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Specialization: *Process Improvement*

Business Focus: *Retail and Consumers Goods industry*

Tool: *MS Excel*

FlairTech Supplies – Leveraging Sales Insights to Drive Strategic Retail Decisions

Project Learning Opportunities

- ❑ *Understand how to build dashboards in Excel to support business decision-making.*
- ❑ *Learn how Business Analysts analyze sales data to uncover high-performing regions and products.*
- ❑ *Gain experience using Excel for KPI tracking, trend analysis, and actionable insights.*

Tools and Technology to be Used

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Case Study Overview

Scenario Overview

Company: FlairTech Supplies is a retail company that specializes in tech product and appliances.

Challenge

FlairTech Supplies serves both individuals and businesses with operations spread across multiple U.S. regions. With increasing competition and growing operational costs, the company seeks a clearer understanding of its sales performance to guide strategic actions.

Your Role:

A Business Analyst assigned to analyze their sales data using Microsoft Excel and create a dashboard to deliver meaningful business insights.

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Case Study Overview

Problem Statement

FlairTech Supplies lacks a centralized view of its revenue generators, profitable products, and regional sales trends. This gap makes it difficult to focus marketing, optimize inventory, and plan operations effectively.

The company needs a dashboard that presents clear KPIs including total revenue, profit, quantity sold, and average order values and as well as making strategic decisions when exploring data about product category and geographic region.

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Rationale for the Project

(What is the Importance of the project to the business)

1.

Monitors Growth

Provide clear guidance to company's operation and activities on products, sales, revenue and profit..

2.

Revenue Optimization

Helps leadership identify the most profitable product categories and high-performing regions to prioritize investment.

3.

Strategic Decision making

Reveals geographic ordering patterns, and seasonal changes in sales across time to make better marketing allocation.

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Data Description

1. orders table

- **Purpose:** Records each product order made and all necessary transaction or order information.

- **Key Columns:**

  - **OrderID:** Unique identifier for each order.
  - **OrderDate:** Date the order was placed.
  - **ShipMode:** Type of shipping selected by the customer (e.g., Standard Class).
  - **Segment:** Customer segment type (e.g., Consumer, Corporate).
  - **Country:** Country to which the order was shipped.
  - **City:** City where the order was delivered.
  - **State:** State within the country.
  - **PostalCode:** ZIP/postal code of the shipping destination.
  - **Region:** Geographical region within the country (e.g., West, Central).
  - **Category:** Broad classification of the product sold (e.g., Technology, Office Supplies).
  - **Sub-Category:** Specific product grouping under each category (e.g., Paper, Phones).
  - **Sales:** Dollar value of the order before discounts or taxes.
  - **Quantity:** Number of product units sold in the order.
  - **Profit:** Profit earned from the sale (after subtracting costs).

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Project Workflow

STEP 1

Data Collection & Preparation

Import order, product, category, pricing, and regional data into Excel.

Clean the dataset by removing duplicates and formatting inconsistencies.

STEP 2

Exploratory Data Analysis (EDA)

Use PivotTables and formulas to explore revenue distribution, product profitability, and sales patterns.

STEP 3

Insight Generation

Calculate and visualize KPIs including Total Revenue, Total Profit, Total Orders, Quantity Sold, and AOV. Break down performance by region, category, and time period.

STEP 4

Reporting & Visualization

Create an interactive Excel dashboard using slicers, charts, and conditional formatting to present insights to stakeholders.

STEP 5

Recommendations

Present strategic actions such as focusing on top-performing regions, optimizing product mix, and aligning marketing with seasonal trends.

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Chart Description

- **Column Chart**

Use: Best for comparing sales figures across different categories.
Example: Comparing monthly sales revenue across multiple store locations.

- **Bar Chart**

Use: Useful when category names are long or for ranking comparisons.
Example: Analyzing total sales by product category (e.g., Electronics, Clothing, Groceries).

- **Line Chart**

Use: Best for showing trends and sales performance over time.
Example: Tracking quarterly sales growth over the last five years.

- **Pie Chart**

Use: Shows the proportion of total sales among different categories.
Example: Displaying the percentage contribution of each product line to total revenue.

- **Area Chart**

Use: Highlights volume trends and cumulative sales over time.
Example: Visualizing the increase in total sales revenue over multiple years.

