

Customer Segmentation Report

Introduction

This report provides an overview of customer segmentation based on transactional data. Customers are categorized into three groups: **Prime**, **Sub-Prime**, and **Non-Prime**, using key metrics such as frequency of purchases, Average Order Value (AOV), and recency of transactions. The insights derived from this analysis aim to enhance targeted marketing strategies and optimize customer relationship management.

Customer Category Distribution

The distribution of customers across the three categories is as follows:

Category	Number of Customers
Non-Prime	144
Sub-Prime	54
Prime	1

Segment Metrics

The key metrics for each category are summarized below:

Category	Frequency	AOV	Recency
Non-Prime	4.09	685.44	88.88
Prime	11.00	694.04	13.00
Sub-Prime	7.41	693.16	35.04

Top Customers by Category

The top customers in each category, based on their metrics, are as follows:

Non-Prime

Customer Name	Frequency	AOV	Recency
Nancy Walker	9	588.33	103
Francisco Young	8	726.00	117
Jason Yates	8	289.44	120
Michael Atkinson	8	766.55	117
Jessica Warren	8	392.73	135

Prime

Customer Name	Frequency	AOV	Recency
William Adams	11	694.04	13

Sub-Prime

Customer Name	Frequency	AOV	Recency
Abigail Jones	11	498.84	51
David Li	10	427.16	11
Paul Parsons	10	1067.39	24
Matthew Johnson	10	621.05	38
Gerald Hines	10	766.37	14

Insights and Recommendations

- **Non-Prime Customers:** These customers have low purchase frequency and high recency. Retention strategies such as loyalty programs and promotional campaigns should be implemented to encourage repeat purchases.
- **Sub-Prime Customers:** These customers exhibit moderate purchase frequency and AOV. Focused efforts to upsell or cross-sell relevant products could enhance their lifetime value.
- **Prime Customers:** This small but highly valuable group demonstrates frequent purchases and low recency. Personalized communication and exclusive deals can help maintain their loyalty.

Visualization

The scatter plot in the code illustrates the distribution of customers by category based on frequency and AOV:

Conclusion

The segmentation analysis highlights key customer groups with distinct behaviors. Strategic interventions tailored to each category can help maximize customer retention, revenue, and overall satisfaction.