Superstore Sales Analysis Report

Data Source & Preparation:

- Data Source: Super_store_dataset

    o Contains: Orders, Customers, Products, and Sales information

Row ID	Order ID	Order Date	Ship Date	Order Delivery (Days)	Order Month/Year	Year	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State	Postal Code	Region
1	CA-2016-152156	11/8/2016	11/11/2016	3	Nov-16	2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky	42420	South
2	CA-2016-152156	11/8/2016	11/11/2016	3	Nov-16	2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky	42420	South
3	CA-2016-138688	6/12/2016	6/16/2016	4	Jun-16	2016	Second Class	DV-13045	Darrin Van Huff	Corporate	United States	Los Angeles	California	90036	West

Product ID	Category	Sub-Category	Product Name	Sales	Quantity	Discount	Profit
FUR-BO-10001798	Furniture	Bookcases	Bush Somerset Collection Bookcase	$261.96	2	0	41.9136
FUR-CH-10000454	Furniture	Chairs	Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back	$731.94	3	0	219.582
OFF-LA-10000240	Office Supplies	Labels	Self-Adhesive Address Labels for Typewriters by Universal	$14.62	2	0	6.8714

- Data Quality:

    o The dataset was clean – no blanks, duplicates, or missing records

- Table Creation:

    o Tables were generated in MySQL and exported to Excel

- Consultation:

    o ChatGPT provided guidance on query optimization and analysis

Key Insights:

- **Sales Performance:**

  - Trends over time show clear seasonality

  - Best months: September to December

  - Worst months: Identified months with negative profit linked to high discounts

 - *Chart: Sales & Profit Trends Over Years and Months*
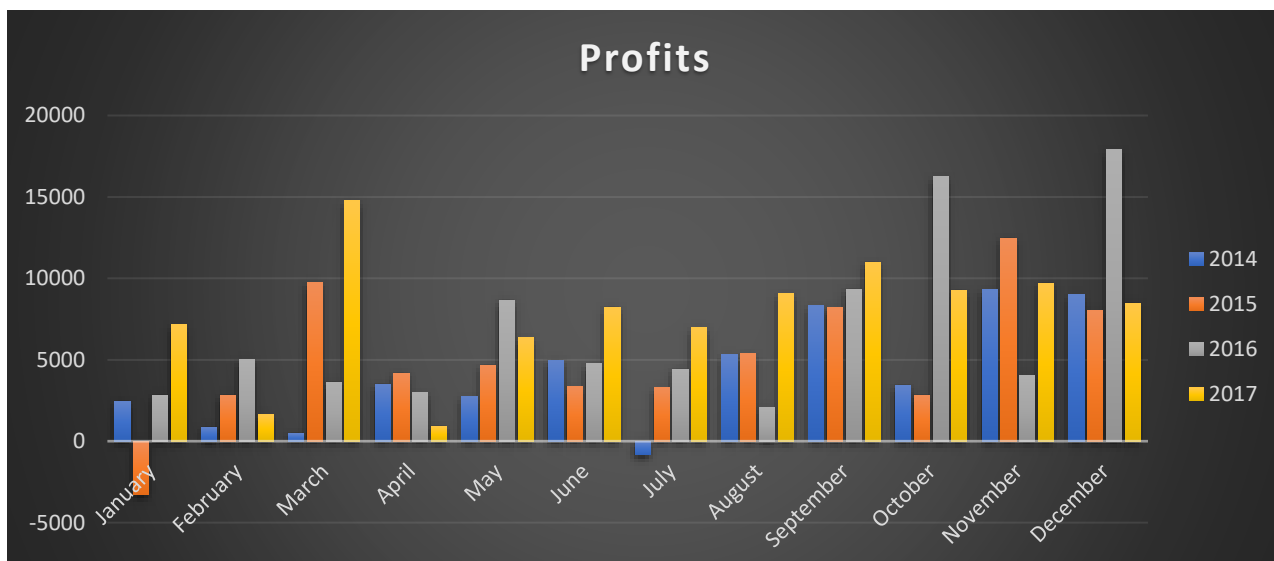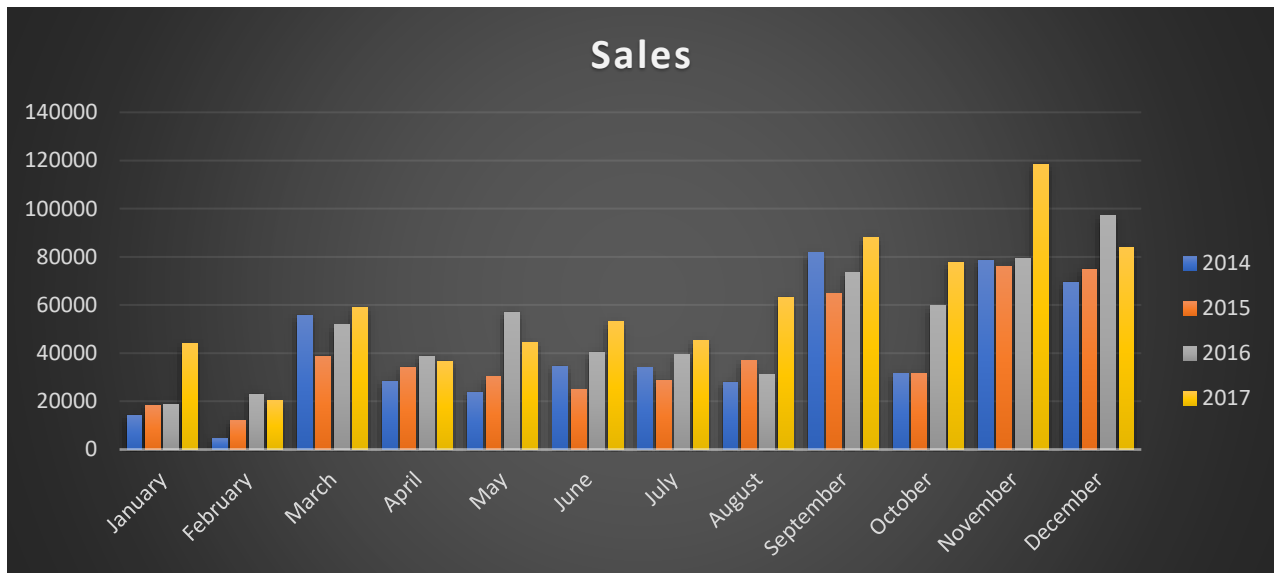
Customer Insights:

