

## 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.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer	Customer Segment	Country	City	State	Postal Code	Region	Product Line	Category	
2		1 CA-2016-1	#####	#####	Second CI	CG-12520	Claire Gut Consumer	United States	Henderson	Kentucky	42420	South	FUR-BO-11	Furr	
3		2 CA-2016-1	#####	#####	Second CI	CG-12520	Claire Gut Consumer	United States	Henderson	Kentucky	42420	South	FUR-CH-11	Furr	
4		3 CA-2016-1	#####	#####	Second CI	DV-13045	Darrin Vai Corporate	United States	Los Angeles	California	90036	West	OFF-LA-1C	Office	
5		4 US-2015-1	#####	#####	Standard	SO-20335	Sean O'Dc Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR-TA-11	Furr	
6		5 US-2015-1	#####	#####	Standard	SO-20335	Sean O'Dc Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF-ST-10	Office	
7		6 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	FUR-FU-11	Furr	
8		7 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	OFF-AR-11	Office	
9		8 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	TEC-PH-11	Technical	
10		9 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	OFF-BI-10	Office	
11		10 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	OFF-AP-11	Office	
12		11 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	FUR-TA-11	Furr	
13		12 CA-2014-1	6/9/2014	#####	Standard	BH-11710	Brosina H. Consumer	United States	Los Angeles	California	90032	West	TEC-PH-11	Technical	
14		13 CA-2017-1	#####	#####	Standard	AA-10480	Andrew A Consumer	United States	Concord	North Carolina	28027	South	OFF-PA-11	Office	
15		14 CA-2016-1	#####	#####	Standard	IM-15070	Irene Mac Consumer	United States	Seattle	Washington	98103	West	OFF-BI-10	Office	
16		15 US-2015-1	#####	#####	Standard	HP-14815	Harold Pa Home Off	United States	Fort Worth	Texas	76106	Central	OFF-AP-11	Office	

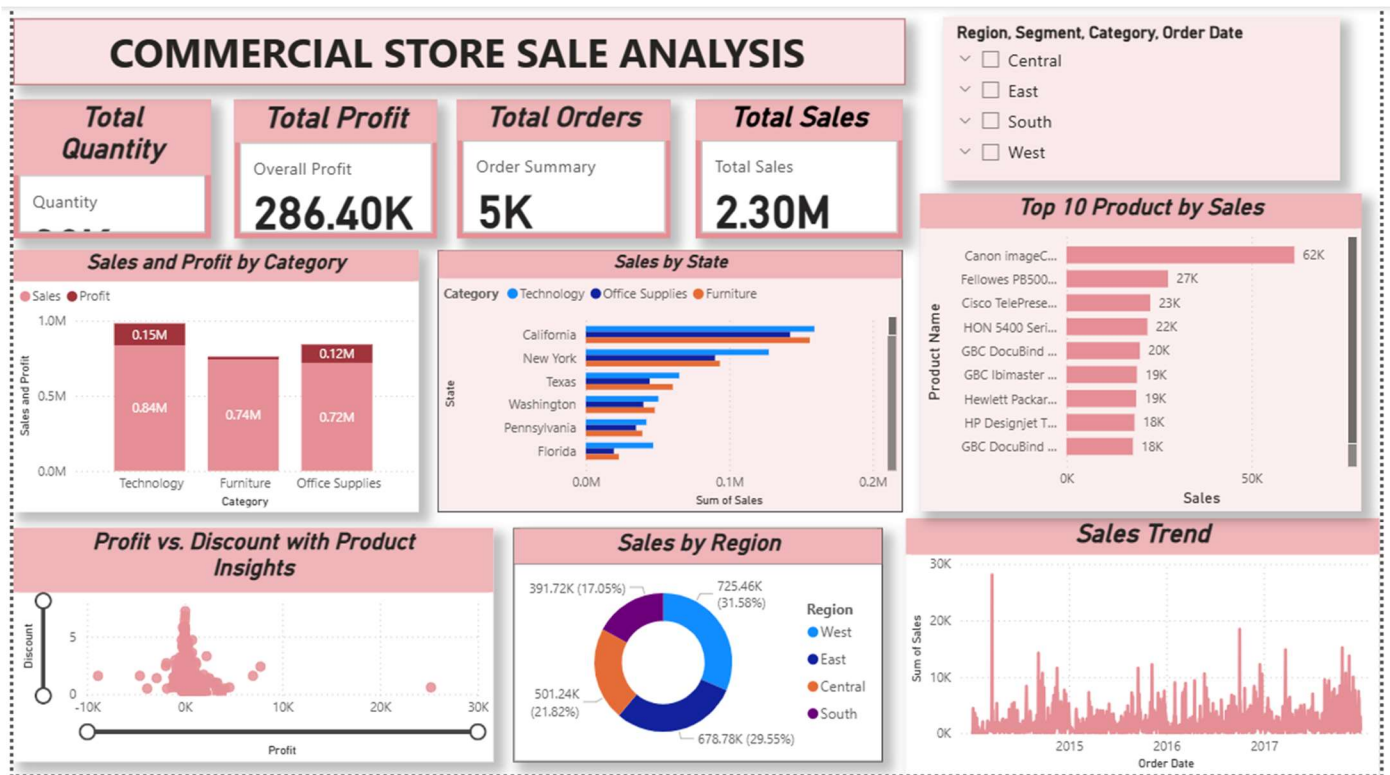
## Tools Used

- **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**

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