

Superstore Sales Analysis

Stage 0 Project – Data Analytics Track (HNG Internship)

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Tool Used: Microsoft Excel

Dataset: Superstore Dataset (Kaggle)

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Dataset Overview

The dataset used for this analysis is the Superstore Sales Dataset obtained from Kaggle.

It contains records of sales transactions across different regions, product categories, and customer segments in a retail business.

Dataset Details:

Data Name: Superstore Dataset

Source Link: [Kaggle](#)

Sheets: Orders, Returns, People

Rows: 9,994

Columns: 21

Key Variables: Order Date, Ship Date, Ship Mode, Customer Segment, Region, Category, Sales, Discount, Profit



Research Questions

This analysis seeks to answer the following business questions:

- Which region generated the highest sales overall?
- How does discount affect average profit
- Which product category and sub-category generate the highest profit?
- Which shipping modes leads to the fastest delivery time?
- Which customer segment leads to the highest sales.



Data Cleaning & Preparation

The dataset was explored and cleaned using Excel.

The following steps were performed:

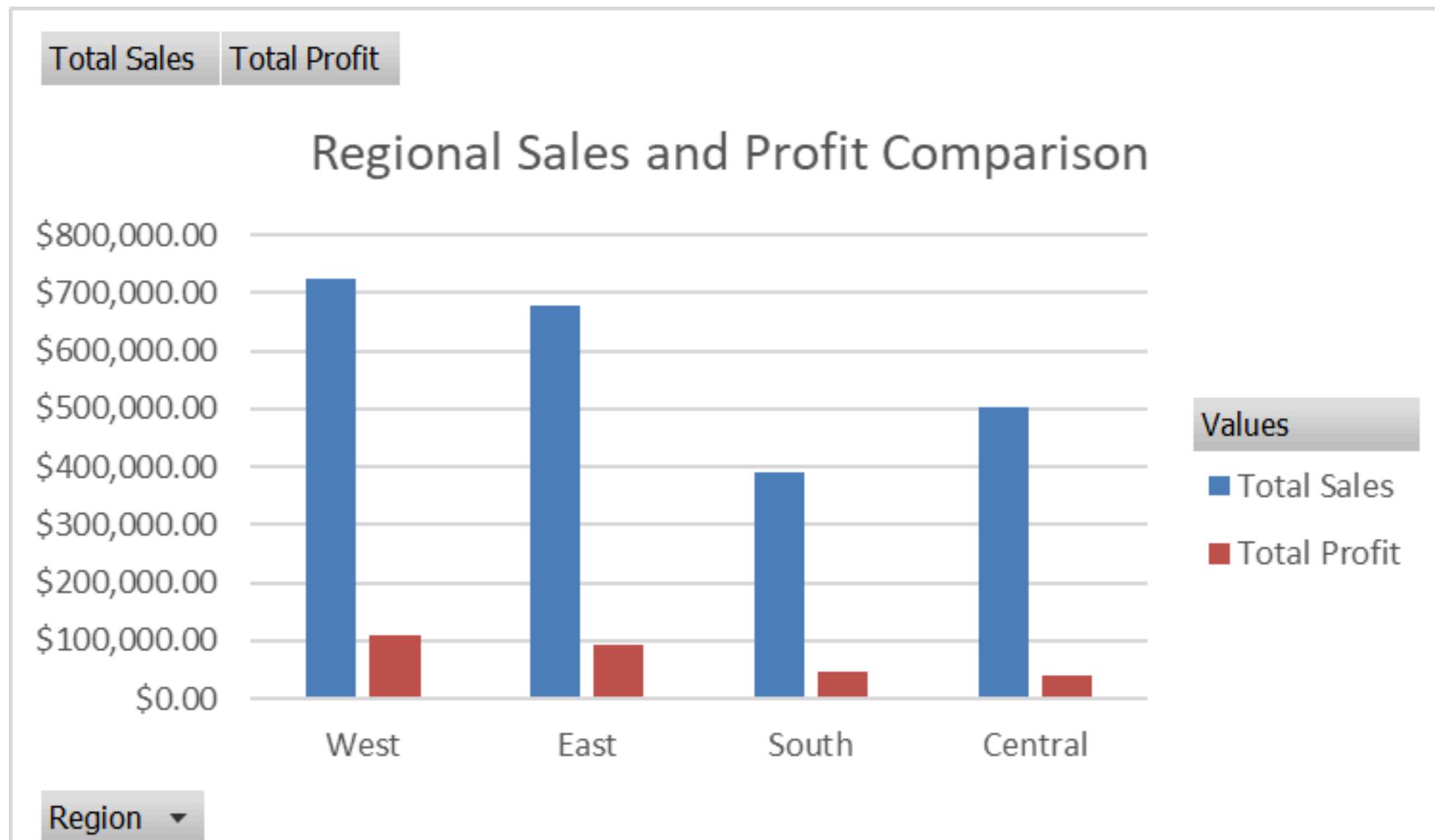
- Checked for and removed duplicates.
- Created a new column for Delivery Days (Ship Date – Order Date).
- Ensured correct data types for Date and Numeric fields.