- Top customers (top 5% of over 800) drive a significant portion of revenue

- Analysis of order frequency and average order value per segment

- *Table/Chart: Top 5% Customers by Revenue & Average Order Price*

Table sample

Top 5% customers avg order price.				
customer_id	segment	rder frequenc	sales	Average order
AB-10105	Consumer	10	14473.6	1447
BM-11140	Consumer	4	11789.6	2947
BS-11365	Corporate	5	10501.7	2100
CC-12370	Consumer	5	12129.1	2426
CJ-12010	Consumer	8	11165	1396

Customer segments chart
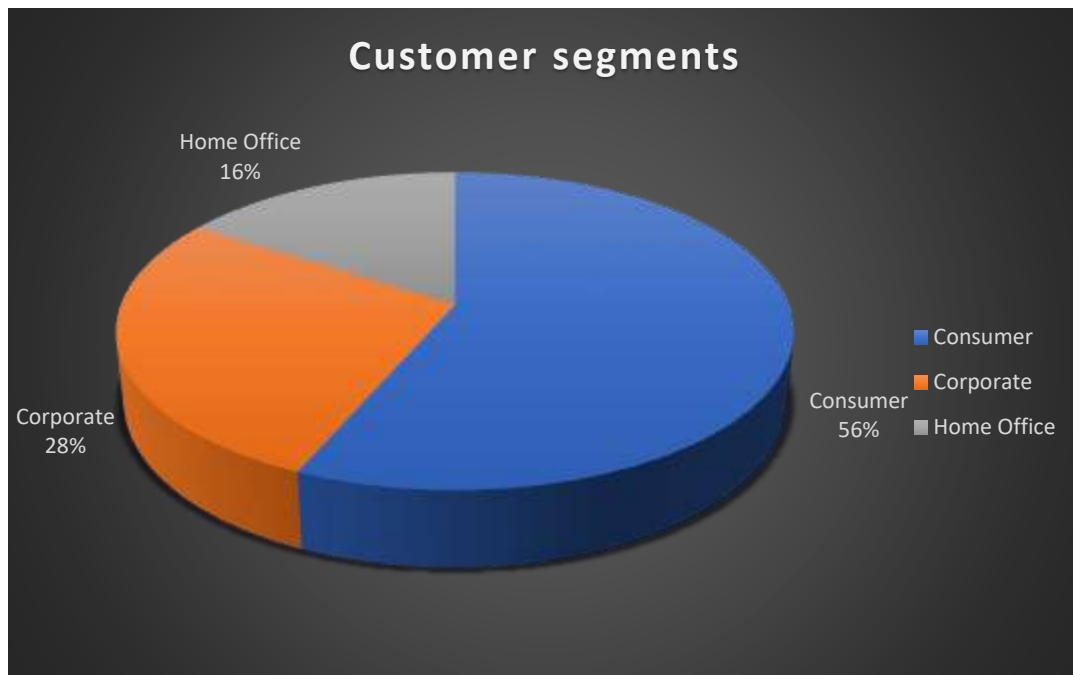
Product Performance:

