NEW SUPERSTORE ANALYSIS

John Ofoegbu
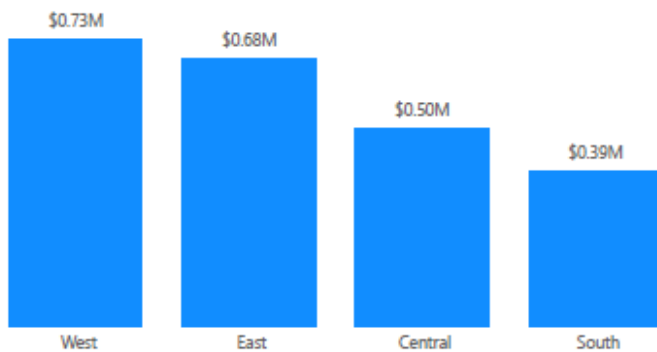
2025

OVERVIEW

This project analyzed the new superstore dataset to uncover trends, customer behavior, and profitability insights thereby providing a data-driven approach to decision-making in retail operations.
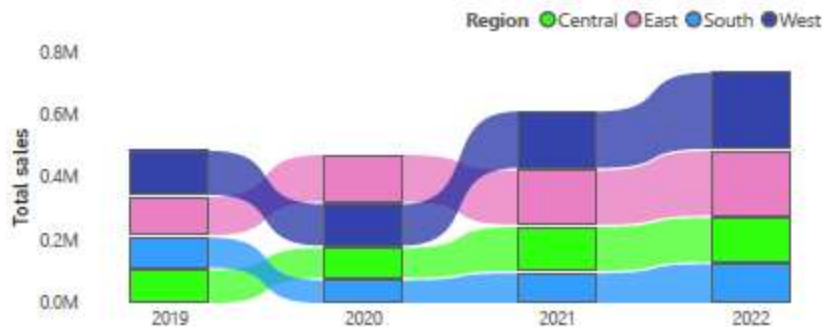
INSIGHTS

Total sales by region

The West region recorded the most sales and profit almost doubling the South region in sales and more than doubling it in profits


Regional sales ranking over time

The West region ranked 1st in total sales in all four years except one (2020) while the South region ranked last in total sales in all years except in 2019.


Sales & Profit by Region

The Central region had the third highest sales but posted the lowest profit percentage

Total loss, Total profit and Total sales by category

● Total loss ● Total profit ● Total sales

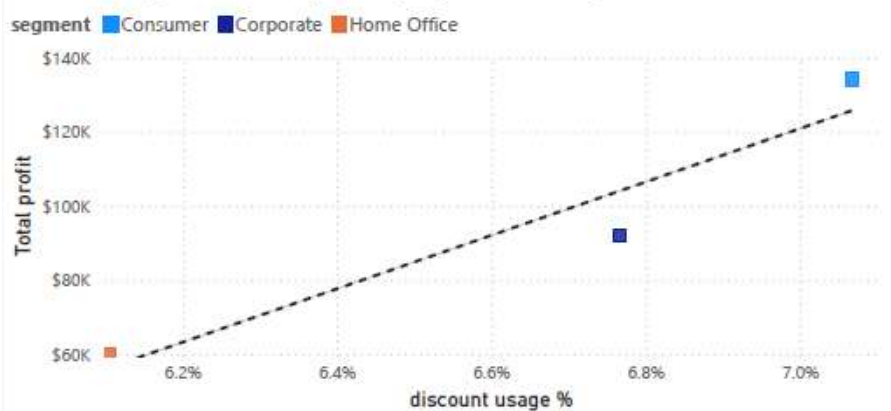| Technology	Office Supplies	Furniture
81.96%	80.06%	90.33%
14.26%	13.64%	
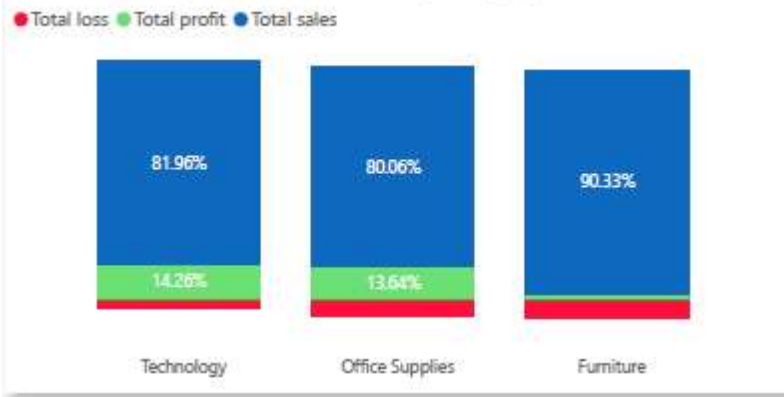
The furniture product category recorded the most sales and losses, but the least profits of the three product categories while the technology category outperformed all categories in profits yet with the least of losses

