

SUPERSTORE DATASET PROJECT

24 MAY, 2025

CONTENTS

- INTRODUCTION
- DATA DESCRIPTION
- OVERVIEW
- DATA CLEANING & PREPROCESSING
- MODELLING
- PRODUCTS INSIGHTS & RECOMMENDATIONS
- RETURN INSIGHTS & RECOMMENDATIONS
- CUSTOMERS INSIGHTS & RECOMMENDATION
- GEOGRAPHIC INSIGHTS & RECOMMENDATIONS



INTRODUCTION

- The SuperStore Dataset is a comprehensive dataset that contains transactional records of a retail business over a four-year period, from 2014 to early 2018.
- It captures key aspects of sales, shipping, customer segmentation, and product details, making it a valuable resource for sales analysis, customer behavior insights, and logistics optimization.

DATA DESCRIPTION

- The dataset consists of four sheets, each containing different types of information :

→ Orders

The main transactional dataset, containing details about sales, shipping, products, customers, and financial metrics like sales, profit, and discounts.

→ Return

A record of orders that were returned, useful for analyzing return trends.

DATA DESCRIPTION

- The dataset consists of four sheets, each containing different types of information:

→ Shipping Cost

Details on shipping costs per unit across different states, useful for logistics and cost analysis.

DATA DESCRIPTION

With 9,994 recorded transactions, this dataset offers rich opportunities for data analytics and visualization, particularly in areas such as profitability analysis, sales trends, customer segmentation, and supply chain optimization.

DATA OVERVIEW

Table Name	No. of Columns	Description
Orders	21	The main table containing full order details, customers, products, profit, and dates
Return	2	Contains returned orders (Order ID + Return status).
Shipping Cost	2	Shipping cost information per state (State + Shipping Cost Per Unit).

CLEANING AND PREPROCESSING

In the data cleaning step, no major cleaning was required as the dataset was already well-structured and free of inconsistencies. However, I performed some preprocessing to better tailor the data for analysis. This included adding new calculated columns and removing unnecessary ones that were not relevant to the objectives of the analysis.

