1. **Average days between purchases** - For identifying potential churn risks.

Average Days Between Purchases
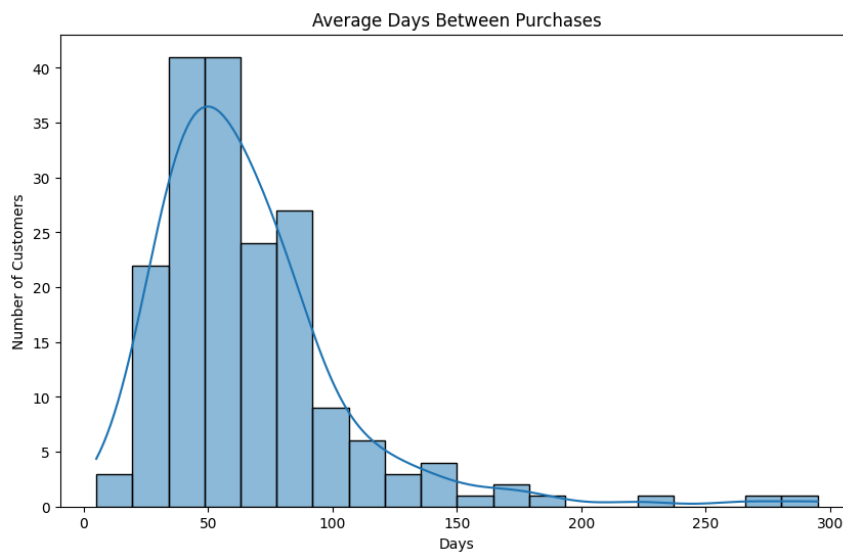
Normally, the churn period for Ecommerce platforms is around 90 days. As you can see by the density map, most customer's average day between purchases is less than 90.
That is a good thing. For a business to function properly , It is necessary to have a churn period of less than 90 for a good chunk of the customer base. Also for customers who have more than 200 days of churn period, they are lost customers which will be an important statistic in finding business feasibility and success.

2. **RFM analysis** - RFM stands for Recency, Frequency, Monetary. I used this method to rank customers based on their potential value to the company. I wanted to see what percentage of customers are high value customers. This is done by taking into consideration the recency of latest purchase, frequency of purchases and total money spent by the customer.
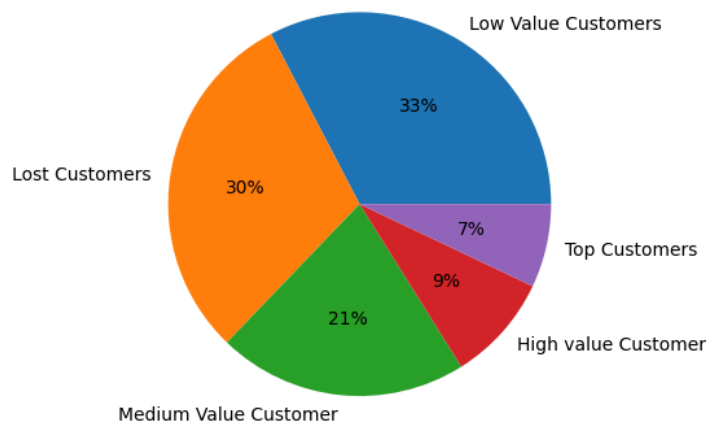
This shows that for this company , **16 %** of the customer base is highly loyal.

3. **Customer lifetime value (CLV)** - Total revenue a company generates from customers throughout their relationship with the company.


