

Business Insights from Exploratory Data Analysis (EDA)

Top Customers by Revenue Contribution

Analysis of the dataset revealed that a small percentage of customers contribute to a significant portion of the total revenue. The top 5 customers alone account for nearly 30% of total transaction value. This insight can be used for customer loyalty programs and targeted marketing campaigns to retain high-value customers.

Most Popular Products

The most frequently purchased products belong to the electronics and fashion categories. These categories consistently generate high sales volumes, indicating strong customer demand. Business strategies should focus on stocking and promoting these product categories to maximize revenue.

Regional Revenue Distribution

Sales performance varies significantly by region. North America and Europe contribute the highest revenue, whereas sales from Africa and South America are comparatively lower. This suggests a need for region-specific marketing efforts to boost engagement and sales in underperforming areas.

Seasonal Trends in Transactions

Transaction volume spikes during festive seasons and end-of-year sales, showing a clear seasonal purchasing pattern. Businesses can leverage this by planning promotions, discounts, and stock replenishment strategies ahead of peak seasons.

Customer Churn Identification

A considerable percentage of customers have not made a purchase in the last 6 months. Identifying these inactive customers and targeting them with personalized offers, discounts, or re-engagement campaigns can help reduce churn and improve retention rates.