- Analysis by sub-category reveals that some sub-categories (Office Supplies, Binders) consistently make losses

- Best-selling sub-categories differ from most profitable ones

- *Chart: Product Performance by Sub-Category*
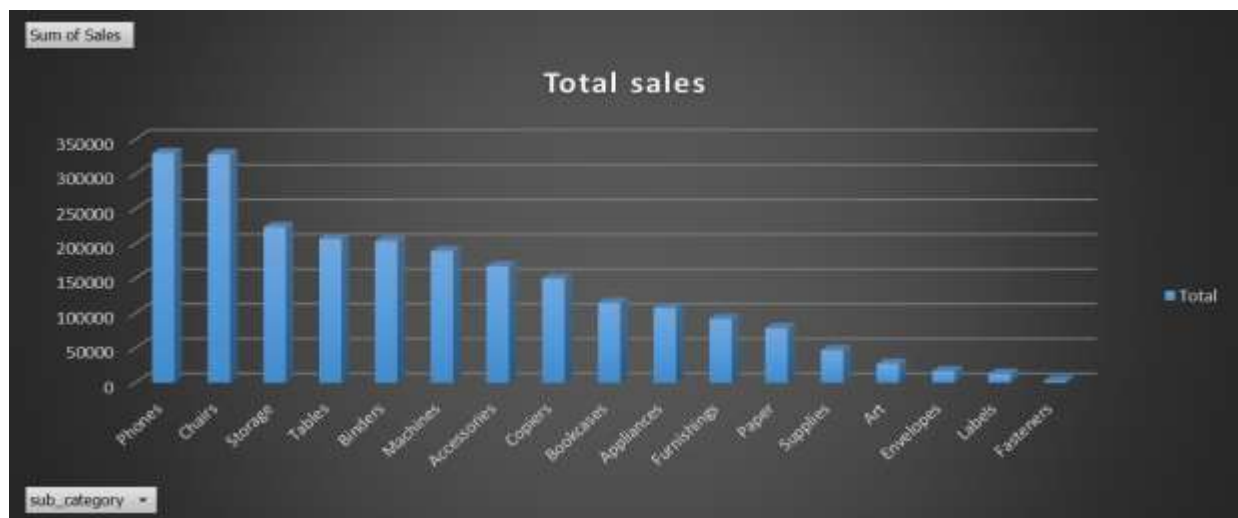
- **Discount & Pricing Impact:**
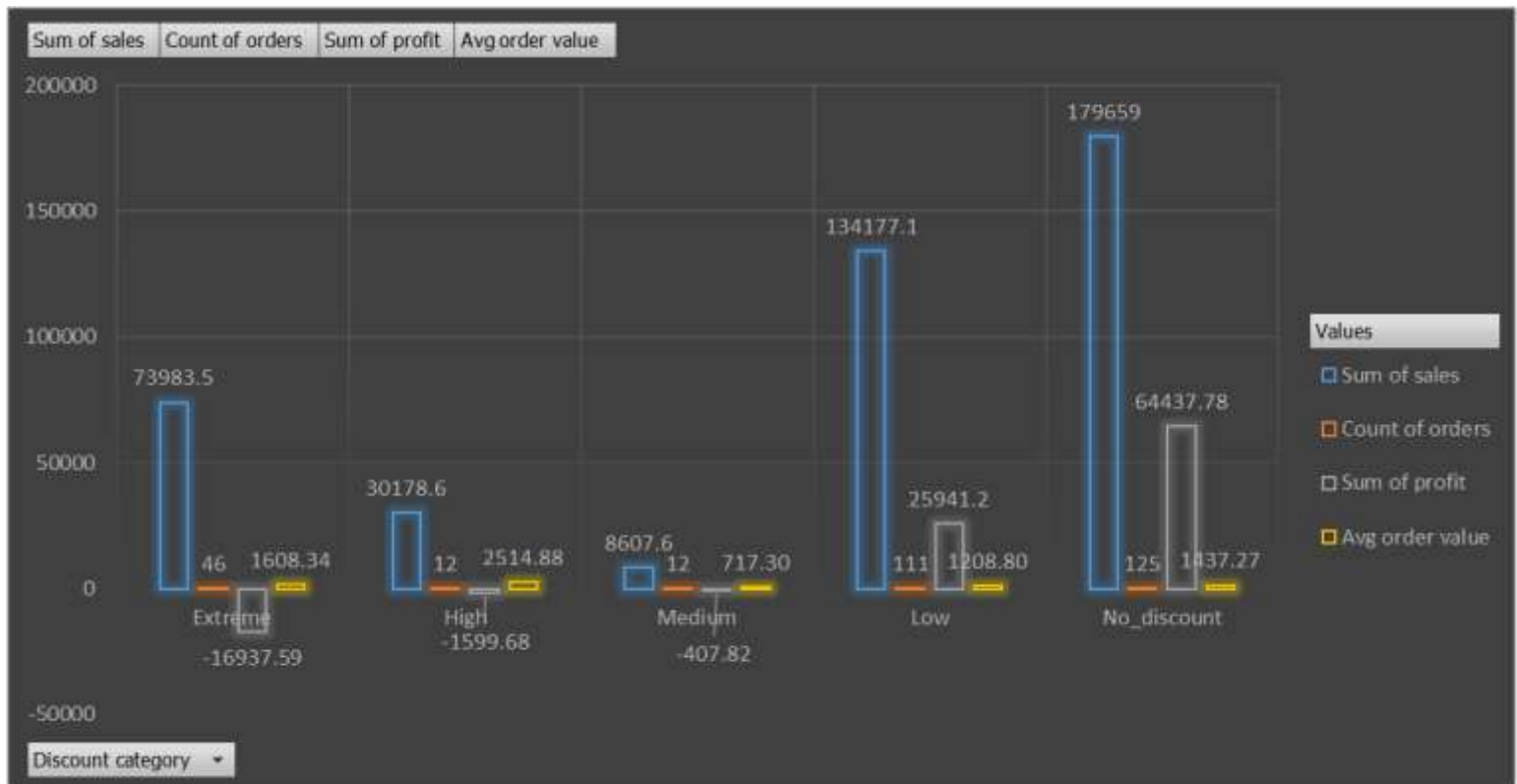 - Discounts were categorized into:
    1. No Discount
    2. Low (below 20%)
    3. Medium (21–30%)
    4. High (31–50%)
    5. Extreme (over 50%)
  - Findings:
    - Higher discounts (over 30%) correlate with negative profit
    - No clear increase in order volume with high discounts
  - *Chart: Discount Impact on Sales & Profit*

Business Recommendations:

- **Adjust Discount Strategy:**

  - Reevaluate discount thresholds, especially for loss-making sub-categories

  - Consider limiting discounts to 20–30% to protect margins

- **Prepare for Seasonal Peaks:**

  - Strengthen inventory and marketing before the high-sales season (Sept–Dec)

- **Focus on High-Value Customers:**

  - Develop targeted promotions or loyalty programs for the top 5% customers

- **Monitor Product Performance:**

  - Regularly review sub-category performance and adjust pricing or promotions accordingly

- **Data-Driven Decisions:**

  - Continuously track key metrics to quickly address pricing issues

Conclusion:

- The analysis shows that while seasonal trends boost overall sales, aggressive discounting in certain sub-categories is leading to negative profits.

- Adjusting discount strategies and focusing on high-value customer segments can improve profitability.

- These insights provide a clear roadmap for data-driven business decisions.