

The following are the 5 insights from the EDA (Exploratory Data Analysis):

1. **Customer Distribution across regions:** There are customers in four different regions, with the largest number (59 out of 200) occurring in South America. This suggests that the area may have a significant role in generating commercial income. Sales and consumer involvement in these locations may be further increased by region-specific offerings and customized marketing techniques.
2. **High-Value transactions as Revenue Drivers:** Transactions typically have a value of \$689.99, but occasionally they can reach \$1991.04. This identifies a big chance to concentrate on valuable clients and merchandise. Premium product promotions that are specifically targeted could boost sales overall and the frequency of these transactions.
3. **Product variety and popular trends:** The dataset includes 100 distinct products in four categories, with books accounting for the majority of products (26%). In order to satisfy customer preferences, stocking and advertising efforts may need to concentrate on the book category, which may be in high demand.
4. **Frequent multi-item purchases:** With an average of 2.54 products per transaction, clients frequently buy several goods in a single order. Utilizing cross-selling and bundling tactics can increase order value and enhance customer satisfaction by providing related products.
5. **Wide pricing range for customer segments:** The average price of the product is \$267.55, with a range of \$16.08 to \$497.76. This wide range of prices suggests that the product catalog serves a variety of clientele. Providing exceptional experiences for high-value products and targeted discounts for lower-priced items should spur growth in all market groups.