- **Scatterplot (XY) Chart**

Use: Shows correlations between two sales-related variables.
Example: Analyzing the relationship between advertising expenses and monthly sales.

- **Bubble Chart**

Use: Adds a third variable to a scatter plot, great for comparing multiple factors.
Example: Comparing sales revenue (X-axis), number of customers (Y-axis), and profit margin (bubble size) across different stores.

- **Combo Chart**

Use: Mixes two chart types to compare different business metrics.
Example: Displaying total sales (column chart) and profit margin percentage (line chart) for each month.

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Dashboard Preview

FLAIR TECH SUPPLIES REPORT

TOTAL PROFIT
$598,660

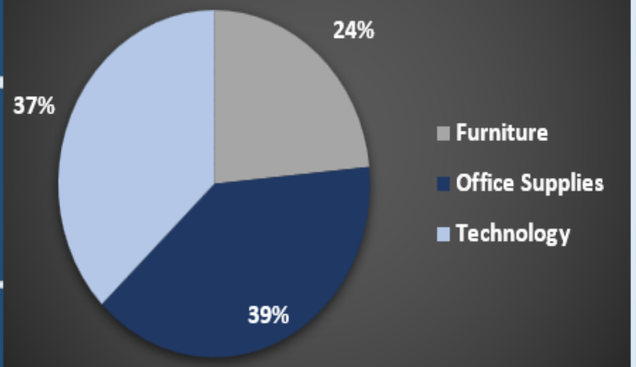
TOTAL REVENUE
$2,297,201

AVEG OF SALES
$230

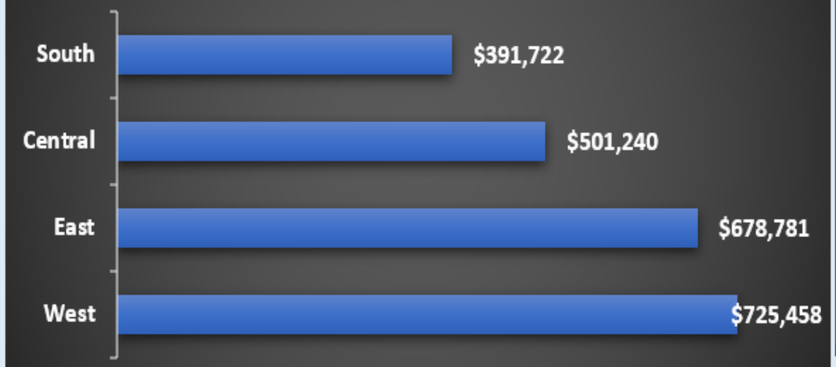
TOTAL QUANTITY
37,873

No. OF ORDERS
9,994

Total Profit by Category



Total Revenue by Region

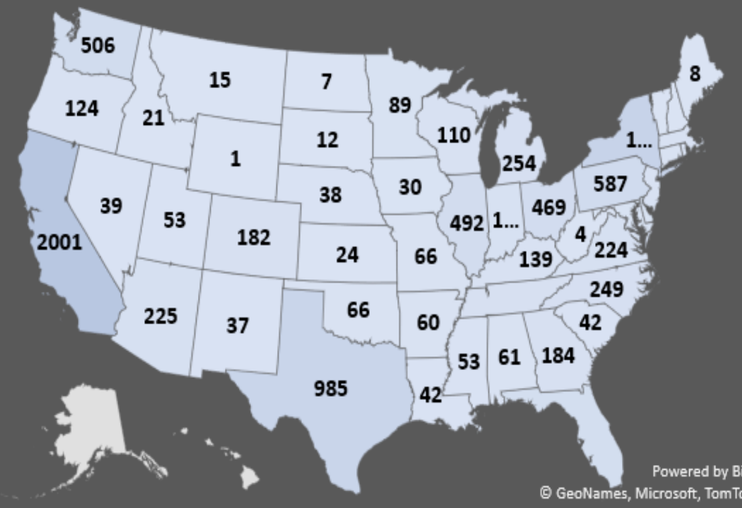


Category | Region | Years

Category	Region	Years
Furniture	Central	2020
Office Supplies	East	2021
Technology	South	2022
	West	2023
		2024

