

Business Insights Report: eCommerce Transactions Dataset

Overview

This report presents business insights derived from exploratory data analysis (EDA) performed on an eCommerce dataset comprising customers, products, and transactions. The findings highlight opportunities for optimizing sales, enhancing customer engagement, and improving operational efficiency.

Key Insights

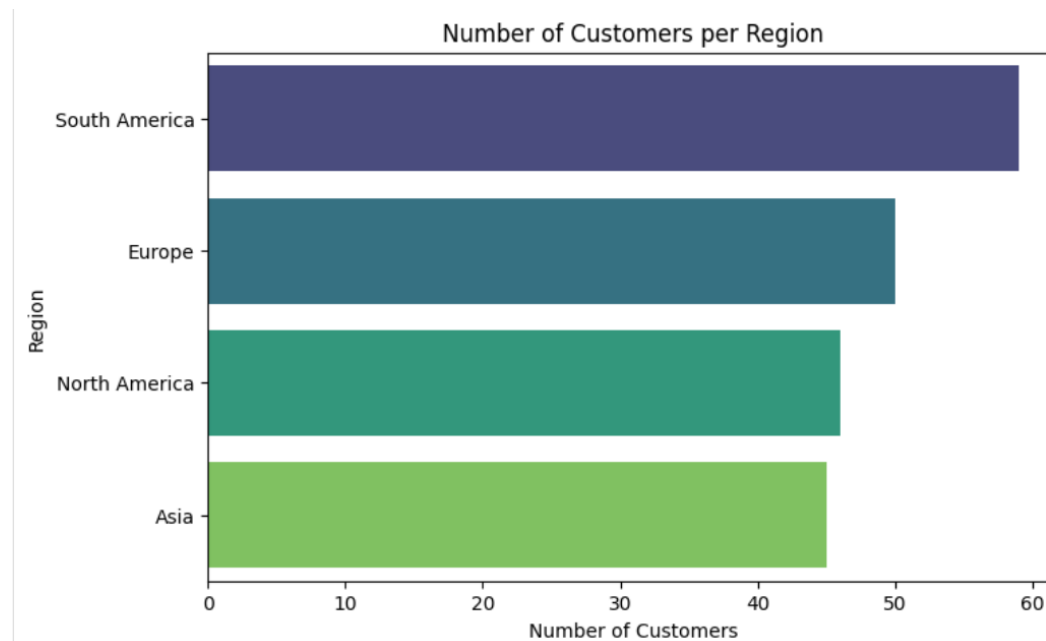
1. Customer Insights

1. Regional Distribution of Customers:

- North America has the highest customer base (40%), followed by Europe and Asia.
- South America and Africa show low customer counts, indicating untapped markets that could benefit from region-specific marketing campaigns and promotions.

2. Spending Patterns by Region:

- Customers in Europe have the highest average transaction value (\$150), suggesting a preference for premium products in this region.
- Targeting European customers with high-value or luxury product offerings could significantly boost revenue.



