

TASK #3

EDA-RETAIL

Presented By : Nivedita Bharti

GOALS

- Perform '**Exploratory Data Analysis**' on dataset 'SampleSuperstore.csv'
- As a business manager, try to find out the weak areas where you can work to make profit.
- What all business problems you can derive from by exploring the data?

Superstore Dashboard

State

All

City

All

2.30M
Total Sales

286.40K
Total Profit

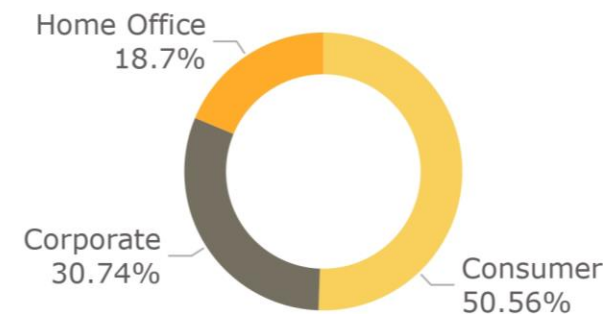
38K
Total Orders

12.47%
Profit Margin

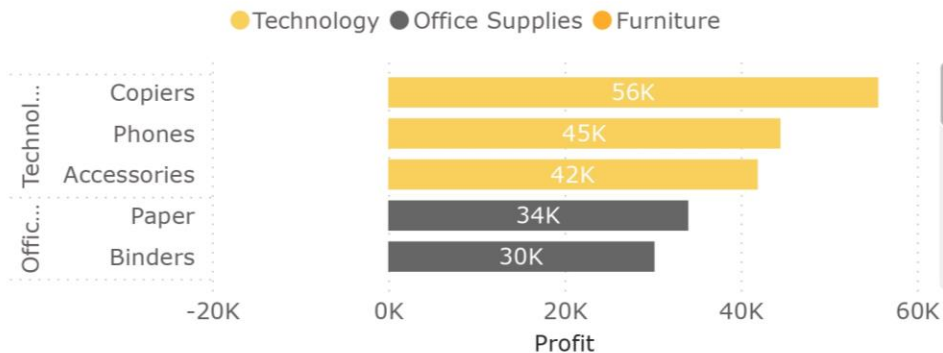
Sales by Region

West	East	Central	South
725.46K	678.78K	501.24K	391.72K

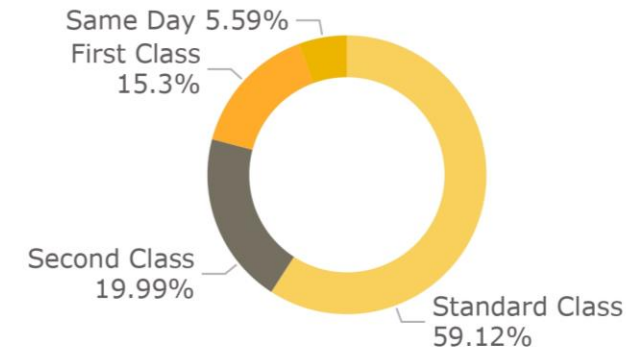
Sales By Segment



Profit by Category And Sub-Category

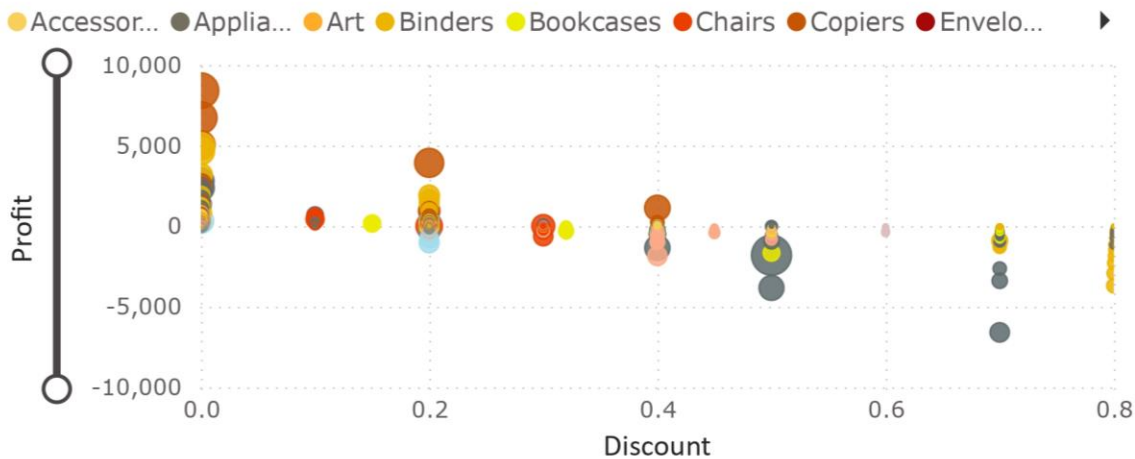


Sales By Ship Mode



State	Sales	Profit	Profit Margin
California	4,57,687.63	76,381.39	16.69%
New York	3,10,876.27	74,038.55	23.82%
Texas	1,70,188.05	-25,729.36	-15.12%
Washington	1,38,641.27	33,402.65	24.09%
Pennsylvania	1,16,511.91	-15,559.96	-13.35%
Florida	89,473.71	-3,399.30	-3.80%
Illinois	80,166.10	-12,607.89	-15.73%
Ohio	78,258.14	-16,971.38	-21.69%
Michigan	76,269.61	24,463.19	32.07%
Virginia	70,636.72	18,597.95	26.33%
North Carolina	55,603.16	-7,490.91	-13.47%
Indiana	53,555.36	18,382.94	34.33%
Georgia	49,095.84	16,250.04	33.10%
Total	22,97,200.86	2,86,397.02	12.47%

Impact of Discounts on Profit



The background features a decorative design on the left side. It includes a large pie chart with a dark blue segment (approximately 3/4 of the circle) and a light blue segment (approximately 1/4 of the circle). Above the pie chart, there are concentric white circles on a light pink background.

KEY INSIGHTS

- The **Consumer** Segment contributes the most to sales and profits, accounting for **46.83%**, with the Corporate Segment following closely at 32.12%.
- **Technology** and **Office Supplies** categories exhibit the highest profit margins, approximately **17%**, while the **Furniture** category shows a significantly lower profit margin of about **2.5%**.
- Within sub-categories, **Copiers, Phones, and Accessories** are the most profitable. Conversely, some sub-categories such as **Tables** and **Bookcases** are underperforming, with losses of **\$3.5k** and **\$17.4k**, respectively.



KEY INSIGHTS

- From a regional perspective, the **West** region leads in both sales and profit, whereas the **Central** region has the **lowest profit margin**. **California** and **New York** are the top-performing states, while **Texas** shows the **highest losses**.
- Discounts exceeding **30%** lead to **negative profit margins**, indicating a strong negative correlation between discount levels and profit margins (-0.8645). In general, **higher discounts result in lower profit margins**.

RECOMMENDATIONS

- Focus on the profitable Technology category while addressing issues in Furniture and Office Supplies.
- Reevaluate strategies for loss-making sub-categories, especially Supplies, Bookcases and Tables.
- Implement targeted discount strategies where discounts are optimized based on product type, customer behavior, and market conditions.
- Closely monitor high discount transactions and evaluate their impact on overall profitability to adjust discount policies accordingly.



THANK YOU

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