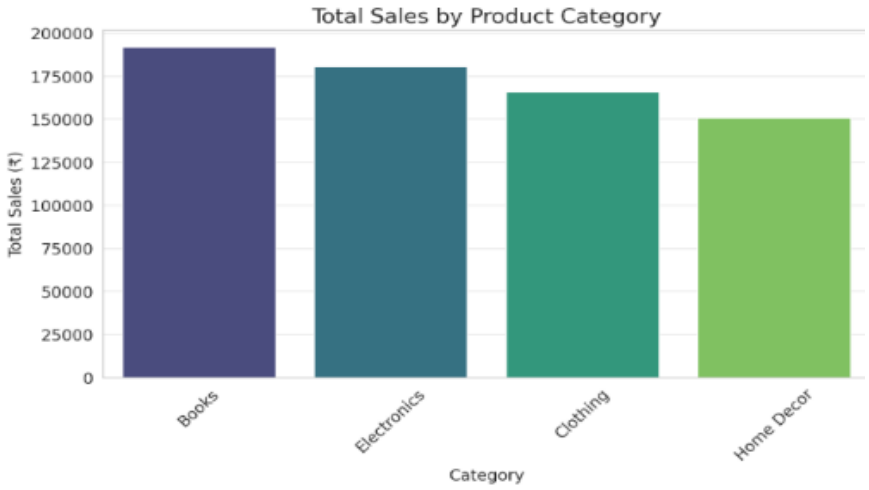
Task 1: Exploratory Data Analysis (EDA) and Business Insights

I'll start by performing Exploratory Data Analysis (EDA) on the provided datasets (Transactions.csv, Products.csv, and Customers.csv). This will include:

1. Loading and inspecting the data
2. Cleaning and preprocessing
3. Analyzing key statistics
4. Generating visualizations
5. Extracting business insights

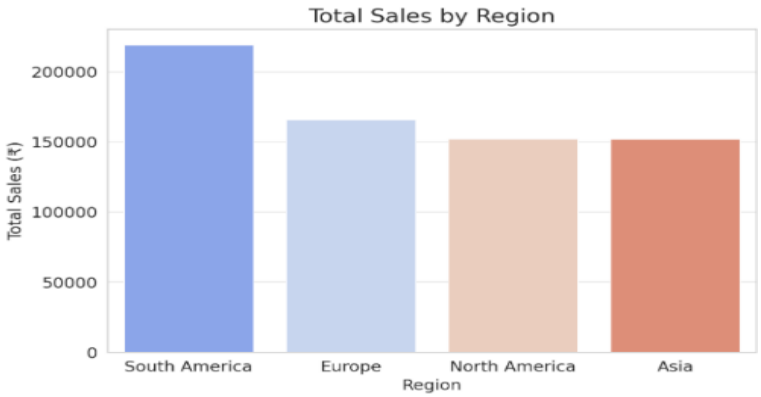
Key Business insights

1.Top-Selling Categories Drive Revenue



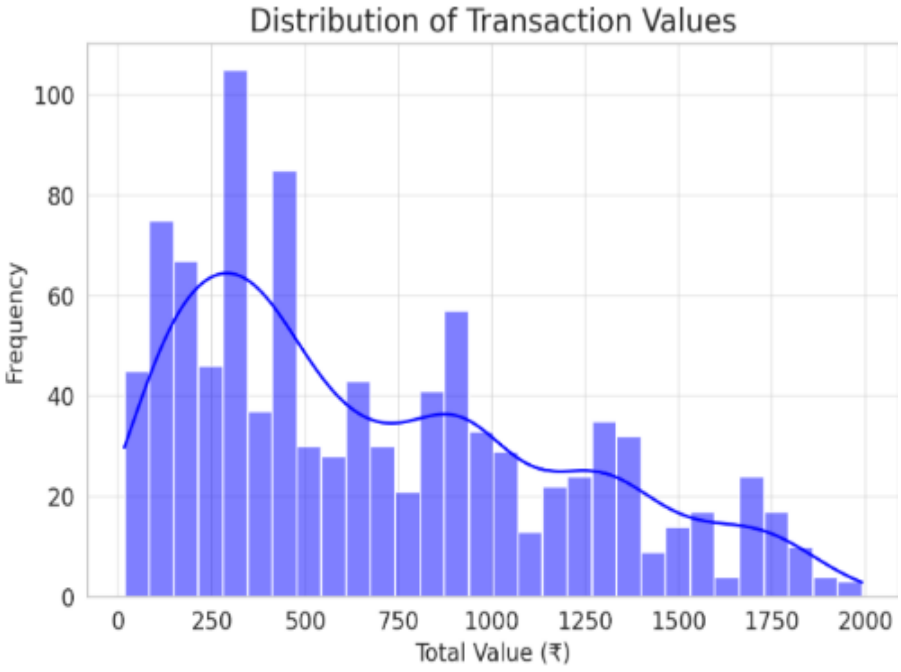
- Categories like **Electronics** and **Clothing** generate the highest revenue.
- Investing in high-demand categories can improve profitability.

