Exploratory Data Analysis of Customers Info:

Overview of the Dataset:

The dataset consists of customer transaction data with 11 columns and 2005 records. It includes demographic information, purchase details, and transaction characteristics.

Problem Statement

Objective:

The objective of this project is to study customer purchasing behavior, to understand patterns and insights that would help in devising marketing strategies, improving customer satisfaction, and optimizing sales operations.

Scope:

The study will focus on the following aspects:

a. Customer demographics: age, gender, profession, and country.
b. Purchase trend analysis: items, categories, and amount of purchase.
c. The influence of shipping types and subscription statuses on customer behavior.
d. Seasonal buying habits and preferences.

Key Areas of Focus:

1. Customer Segmentation: Group customers based on demographics and purchase behaviors.
2. Sales Trends Analysis: Identify popular categories, products, and high-value transactions.
3. Seasonal Insights: Understand how seasons influence purchasing patterns.
4. Shipping Preferences: Assess the impact of shipping methods on customer satisfaction.
5. Subscription Influence: Analyze how subscription status affects purchase frequency and value.

Useful Insights to Generate:

1. Most purchased categories and items.

2. Customer segments that contribute the most to sales.

3. Seasonal peaks or troughs in sales and category affinities.

4. Optimal modes of transport by customer segments.

5. Relationship between the subscription status and customer loyalty or spending behavior.

Summary of Data Analysis

1. **Gender-wise analysis**

   Gender

   Female   52.699567

   Male   52.109415

2. **Category-wise analysis**

   Category

   Accessories   49.485149

   Clothing   52.700084

   Footwear   53.028391

   Outerwear   53.057778

3. **Season-wise analysis**

   Season

   Fall   52.931507

   Spring   52.603383

   Summer   52.373206

   Winter   52.382228

4. **Country-wise analysis**

   Country

   Afghanistan   52.843407

   Albania   52.826996

Algeria   46.727273
Argentina   47.454545
Australia   52.556452
Brazil   56.816667
France   51.962963
Pakistan   42.937500
Turkey   49.710526
United States   50.541667