

# Superstore SQL Case Study: Profitability & Sales Analysis

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Dataset: Superstore Sales (Tableau Public)

Tools Used: SQLite, DBeaver, Tableau, Excel

## Executive Summary

This case study explores key profitability and sales trends from a fictional Superstore's transaction data. Using SQL and Tableau, I identified underperforming product categories, customer segments with the highest return, regional sales weaknesses, and seasonal margin fluctuations. Recommendations based on the insights can inform pricing, inventory planning, and strategic sales targeting.

## Business Questions & Methodology

The analysis answers the following key business questions:

- - Which product categories and sub-categories are most and least profitable?
  - Which states or regions underperform or drive the most profit?
  - Which customer segments are most valuable?
  - Are there high-sales products losing money?
  - How do profit margins change over time?

The dataset was imported into SQLite using DBeaver. SQL queries were used to clean and structure the data, transform date fields, and extract trend and cohort-based insights. Tableau was used to visualize sales, profit, and geographic breakdowns. Outputs were exported to CSV and cross-validated against Tableau insights.

## Key Analyses & Insights

### 1. Profit by Category and Sub-Category

Tables and Bookcases recorded the highest losses despite decent sales volume. Technology, particularly Phones, showed strong performance in both revenue and margin.

### 2. Profit by Region and State

Texas and Ohio had high sales but net negative profit, suggesting cost inefficiencies. The Western region delivered the highest profitability and margin consistency.

### 3. Customer Segment Profitability

Corporate customers were the most profitable on average, while the Consumer segment had more customers but lower average returns.

### 4. Loss-Leader Product Identification

Several high-revenue products were sold at a loss. These loss-leaders warrant review for repricing, bundling, or discontinuation.

## 5. Monthly Margin Trends

December and July showed the lowest profit margins, pointing to seasonal discounting or increased operational costs.

## Strategic Recommendations

- - Reevaluate pricing strategies for underperforming furniture items.
  - Focus marketing efforts on Corporate customers with high average margins.
  - Investigate regional cost structure in Texas and Ohio to reverse margin losses.
  - Consider bundling or discontinuing consistent loss-leading products.
  - Adjust staffing, promotion timing, and inventory levels based on observed seasonal margin dips.

## Skills Demonstrated

- - Advanced SQL querying with grouping, filtering, and date transformations
  - Data exploration and profitability segmentation
  - Time-series and cohort analysis
  - KPI reporting and visualization in Tableau
  - Translating raw data into actionable business recommendations

## Interactive Dashboard

The project includes a Tableau dashboard built from the same dataset.

Link:

[https://public.tableau.com/app/profile/bryce.smith4541/viz/SuperstoreSalesPerformanceAnalysis\\_17497681544780/SuperstorePerformanceProfitSalesRegionalTrends](https://public.tableau.com/app/profile/bryce.smith4541/viz/SuperstoreSalesPerformanceAnalysis_17497681544780/SuperstorePerformanceProfitSalesRegionalTrends)

*This report is for portfolio demonstration purposes and based on fictional data originally published by Tableau.*