

# Customer Segmentation Analysis

-by Manendra Mazumder

In this data-driven e-commerce analysis, our goal is to conduct customer segmentation using comprehensive transaction data. We aim to group customers into distinct segments based on their online shopping behaviors. Through this segmentation, we seek to personalize marketing efforts, optimize product recommendations, and maximize customer retention and satisfaction. The insights gained from this analysis will empower us to create a more tailored and engaging e-commerce experience, ultimately driving higher conversions and fostering long-term customer loyalty in the highly competitive online marketplace.

This dataset contains information related to invoice and sales transactions for a retail company. The dataset consists of the following columns:

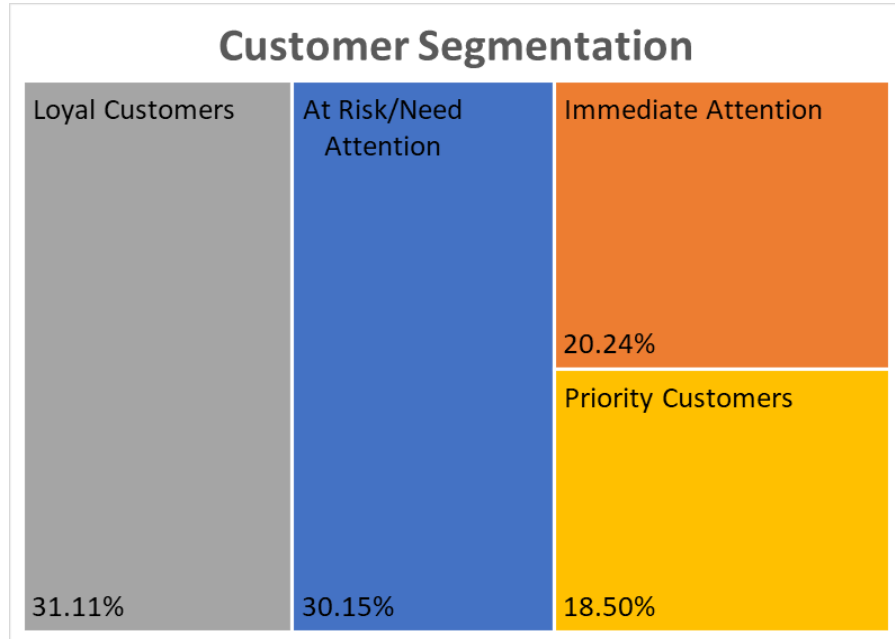
1. **InvoiceNo:** A unique identifier for each invoice or sales transaction.
2. **StockCode:** A code representing the specific item or product sold in the transaction.
3. **Description:** A brief description of the product corresponding to the StockCode.
4. **Quantity:** The quantity of the product sold in the transaction.
5. **InvoiceDate:** The date when the transaction took place. This column provides the date in a standardized format.
6. **InvoiceTime:** The time of the day when the transaction occurred. This column provides the time in a standardized format.
7. **UnitPrice:** The price of a single unit of the product.

8. **CustomerID:** An identifier for the customer who made the purchase. This column helps to track customer-specific purchase behavior.
9. **Country:** The country where the customer made the purchase. This column helps to analyze sales and trends in different regions.

**Technique:** By scoring our customers by recency, frequency and revenue (RFM) we were able to identify 5 major segments for targeting.

1. **Priority Customers (RFM Score: 10, 9, 8):** Customers in this segment have the highest RFM scores, signifying that they are the most valuable and engaged. They have made recent purchases (high recency), frequent transactions (high frequency), and have spent a significant amount (high monetary value). Prioritizing these customers is essential to maintain their loyalty and maximize their lifetime value.
2. **Loyal Customers (RFM Score: 7, 6, 5):** This segment comprises customers who are consistently loyal to the e-commerce platform. While they may not have the highest RFM scores, they still exhibit regular activity and contribute positively to the business. Maintaining their loyalty is crucial for sustainable growth.
3. **At Risk/Need Attention (RFM Score: 4, 3, 2):** Customers falling into this segment exhibit declining engagement levels. Their RFM scores indicate that they are at risk of becoming inactive or churning. Identifying and addressing their needs promptly can help retain their business.
4. **Immediate Attention (RFM Score: 1, 0):** Customers in this segment have the lowest RFM scores, indicating they require immediate attention. They may be inactive, infrequent buyers, or have low monetary value. Re-engaging these customers should be a priority to win back their business.

## Analysis:



## 19% Priority Customers Segment:

Our top customers have purchased an average of **8 times** in the evaluation period, spending an average of **\$7,200** and have purchased within the last **10 days** on average.

## >50% At Risk and Need Immediate Attention Segment:

At Risk Customers are only spending **\$353** and have only purchased **3 times** in **150 days**.

**Recommendations:** Create a target campaign to re-engage our at- risk customers with incentives.

Further analyze our top customers/ loyal customers to maximize earnings.