Customer Lifetime Value Distribution
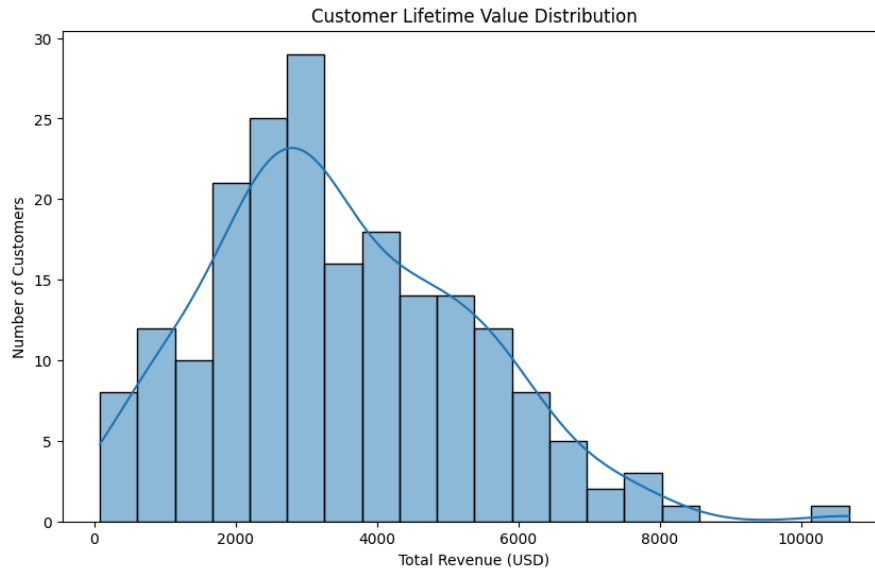
Even though we don't have all the terms in the customer lifetime value (CLV), this curve still gives a pretty good idea.
As you can see , this graph is a little bit left skewed but overall a large number of customers are corresponding to revenues higher than 20% of the maximum revenue which is a good thing.
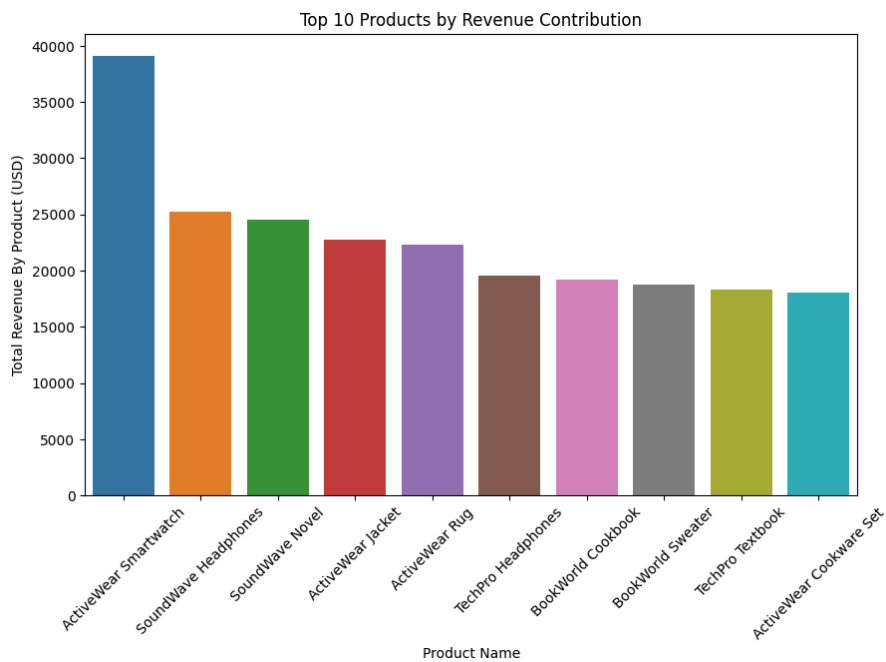
4. **Orders and Sales by Region**

