

Customers Dataset: Contains 200 entries with columns:

- CustomerID: Unique identifier for customers.
- CustomerName: Name of the customer.
- Region: Customer's region.
- SignupDate: Date of customer signup.

Products Dataset: Contains 100 entries with columns:

- ProductID: Unique identifier for products.
- ProductName: Name of the product.
- Category: Category of the product.
- Price: Price of the product.

Transactions Dataset: Contains 1,000 entries with columns:

- TransactionID: Unique transaction identifier.
- CustomerID: Customer involved in the transaction.
- ProductID: Product involved in the transaction.
- TransactionDate: Date of the transaction.
- Quantity: Number of items purchased.
- TotalValue: Total transaction value.
- Price: Price per item.

Here are five business insights derived from the analysis:

1. Regions having the most transactions:

The highest number of transactions is 304, belonging to South America; North America ranked second with 244 transactions. Improving business and marketing conditions in South America can further contribute to revenue increase.

2. Most Popular Categories of Products

The "Books" category led with 270 transactions, and "Electronics" took the second place with 254 transactions. Providing more varieties in these categories and running attractive promotions can maximize the sales.

3. Top-earning products

The "ActiveWear Smartwatch" brought the highest revenue \$39,096.97 while "SoundWave Headphones" earned \$25,211.64. These products are best promoted with an analysis of customers' preferences that would ensure solid sales.

4. High Value Customers

Customer C0141 is the one that earned the highest lifetime revenue of \$10,673.87. Tailor-made offers and loyalty programs for these customers can raise retention and spending.

5. Monthly Sales Trends

The highest revenue of \$66,376.39 was recorded during January 2024. Identifying seasonal trends helps optimize stock and marketing activities in peak months.