

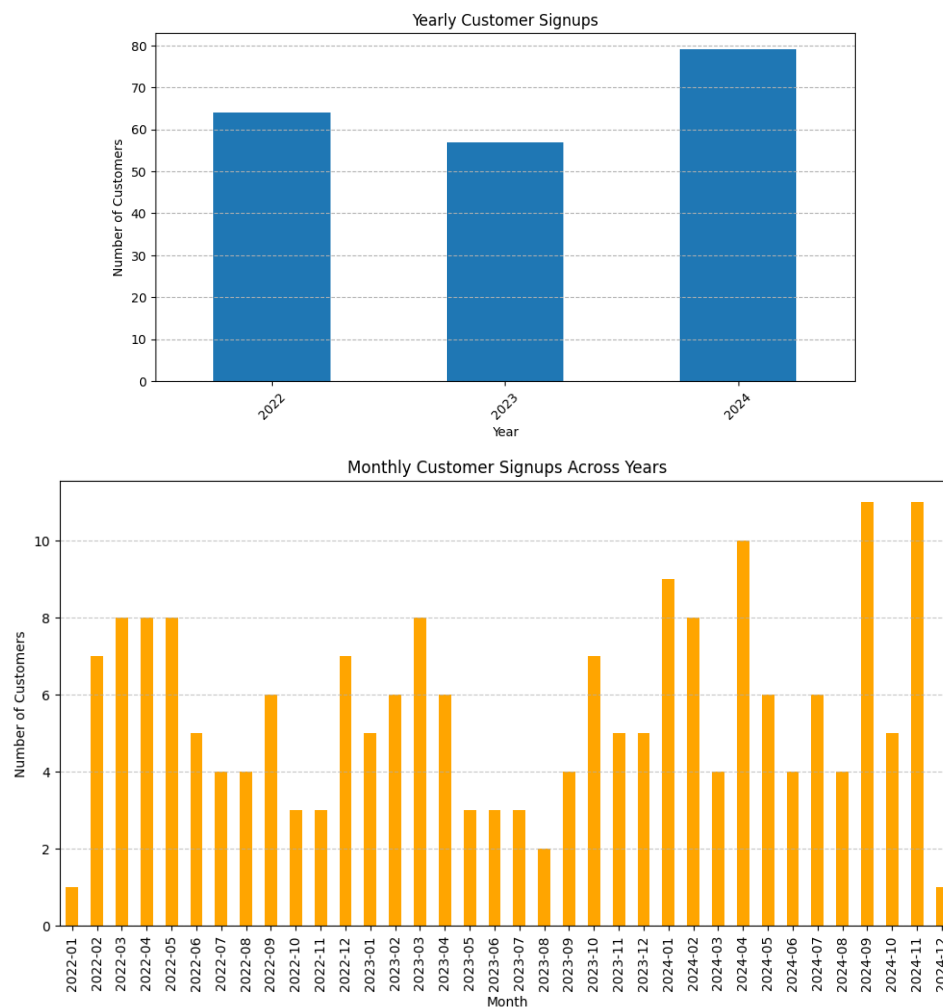
## Exploratory Data Analysis

Exploratory Data Analysis (EDA) is an essential process in data analysis that focuses on analyzing datasets to uncover patterns, relationships and anomalies. Its primary purpose is to gain a deeper understanding of the dataset before performing implementing any model for analysis. EDA helps us identify the structure and distribution of data, detect outliers, and understand the relationships between variables. By using various visualisation tools such as histograms, scatter plots and box plots, EDA enables the identification of key insights that guide further analysis and modeling. This stage is crucial for ensuring that the data is clean, well-understood, and suitable for the next steps in the data science life cycle.

This report presents an exploratory data analysis (EDA) of the eCommerce Transactions dataset. The goal of this analysis is to explore the key characteristics of the data and provide a deeper understanding of the dataset before further analysis.

