

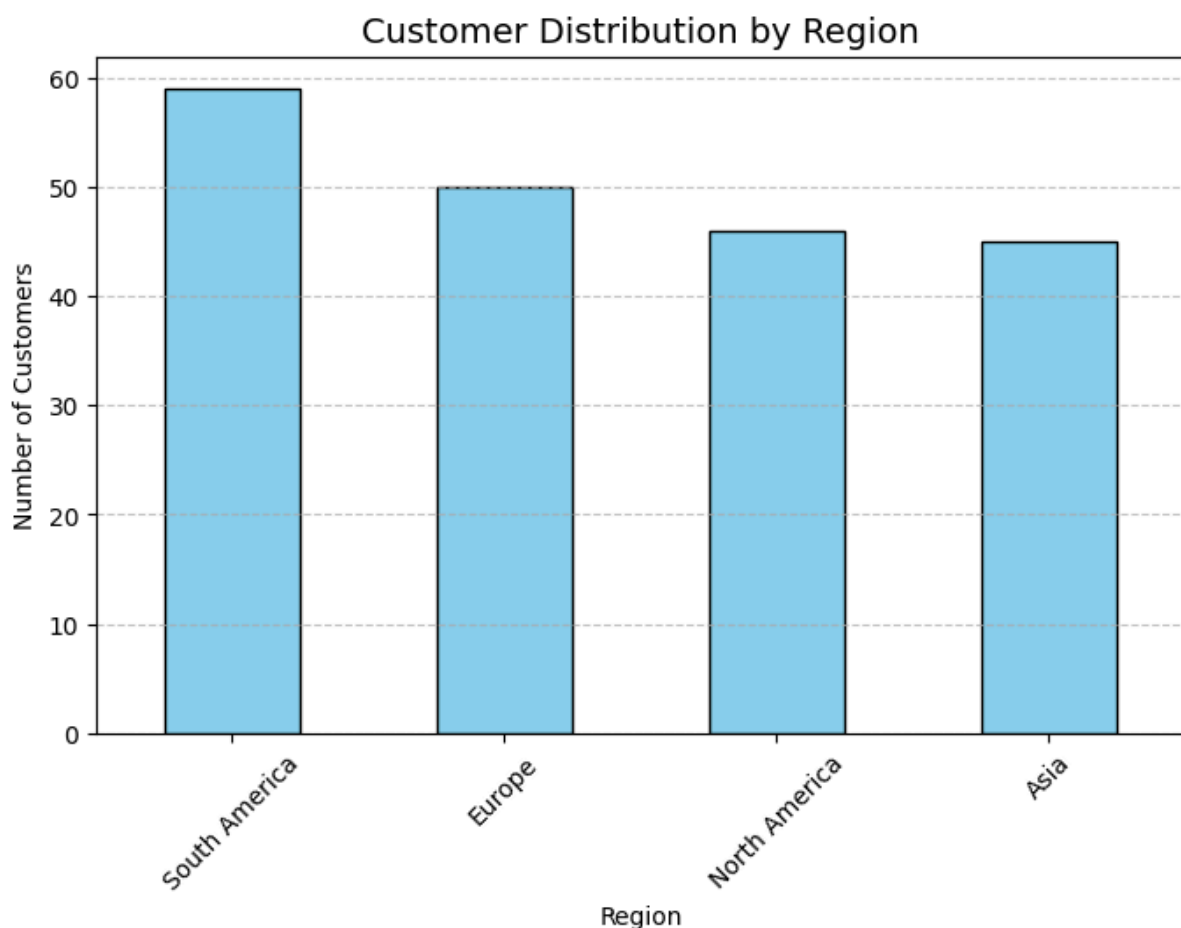
Task 1: Exploratory Data Analysis (EDA) and Business Insights

Top 5 business insights:

1) Customer Distribution by Region:

South America leads with the highest customer count at **59**, followed by **Europe (50)**, **North America (46)**, and **Asia (45)**.

