

Business Insights from Exploratory Data Analysis

The following insights were derived from the eCommerce dataset using exploratory data analysis:

1. **Regional Customer Distribution:**
 - South America stands out as the region with the highest customer count, showcasing a large potential market.
 - In contrast, Asia has the least customer count, suggesting potential for growth or marketing efforts in this region.
2. **Revenue by Product Category:**
 - The "Books" category generates the highest total revenue, indicating its popularity and profitability.
 - On the other hand, the "Home Décor" category has the least total revenue, suggesting underperformance or limited demand.
3. **Monthly Revenue Trends:**
 - The analysis reveals a seasonal pattern in revenue. July experienced the highest monthly revenue, which might indicate a seasonal demand or specific promotional campaigns.
 - November showed the least monthly revenue, which could indicate a potential opportunity for improved marketing strategies during this period.
4. **Transaction Insights:**
 - The average purchase value per transaction is approximately \$689.99, highlighting customer spending behavior.
5. **Popular Products:**
 - Among all products, the "ActiveWear Smartwatch" emerged as the most purchased product, signifying its high demand and customer preference.

Key Takeaways for Business Strategy:

- Focus on strengthening the supply chain and marketing efforts in South America to further capitalize on its high customer base.
- Explore strategies to boost sales in underperforming regions like Asia and product categories like "Home Décor."
- Leverage seasonal patterns by creating targeted promotions for low-revenue months, particularly in November.
- Invest in the "Books" category and the "ActiveWear Smartwatch" to maintain their profitability and popularity.