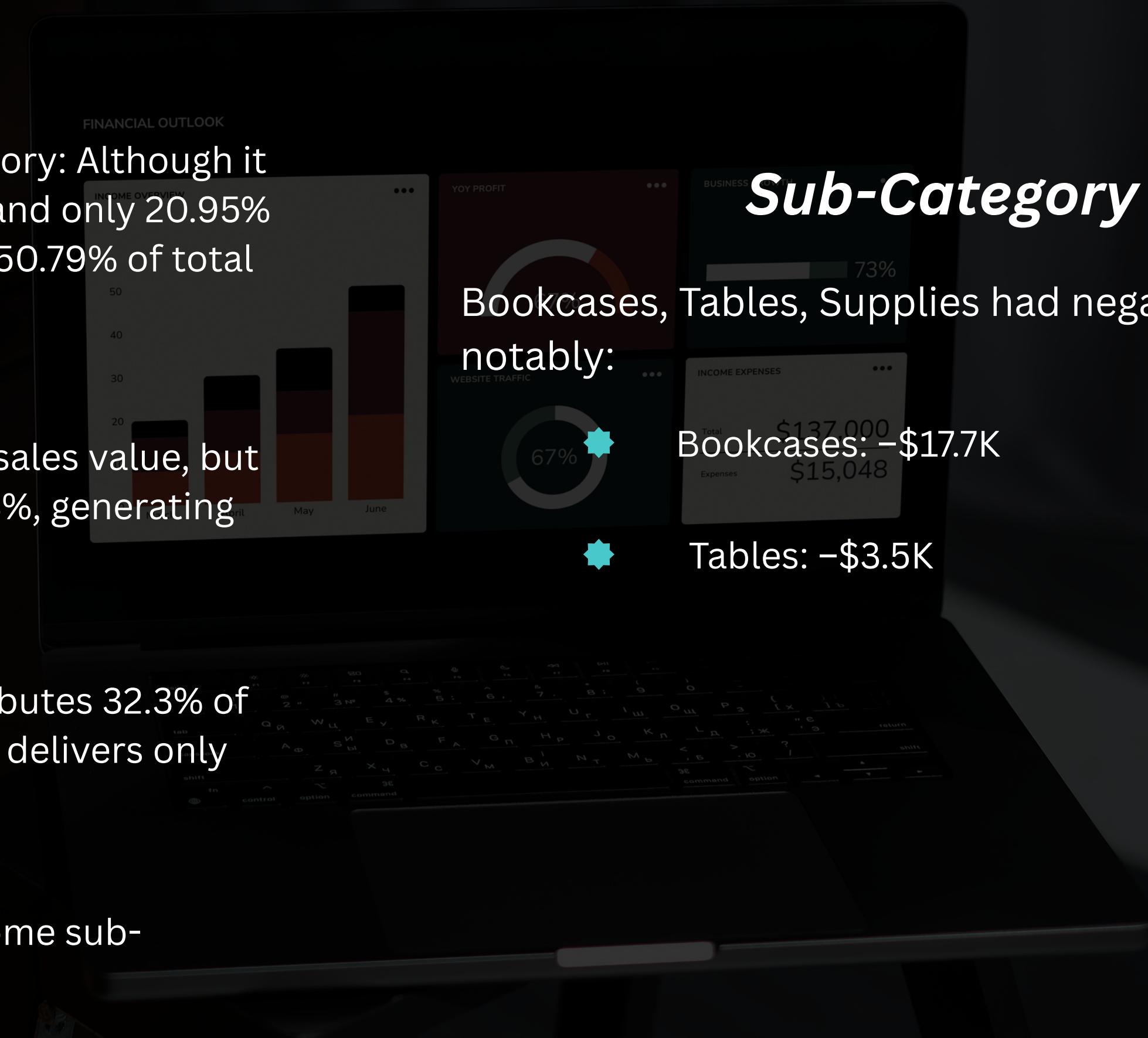
MODELLING

To reduce dimensionality and improve efficiency, the large fact table was divided into multiple dimension tables, each representing a specific aspect like products, customers, shipping, and returns. Primary and foreign keys were used to link these tables in a star schema, enabling better organization and faster data analysis.

PRODUCT PERFORMANCE

INSIGHTS:

- Technology is the most profitable category: Although it accounts for 36.4% of total sales value and only 20.95% of the total quantity sold, it generates 50.79% of total profit
- Office Supplies: It represents 31.3% of sales value, but has the highest quantity sold at 60.48%, generating 42.77% of total profit.
- Furniture is underperforming: It contributes 32.3% of sales and 18.57% of quantity sold but delivers only 6.44% of total profit.
- Furniture: Highest negative profit in some sub-categories



