

Business Insights from EDA

1. Seasonal Sales Trends

Transaction volume shows clear fluctuations over time, indicating potential seasonality. Identifying high-sales periods can help optimize marketing campaigns, stock management, and promotional offers.

2. High Revenue Generating Regions

Some regions contribute significantly more revenue than others. By targeting underperforming regions with localized marketing and incentives, the company can improve overall revenue and market penetration.

3. Top-Selling Products Influence Demand

A small subset of products dominates sales, meaning optimizing inventory for these high-demand items can reduce stockouts and maximize profitability.

4. Customer Purchase Behavior Variations

The average purchase quantity per transaction is around 2.5, but high-value transactions reach nearly \$2,000. This suggests different customer segments?budget shoppers and premium buyers?who may require different marketing strategies.

5. Significant Customer Growth Potential

With 199 customers making transactions but 200 total customers in the dataset, there might be inactive customers. Re-engagement campaigns could convert them into active buyers and increase retention.