Which region generated the highest sales

Using a Pivot Table, total sales were calculated for each region.

The analysis revealed that the **West** region recorded the highest total sales, followed by the **East** region.

This indicates that business performance is strongest in the West region, suggesting potential opportunities for expansion or reinforcement in other regions.

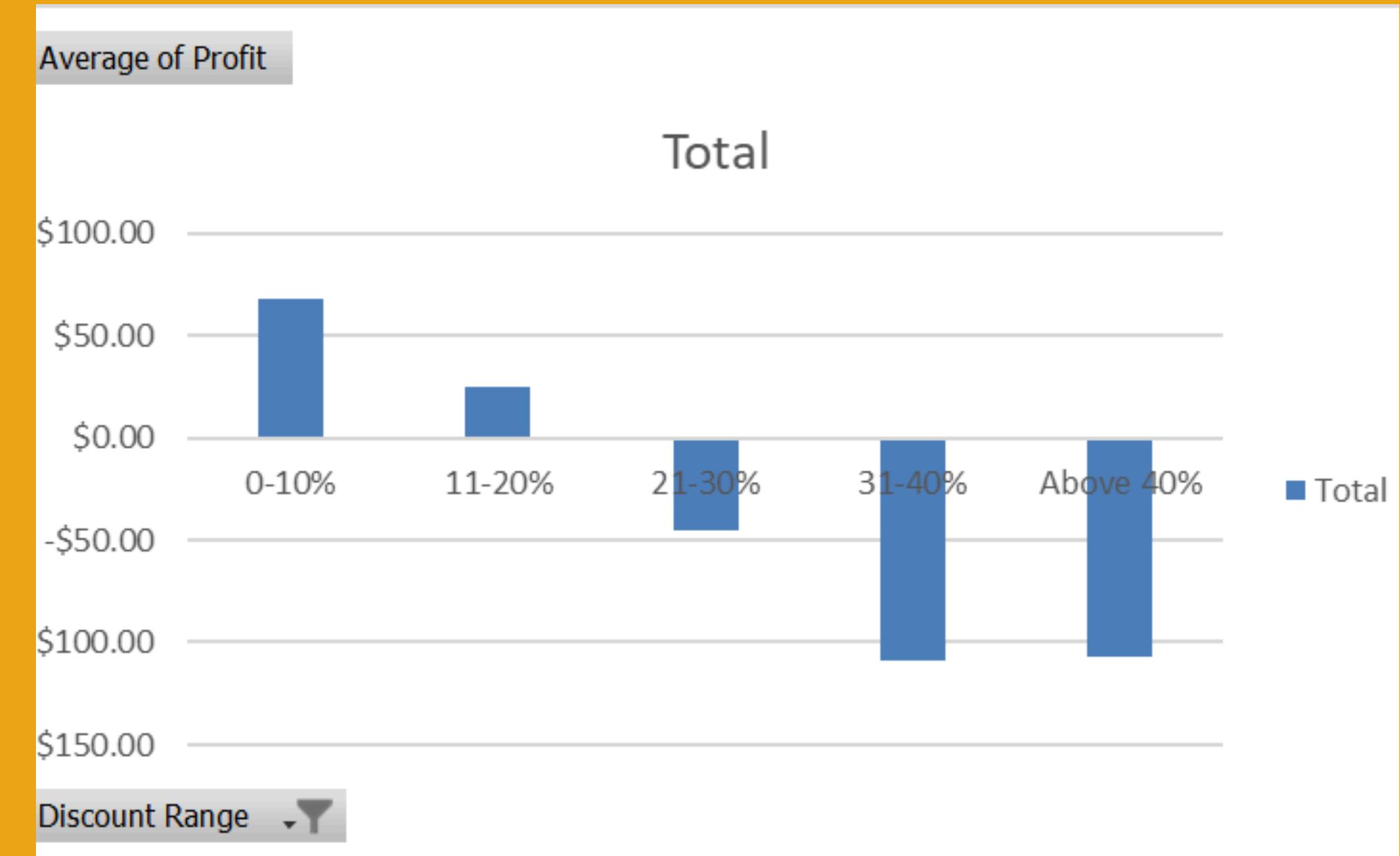


How does discount affect average profit?