PRODUCT PERFORMANCE

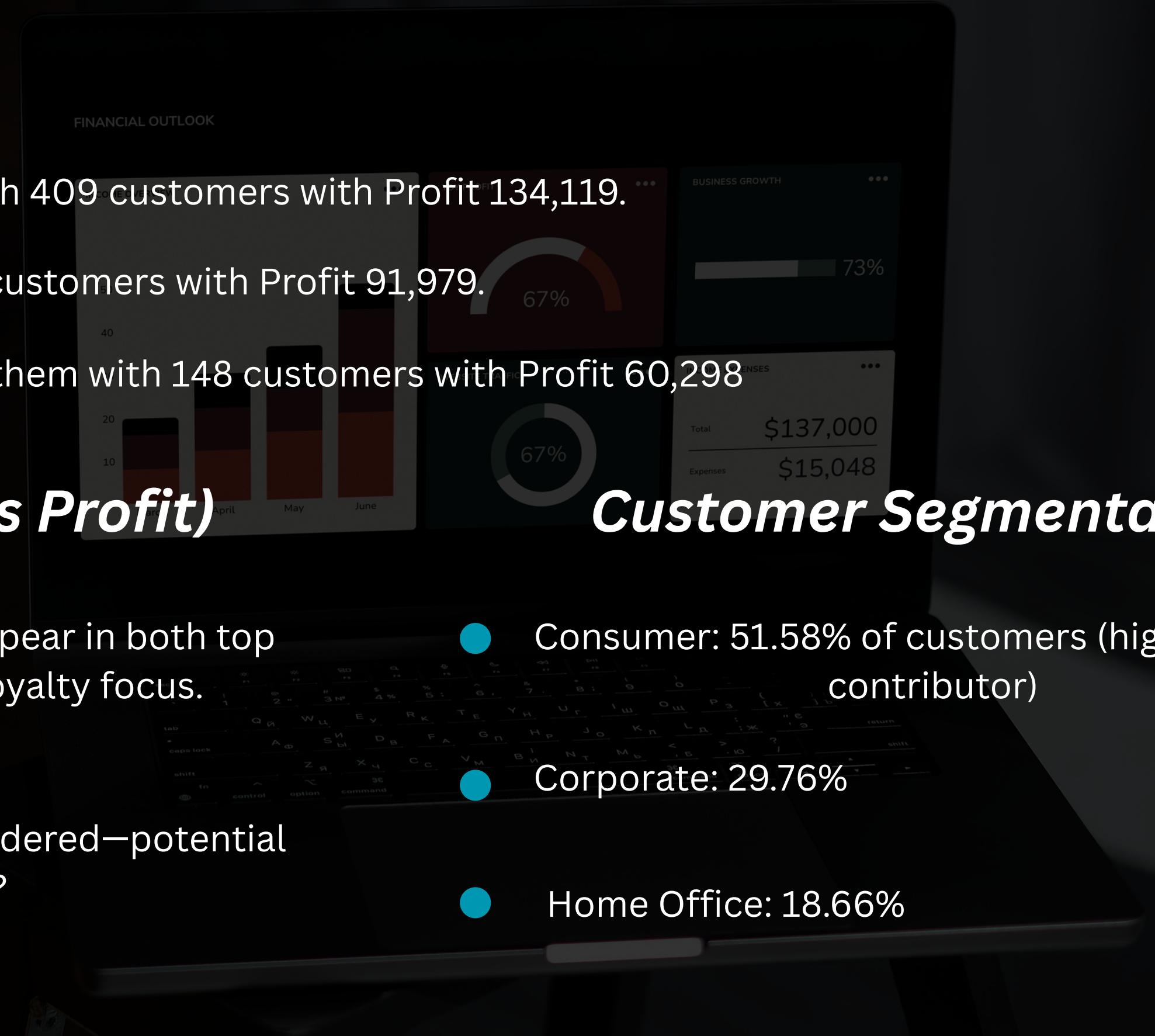
RECOMMENDATIONS

- Shift marketing and bundling strategies toward Technology items.
- Consider phasing out or re-pricing loss-making sub-categories (Bookcases, Tables).
- Review the Office Supplies category to uncover potential profit loss due to low margins or excessive discounting.

CUSTOMER PERFORMANCE

INSIGHTS:

- Consumer is the highest segment with 409 customers with Profit 134,119.
- Corporate the second one with 236 customers with Profit 91,979.
- Home offices are the lowest among them with 148 customers with Profit 60,298



Top Customers (Sales vs Profit)

- Tamara Chand and Raymond Buch appear in both top sales and profit lists – good for loyalty focus.
- Jonathan Doherty leads in quantity ordered—potential bulk buyer or reseller?

- Consumer: 51.58% of customers (highest profit contributor)
- Corporate: 29.76%
- Home Office: 18.66%

