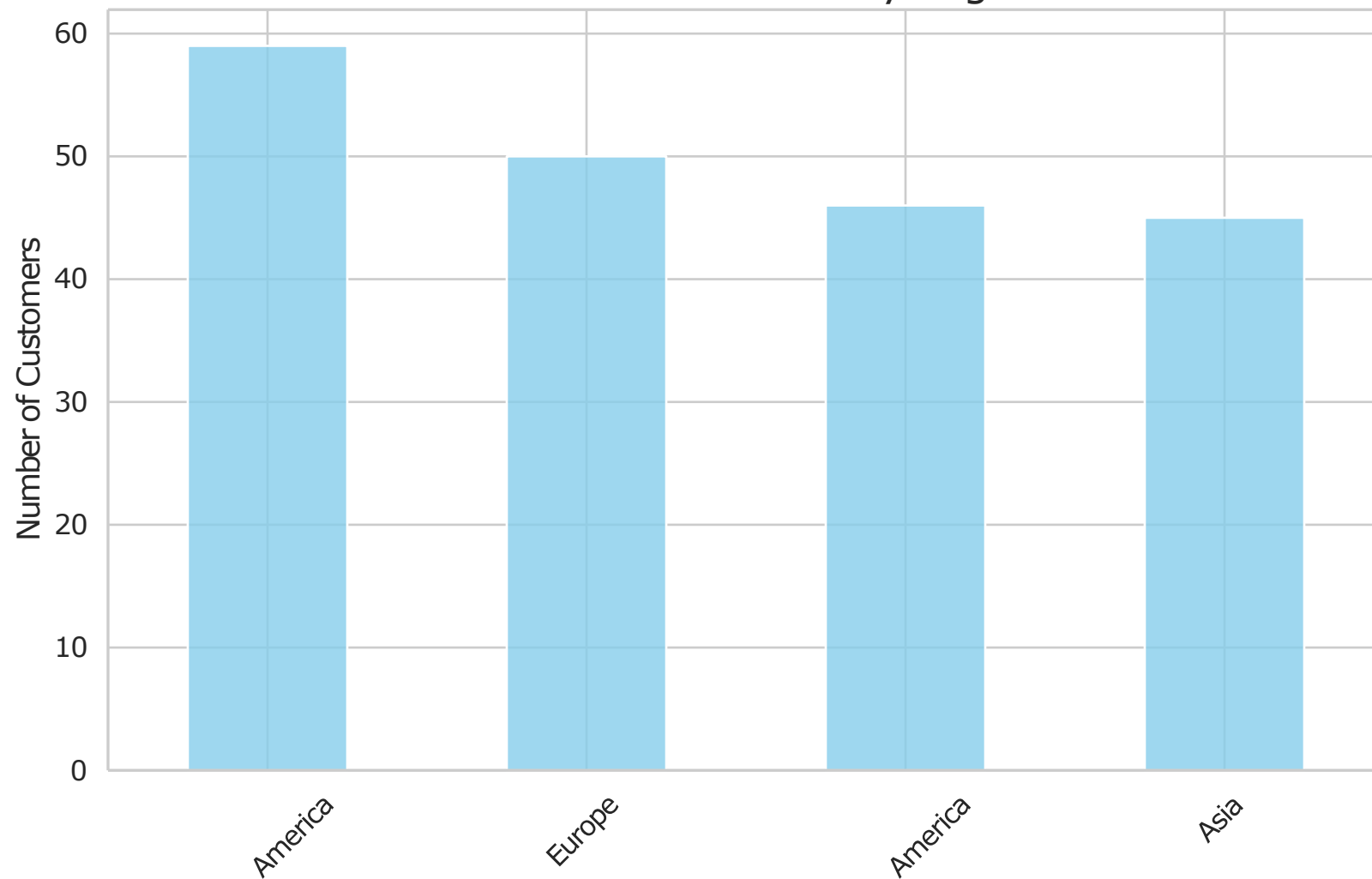
