

Data Science Assignment: eCommerce Transactions Dataset

Overview: Task -1

The provided dataset includes information on customers, products, and transactions for an eCommerce platform. The analysis focuses on understanding trends, customer behaviour, and sales performance to derive actionable insights that can drive strategic decisions.

Insight 1: Monthly Sales Trends

Observation: Analysis of monthly sales trends revealed consistent growth in total sales over time, with noticeable spikes during specific months.

Business Insight: This trend suggests the presence of seasonality or promotional events driving sales. The company can leverage this insight to plan targeted marketing campaigns during high-performing months to maximize revenue.

Insight 2: Top-Selling Products

Observation: The top 10 selling products contributed significantly to overall sales volume, with a few products dominating the list.

Business Insight: Focusing inventory and marketing resources on these high-demand products can improve profitability. Additionally, bundling these products with slower-moving items may help clear less popular inventory.

Insight 3: Regional Sales Distribution

Observation: Regions differ significantly in terms of total sales contribution, with some regions consistently outperforming others.

Business Insight: High-performing regions could be prioritized for expansion or the introduction of new products. Low-performing regions may require localized marketing strategies or promotional offers to increase engagement.

Insight 4: Category-Wise Performance

Observation: Certain product categories account for a substantial share of revenue, while others have limited sales.

Business Insight: Investing in expanding the range or promotion of high-performing categories can maximize returns. For underperforming categories, the company should assess their relevance to the target audience and consider repositioning or phasing them out.

Insight 5: High-Value Customers

Observation: A small group of customers (top 10) contributes disproportionately to total revenue.

Business Insight: These high-value customers should be nurtured through loyalty programs, exclusive offers, or personalized recommendations to retain their business. Identifying common traits among these customers can help attract similar high-spending individuals.