CUSTOMER PERFORMANCE

RECOMMENDATIONS

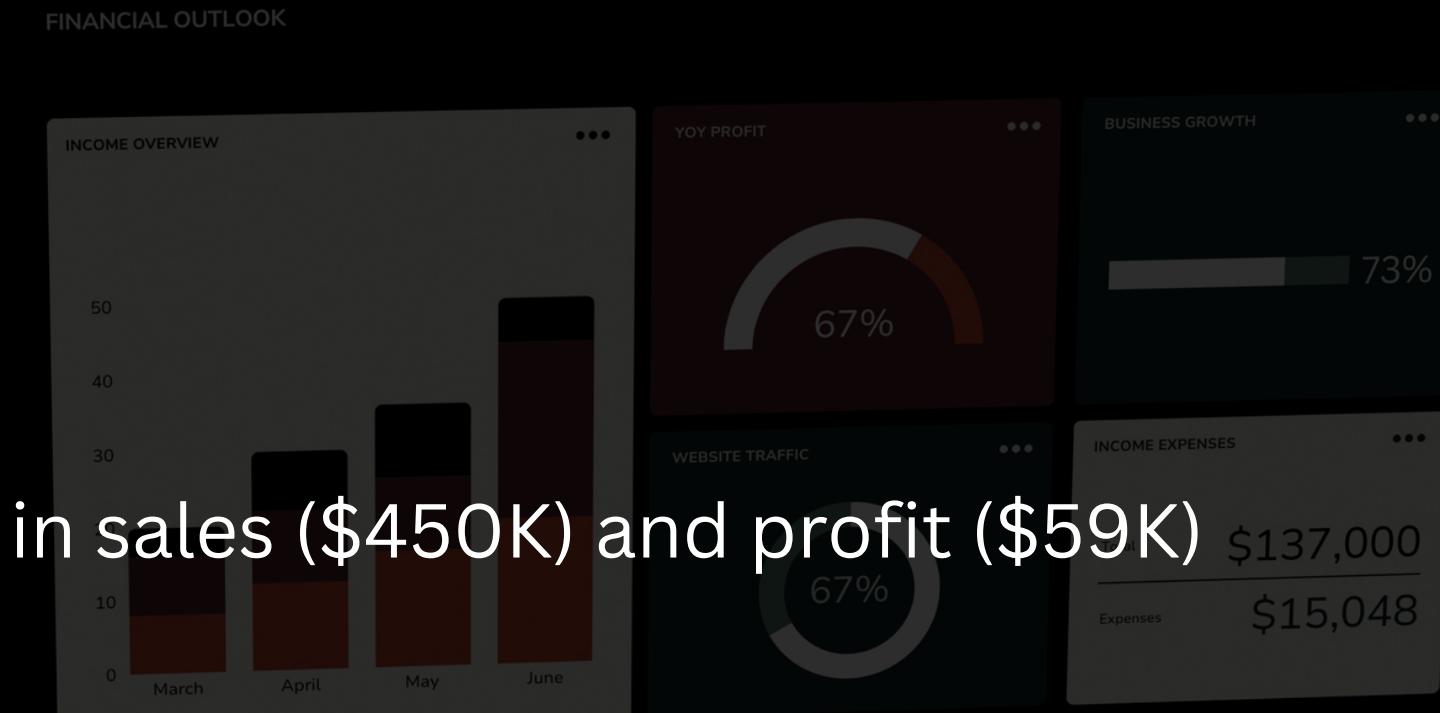
- Review customers who buy large quantities but bring in low profit to find chances to offer more products or adjust pricing.
- Boost sales in the Home Office segment by offering custom bundles and better pricing deals.

REGIONAL & STATE-LEVEL ANALYSIS

INSIGHTS

● Top Performers

- ✿ California dominates in sales (\$450K) and profit (\$59K)
- ✿ New York, Texas, Washington are also strong.



● Underperformers

- ✿ North Carolina and Arkansas show negative profits.
- ✿ States offering large discounts, such as California, and Texas, may be reducing overall profit margins by cutting too deeply into earnings.

REGIONAL & STATE-LEVEL ANALYSIS

RECOMMENDATIONS

- Focus promotions on the top-performing states to get better returns.
- Check states with high discounts to see if marketing is working or if the right customers are being targeted.
- In states with losses, think about removing low-profit products or changing delivery methods.

RETURN ANALYSIS

INSIGHTS

- Return rate is volatile, suggesting inconsistent product or delivery quality.
- Top sub-categories returned: Supplies, Bookcases, Envelopes, Machines
- Office Supplies category has the highest return rate with 59.13%, particularly Supplies and Bookcases—which aligns with their negative profit.
- The Home Office segment has the lowest sales, profit, and customer count, yet it accounts for the highest number of returned orders.

RETURN ANALYSIS

RECOMMENDATIONS

- Use post-return surveys for Home Office and Standard Class shipping customers to identify key reasons behind returns.
- Evaluate supplier performance and enhance quality control measures for the most frequently returned items, including Phones, Binders, Furnishings, and Accessories.