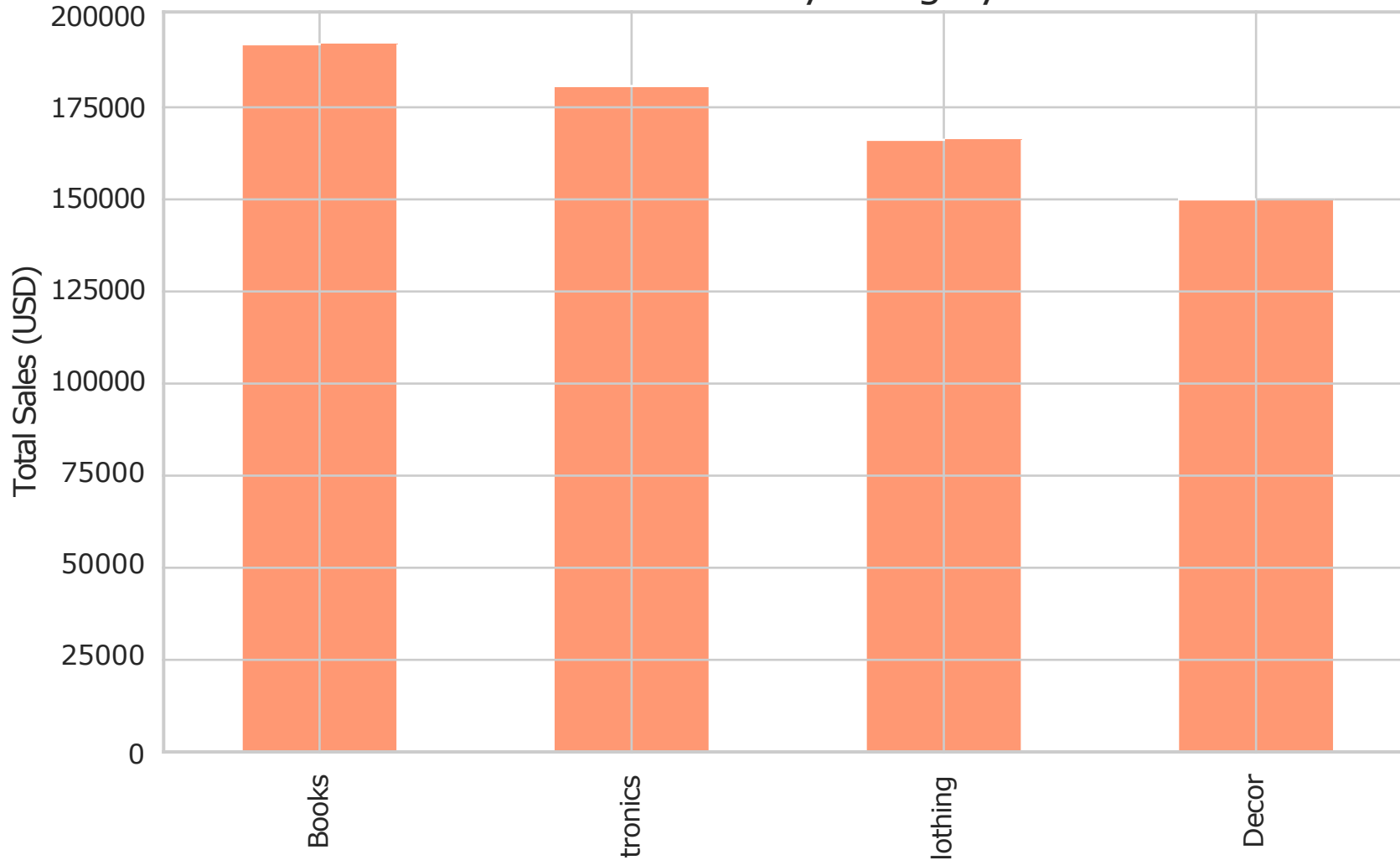