Total Monthly Sales

Number of orders per state



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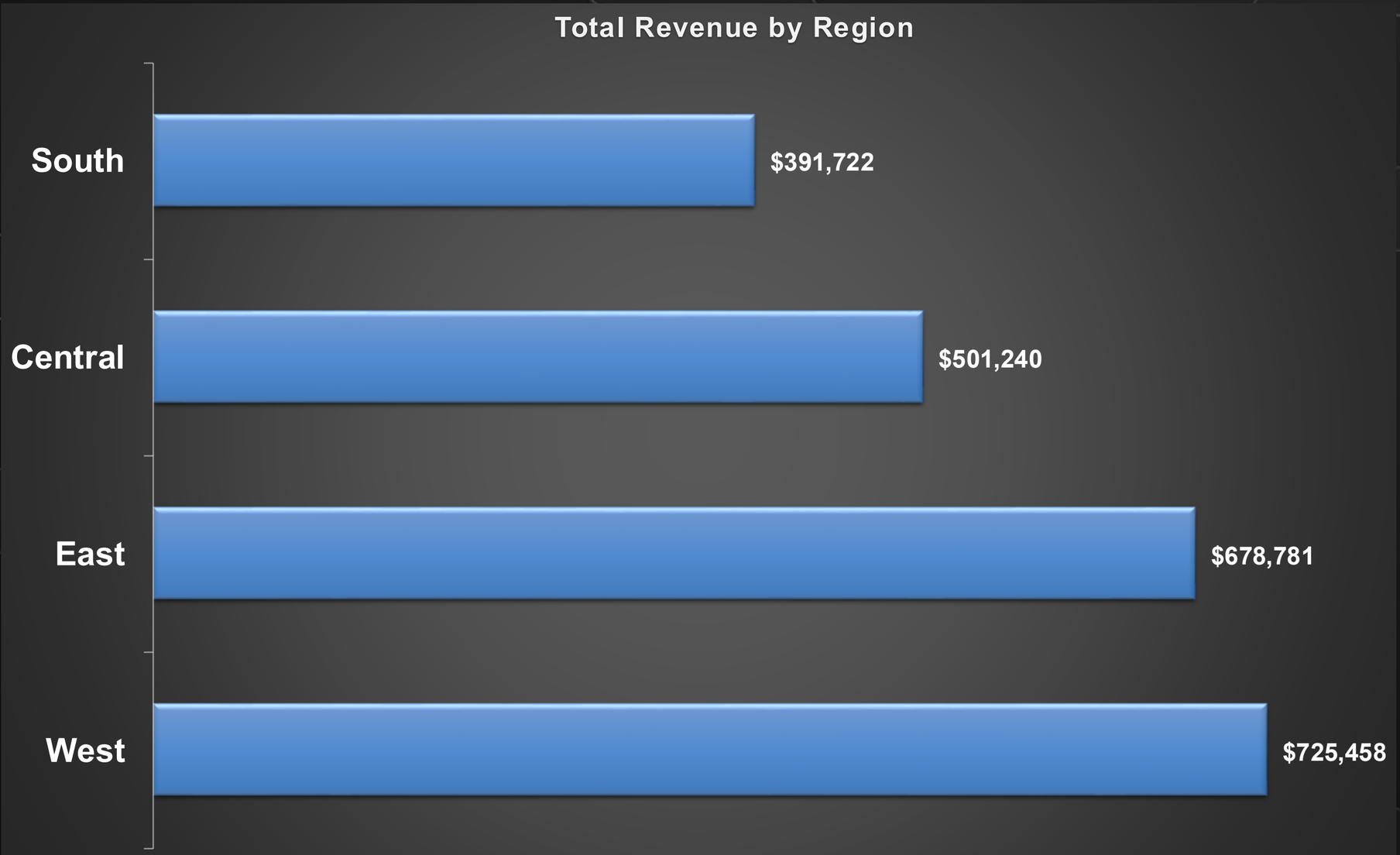
1. INSIGHT- Identify Revenue-Generating Regions



- The West region is the top-performing, generating $725,458 in revenue, followed by the East at $678,781.
- The South is the weakest, with $391,722, suggesting potential room for growth or optimization.

