SUPERSTORE SALES & PROFIT CASE STUDY
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1. BUSINESS PROBLEM

A national retail company wants to understand why profitability varies so widely across United States, and why discounting sometimes leads to negative margins. The leadership team needs:

State-level profit clarity

Insight into discount-driven loss

Year-over-year performance breakdown

Strategic recommendations based on data;

This analysis uses the Superstore dataset to produce a structured solution.

2.DATA PREPARATION & SQL MODELLING

Key steps included:

A. Creating a Cost Column;
The dataset did not provide product cost, so I engineered one. This allowed deeper
margin analysis.

B. Aggregating Profit by State;
SQL groupings were used to compute:

Total Sales

Total Profit

Total Discount

Total Cost

Discount-to-Loss percentage

C. Identifying Discount Loss;
I created a custom metric:
This helped isolate states where discount needs to reduce

D. Generating YoY State Performance;

Year-over-Year revenue and profit were computed per state, enabling trend comparison.

3. Power BI Dashboard Development:
I designed 2 dashboards:
Dashboard 1 — Profit by State;
Filled map showing profit distribution
Bars showing top vs bottom states
Date slicer for dynamic filtering
Executive KPIs for Total Profit

Dashboard 2 — Discount Loss;
Table showing total loss due to discount per state.
Discount % vs Loss side-by-side
YoY matrix to compare 2014 and 2015 results.

4. Insights
1. Profitability is not tied to state size, some small states outperform major ones.

2. Heavy discounts reduce profit significantly; States with >40% discount show large loss on profit.

3. YoY performance is inconsistent;
 Some states grow while others decline, showing needs to improve sales strategies.

4. Cost structure varies by category;
High-discount categories tend to have tighter margins.

5. Recommendations

A. Reduce unnecessary discounting and focus especially on high loss states.

B. Segment customers by discount sensitivity also, discount only when it's needed, and let it not go above 0.3

C. Monitor YoY trends quarterly. View sales report regularly in other to spot declining states profits early, especially when there's a promo on going.

D. Rebalance product; mix in low-profit states and shift toward higher-margin categories.

6. Final Summary
This project demonstrates my ability of combining SQL analysis with Power BI visual storytelling. Through detailed modelling and dashboard, the business now has clarity

on:

Profit drivers
Discount risk
State performance
Margin optimization opportunity.