RFM Segmentation Strategy:

Enhancing Customer Engagement and Marketing Effectiveness through Group Classification.

Executive Summary:

This report presents a comprehensive data analysis of RFM (Recency, Frequency, Monetary) using a Customer 360 approach. The raw data was transformed into distinct groups labeled as star, question mark, cow, and dog. The primary objective of this analysis is to facilitate targeted marketing strategies by categorizing customers into the aforementioned groups. By doing so, Customer Service Representatives can effectively cater to the unique needs of each category, while the marketing team gains insights into suitable campaigns for potential customers (star, question mark). Additionally, efforts are directed towards maintaining the loyalty and revenue generation from the cow group to ensure sustainable business growth.

Table Of Contents

2 Introduction

2.1 Background and Context

The background and context of the analysis being conducted revolve around [industry/company/problem]. In this analysis, we aim to delve into the [industry/company/problem] to gain valuable insights and make informed decisions.

2.2 Objectives of the Report

By understanding the nuances of [industry/company/problem], we seek to uncover patterns, trends, and opportunities that can drive strategic actions and enhance performance. This analysis is crucial in navigating the complexities of [industry/company/problem] and staying competitive in the ever-evolving market landscape.

3 Methodology

3.1 About Data

No.	Columns Name	Description
1	Transaction_ID	This column represents a unique identifier assigned to each transaction. It helps in tracking and distinguishing individual transactions within the dataset.
2	CustomerID	The CustomerID column contains unique identifiers for each customer. It links transactions to specific customers, allowing for customer-level analysis and segmentation.
3	Purchase_Date	Purchase Date indicates the date on which the transaction took place. It provides information about the timing of purchases, which can be used for analyzing trends and seasonality.
4	GMV	GMV represents the total value of goods sold in a transaction before any deductions. It is a key metric for assessing the revenue generated from sales transactions and understanding the financial performance of the business.

Table name: Customer Transaction

No.	Columns Name	Description
1	ID	This column likely represents a unique identifier or primary key for each record in the table. It serves as a reference point for identifying and differentiating individual entries.
2	Contract	The Contract column may contain information related to the contractual agreements or terms associated with the customer registration. It could include details such as contract types or durations.
3	LocationID	LocationID is a column that likely stores identifiers for specific locations or branches. It helps in associating customer registrations with particular geographical locations.
4	BranchCode	BranchCode may refer to a code or identifier assigned to different branches or divisions within the organization. It helps in categorizing customer registrations based on the branch they are associated with.
5	Status	The Status column likely indicates the current status of the customer registration, such as active, inactive, pending, etc. It provides insights into the current state of the registered customers.
6	Created_date	Created date represents the date when the customer registration entry was created or recorded in the system. It helps in tracking the timeline of customer registrations.
7	Stopdate	Stopdate could signify the date when the customer registration ceased or was terminated. It provides information on the end date of the customer's registration status.

Table name: Customer Registered

3.2 Customer 360

360° Customer" refers to a holistic approach that involves gathering and integrating data from all touchpoints and interactions with a customer to create a complete and unified view of the customer.

Here is a brief description of the four criteria:

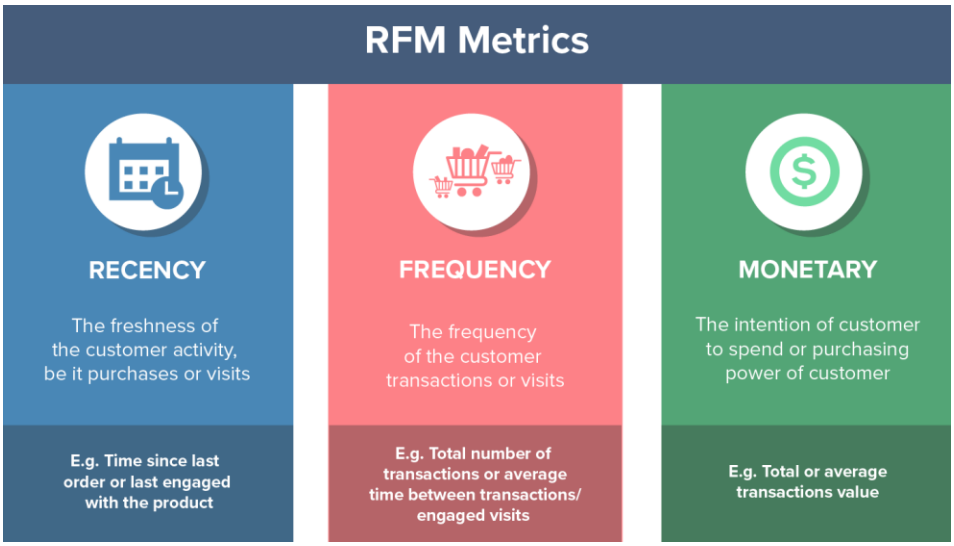
a. **Demographics Data**: Information related to the characteristics of a population or specific group, such as age, gender, income, education, etc.

b. **Transaction Data**: Records of financial activities or exchanges between parties, including purchases, sales, and other monetary transactions.

c. **Behavioral Data**: Data that reflects how individuals act or behave, including their actions, preferences, and patterns of interaction with products or services.

d. **Interaction Data**: Information on how individuals engage or interact with various platforms, systems, or channels, such as website clicks, social media interactions, or communication with customer service representatives**.**

3.3 RFM metrics



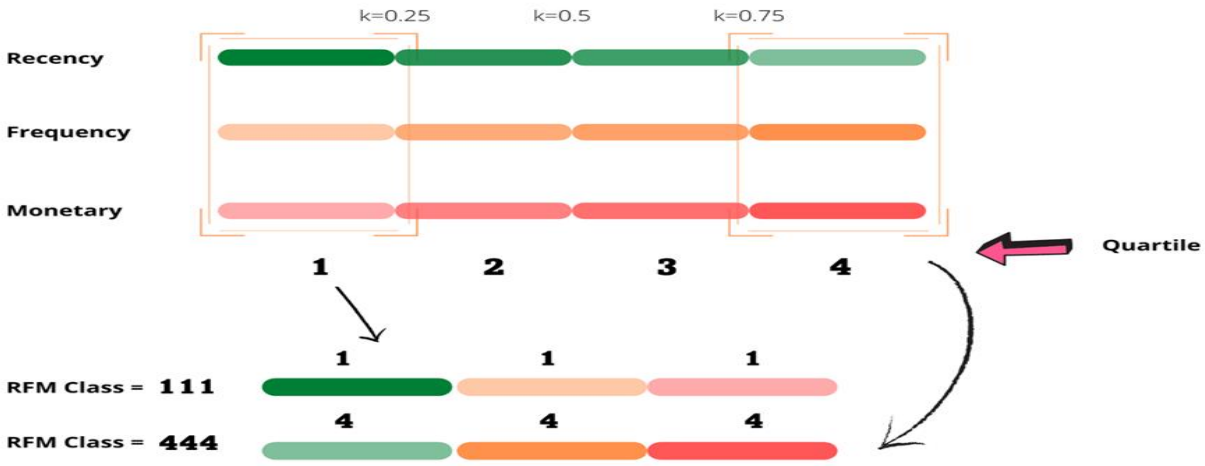
RFM analysis helps marketers find answers to the following questions:

- Who are your best customers?
- Which of your customers could contribute to your churn rate?
- Who has the potential to become valuable customers?
- Which of your customers can be retained?
- Which of your customers are most likely to respond to engagement campaigns?
-

Recency (blue column): It measures the time since the customer's last activity, such as a purchase or engagement with the product.