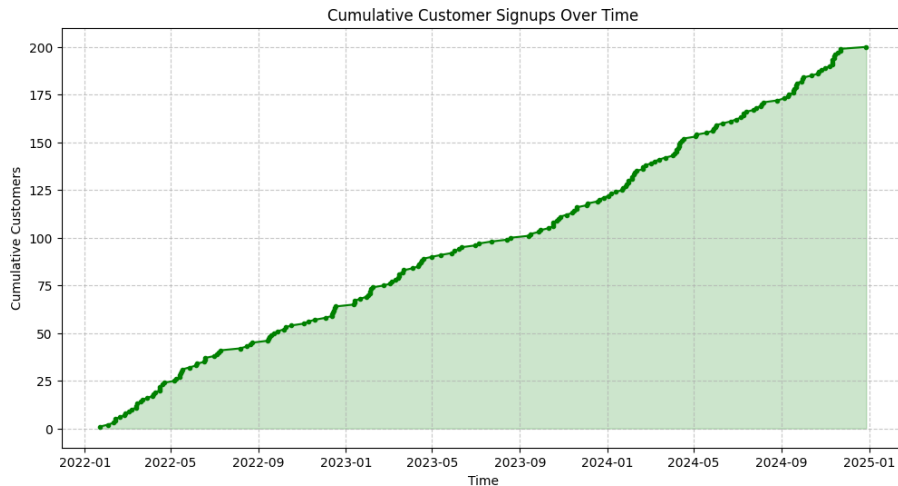
By performing EDA, we obtained the following insights.

### **1. Number of Customers SignUp fluctuate periodically.**

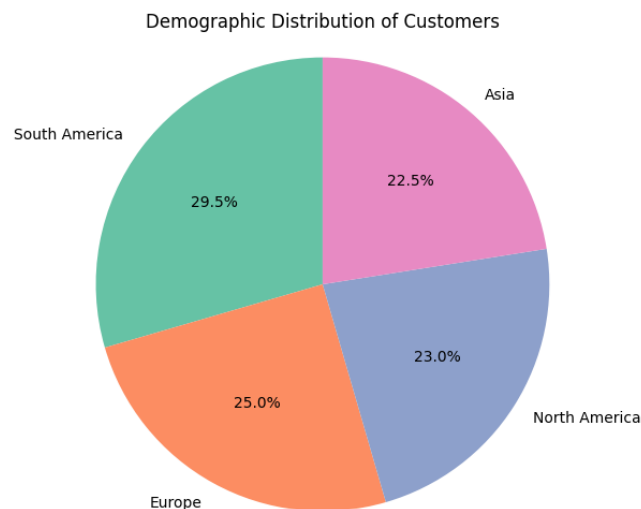


It can be observed that the number of customers signing up usually tend to decrease at the middle of each year. This is an area where the organization may focus to increase the number of customers signing up.

Overall, the total number of customers signing up is increasing at a decent pace.