Number of Orders by Region
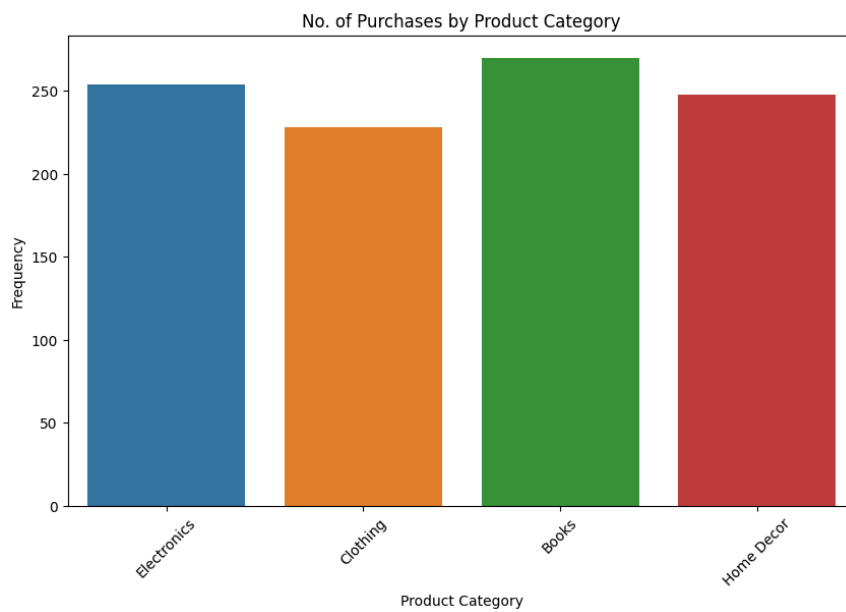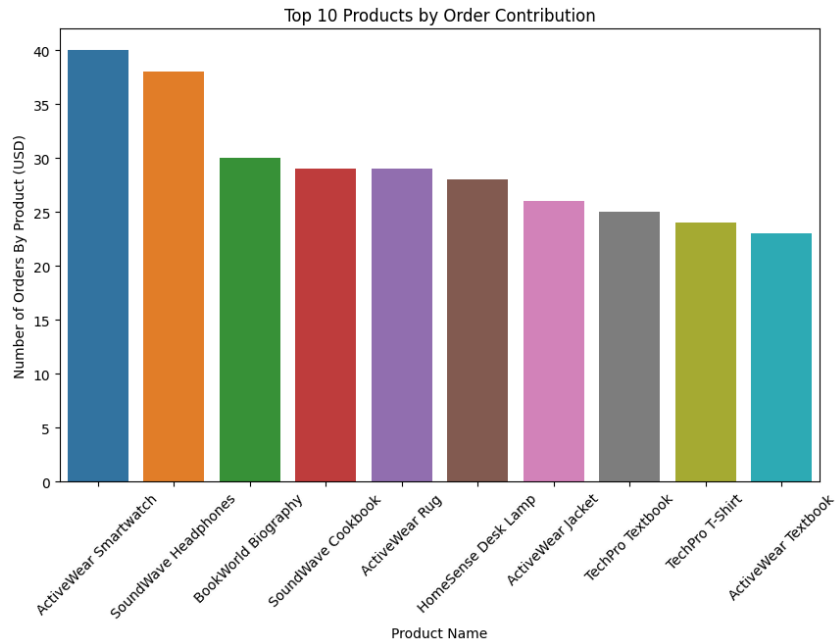
Sales Value by Region
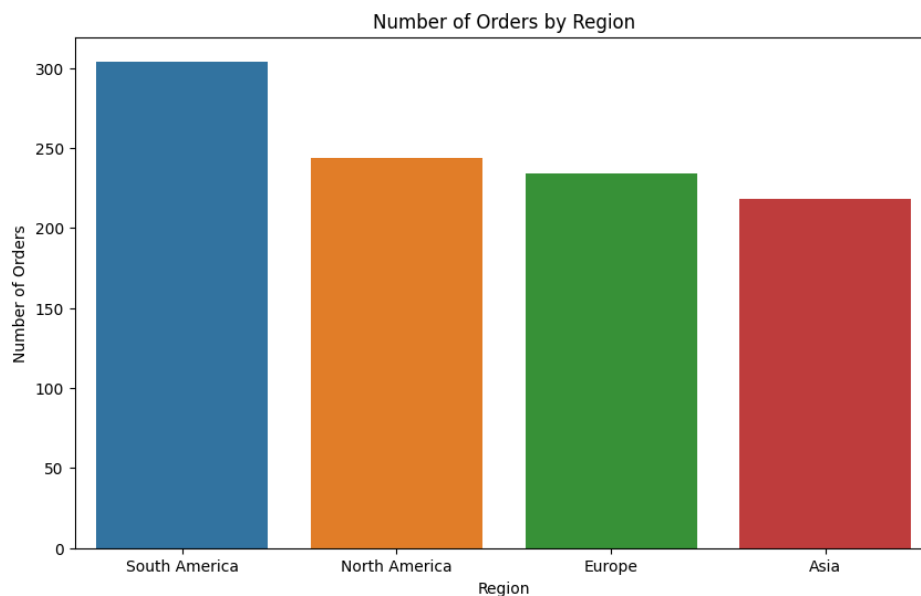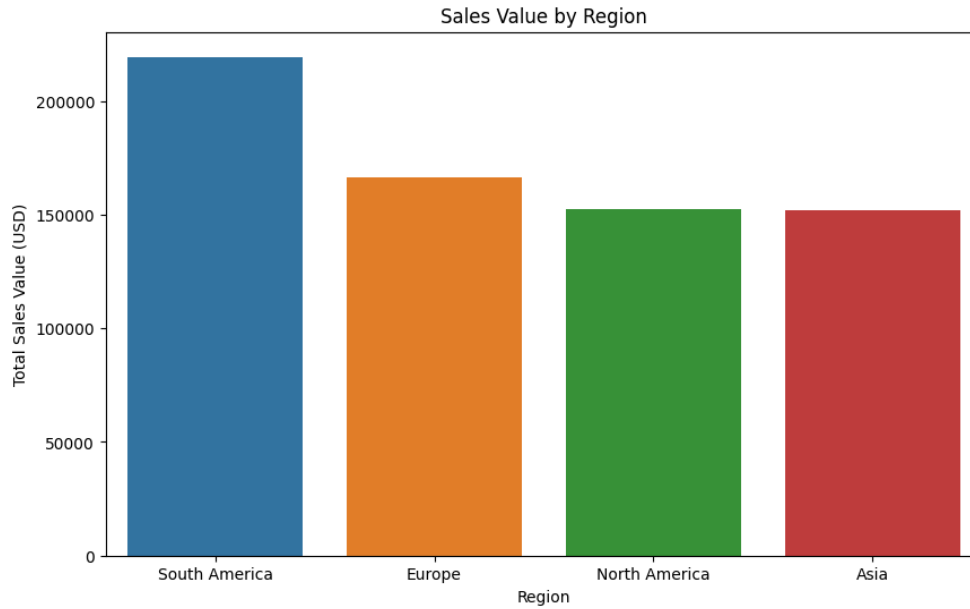
Company is earning the highest revenue in South America and lowest in Asia. Scale of operations also seems to be high in South America because the number of orders is also considerably higher.

