MARKETING ANALYSIS PROJECT: CUSTOMER SEGMENTATION USING RFM ANALYSIS AND BCG MATRIX

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Contents

I. Abstract

"Customer Segmentation Using RFM Analysis and BCG Matrix" explores the synergistic utilization of RFM (Recency, Frequency, Monetary) analysis and BCG (Boston Consulting Group) Matrix for effective customer segmentation. This study aims to enhance marketing strategies and optimize resource allocation by identifying high-value customer segments and aligning product or service offerings accordingly. Through RFM analysis, customers are classified based on their transactional behavior, while the BCG Matrix helps categorize products or services into distinct quadrants based on market share and growth potential. By integrating these two methodologies, businesses can gain actionable insights, tailor personalized marketing campaigns, and make data-driven decisions to improve customer engagement and overall profitability. This report provides valuable guidance for organizations seeking to adopt an effective customer segmentation approach. Data sources

II. Data of customers

In our current database, there are 114,081 customers utilizing our services and 40 types of RFM. To maximize profitability, it is crucial for us to identify and analyze customer segments effectively, capturing their specific needs and accessing the most valuable sources of customers. By understanding the distinct demands of different customer segments, we can tailor our strategies to meet their requirements and optimize customer acquisition. This data-driven approach will enable us to allocate resources efficiently, target the right audience, and ultimately drive revenue growth.

III. RFM Model

1. RFM Analysis Definition

The RFM model is a marketing analysis technique used to evaluate customer behaviour based on their purchase transactions. It involves analysing three key customer metrics: Recency, Frequency, and Monetary (Value).

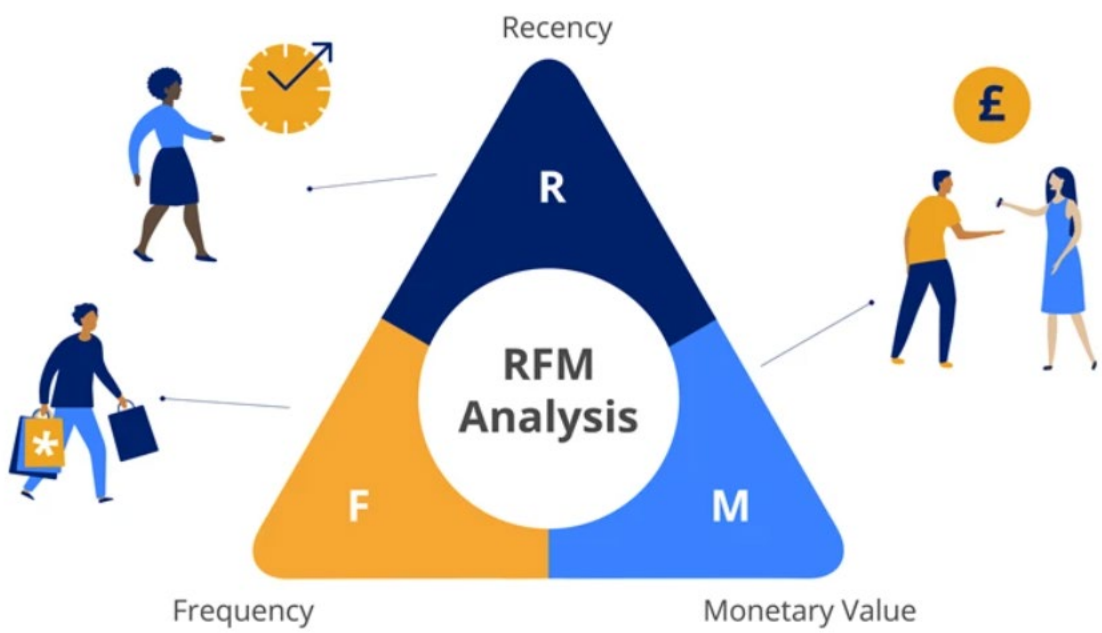

Figure 1: RFM Model

2. Benefits of RFM Model

The RFM (Recency, Frequency, Monetary) model is a powerful tool that offers several benefits for businesses. By leveraging RFM Analytics, companies can gain valuable insights into their customer base, enabling them to make informed decisions and drive growth. Here are some key benefits of the RFM model:

1. Capturing Target Customers: RFM Analytics allows businesses to identify their most loyal customers and understand customer satisfaction levels. It also helps in recognizing customers who may have discontinued their engagement with the business. By capturing the target audience effectively, businesses can develop tailored strategies to retain existing customers and attract new ones.

