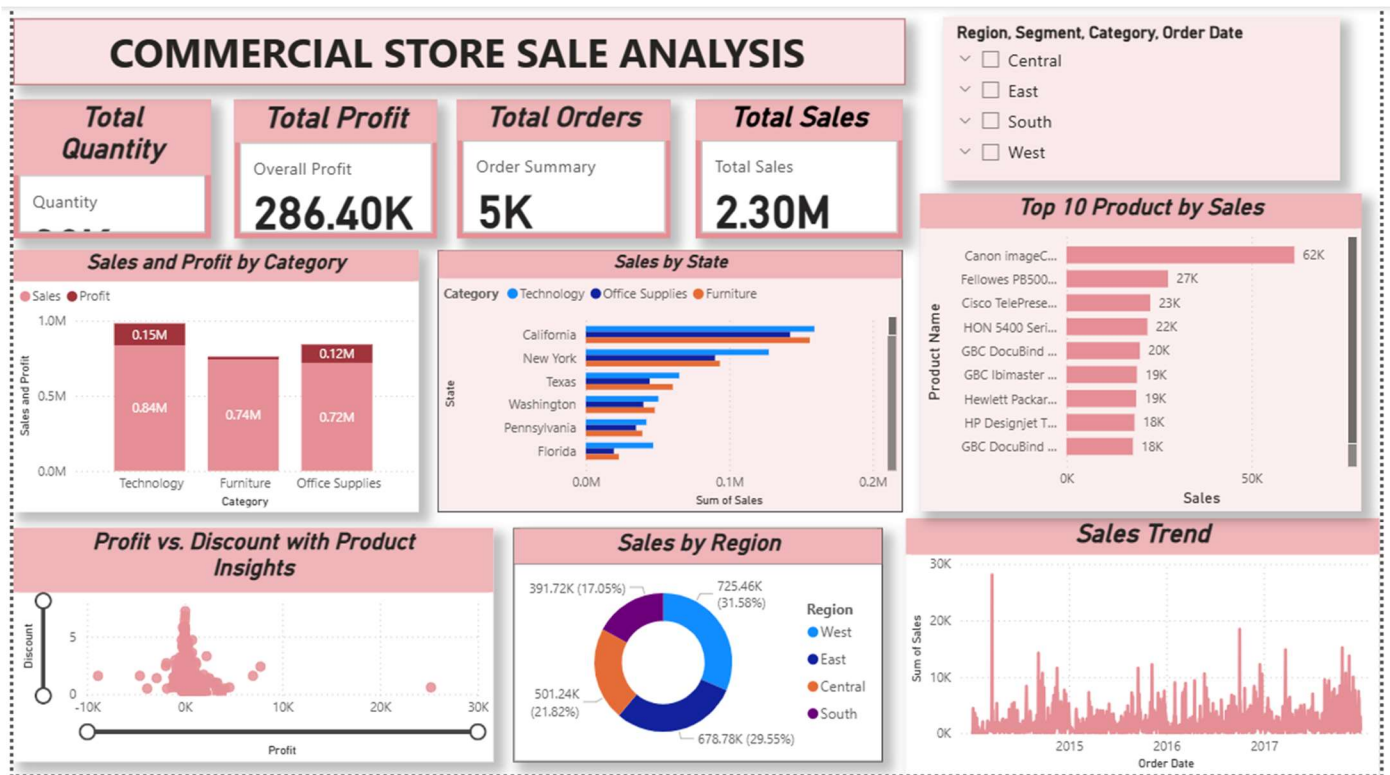
The **Commercial Store Sale Analysis Dashboard** is designed with simplicity, clarity, and impact in mind. With an aesthetically pleasing layout this dashboard provides a comprehensive overview of key business metrics

Easy-to-navigate interface, **visually engaging charts**, and **real-time insights** that allow stakeholders to make informed decisions at a glance. Interactive filters on Region, Segment, Category, and Order Date allow users to **dynamically explore** data without needing technical skills. The inclusion of **top-performing products, sales trends, and profit-discount correlation** adds deep business intelligence value.

Dashboard Visuals and Insights

Visual Name	Description & Insight
Total Quantity	Displays the overall quantity of products sold across all orders. Useful for measuring volume-based performance.
Overall Profit	Shows total profit (286.40K) earned. Indicates profitability of business and margin efficiency.
Total Orders	Shows number of orders (5K). Helps understand customer engagement level.
Total Sales	Represents cumulative sales revenue (2.30M). Indicates financial scale of operations.
Sales and Profit by Category	Bar chart comparing sales and profit for categories: Technology, Furniture, Office Supplies. Technology leads in sales and profit.
Sales by State	Horizontal bar chart showing state-wise sales, categorized by product types. California and New York are top-performing regions.
Top 10 Products by Sales	Highlights the highest selling products. Canon imageCLASS tops with 62K in sales. Helps in product-focused decision-making.
Profit vs. Discount with Product Insights	Scatter plot showing correlation between profit and discount. Reveals which products are profitable even with high discounts.
Sales by Region	Pie chart showing sales contribution by regions. East and South have the highest shares, suggesting regional demand.
Sales Trend Over Time	Line chart showing fluctuation of sales from 2014 to 2017. Reveals seasonal patterns and spikes during promotion periods.