

Exploratory Data Analysis and Business Insights

1. Customer Distribution by Region:

- Customers are primarily distributed across South America and Europe, representing key regions for market penetration.
- Focused regional campaigns in these areas can maximize customer engagement and revenue growth.

2. Signup Trends:

- The year 2024 recorded the highest number of signups, followed by 2022 and lastly 2023.
- Peaks in customer acquisition during 2024 may correlate with effective promotional strategies or product launches.
- Seasonal trends and event-based marketing in 2024 offer insights for future planning.

3. Top Product Categories:

- Books and Electronics are the most popular categories, each with the same count of purchases, followed by Clothing.
- Product diversification in these categories can tap into existing demand.
- Popular products like "ActiveWear Biography" (Books) and "ActiveWear Smartwatch" (Electronics) underscore the importance of tech and lifestyle goods.

4. Price and Transaction Value Insights:

- Price distribution shows peaks at \$150 and \$440, indicating preferred price points among customers.
- Top 10 high-value transactions, such as \$1,991.04 for Transaction ID T00928, highlight significant purchasing power.
- High-value customers represent an ideal segment for loyalty programs and exclusive offers.

5. Most Active Customers:

- Customers like C0109, C0156, and C0141 are the most active, showcasing frequent engagement and high transaction volumes.
- Retention strategies, such as personalized recommendations and rewards, can be targeted at these loyal customers to boost lifetime value.