

BUSINESS REPORT

ECOMMERCE TRANSACTIONS ANALYSIS

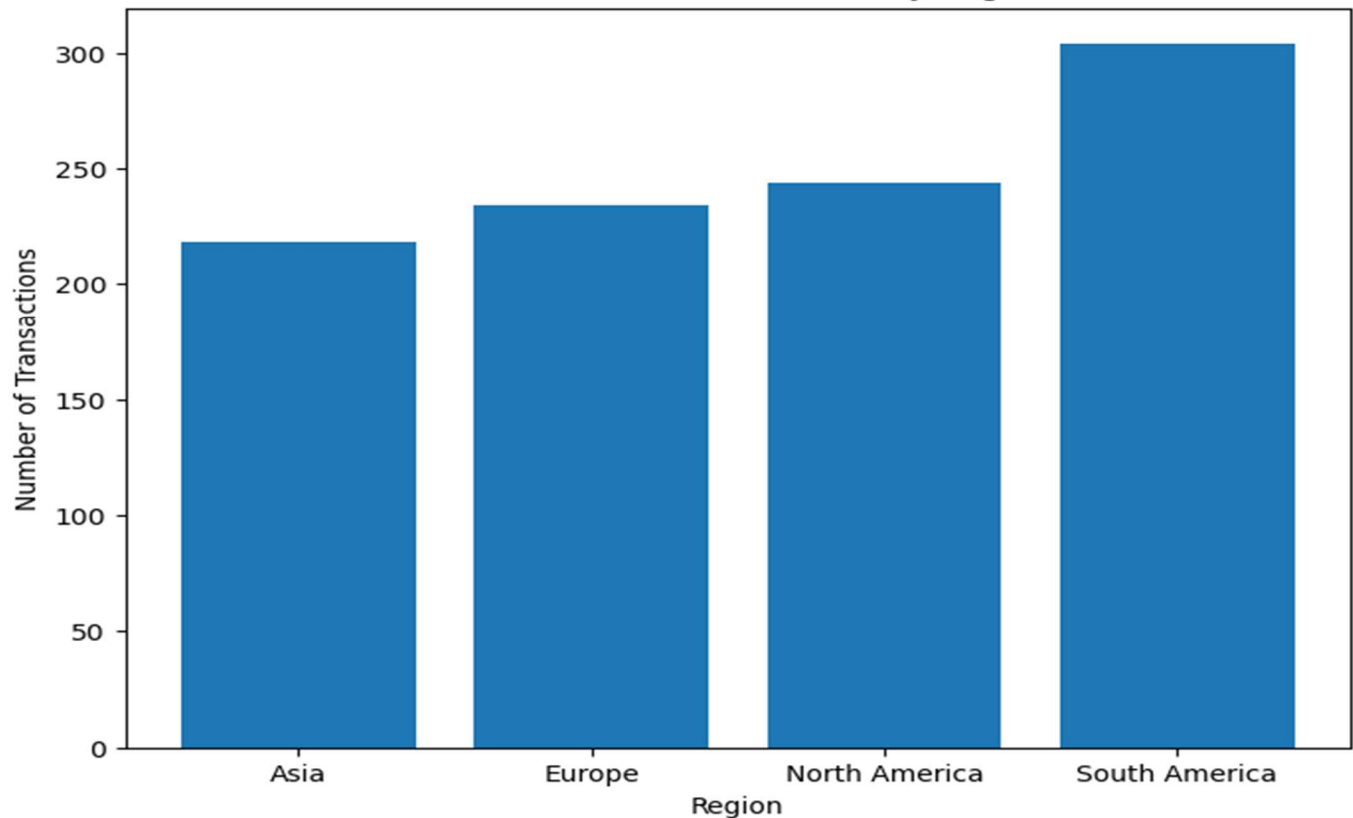
ZEOTOP

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Transactions by Region:

Region	TransactionCount
Asia	218
Europe	234
North America	244
South America	304

Distribution of Transactions by Region



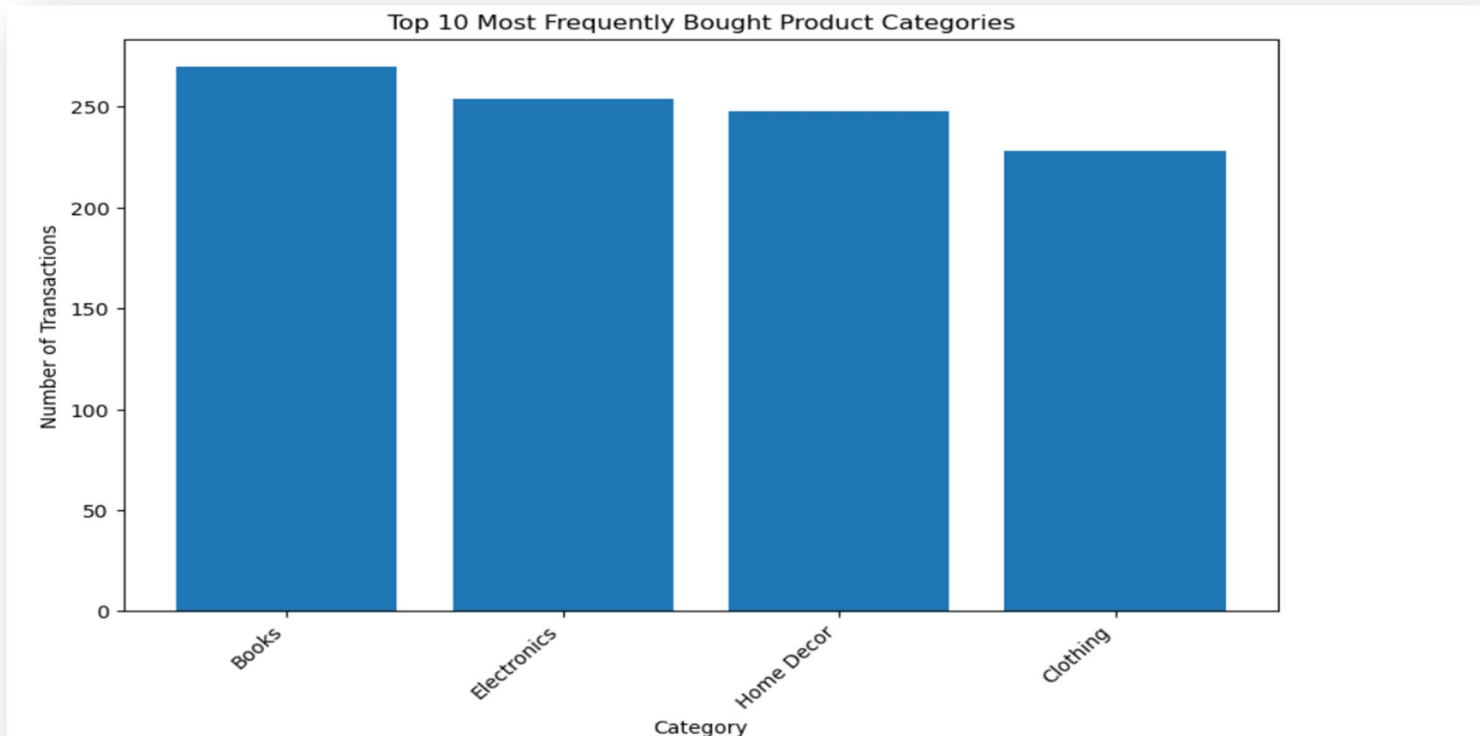
INTRODUCTION

This report presents the findings of an exploratory data analysis (EDA) conducted on an ecommerce transactions dataset. The dataset includes information about customers, products, and transactions. The analysis aims to uncover insights into customer behavior, product performance, and sales trends to inform business strategies.

Data Overview

The dataset comprises three files:

1. **Customers.csv:** Contains details about customers, including their ID, name, region.
2. **Products.csv:** Contains details about products, including their ID, name, category, and price.
3. **Transactions.csv:** Contains details about transactions, including transaction ID, customer ID, product ID, transaction date, quantity, total value, and price.



Key Findings

1. Data Integrity:

- The dataset contains 200 unique customer IDs and names, ensuring each row represents a distinct customer.
- There are 4 unique regions, indicating a diverse customer base.
- The Products dataset has 100 unique product IDs and 4 distinct categories.

2. Sales Trends:

- South America and North America are the regions with the highest number of transactions, suggesting a focus for marketing efforts.
- Books and Electronics are the most popular product categories, with 'P059' and 'P029' being the most frequently purchased products.
- The average transaction includes 2 to 3 items with an average value of 689.99.

3. Customer Behavior:

- The analysis of Quantity and TotalValue reveals potential outliers with very high transaction values, which could be investigated further to understand customer behavior and identify upselling opportunities.

Business Insights

1. **Data Standardization:**

Standardizing product names and IDs can improve inventory management and analysis.

2. **Targeted Marketing:**

Focusing marketing efforts on popular categories (Books and Electronics) and regions with high sales (South America and North America) can lead to increased revenue.

3. **Inventory Optimization:**

Understanding popular products ('P059', 'P029') enables efficient inventory planning and stock management.

4. **Customer Segmentation:**

Segmenting customers based on region, purchase behavior, and preferences can enable targeted marketing and personalized recommendations.

5. **Upselling and Cross-selling:**

Investigating outliers with high transaction values can identify potential opportunities for upselling and cross-selling.

Recommendations:

- Implement data quality checks and standardization procedures to ensure data accuracy and consistency.
- Develop targeted marketing campaigns for specific regions and product categories based on sales trends and customer behavior.
- Optimize inventory management by prioritizing popular products and forecasting demand based on historical data.
- Explore customer segmentation strategies to personalize marketing efforts and improve customer relationship management.
- Investigate high-value transactions to identify potential upselling and cross-selling opportunities.

Conclusion

The EDA reveals valuable insights into customer behavior, product performance, and sales trends.

By implementing the recommendations outlined in this report, the business can improve inventory management, optimize marketing strategies, and enhance customer relationships to drive growth and profitability.