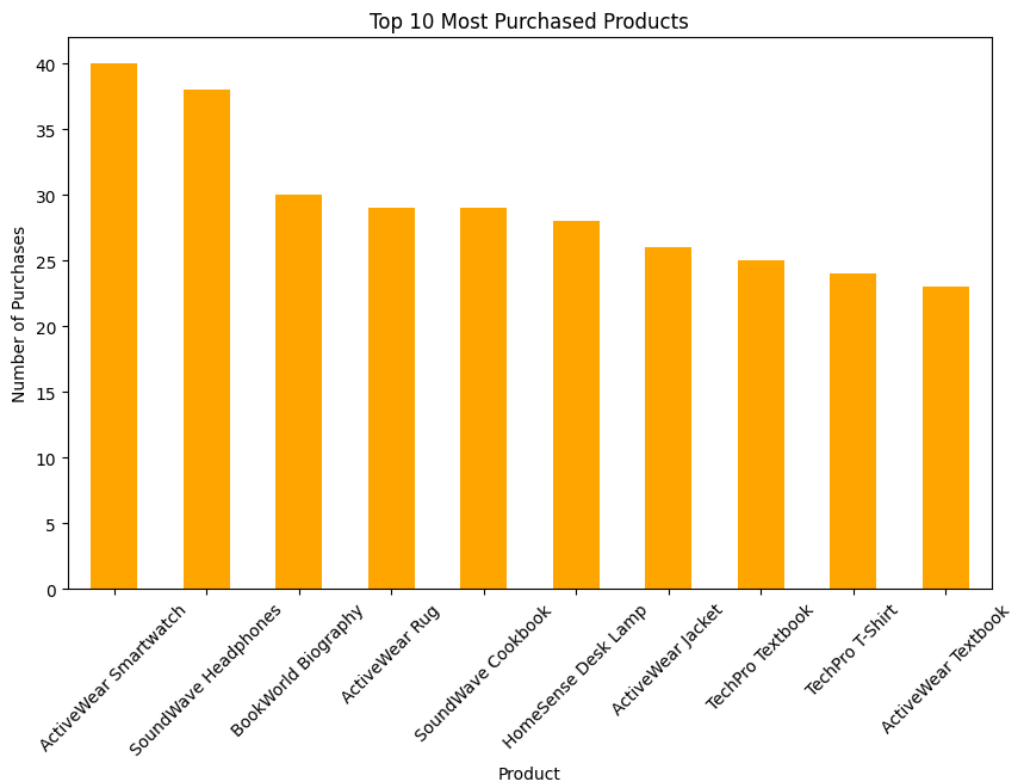# Task 1: Exploratory Data Analysis (EDA) and Business Insights

Business Insights from EDA:

1. **Top-Selling Products**
   The top 10 most purchased products account for a significant proportion of sales. Focusing promotions on these products can maximize revenue.


2. **Customer Segmentation by Spending**
   A small percentage of high-spending customers generate a large portion of revenue. Loyalty programs should target these customers.
