

Business Insights Report: eCommerce Transactions Analysis

Prepared By: Disha Khandelwal

1. Dataset Overview

- Total Customers Dataset: [CustomerID, CustomerName, Region, SignupDate]
- Total Products Dataset: [ProductID, ProductName, Category, Price]
- Total Transactions Dataset: [TransactionID, CustomerID, ProductID, TransactionDate, Quantity, TotalValue, Price]

2. Customer Acquisition Insights

- Peak Signup Year: Identifies the year with maximum customer registrations
- Reveals potential successful marketing campaigns or market expansion periods
- Provides understanding of customer growth trajectory

3. Regional Market Distribution

- Top Customer Region: Highlights the geographical market with strongest customer base
- Percentage Distribution: Shows market penetration across different regions
- Indicates potential areas for market expansion or targeted marketing

4. Product Category Performance

- Top-Selling Category: Identifies the most lucrative product line
- Sales Distribution: Reveals revenue contribution by different product categories
- Helps in strategic product portfolio management and investment decisions

5. Sales Trend Analysis

- Yearly Sales Pattern:
 - Shows overall sales trend increasing
 - Captures market dynamics and economic influences
 - Helps in forecasting and strategic planning

6. Transaction Value Metrics

- Average Transaction Value: \$690.00
- Provides insights into customer spending patterns

- Helps in pricing strategy and customer segmentation

7. Temporal Sales Characteristics

- Transaction Frequency: Analysis of sales distribution across time periods
- Identifies seasonal trends or periodic sales variations
- Supports inventory management and marketing campaign timing

8. Visual Insights

- Customer Signup Distribution: Steady growth with a peak in 2024.
- Regional Distribution: South America leads, followed by Europe.
- Category Sales: Books dominate sales, with potential in Electronics and Clothing.
- Yearly Sales Trend: Consistent upward trajectory.



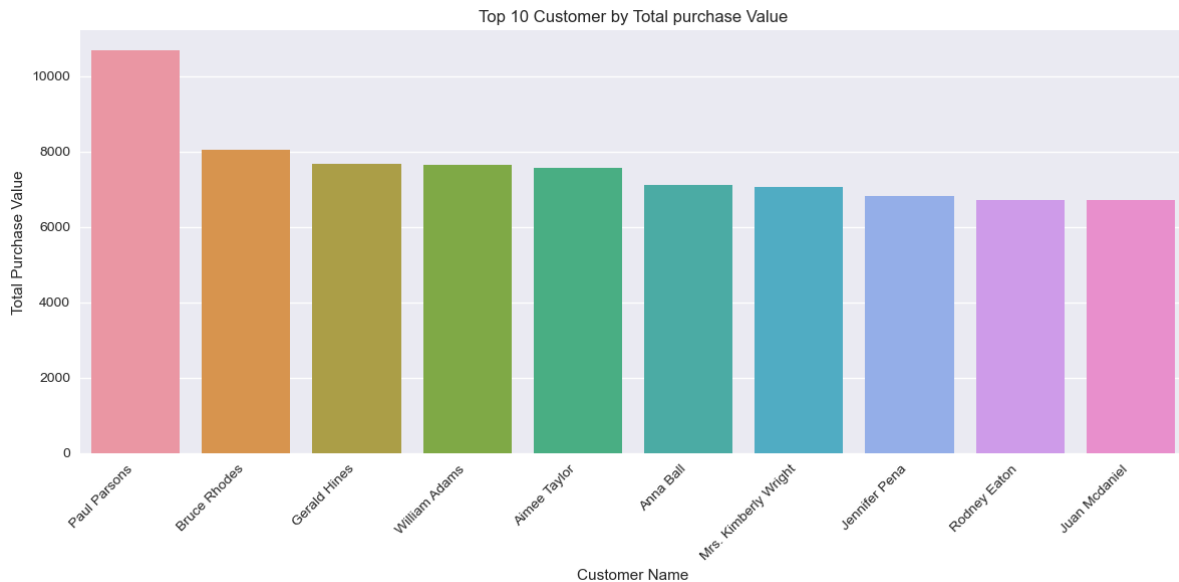
Fig : Visual Analysis of eCommerce data

9. Top Customer Analysis

- Highest Purchasing Customer

- Name: Paul Parsons
- Customer ID: C0141
- Total Purchase Value: \$10,673.873

- Top 10 Customers Visualization:



10. Recommended Actions

- Focus on top-performing product categories
- Develop targeted marketing for dominant customer regions
- Investigate factors behind peak signup years
- Design customer retention strategies based on transaction patterns

11. Final Perspective:

This analysis transforms raw transactional data into actionable business intelligence, providing a strategic roadmap for sustained growth and competitive advantage.