Discounts were grouped into ranges (0–10%, 11–20%, 21–30%, 31–40%, Above 40%) and average profit was calculated for each group.

The analysis showed that **as discount increases, average profit decreases significantly**.

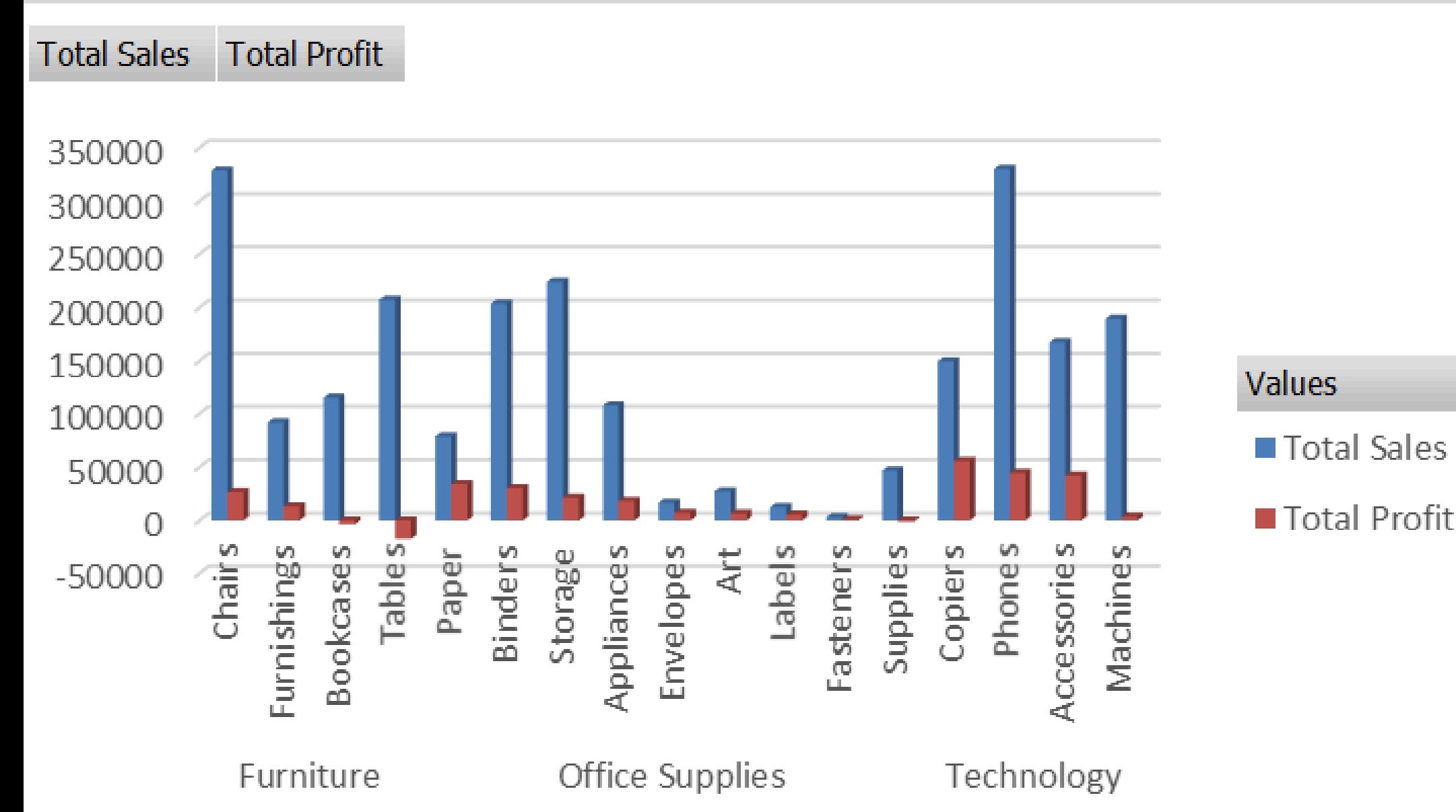
The insight gathered here shows that high discounts negatively impact profit margins. Moderate or no discounts maintain healthy profit levels.



Which product category and sub-category generate the highest profit?

Profit was analyzed by category and sub-category. The technology category - copiers sub-category recorded the highest profit, while furniture category under tables sub category performed least.