2. Increasing Sales: The RFM model enables businesses to consider customer needs and desires through its three key elements: recency, frequency, and monetary value. By analyzing these factors, businesses can refine their marketing techniques and align them with customer preferences. This understanding ultimately leads to an improved business strategy and increased sales.

3. Retaining Old Customers: With RFM Analytics, businesses can categorize their customers into various segments based on their behaviors and preferences. The number of categories can be determined by the business's quality and the analyst's capabilities. By identifying which leads to pursue and which customers are at risk of leaving, businesses can implement appropriate actions and customized strategies. For example, potential customers may be offered vouchers, while customers at risk of leaving can be targeted with promotional emails. This personalized approach helps in retaining old customers and building long-term relationships.

4. Applying the 80/20 Rule: The RFM model aligns with the 80/20 Rule, also known as the Pareto Principle. This rule suggests that 80% of the effects can be attributed to 20% of the causes in a particular event or scenario. In the business context, it often signifies that 80% of the revenue is generated by 20% of the total customers. By applying the 80/20 Rule through the RFM model, decision-makers can focus on the most impactful factors affecting their resources. This allows businesses to prioritize their efforts, optimize resource allocation, and drive better outcomes.

In conclusion, the RFM model offers significant benefits for businesses. It helps in capturing target customers, increasing sales through personalized strategies, retaining old customers through customized actions, and applying the 80/20 Rule to prioritize resources effectively. By leveraging RFM Analytics, businesses can gain a competitive edge and achieve sustainable growth in today's dynamic market environment.

3. RFM calculation method

Using the RFM model, I graded the customer by assigning a score to each of the three metrics (R, F and M). The scores were assigned on a scale from 1 to 4, with a higher score indicating a higher level of engagement or value.

The table indicates the meaning of each score for each of the three metrics:

Metric	1	2	3	4
R	Long time ago	Some time ago	Recent	Very recent
F	Rarely	Occasionally	Frequently	Very frequently
M	Spent little or none	Spent a reasonable amount	Spent a moderate amount	Spent a large amount

Table 1: RFM Customer Segmentation

To assess customer behaviour and segmentation, the calculation method employed in this analysis involved the following steps. The first step was to calculate the indexes of Recency, Frequency, and Monetary (RFM). Recency was determined by obtaining the latest maximum date of the transaction and calculating the date difference using September 1, 2022, as the reference point. Frequency was derived by dividing the count of distinct purchase dates by the number of years in the contract. Monetary was calculated as the ratio of the sum of the gross merchandise value (GMV) divided by the number of years in the contract.

Next, the IQR (Interquartile Range) method was applied to score the indicators of Recency, Frequency, and Monetary. This scoring allowed for the identification of the relative positions of these indicators within the dataset. Based on this scoring, the three indicators (R, F, and M) were combined into RFM.

By analysing the RFM groups, the combination of Recency, Frequency, and Monetary that accounted for most of the customer behaviour was determined. This insight provided a deeper understanding of customer preferences and engagement patterns, allowing for the identification of key segments within the dataset.

