

Exploratory Data Analysis (EDA) Report: Business Insights

Dataset Overview:

- Customers.csv: 200 entries, 4 columns.
 - Products.csv: 100 entries, 4 columns.
 - Transactions.csv: 1000 entries, 7 columns.
 - No missing values in any dataset.
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Key Business Insights

1. Sales Concentration by Region:

- South America contributes the highest sales revenue, indicating strong customer engagement and demand in this region.
- Recommendation: Expand marketing campaigns and promotions tailored to South American customers to further boost sales.

2. Most Popular Product Categories:

- Categories like "Electronics" and "Books" dominate in terms of quantity sold, highlighting customer preferences for these product types.
- Recommendation: Prioritize inventory management and new product launches in these high-demand categories.

3. Customer Signup Trends:

- A consistent increase in customer signups was observed from 2022 to 2024, peaking during specific months (e.g., March and August).
- Recommendation: Launch promotional campaigns during peak signup months to leverage high customer acquisition rates.

4. High-Value Transactions:

- The average transaction value is approximately \$689.99, with some transactions exceeding \$1900.
- Recommendation: Identify and reward high-value customers with loyalty programs to retain and encourage repeat purchases.

5. Price and Quantity Dynamics:

- Products priced between \$300 and \$400 sell in higher quantities, suggesting a price sweet spot for customer purchases.

- Recommendation: Focus pricing strategies within this range for products to optimize sales volume and revenue.

Summary: This EDA provides actionable insights into sales trends, customer behavior, and pricing strategies. Focusing on high-performing regions, product categories, and leveraging peak activity periods can significantly enhance business outcomes.