Focusing on categories like technology and sub categories like copiers could improve overall profitability, while there should be a review of the low performing ones or a strategic discounting.

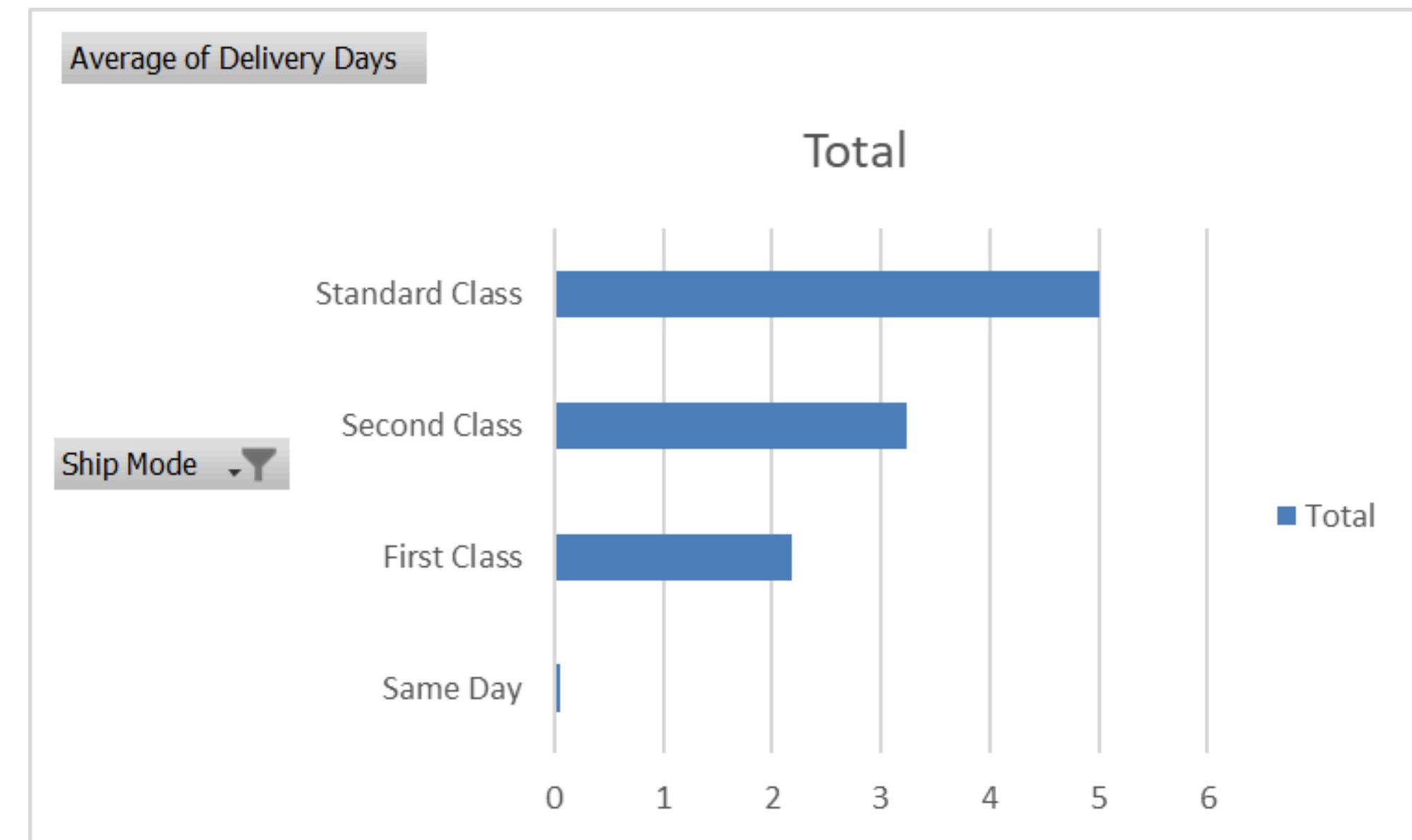


Which shipping mode leads to the fastest delivery time?

A new variable, Delivery Days (Ship Date – Order Date), was created to measure the speed of delivery.

Same day delivery mode had the shortest delivery time, while standard class had the longest.