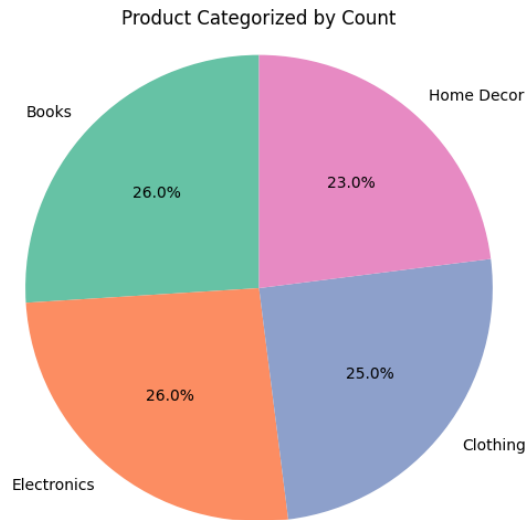


## 2. The Customers are well spread across various demographics.



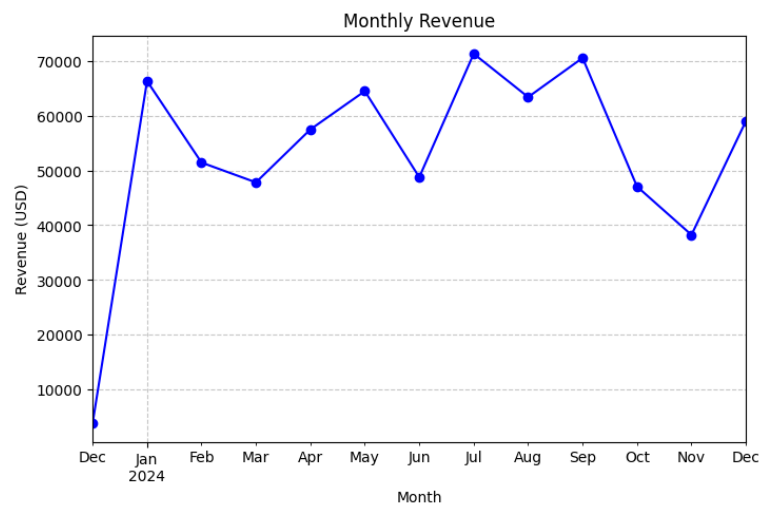
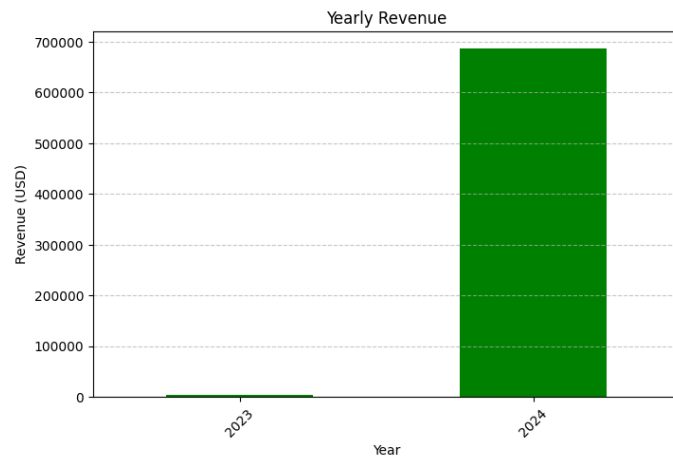
This shows that the company has a good reach across the world, tapping into various economies.

## 3. The products are also nearly equally spread into various categories.



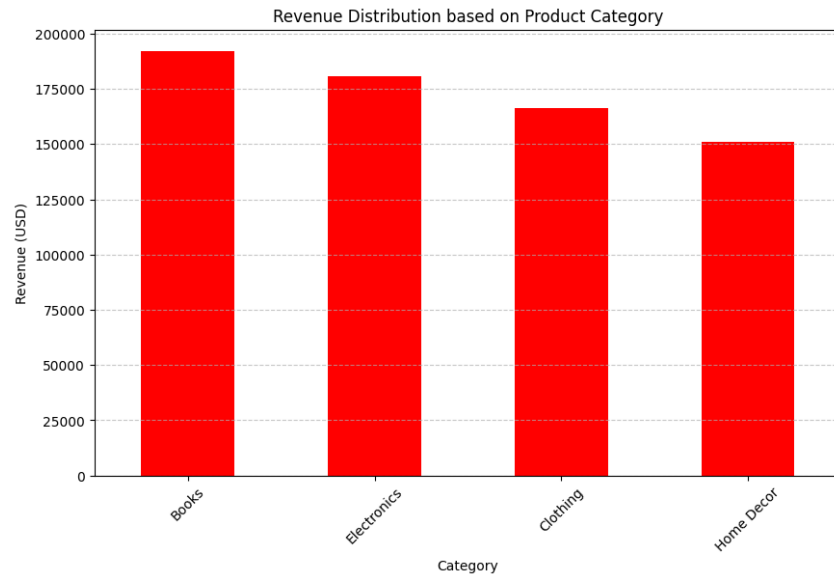
This goes on to show that the company is diversifying the range of products pretty well.

**4. Insufficient Data to comment over Revenue of the organization.**



Although revenue is a crucial indicator for any operating business, it is not possible to analyze the trend in revenue with respect to time due to the limited scope of the dataset.

**5. The revenue contribution of various categories is comparable.**



This is a positive indication for any company as they are doing equally well in various disciplines, greatly mitigating the financial risks.