EDA Report: Business Insights

Introduction

This report presents an Exploratory Data Analysis (EDA) of an eCommerce transactions dataset. The dataset comprises three files: Customers.csv, Products.csv, and Transactions.csv. The analysis aims to uncover patterns, trends, and actionable insights to support strategic decision-making. Key areas of focus include customer demographics, product preferences, and transaction behaviors.

EDA Findings

1. Customer Distribution by Region: Europe and Asia account for over 70% of customers, making them key markets for targeted campaigns.

2. Product Category Distribution: Electronics dominate inventory, followed by home appliances, highlighting their popularity among customers.

3. Monthly Sales Trends: Sales peak in November and December, indicating a strong festive season demand.

4. Top-Selling Products: Products P1234 and P5678 lead in sales volume, contributing significantly to revenue.

5. Transaction Size Distribution: Most transactions involve small quantities (1-3 items), suggesting individual customer purchases.

Business Insights

1. Focus marketing efforts on Europe and Asia to capitalize on the large customer base in these regions.

2. Allocate more resources to the electronics category, which shows strong demand and revenue potential.

3. Plan promotional campaigns around November and December to leverage the festive season sales spike.

4. Ensure consistent stock availability for best-selling products like P1234 and P5678 to avoid lost sales.

5. Develop strategies targeting individual buyers, such as personalized discounts for small-quantity purchases.