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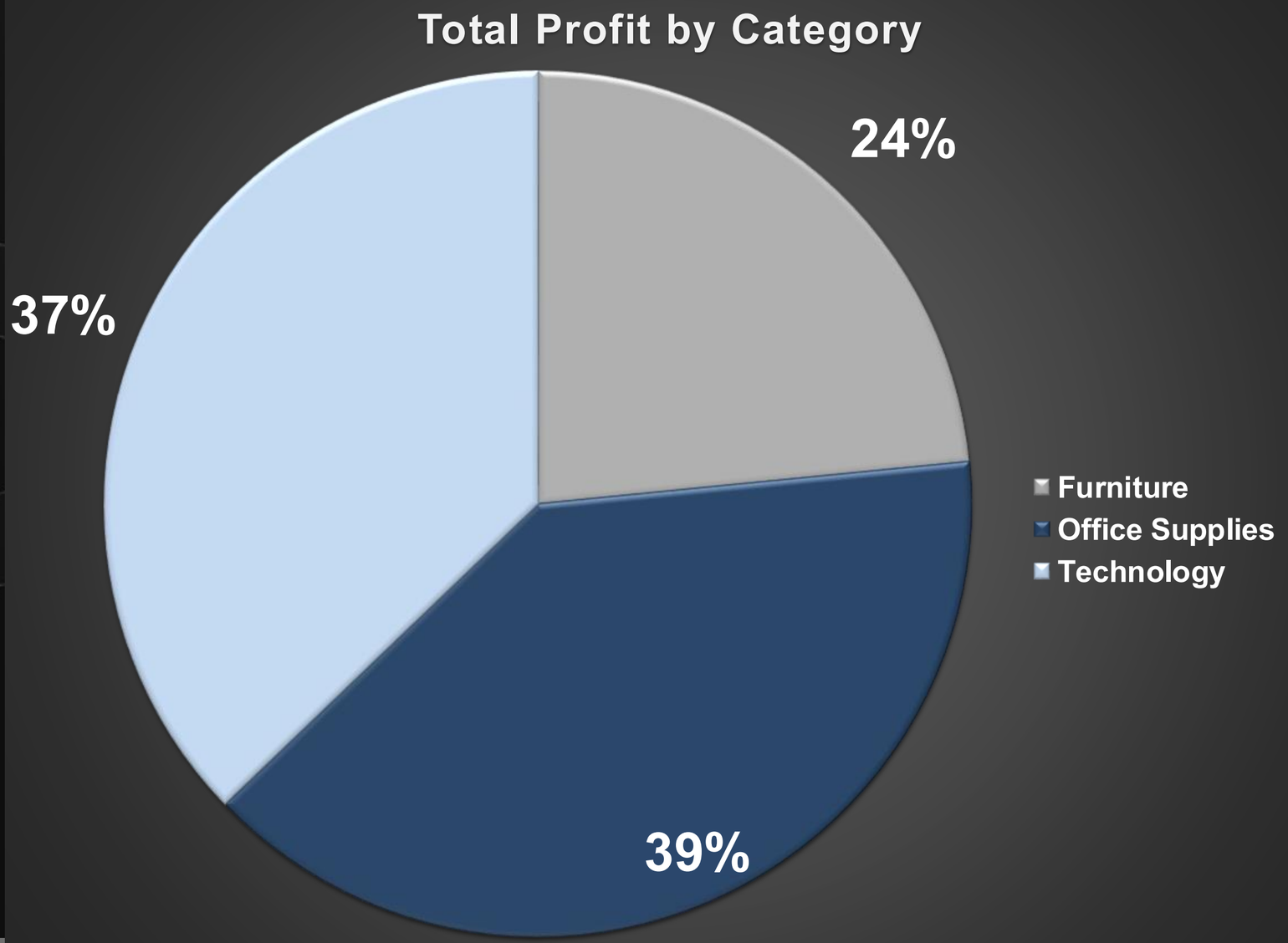
2. INSIGHT - Determine Profitable Product Categories



- Office Supplies lead in profitability with $235,721, slightly ahead of Technology at $222,615.
- Despite being a core category, Furniture lags behind with only $140,323, indicating potential margin or volume issues.