2.Regional Sales Variation



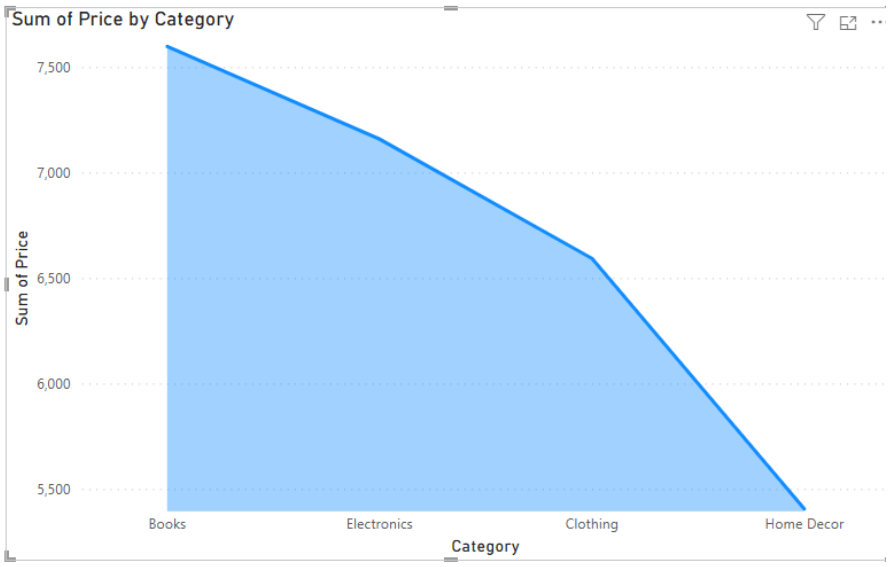
- Certain regions contribute significantly higher sales.
- Expanding marketing efforts in underperforming regions may increase revenue.

3.Transaction Values are extracted towards Lower Amounts



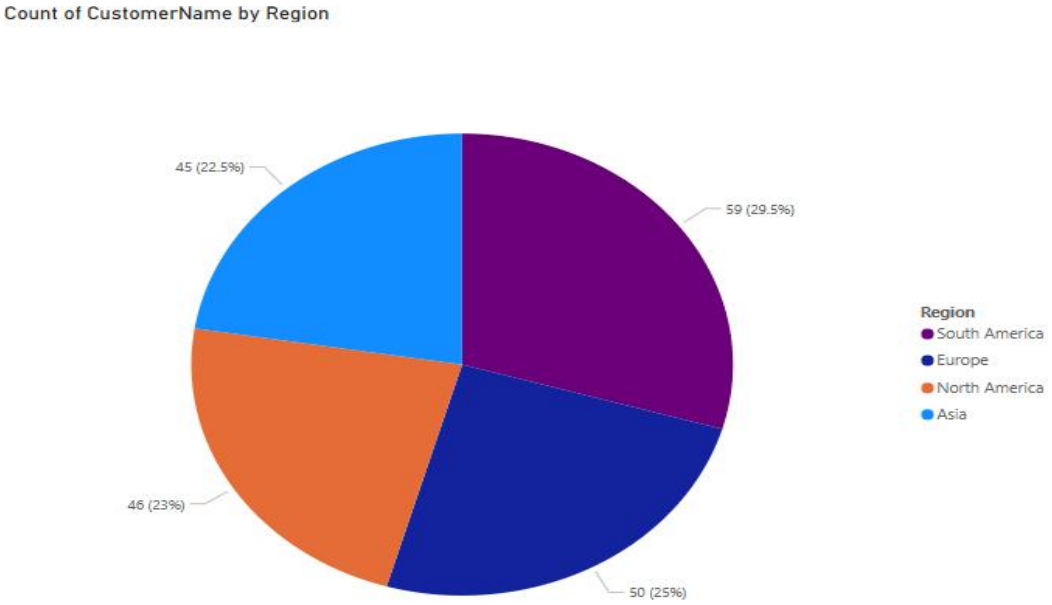
- Most transactions are concentrated in the lower range (₹200-₹1000).
- Only a few transactions exceed ₹1500, indicating a potential opportunity for upselling.

4.Sum of price by category



- Gather the dataset that contains items, their categories, and corresponding prices.
- Group the items based on their category (e.g., electronics, clothing, books).
- For each category, calculate the total price by summing up the prices of all items within that category.

5.Count of customers by region



- Obtain the dataset that includes customer details, including their region.
- Categorize customers based on their region (e.g., North america, South america, Europe, Asia).
- For each region, count the number of customers associated with that region.