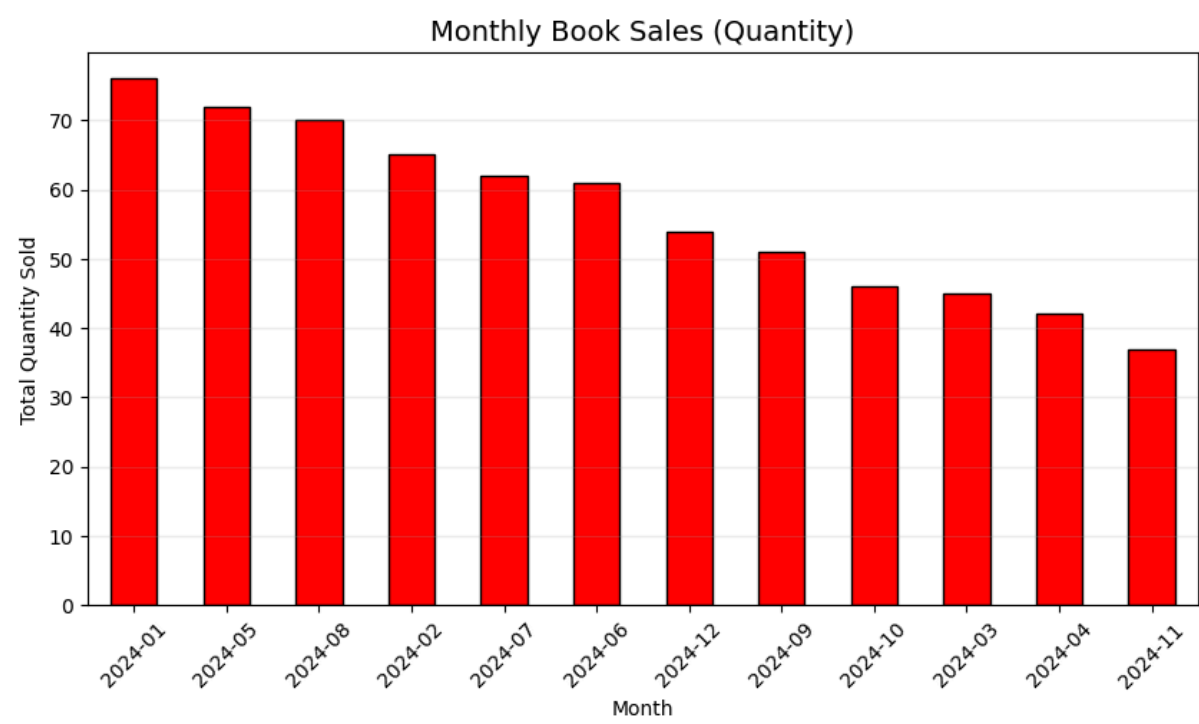
This distribution highlights South America as a key market. Tailored marketing strategies, region-specific promotions, and localized product offerings could help strengthen customer engagement and sales in these regions.



Outcome : Increase advertising efforts in Asia to boost customer engagement.

2) Book Sales Monthly Insights:

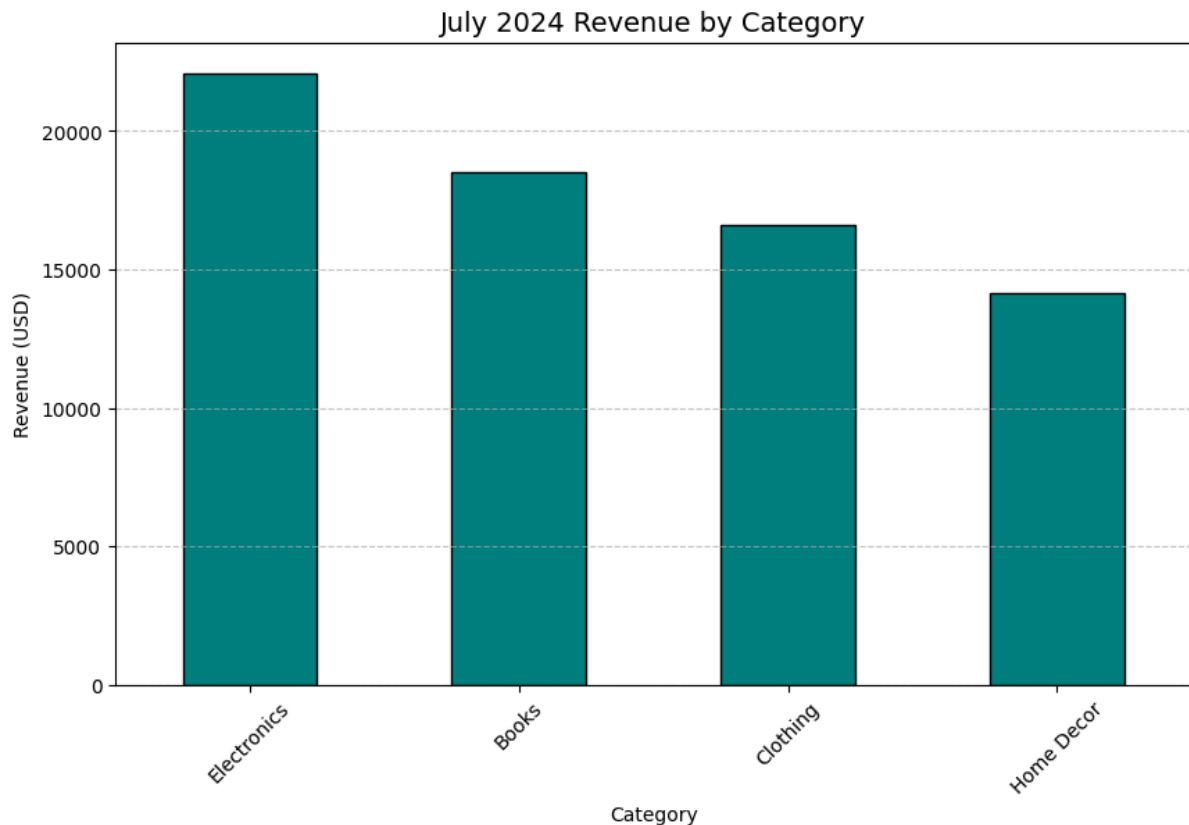
January 2024 saw the highest book sales with 76 units. likely driven by New Year resolutions, where people pledge to read more. This was followed by May and August at 72 and 70 units, respectively. To leverage this peak.