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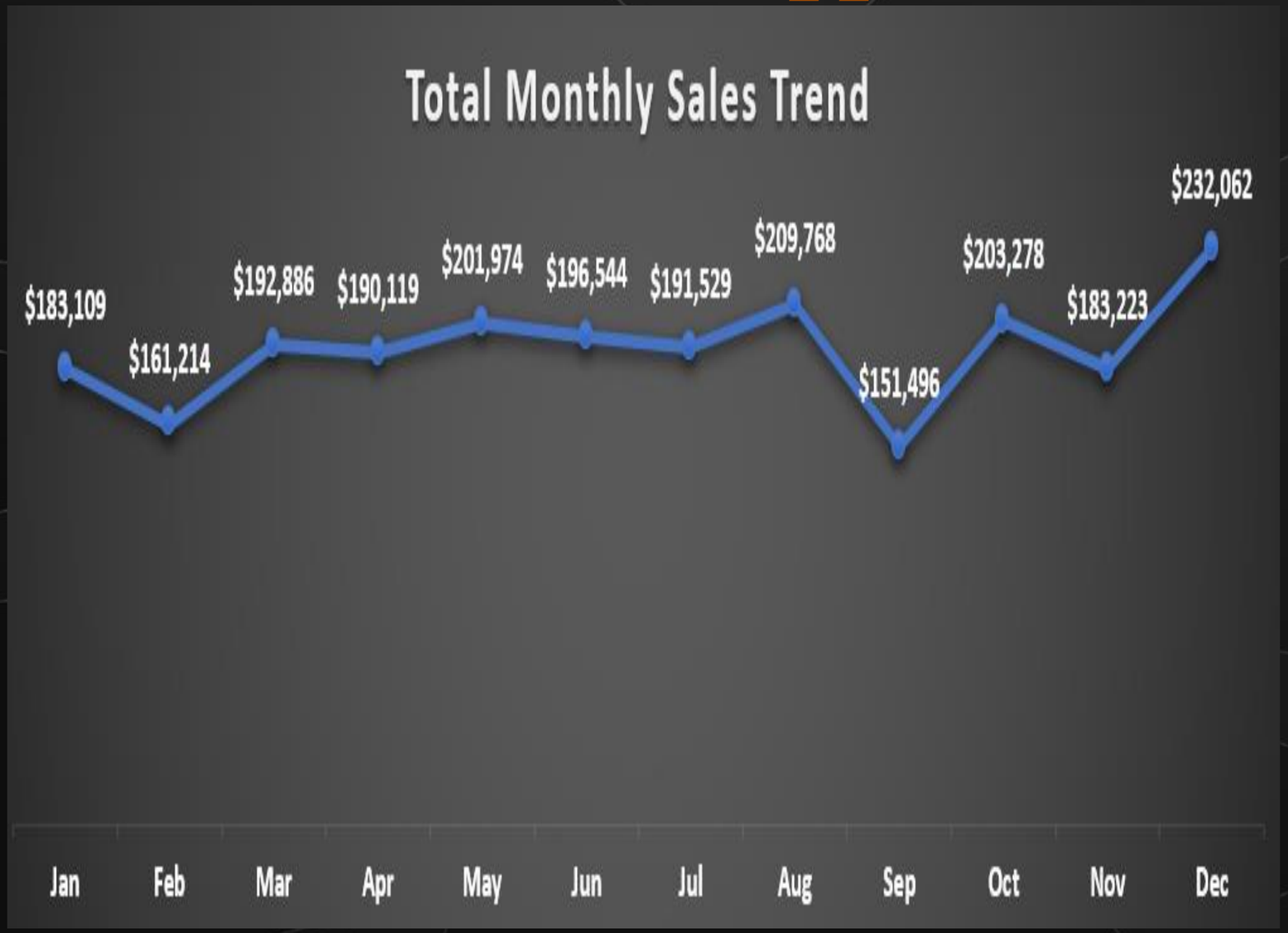
3. INSIGHT - Sales Trends



- December has the highest revenue ($232,062), followed by August and October, reflecting seasonal peaks in Q4 and late summer.
- September shows a dip ($151,496), suggesting a possible low-demand period before the holiday surge.