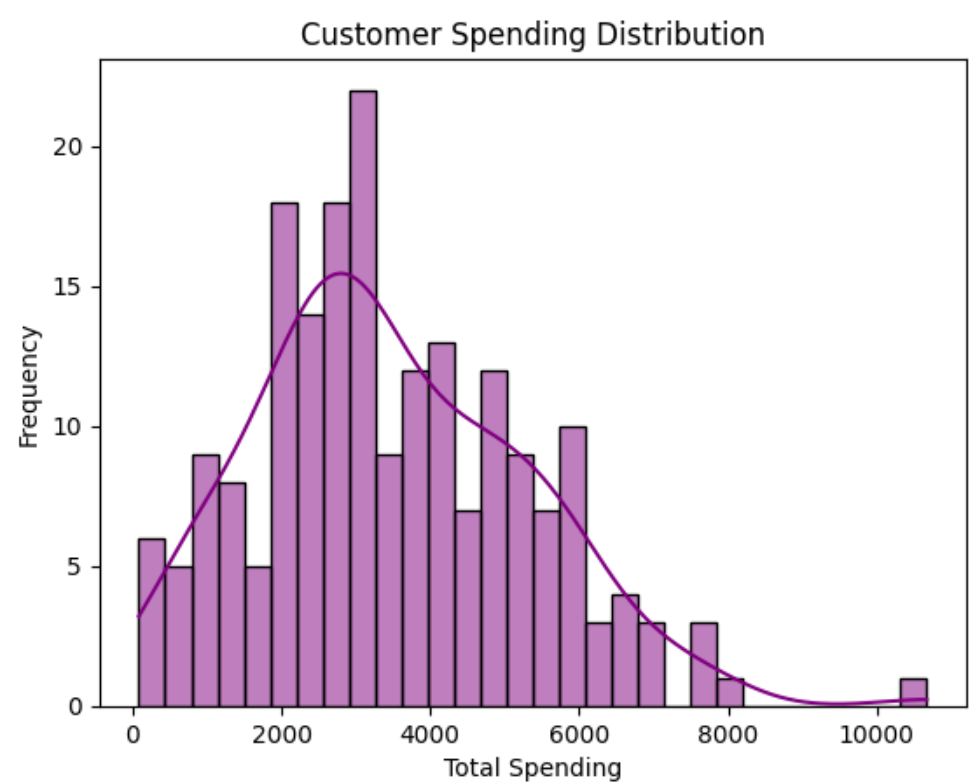
3. **Regional Transactions**
   Certain regions significantly outperform others in transaction volume. Expanding product availability in top-performing regions may drive sales.


Most Transactions by Region
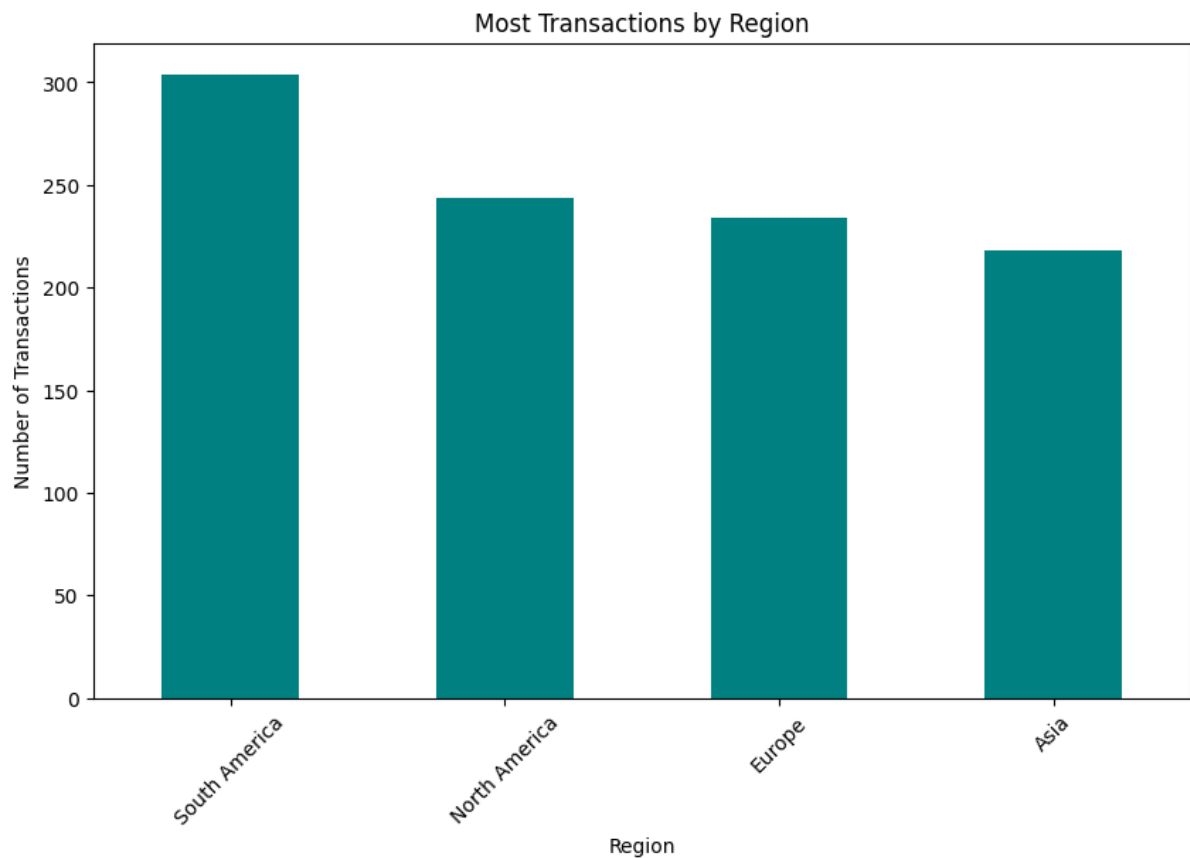
4. **Product Categories' Average Revenue**
   Premium product categories contribute more to average transaction amounts. Emphasizing these categories in advertisements could enhance profitability.