FUTURE UPDATES

- BOOKMARK
- BUTTON
- DRILL THROUGH



OUR TEAM

Aya Khaled

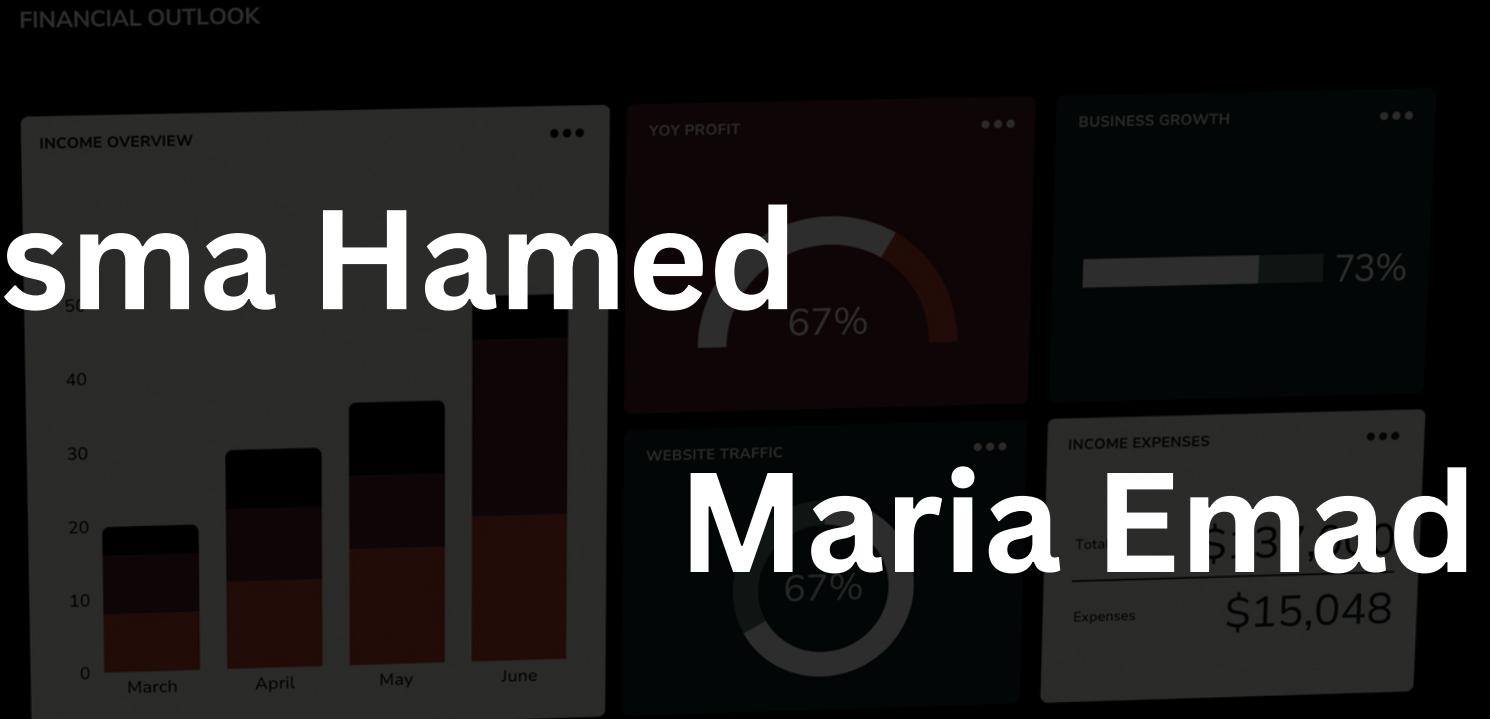
Adel Lotfy

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A dark, grainy photograph showing the silhouette of a person's head and shoulders in profile, facing right. They appear to be looking out of a window at a city skyline, which is visible through the glass. The scene is dimly lit, with some light reflecting off the window pane.

WE WANT TO SAY

THANK YOU

FOR YOUR ATTENTION