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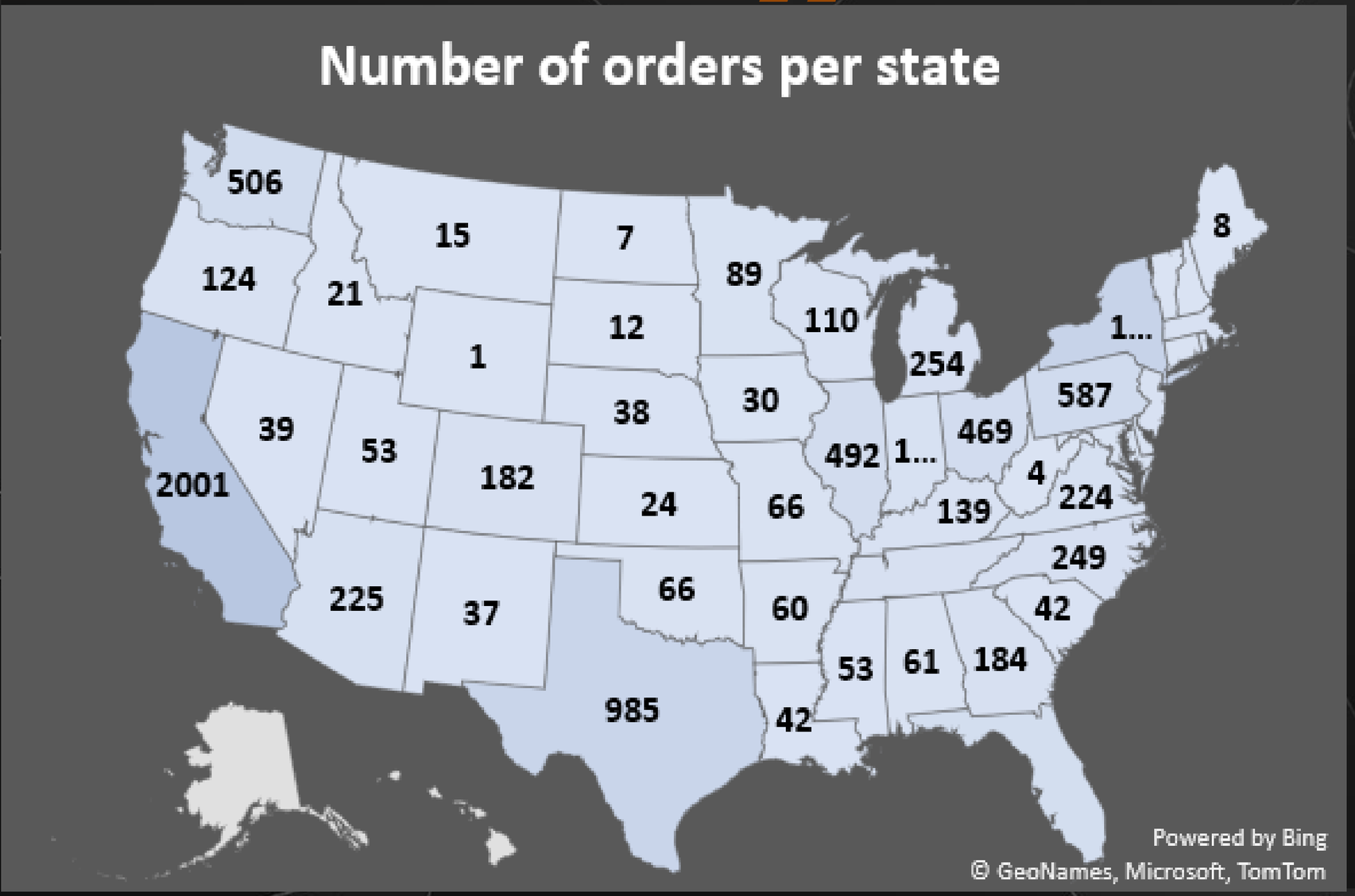
4. INSIGHT - Orders Made in Peak Months



- California (2,001 orders) and New York (1,128) dominate order volume, accounting for over 31% of all orders combined.
- Several states like Wyoming, West Virginia, and North Dakota contribute negligible order volumes, representing potential markets for digital or regional marketing focus.

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RECOMMENDATION

- **Double down on high-performing regions (West and East)** by launching targeted marketing campaigns and regional promotions to maximize ROI.
- **Boost investment in Office Supplies and Technology**, which are driving the most profit, through bundling strategies or seasonal offers.
- **Develop promotions for underperforming months (e.g., September)** to smooth out sales fluctuations and improve revenue consistency.
- **Explore why Furniture lags in profitability**—review pricing, supply chain costs, or customer perception to enhance margins or increase sales volume.
- **Improve state-level penetration** by running geo-targeted online campaigns in low-order states like the Dakotas, Vermont, and Wyoming to unlock untapped demand.

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READY TO DELVE IN?