

Overview

This report summarizes the key findings from an exploratory data analysis conducted on customer, product, and transaction data.

Key Insights

1. Regional Customer Distribution

South America has the largest customer base, accounting for approximately 30% of all customers. This indicates a strong market presence in this region. Asia and Europe follow closely, while North America has the smallest customer base.

2. Product Categories and Revenue Contribution

The "Books" category has the highest number of products, comprising 26% of all items. However, "Electronics" generates the most revenue, contributing nearly 40% of total sales. This discrepancy highlights higher price points and demand for electronics.

3. Seasonal Transaction Trends

Monthly transactions reveal peaks during certain months, suggesting seasonal or promotional influences. For example, transactions in August and December were significantly higher compared to other months.

4. Customer Spending Patterns

A small group of high-value customers contributes disproportionately to the total revenue. The top 5 customers alone account for a significant share of overall sales.

5. Opportunities in Underperforming Categories

While "Home Decor" and "Clothing" are underrepresented in revenue, their presence indicates potential for growth.

Recommendations

1. Expand successful product categories, like "Electronics," to sustain high revenue contributions.
2. Focus on customer retention strategies for high-value customers, including loyalty rewards and exclusive promotions.
3. Invest in regional marketing campaigns tailored to the specific characteristics of each market.
4. Launch targeted seasonal promotions to maximize revenue during peak months.
5. Analyze performance in underrepresented product categories to uncover growth opportunities.