

# eCommerce Transactions Data Analysis - Business Insights

## Task 1: Exploratory Data Analysis (EDA) - Business Insights

The following business insights are derived from Exploratory Data Analysis performed on the provided eCommerce dataset (Customers.csv, Products.csv, Transactions.csv).

- 1. South America as a Key Customer Region:** South America stands out with the highest customer count, driving substantial overall transaction value despite potentially lower average transaction values per customer compared to other regions. *Recommendation:* Focus marketing efforts and tailor customer retention strategies towards South America to maximize this large customer base and potentially boost per-customer value through localized campaigns and offers.
- 2. Electronics and Home Decor Value, Clothing Volume:** Electronics and Home Decor categories lead in terms of total transaction value, indicating higher-value purchases. Conversely, the Clothing category sees a greater number of units sold, suggesting frequent, lower-value purchases. *Recommendation:* Adopt category-specific marketing approaches, emphasizing product value for Electronics & Home Decor, while promoting deals and repeat purchase incentives for Clothing to optimize revenue and customer engagement within each category's unique purchase behavior.
- 3. Significant Customer Signup Growth in 2024:** A notable increase in customer signups in 2024 points to successful acquisition efforts. *Recommendation:* Analyze the drivers behind the 2024 signup surge (e.g., specific campaigns, platform enhancements) to replicate effective strategies and further enhance customer acquisition momentum for sustained growth.
- 4. Positive Transaction Volume Trend:** The overall monthly transaction volume shows a healthy growth trend. *Recommendation:* Continuously monitor transaction trends to detect seasonality and anticipate slower periods. Proactive adjustments to strategies will be crucial for maintaining and enhancing this positive growth trajectory over time.
- 5. Upselling and Cross-selling Opportunity:** Low average transaction quantities indicate potential to increase order value. *Recommendation:* Implement upselling and cross-selling strategies. Utilize product recommendations, bundled offers, and quantity discounts to encourage customers to add more items to each order, thereby increasing the average transaction value and overall revenue.