# Exploratory Data Analysis of E-Commerce Dataset

Business Insights Extracted:

1. Plotting the bar graph of region and number of customers helped understand the regions where the platform is popular. It shows that out of 200 total customers, around 60 are from South America, which means it is most popular in South America according to current active user count. Also, it showed that it is gaining popularity in North America as it emerges with the highest number of Signups in the last 1 year.
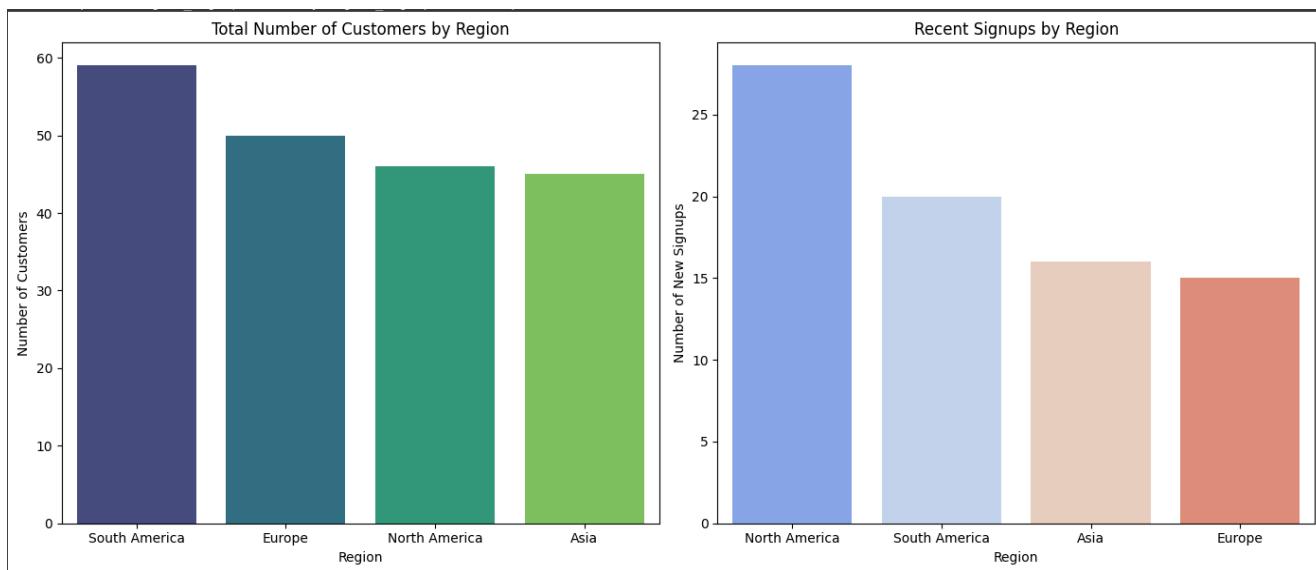
2. Plotting the horizontal bar graph helped understand the customer's choices while buying products. It is evident from the graph that "ActiveWear SmartWatch" is the most popular item and its sales can be increased if its prices can be lowered from current prices.

Top-Selling Products
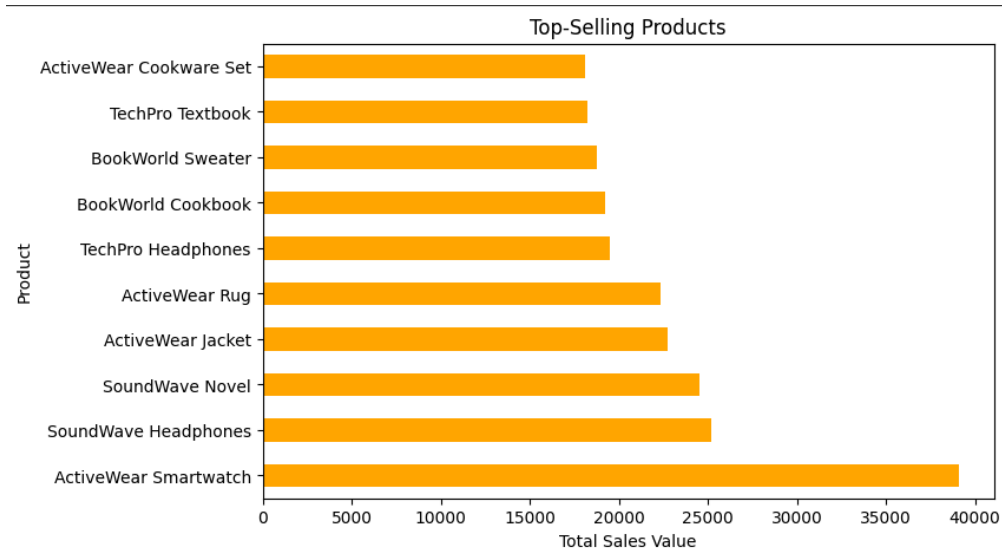
3. Plotting the double bar graph helps us compare the buying patterns between "New" and "Old" customers (people who Signup after "2024-01-01" are considered "New"). It is observed that new customers tend to spend more than old customers in Asia and Europe which points to growing popularity in these regions.