# **Exploratory Data Analysis (EDA) and Business Insights**

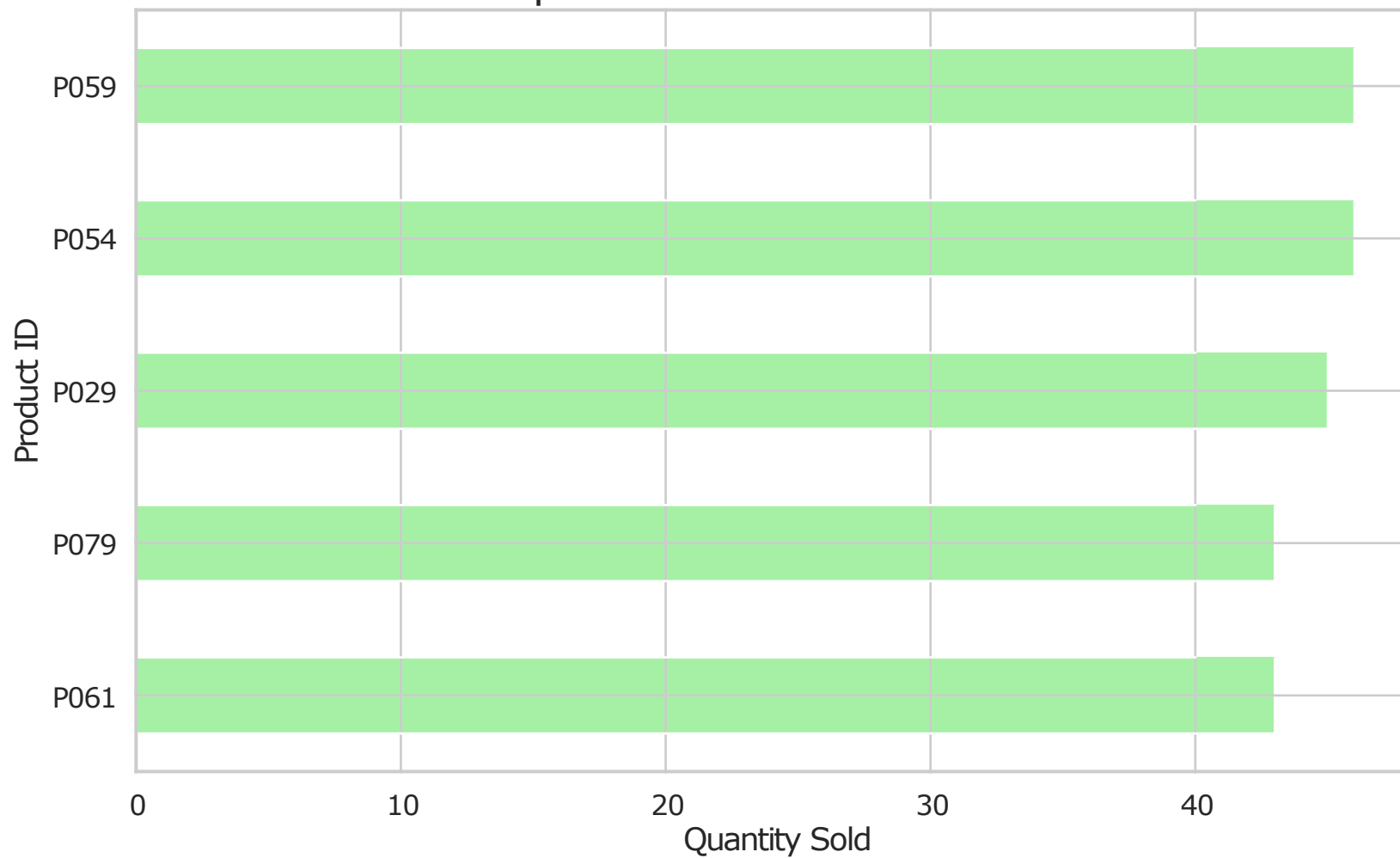
Customer Distribution by Region



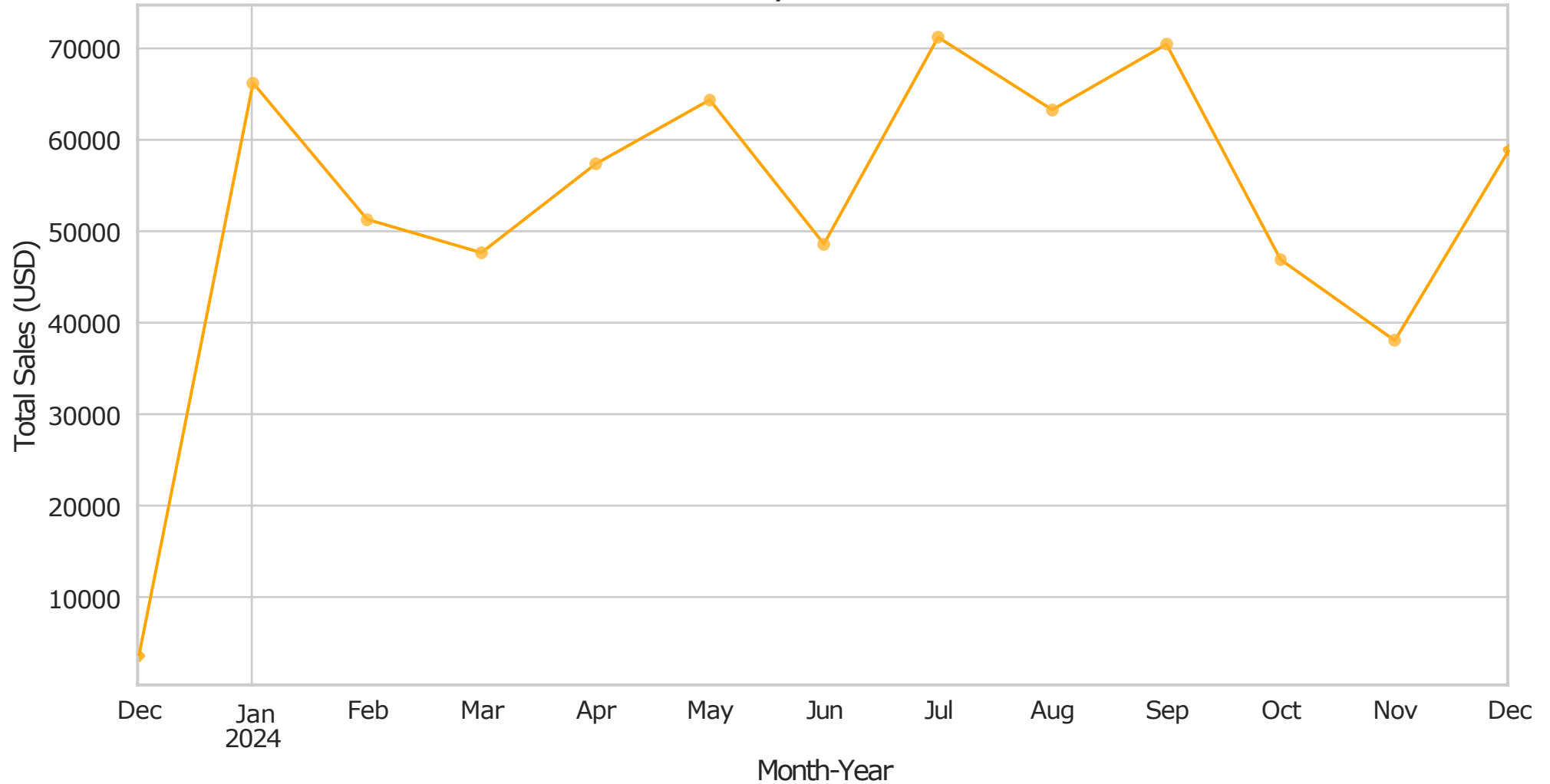
Total Sales by Category



# Top 5 Most Purchased Products



# Monthly Sales Trend



# Business Insights and Recommendations

## 1. South America accounts for the largest customer base.

### Focus marketing efforts here.

South America has emerged as the leading region with the highest customer base and significant sales contribution. The region's strong performance indicates a solid market presence.

**Recommendation:** To further strengthen customer engagement in South America, focus should be on targeted marketing campaigns, establishing local partnerships, and developing loyalty programs specific to this region.

## **2.Books and Electronics are top revenue-generating categories.**

The Books and Electronics categories have generated revenues exceeding \$372K, making them the most lucrative segments.

**Recommendation:** By implementing strategic discounts, creating appealing bundle offers, and planning exclusive product launches within these high-revenue categories, the company can maximize sales potential and drive higher revenue

### **3.Ensure stock availability for top-selling products (e.g., P059, P054).**

Products P059 and P054 have been identified as the top-selling items in the inventory. Their popularity indicates strong customer demand for these products.

**Recommendation:** It is crucial to ensure the availability of these popular products by maintaining sufficient stock levels. This will help in preventing stockouts and potential lost sales, ensuring that customers can always purchase these best-selling items



## 4.High-Value Customers

A small group of high-value customers is responsible for the majority of sales, indicating a high customer lifetime value.

**Recommendation:** Developing a comprehensive loyalty program with personalized offers and rewards can encourage repeat purchases and foster long-term loyalty among these high-value customers. Tailored offers will make these customers feel valued and appreciated, boosting their engagement and spending.

## 5. Seasonal Sales Optimization

Certain months exhibit sales peaks, which could be attributed to effective promotional strategies or seasonal demand spikes. This pattern suggests that specific times of the year are particularly conducive to increased sales.

**Recommendation:** Analyzing past successful promotions and identifying the factors contributing to these sales peaks can help replicate these strategies during periods of low revenue. By doing so, the company can achieve a more balanced sales distribution throughout the year.