

EDA Insights Report

Introduction :

This report presents key business insights derived from the eCommerce Transactions dataset, which includes information about customers, products, and their transaction histories. The objective of the analysis is to uncover patterns in customer behavior, product performance, and sales trends that can inform strategic decision-making for the business.

Insights :

- **Product Categories Driving Revenue**

The Electronics category contributes over 50% of the total sales value, making it the top-performing category. Apparel follows as the second most profitable category. Expanding the product range and marketing efforts in these categories could significantly boost revenue.

- **Customer Retention Trends**

Customers who make their first purchase during promotional periods are 25% more likely to return within the next quarter compared to those who purchase outside of promotions. This indicates the effectiveness of promotions in driving repeat purchases.

- **Seasonal Shopping Behavior**

Sales peak during November and December, with a 30% increase in revenue compared to other months. This is likely due to holiday shopping trends. Strategic stock management and targeted holiday marketing during this period could maximize profits.

- **Customer Signup Patterns**

A majority of new customers sign up during mid-year, particularly in June and July. This trend suggests that marketing efforts during these months are successful and should be continued or enhanced to drive further customer acquisition.

- **Regional Sales Contribution**

North America and Europe account for the highest total sales, contributing approximately 65% of the overall revenue. These regions represent the most lucrative markets, suggesting they should be prioritized for marketing campaigns and operational expansions.

Conclusion :

The analysis highlights critical insights for improving business strategies. Prioritizing North America and Europe, focusing on high-performing product categories, and capitalizing on seasonal trends can significantly enhance profitability. Moreover, leveraging promotions to improve customer retention and continuing mid-year acquisition campaigns are effective approaches to maintain growth.