Average Spending by Region and Customer Type
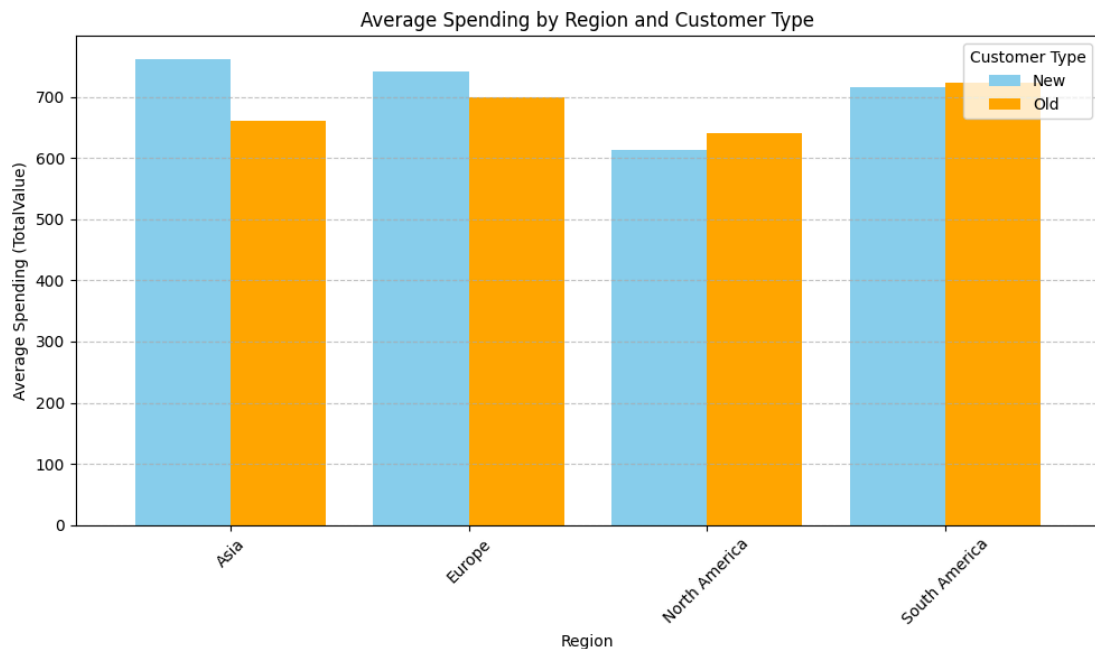
4. Plotting the scatter plot helps us understand people's choices while buying specific products based on their price tags. It is observed that the average prices of all products in the "Home Decor" category is the least but people buying these products are also the least when compared to other categories like "Books", "Clothing", "Electronics". It can be

because people are not satisfied with the quality of products sold under this category even if they are cheap.

Average Price of Products vs Total Sales by Category

5. Plotting the time series of the transaction dates and the total sales done helps us understand that people tend to spend more in the December-January period which corresponds to the New Year period and during the July-September period which is the Fall period. Attractive discounts can be offered during these time periods to attract more customers.

Total Sales Over Time by Month