Average of discount by category

|		
0.20		
0.15		
0.10		
0.05		
0.00		
Furniture	Office Supplies	Technology
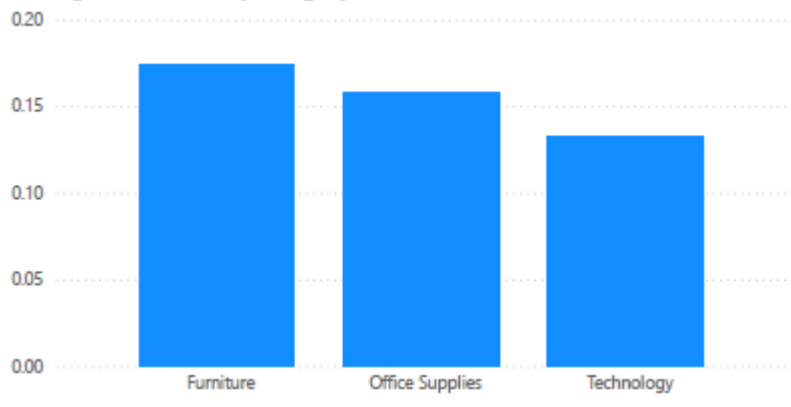
The furniture category recorded the highest discount among the three categories. This might be a pointer to why it registered the least profit and the greatest loss as shown in insight (4)

discount usage % and Total profit by segment and segment

segment ■ Consumer ■ Corporate ■ Home Office

$140K
$120K
$100K (Total profit)
$80K
$60K

6.2%   6.4%   6.6%   6.8%   7.0%

discount usage %

The use of discounts correlated with increased profits for each market segment exhibiting a direct proportion relationship. The consumer segment benefited the most from discounts

discount usage % and Total loss by segment and segment

segment ■Consumer ■Corporate ■Home Office
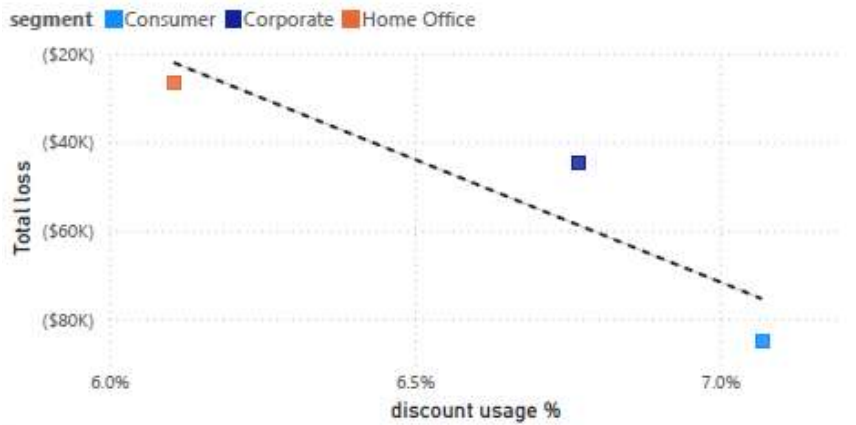
On the other hand, an increased usage of discounts correlated with lower losses. Here, the Home office segment experienced the most losses with the least discount percentage usage while the Consumer segment which had the greatest discount percentage usage experienced the least

← profit is more likely to increase when Average of sales is more than 464.292 than otherwise (on average).

Average (excluding selected): 10.41
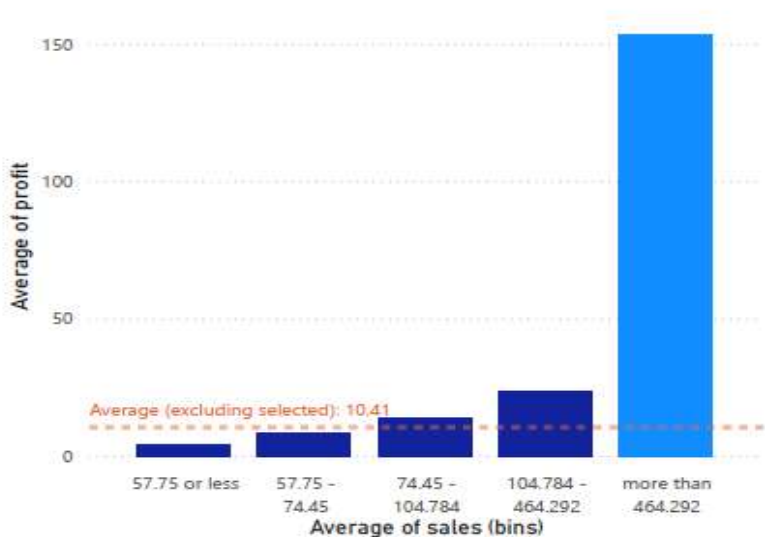
When the average sales is >$464.29, the average profit is 142.61 units higher compared to all other values of average sales. This influencer contains approximately 12.8% of the data

RECOMMENDATIONS

1. Investigate why the Central region posted the lowest profit percentage (8%) compared to West (15.07%), East (13.24%) and South (12.82%) despite having the third highest sales among the regions.
2. The discount in the furniture category hurt its profit and heightened its losses, revisit the discount strategy for the furniture category