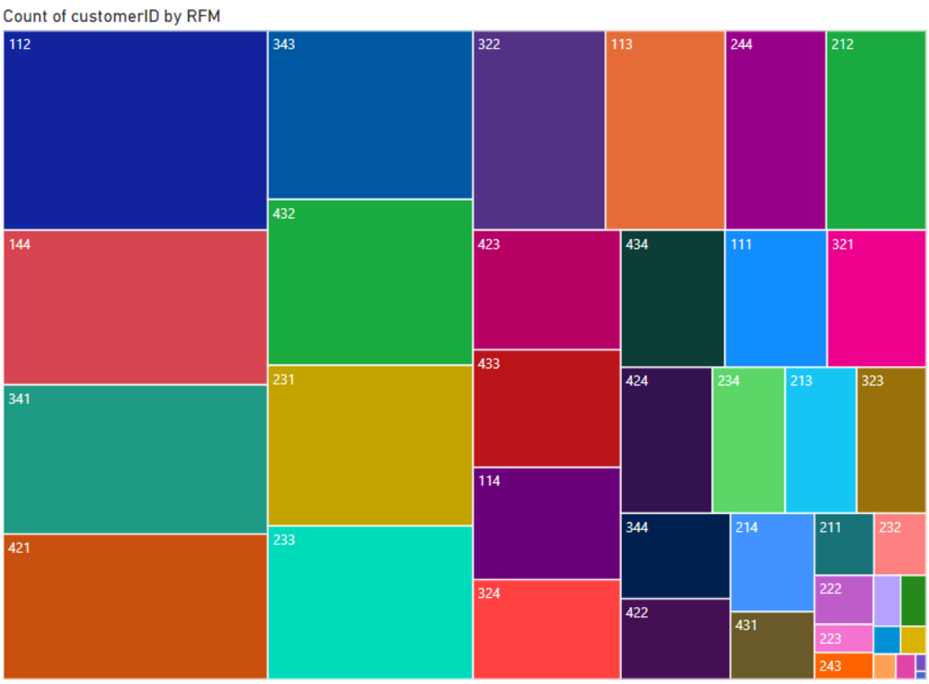

Figure 2: Tree map of RFM Analysis

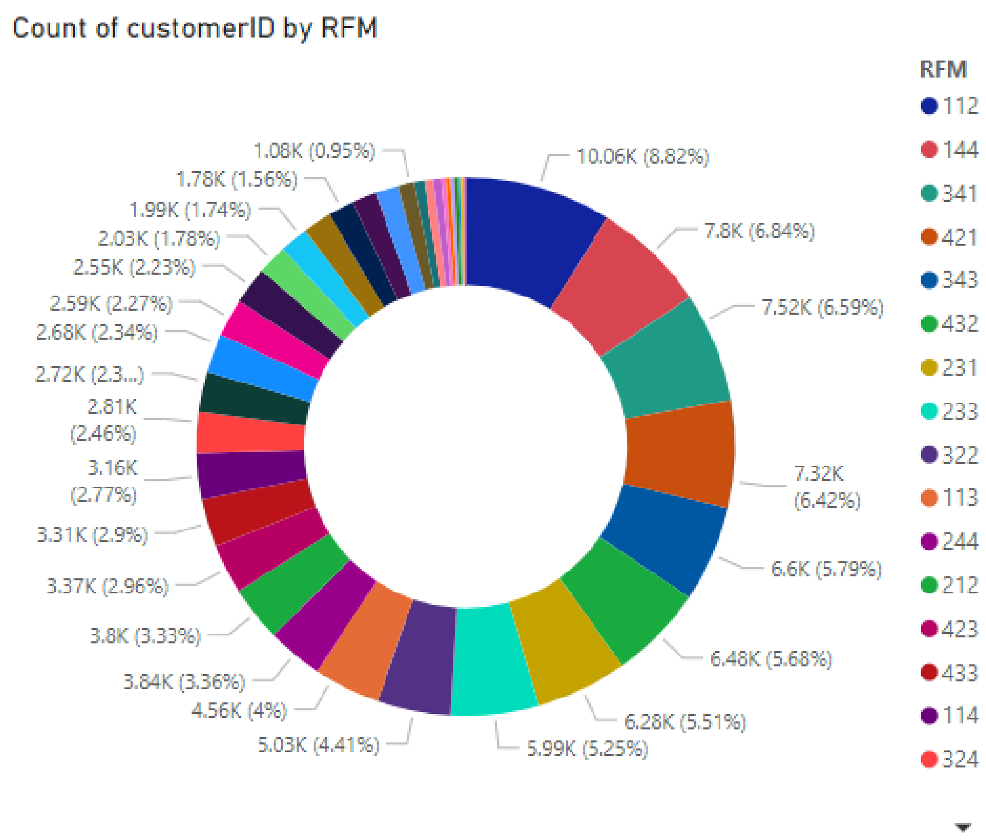

Figure 3: Donut chart for RFM

IV. BCG Matrix

The BCG matrix is a business analysis tool that divides products into four categories based on their market share and growth rate:

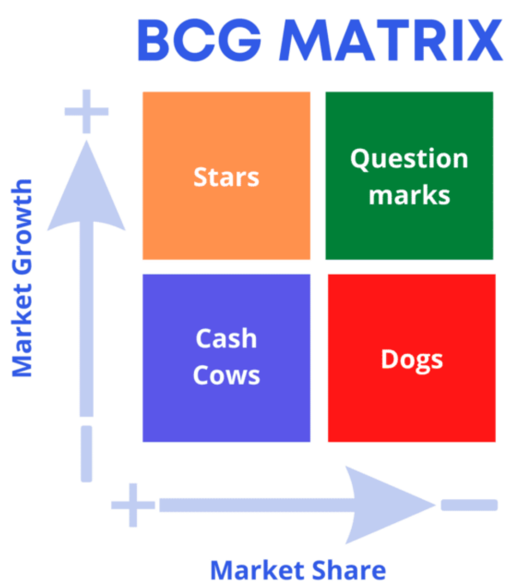

Figure 4: BCG Matrix

- Stars: Products that have a high market share in a growing market. These products are the company's future.
- Cash cows: Products that have a high market share in a market with low growth. These products generate stable revenue.
- Question marks: Products that have a low market share in a growing market. These products require investment to increase their market share, but also have the potential to become stars.
- Dogs: Products that have a low market share in a market with low growth. These products are not likely to become profitable in the future.

Segmentation	R	F	M	Description
Star	3	2-4	1-2-3-4	Loyal customers
Question Mark	1-2	1-2	1-2-3-4	Potential loyalists
Cash Cow	1-2	3-4	1-2-3-4	Low value customers
Dog	1-4	2-3-4	1-2-3-4	Lost customers

Table 2: Customer Segmentation using BCG matrix and RFM Model

V. CUSTOMER SEGMENTATION

Based on the RFM analysis, we have classified the customers into the following BCG matrix groups:

1. Loyal customers (Stars):

Customers in this group have demonstrated high engagement and have made frequent and recent purchases. They contribute significantly to the business's revenue and have a strong affinity for the brand. The customers classified as loyal include RFM points: 321, 322, 323, 324, 341, 342, 343, and 344.

Loyal customers (Stars) are a valuable segment that requires special attention. To reward their loyalty, businesses should offer exclusive benefits, rewards, or discounts. This can further strengthen their engagement and encourage repeat purchases. Personalized communication is crucial for this segment, as providing tailored offers based on their purchase history can enhance their overall experience and make them feel valued. Additionally, utilizing upselling and cross-selling techniques to recommend complementary products or upgrades can increase their average order value. Requesting reviews and referrals from loyal customers can also help leverage their positive experiences to attract new customers and enhance the brand's reputation.

2. Potential loyalists (Question Marks):

Potential loyalists are customers who have shown promising engagement and transactional behavior but have not yet reached the same level of loyalty as the loyal customers. They have the potential to become loyal customers with the right strategies and incentives. The customers classified as potential loyalists include RFM points: 112, 113, 114, 211, 212, 213, 214, 221, 222, 223, and 224.

Potential loyalists (Question Marks) represent customers who have shown promising engagement and transactional behavior but haven't reached the same level of loyalty as the loyal customers. For this segment, it is important to nurture relationships by providing personalized content and communications. Offering special promotions or incentives can create a sense of urgency and motivate them to make additional purchases, gradually solidifying their loyalty. Collecting feedback is crucial in understanding their needs and preferences, enabling businesses to tailor their offerings accordingly. Targeted marketing campaigns can effectively showcase the value and benefits of becoming a loyal customer, influencing potential loyalists to engage more with the brand and eventually transition into the loyal customer segment.

3. Low-value customers (Cash Cows):

Customers in this group may have made several purchases, but their monetary value is relatively low. While they contribute to overall sales volume, their impact on profitability is limited. The customers classified as low value include RFM points: 141, 142, 143, 231, 232, 233, 234, 241, 242, and 243.

Low-value customers (Cash Cows) may have made several purchases, but their monetary value is relatively low. To increase their average order value, businesses can offer product bundles or discounts for larger orders. Introducing premium or higher-priced products can also encourage these customers to upgrade their purchases, thereby increasing their overall value. Customer reactivation strategies are essential for this segment, as identifying opportunities to reactivate dormant customers through targeted promotions or personalized recommendations can help boost their engagement and potentially increase their value. Upselling and cross-selling techniques can be employed to recommend complementary or higher-value products, further maximizing their transaction value.

4. Lost customers (Dogs):

Lost customers are those who have not made a purchase for an extended period and have disengaged from the brand. Although they were once active, they no longer contribute significantly to revenue. The customers classified as lost include RFM points: 144, 244, 421, 422, 423, 424, 431, 432, 433, and 434.

Lost customers (Dogs) are customers who have not made a purchase for an extended period and have disengaged from the brand. To win back these customers, businesses should implement win-back campaigns with personalized offers and incentives. These campaigns should aim to reignite their interest and remind them of the value and benefits they can derive from the brand. Collecting feedback from lost customers is vital in understanding the reasons behind their disengagement and making necessary improvements. Re-engagement strategies, such as targeted campaigns and personalized messaging, should be utilized to address any concerns or issues they may have had in the past, rebuilding their trust and loyalty to the brand.