5. Top products by orders and revenue

Top 10 Products by Revenue Contribution

Top 10 Products by Order Contribution

**No. of Purchases by Product Category**

These graphs show that electronic items like smartwatch and headphones are major drivers in a company's revenue. These two products alone contribute to around 10 % of earned revenue.

6. Customer loyalty - Repeated purchases by customers

It is very important for companies to create loyal customer bases in order to keep the business stable. One way to check this is to see how many times customers have repeated purchases in the given time period.

Customer Loyalty: Distribution of Repeat Purchases
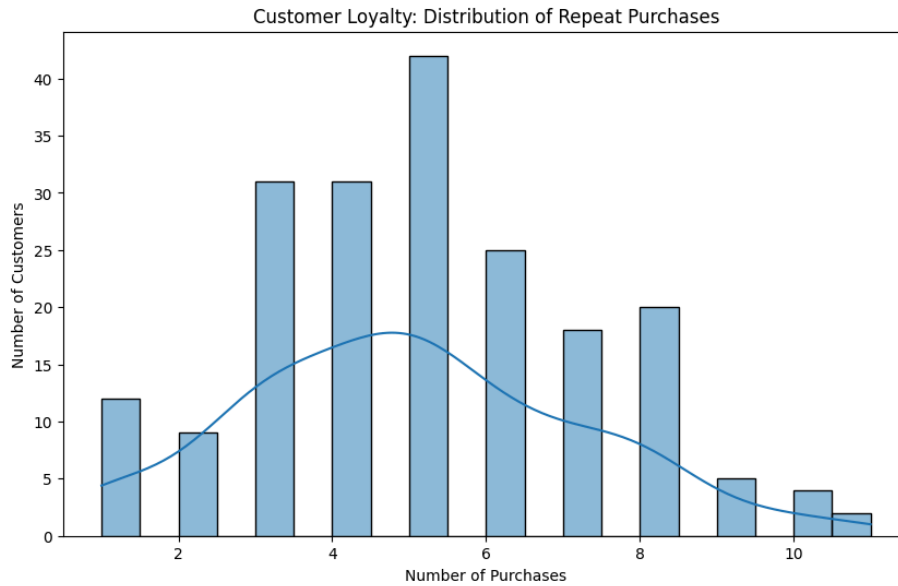
Here , customers with a number of purchases less than 2 are either inactive or new customers. 3 to 6 could be considered as medium loyalty customers and higher than 6 are all highly loyal customers. That is one way to customer segmentation based on loyalty. You can specifically target these 3 groups that way.