DATA OVERVIEW

The dataset was originally made up of one CSV file with 19 columns. However, after extraction, transformation, and loading with Power Query, it became a model with six tables and a measures table with the following column details below:

Customer: customer name, order_id, zip

Date: date, year, quarter, month, day, MonthNumber, date hierarchy, YearMonth

FactSales: discount, order_date, order_id, profit, profit_margin, quantity, sales, shipping_id, zip

Location: country, region, state, city, zip, order_id, country hierarchy

Orders: order_date, order_id, ship_date, shipping_id, zip

Product: manufactory, section, category, subcategory, product_id, product_name, order_id, product hierarchy

KEY BUSINESS QUESTIONS ANSWERED

 How are sales and profits trending over time?

 Which regions drive the most sales and how have the regions ranked in performance over time?

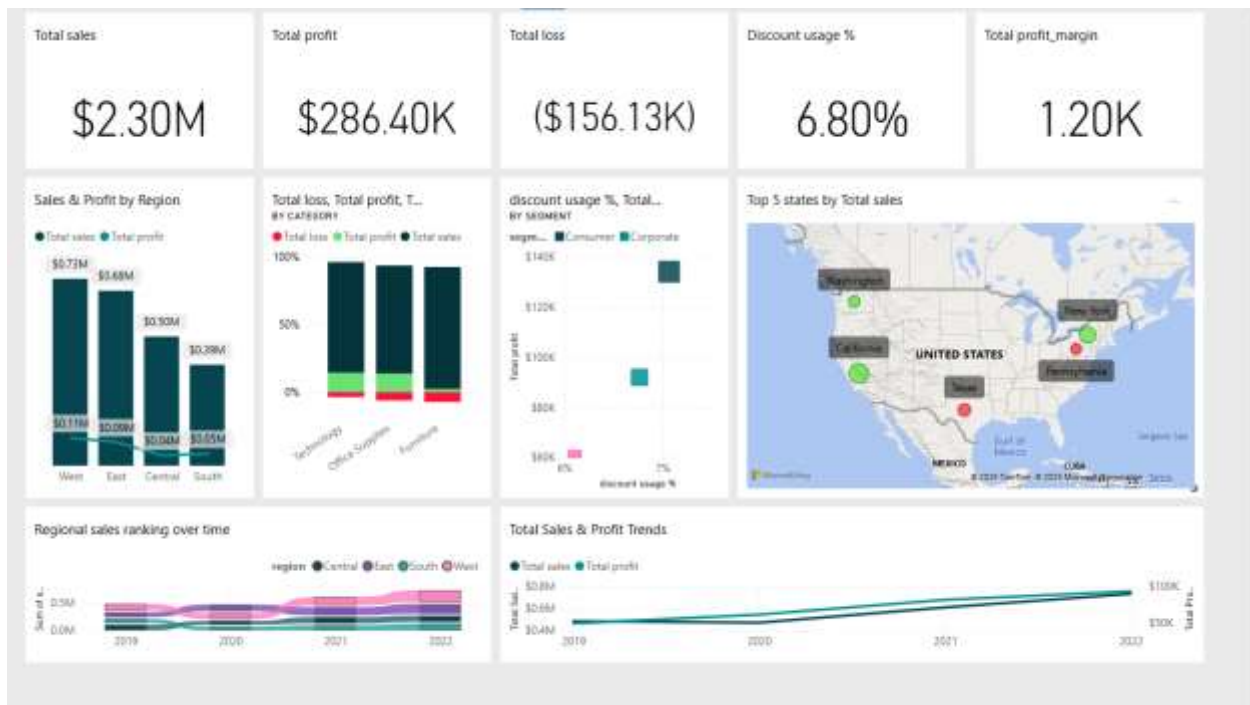What percentage of total sales represents profit or loss?

How have discounts impacted profitability?

What is the average order value?

Who are the most valuable customers based on purchase behavior?

Which states are the top 5 performing states in terms of sales, and how do their sales figures compare to their profit or loss?

DASHBOARD

KEY METRICS (DAX Measures Used)

Total Sales: SUM (factsales[Sales])

Total Profit: SUM (factsales[profit])

Average Order Value (AOV): DIVIDE([Total Sales] , DISTINCTCOUNT (orders[order.id]), 0)

Discount Usage %: DIVIDE(

       SUM(factSales[discount]), SUM(factSales[sales]), 0

) * 100

Total Loss: CALCULATE([Total profit], factSales[profit] < 0)

Total Profit Margin: SUM(factsales[profit_margin])

CONCLUSION

The new Superstore dataset analysis uncovered various insights regarding geographical and product sales performance, the correlation between key metrics, and the underlying story in the sales figures that call for further exploration, root cause analysis, and decision-making.

APPENDIX

How to access the dataset:

https://www.kaggle.com/datasets/timchant/supstore-dataset-2019-2022/data