Average Transaction Amount by Product Category
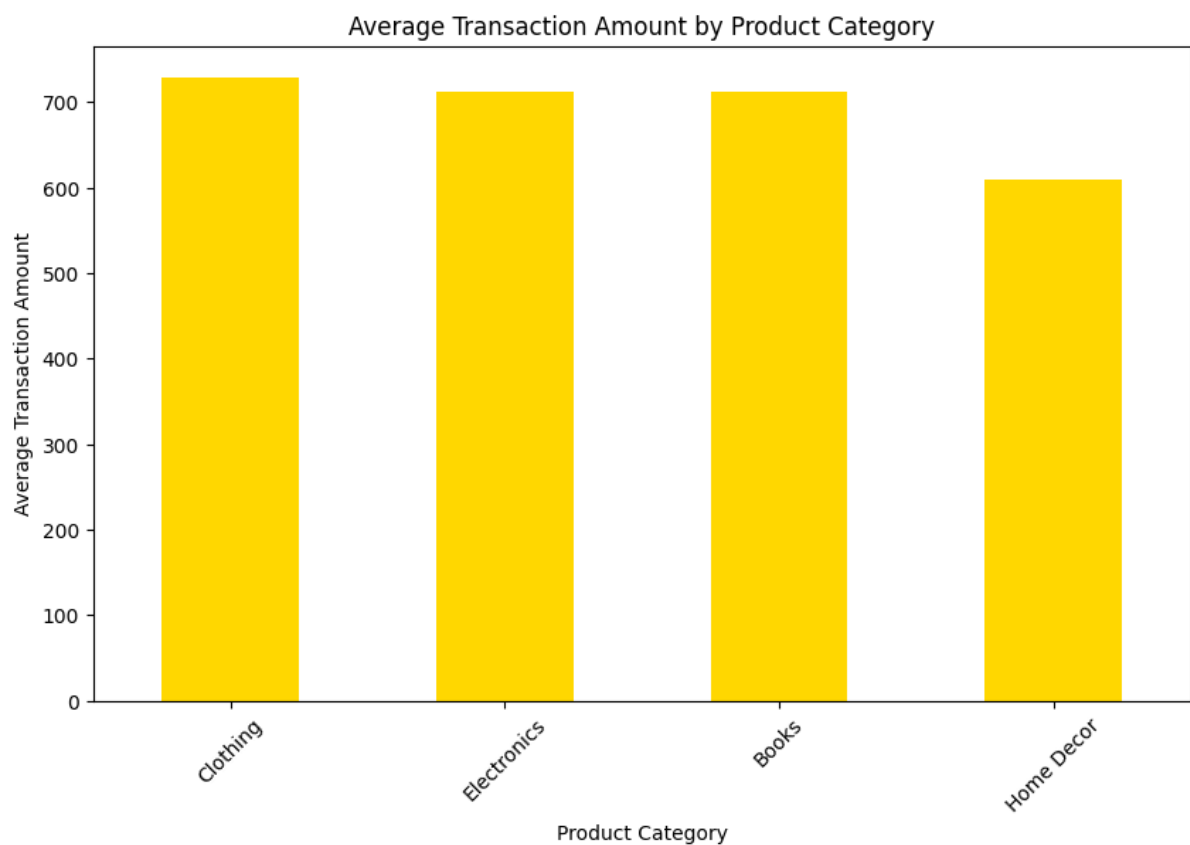
5. **Profitable Products**
   The top 10 most profitable products contribute heavily to revenue. Bundling these with lesser-performing products might drive sales across the board.