Outcome :Increase sales in November by offering targeted promotions and discounts to boost customer interest during the slower month.

3) Highest sells month category wise contribution:

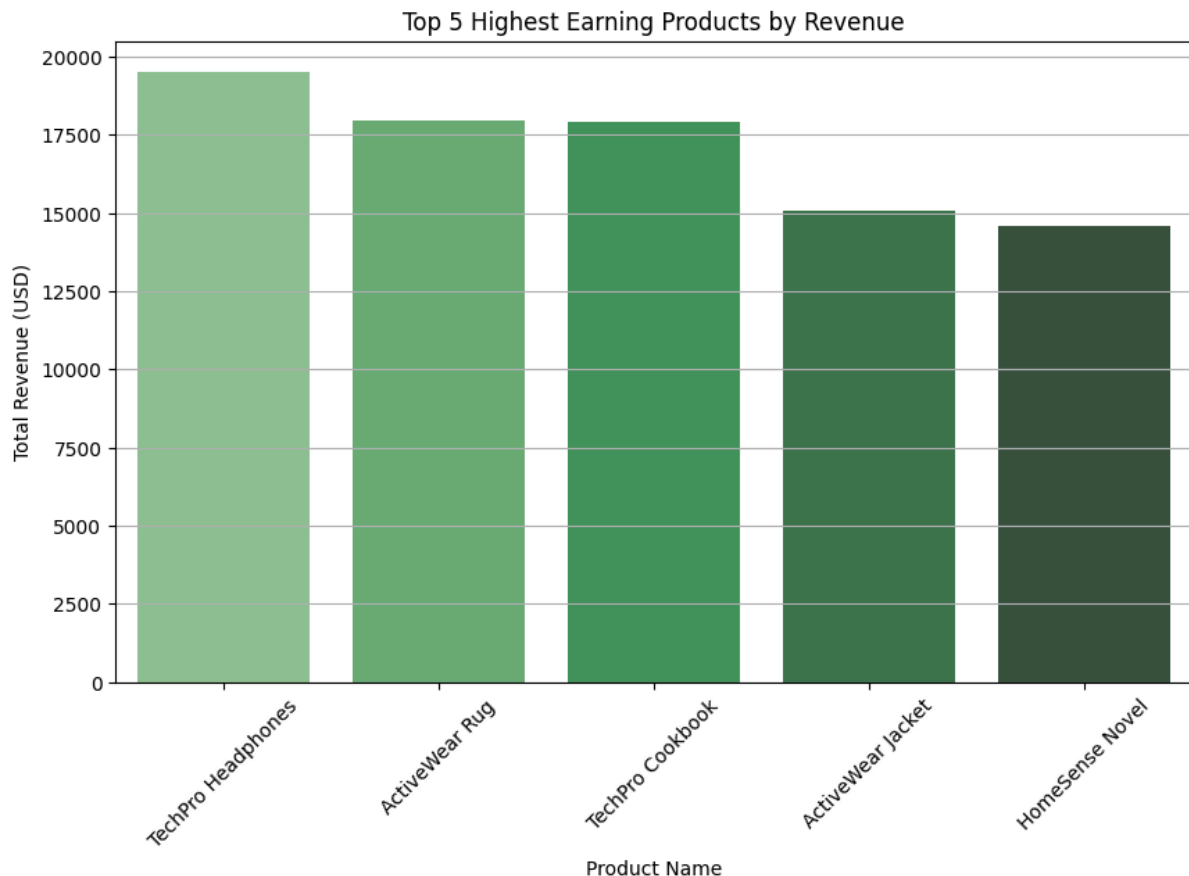
In July 2024, Electronics generated the highest revenue at \$22,096.51, followed by Books at \$18,501.32, Clothing at \$16,616.25, and Home Decor at \$14,152.31.



Outcome: To increase sales in underperforming categories like Clothing and Home Decor, consider targeted marketing, discounts, and product bundling to drive customer interest and sales growth.

4) Top 5 Highest Earning Products by Revenue:

The **TechPro Headphones** generated the highest revenue of **\$19,513.80**, followed by **ActiveWear Rug** and **TechPro Cookbook** at **\$17,946.91** and **\$17,905.20**, respectively. To drive further growth, focus on increasing the visibility and promotion of these high-revenue products, potentially through targeted advertising or bundling with other products.



Outcome : Focus on promoting high-revenue products like TechPro Headphones and ActiveWear Rug to maximize sales growth.

5) Customer Retention :

While **January 2024** showed a strong retention rate of **75%**, subsequent months experienced a significant drop, with **December** reaching **30.61%**. Despite this, **93.47%** of customers who made purchases returned for additional transactions, indicating strong customer loyalty.

Outcome : Implement targeted loyalty programs and personalized marketing to boost retention and encourage repeat business year-round.