

Business Insights from EDA

Based on the exploratory data analysis (EDA) performed on the provided datasets (Customers, Products, and Transactions), the following key business insights have been derived:

Customer Distribution and Signup Trend: The majority of customers are located in the East region, followed by the West and Central regions. There's a noticeable upward trend in customer signups over time, indicating business growth and potential for targeted marketing in specific regions.

Product Categories and Pricing: Electronics and Clothing are the most popular product categories. There's a wide range in product prices, with some high-value items contributing significantly to revenue. Consider strategies to optimize pricing and inventory for different product categories.

Transaction Patterns and Revenue: There's a clear pattern in transaction frequency, with peaks and dips throughout the year. This information can be used to forecast demand, manage inventory, and plan marketing campaigns. The average transaction value provides insights into customer spending habits and potential for revenue growth.

Top Customers and Best-Selling Products: Identifying the top customers and best-selling products is crucial for targeted marketing and inventory management. By understanding customer preferences and purchase patterns, you can personalize marketing efforts and optimize product offerings.

Relationship between Quantity and Total Value: There's a positive correlation between the quantity of items purchased and the total value of transactions. This insight highlights the importance of promoting bulk purchases or offering discounts for larger orders to increase revenue.