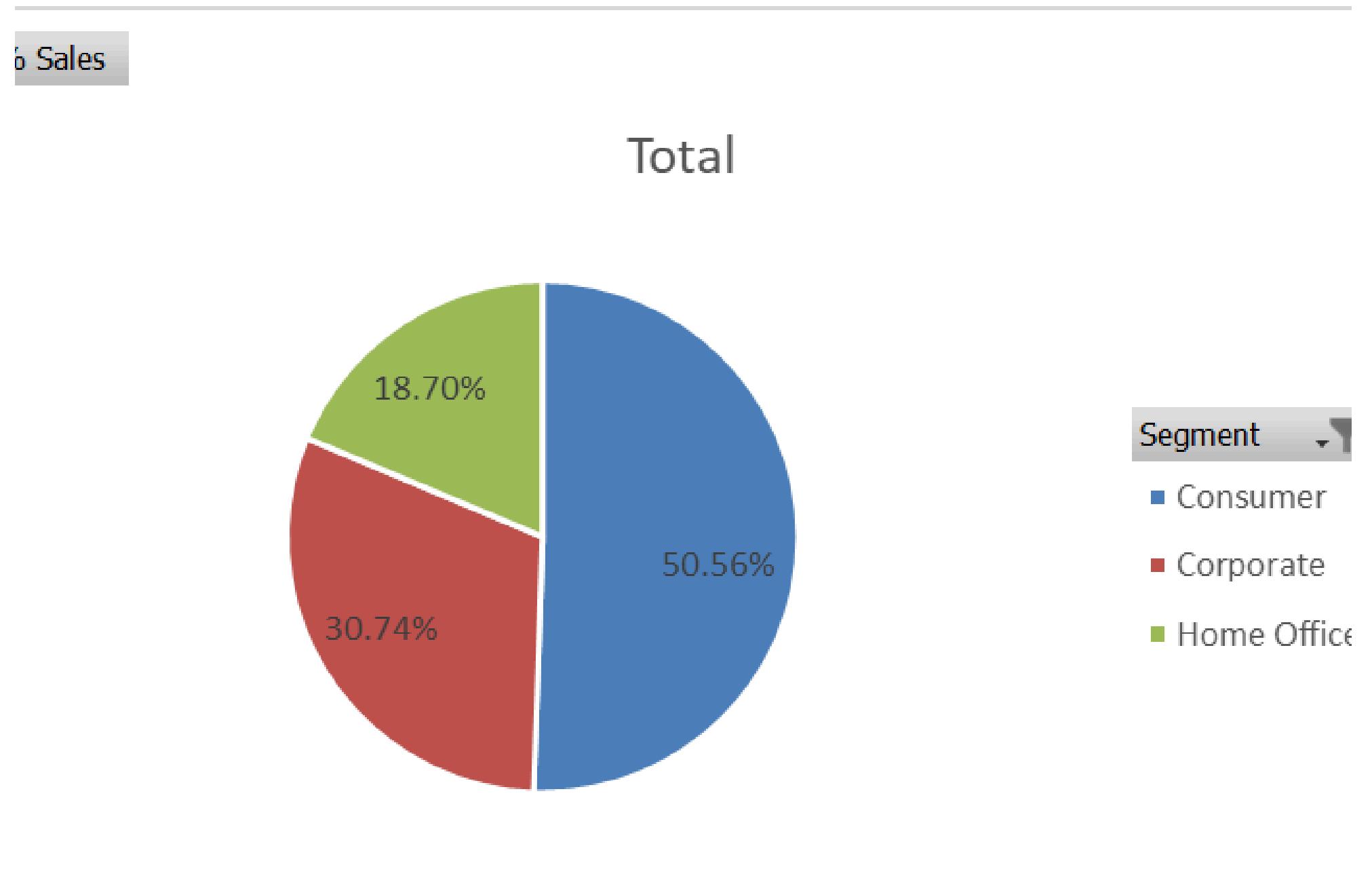
Customers using the same day delivery mode receive orders quickest, this suggests that this delivery mode is the most efficient option.



Which customer segment contributes the most to total sales

The dataset shows that consumer segment contributes to the highest proportion of sales followed by corporate segment.

The consumer segment should remain a primary target group, while the business can explore other tailored marketing to increase the sales coming from other segments



Key Insights and Next Steps

Insight Summary

- The West region leads in total sales.
- Higher discounts reduce profitability.
- Technology/Copiers generates more profit.
- Same day delivery delivers quickest.
- Consumer segment of customers drives the largest sales

Limitations

- Dataset is limited to only one business.
- Does not include external factors like advertising or market conditions

Future Work

- Expand analysis using Power BI or Tableau for deeper visualization.
- Explore predictive models to forecast sales and profit trends.
- Combine marketing and inventory data for broader insights.