

Business Insights Derived from EDA:

1. Regional Customer Distribution:

South America has the largest customer base, accounting for 29.5% of all customers. Asia, Europe, and North America contribute approximately 22%-23% each, indicating relatively untapped potential in these regions. Marketing efforts and localized product offerings could be focused here to capture more market share.

2. Product Category Performance:

Products are well-distributed across four categories: Books, Electronics, Clothing, and Home Decor. Books and Electronics lead in frequency, but the lower presence of Home Decor and Clothing suggests potential for growth. Introducing new designs or seasonal collections in these categories could drive sales.

3. Transaction Analysis and High-Value Opportunities:

The average transaction value is \$689.99, with the highest transactions nearing \$2000. Premium products or value bundles targeting high-spending customers could increase revenue. Additionally, the frequent purchase of Electronics indicates a market for higher-end products.

4. Popular Product Insights:

"ActiveWear Smartwatch" is the most purchased product, reflecting strong interest in Electronics. Introducing complementary products, such as smart accessories or tech bundles, could increase cross-sell opportunities and drive additional revenue.

5. Customer Acquisition and Retention Trends:

Most customers joined between 2022 and 2024, showing consistent growth in new users. Retention strategies, like personalized offers, loyalty rewards, and customer engagement campaigns, can improve customer lifetime value while maintaining this growth trend.