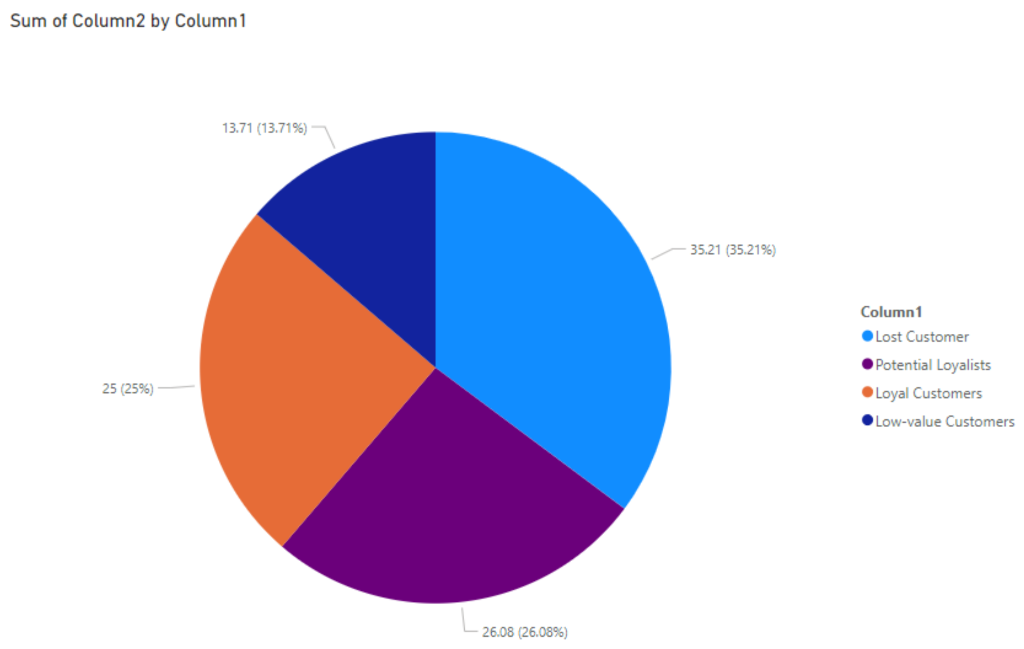

Figure 5: Pie chart BCG matrix

VI. MARKETING ACTIONS FOR COMPANY FROM INSIGHTS

1. Loyal Customers (25%)

- Acknowledge the importance of the loyal customer segment and their contribution to the company's revenue.
- Continue to prioritize and invest in strategies to retain and nurture these loyal customers.
- Allocate resources to maintain personalized communication, exclusive benefits, and rewards to strengthen their loyalty.
- Monitor and track key performance indicators (KPIs) related to loyal customers, such as retention rate and average order value.
- Consider expanding loyalty programs and incentives to further enhance customer satisfaction and brand advocacy.

2. Potential Loyalists (26.08%)

- Recognize the potential value of this segment and the opportunity to convert them into loyal customers.
- Develop targeted marketing campaigns to engage and educate potential loyalists about the brand's value proposition.
- Implement lead nurturing programs to build relationships and move them along the customer journey.
- Leverage data and analytics to understand their preferences and tailor personalized offers and recommendations.
- Monitor conversion rates from potential loyalists to loyal customers and continuously optimize strategies for better results.

3. Low-value Customers (13.71%)

- Identify the potential for growth and revenue optimization within the low-value customer segment.
- Analyze their purchasing behavior to identify opportunities for increasing their average order value.
- Implement pricing strategies, product bundles, or incentives to encourage larger purchases and upselling.
- Explore options for product or service upgrades to drive higher value transactions from this segment.
- Continuously assess the effectiveness of campaigns targeting low-value customers and refine strategies accordingly.

4. Lost Customers (35.21%)

- Address the high percentage of lost customers as a priority area for improvement.
- Develop win-back campaigns specifically tailored to this segment to re-engage and reactivate their interest.
- Conduct customer surveys or feedback initiatives to identify the reasons for disengagement and make necessary improvements.
- Offer attractive incentives, personalized offers, or discounts to entice lost customers to return.
- Set goals and KPIs to track the success of win-back campaigns and monitor customer reactivation rates.