

Executive Summary: Global Superstore Dataset EDA

This Exploratory Data Analysis (EDA) covers transactional data from the **Global Superstore** dataset, containing **51,290 entries** across **24 features** including customer segments, shipping details, geography, product categories, and performance metrics such as sales, discounts, and profit. The analysis uncovers key trends in customer behavior, market reach, and product performance.

Key Findings & Insights

1. Customer Segment Distribution

- The dataset consists of three customer segments: **Consumer**, **Corporate**, and **Home Office**.
- **Consumer** segment dominates with **over 50%** of the total orders.
- The **Corporate** segment contributes to **30.08%** of the transactions.
- **Home Office** represents the remaining **~20%**.

2. Ship Mode and Segment Correlation

- Across all **shipping modes**, the **Consumer segment** consistently leads in volume.
- This indicates that shipping preferences do **not vary significantly by segment**, although faster delivery options are slightly more common among Corporate customers.
- High usage of **Standard Class** and **Second Class** shipping modes shows a price-sensitive customer base.

3. Product Quantity and Discount Behavior

- A **histogram of quantity sold** shows that **most transactions involve low unit counts**, typically between **1 to 4 items**, suggesting high B2C activity.
- The **distribution of discounts** is skewed toward the **lower end**, with **most discounts under 30%**, indicating that discounting is used conservatively.

4. Geographic & Market Analysis

- The **United States alone accounts for over 35%** of all orders.
- **APAC, EU, and US markets** dominate in volume, together accounting for **more than 75%** of total transactions.
- The **South** and **Central regions** have the highest order frequencies across all segments.

5. City-Level Distribution

- Cities like **New York, Los Angeles, and San Francisco** top the list with the highest number of transactions.
- These top 5 cities collectively account for **over 10%** of all sales, indicating strong urban market concentration.

6. 🛠️ Product Category Performance

- Among the three categories—**Office Supplies**, **Furniture**, and **Technology**:
 - **Office Supplies** lead with **~40% of total transactions**, especially popular among the Consumer segment.
 - **Technology** contributes the highest in terms of **average sales per transaction**, though fewer in quantity.
 - **Furniture** falls in the middle but shows variability across different regions.

7. 🚚 Order Priority

- **Medium priority orders** dominate with **over 55%** of total orders.
- High and critical priority orders are relatively rare, indicating a steady fulfillment pattern without urgent surges.

📌 Final Notes

This EDA highlights a **consumer-dominant, urban-heavy** market that prefers **standard shipping** and places **low-quantity, low-discount orders**. The business should consider:

- Focusing marketing on **urban consumer markets**
- Expanding high-margin categories like **Technology**
- Improving logistics and cost-efficiency in **top-performing cities and regions**