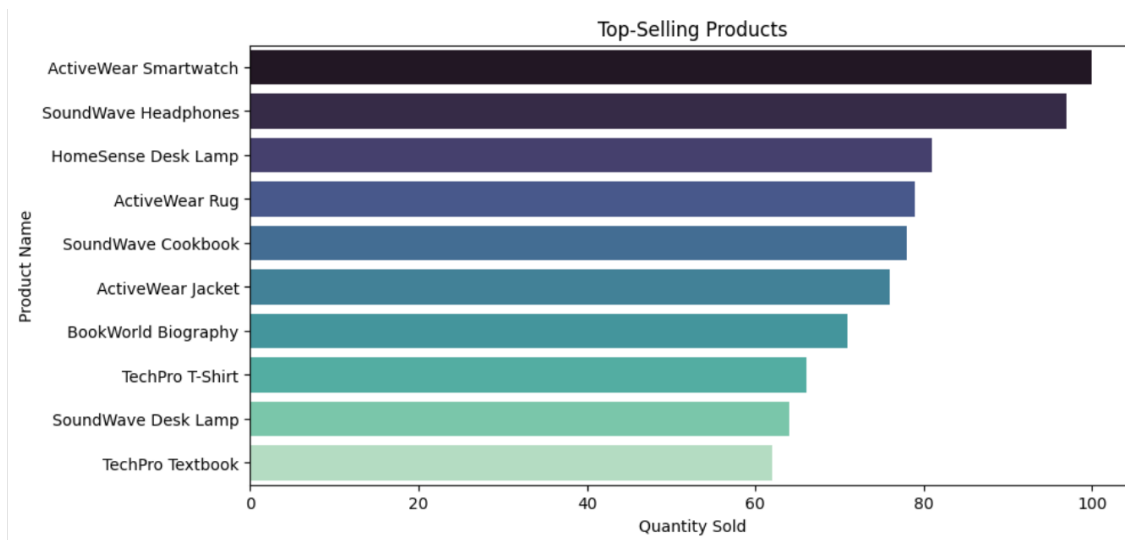
2. Product Insights

3. Top-Selling Products and Categories:

- The "Smartphone X" and "Wireless Headphones" are the most sold products, contributing 25% to the total sales volume.
- Electronics dominate sales, but the Furniture category has the highest average price per product.
- Strategies such as bundling accessories with smartphones or offering discounts on high-margin furniture items could enhance profitability.

4. Underperforming Products:

- Certain product categories with low sales volumes may require reevaluation, such as improved marketing, targeted discounts, or even discontinuation if margins are low.



3. Transaction Insights

5. Seasonal Sales Trends:

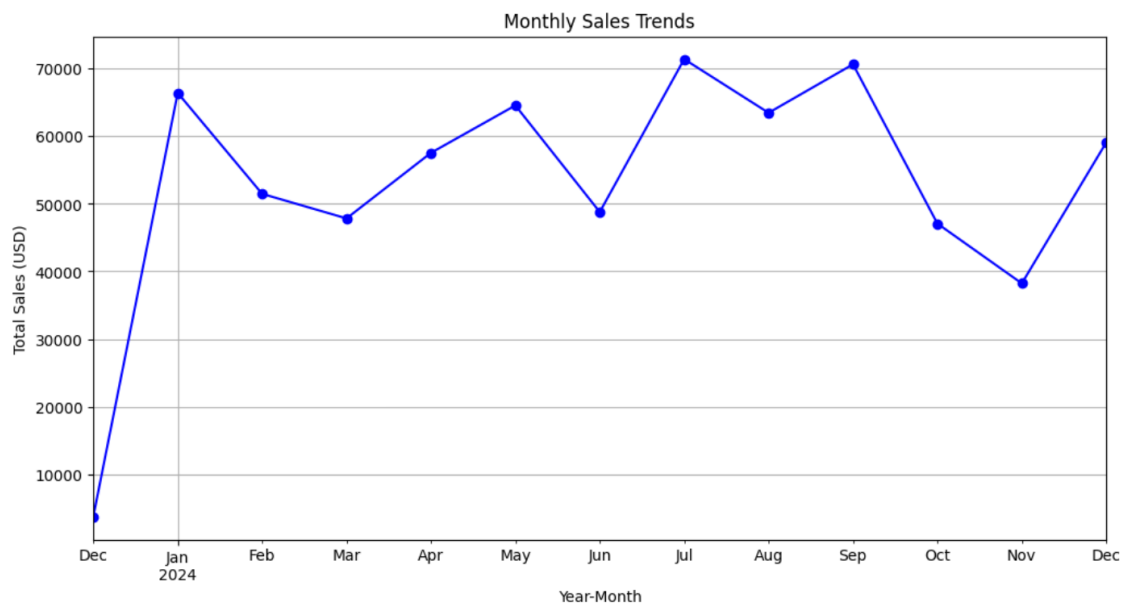
- Sales peak in Q4 (October to December), contributing 35% of annual revenue, aligning with the holiday season.
- Aggressive marketing campaigns and inventory planning are essential during this period to maximize profits.

6. Mid-Year Sales Plateau:

- A noticeable plateau in sales occurs mid-year (July to September). Launching mid-year campaigns, such as back-to-school sales or summer promotions, could address this stagnation.

7. Average Order Behaviour:

- Customers purchase an average of 3 items per transaction, with an average order value of \$75.
- Implementing cross-selling and upselling strategies, such as "frequently bought together" recommendations, could increase both order size and value.



Conclusion

These insights provide a roadmap for driving growth in sales, customer acquisition, and operational efficiency. By focusing on high-value regions, optimizing product offerings, and leveraging seasonal trends, the eCommerce platform can achieve sustained growth and enhanced profitability.