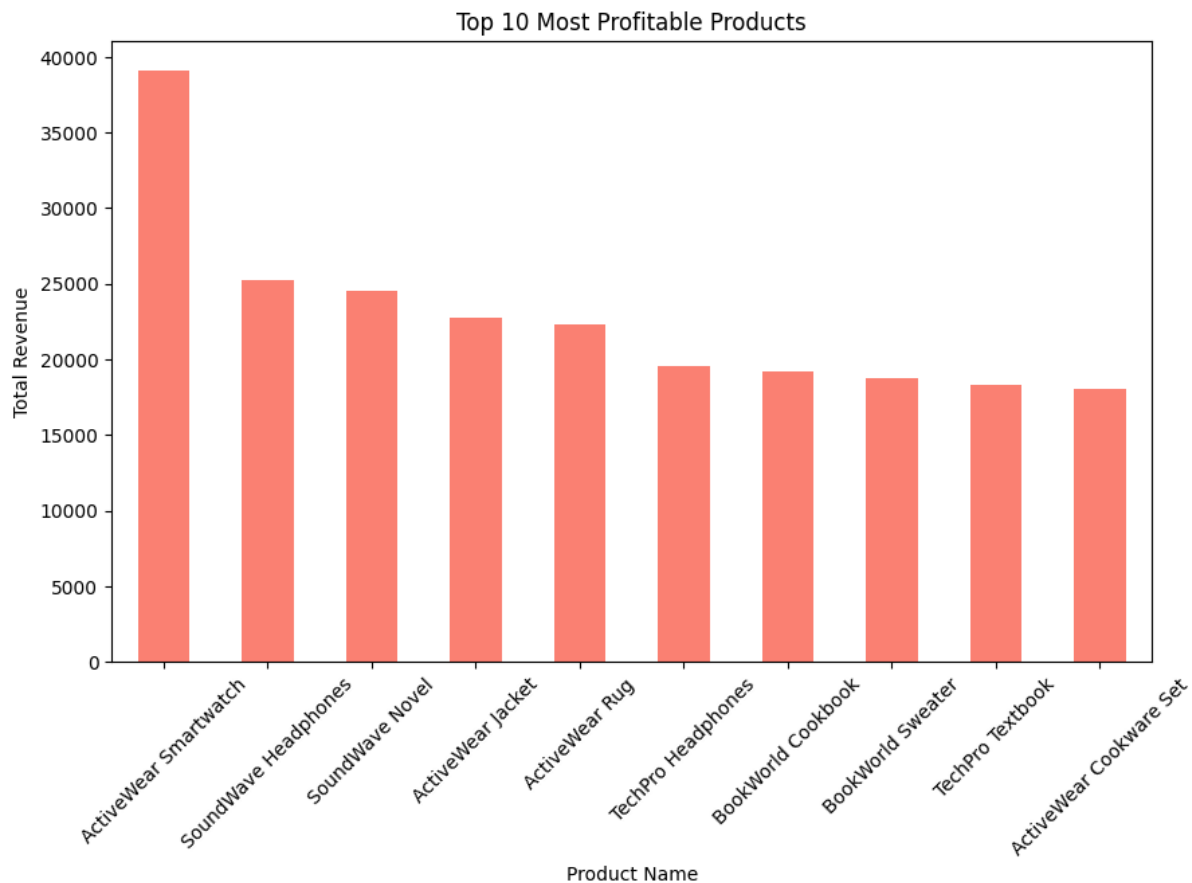
6. **Transactions Over Time**
   Transaction frequency indicates consistent growth over time, suggesting effective customer acquisition strategies. Maintaining this trend is essential for scalability.