

Business Insights from EDA

1. Customer Distribution & Demographics

The analysis of the Customers dataset highlights imbalances in demographics such as gender, location, or preferences. This presents an opportunity for the business to create targeted marketing strategies to attract underrepresented groups or regions.

2. Product Performance Analysis

The Products dataset shows that certain categories or pricing tiers dominate sales. Popular products can be further promoted to maintain their momentum, while underperforming products may require discounts or reevaluation.

3. Transaction Patterns & Trends

Seasonal spikes or time-based patterns observed in the Transactions dataset suggest periods of high customer activity. Aligning marketing strategies and inventory planning with these peak times could optimize revenue and operational efficiency.

4. Price Sensitivity Insights

A correlation between product pricing and sales volume highlights customer price sensitivity. Introducing dynamic pricing, discounts, or special offers for high-priced products could boost sales and customer satisfaction.

5. Data Gaps and Improvement Opportunities

Missing values in datasets (e.g., incomplete customer demographics or product details) point to areas where data collection efforts need enhancement. Improving data quality could lead to more accurate insights and better decision-making for personalized marketing and product development.