

# Overview

The EDA provides various patterns in the data that can guide business decisions. These insights can drive changes in pricing, product focus, customer retention, marketing strategies, and seasonal promotions. By making informed decisions based on this analysis, the business can aim for increased revenue and customer satisfaction.

# **Business Insights**

Based on the EDA, here are 5 potential business insights:

#### 1. Product Pricing Insight:

- **Insight**: A small number of products are priced extremely high, skewing the distribution of prices. The majority of products are in the mid-range price range.
- **Business Implication**: Businesses could consider revising pricing strategies, such as offering discounts or bundling lower-priced products with high-end ones to appeal to a wider customer base.

#### 2. Transaction Volume by Region:

- **Insight**: Customers from specific regions (e.g., North America or Europe) tend to make higher-value transactions compared to other regions.
- **Business Implication**: Targeted marketing campaigns in high-value regions could further increase revenue. Additionally, exploring ways to expand into underperforming regions might boost growth.

# 3. Customer Retention Opportunity:

- **Insight**: A large percentage of customers are newly signed up, but only a small portion of them make repeat purchases.
- **Business Implication**: There is a clear opportunity to improve customer retention strategies, such as loyalty programs, personalized offers, or email campaigns aimed at bringing back inactive customers.

### 4. Product Category Trends:

- **Insight**: Some product categories consistently perform better than others, indicating high demand for specific product types.
- **Business Implication**: It would be beneficial to focus marketing efforts on top-performing categories, while considering discontinuing or rebranding low-performing ones. Exploring why certain categories are more successful could also uncover new opportunities for product innovation.

## **5. Seasonality in Sales:**

- **Insight**: Transactions seem to peak around certain times of the year, possibly due to holidays or sales events.
- **Business Implication**: The business could plan inventory and marketing strategies around these peak times to maximize sales, such as offering seasonal discounts, promotions, or special bundles to increase revenue during these high-demand periods.