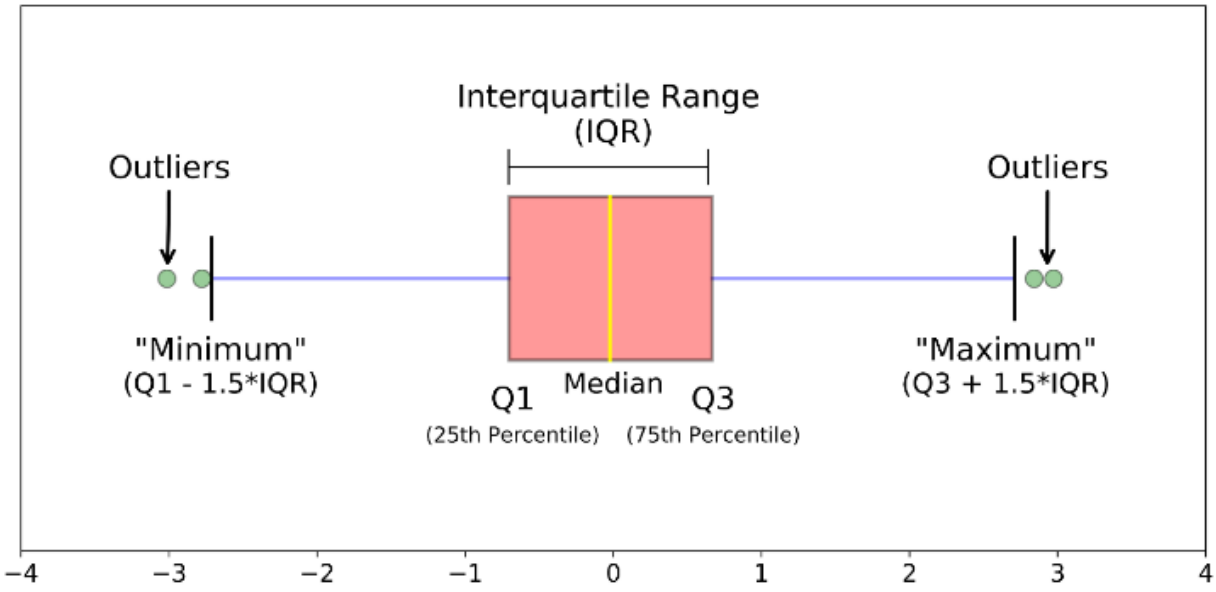
Frequency (red column): It indicates how often the customer makes transactions or visits.

Monetary (green column): It reflects the customer's spending or purchasing power**.**



For each variable (R, F, M), we divide them into groups from 1 to 4, where group 4 represents the highest values and group 1 represents the lowest values. Specifically for R, a score of 4 means that the customer has recently made a purchase, while a score of 1 indicates that the customer has not had any transactions with the business for a long time.

3.4 RFM Analysis Using Statistics



The quartile in statistics is a way of dividing data into four equal parts based on their order. Specifically, the quartiles divide the data into four parts with an equal number of observations, meaning each part contains 25% of the total observations.

There are three values in quartiles, namely the first quartile (Q1), the second quartile (Q2), and the third quartile (Q3). These three values divide a dataset (sorted in ascending order) into four parts with an equal number of observations.

Assuming the dataset has n observations:

- The first quartile is calculated by the formula Q1 = 25 * (n+1) / 100.

- The second quartile, which is the median value, is Q2 = (n+1) / 2.

- The third quartile is calculated by the formula Q3 = 75 * (n+1) / 100.

By using this, the interval R,F,M of which customers belong to can be defined.

4 Calculation of R, F, M

4.1 Recency Analysis

To calculate the recency analysis, need to find the difference between the report date and the customer's last purchase date :

'report date – last date of purchase (see output at 4.5)

4.2 Frequency Analysis

Frequency analysis involves examining how often customers make purchases. You can calculate this by looking at the number of purchases made by each customer within a certain period:

Number of purchases made by each customer / ('report date' – 'created date') / 365.25 (see output at 4.5)

4.3 Monetary Analysis

Monetary analysis focuses on the amount of money customers spend on purchases. You can calculate this by looking at the total monetary value of purchases made by each customer.:

Total GMV generated by each customer / ('report date' – 'created date') / 365.25 (see output at 4.5)

4.5 Output

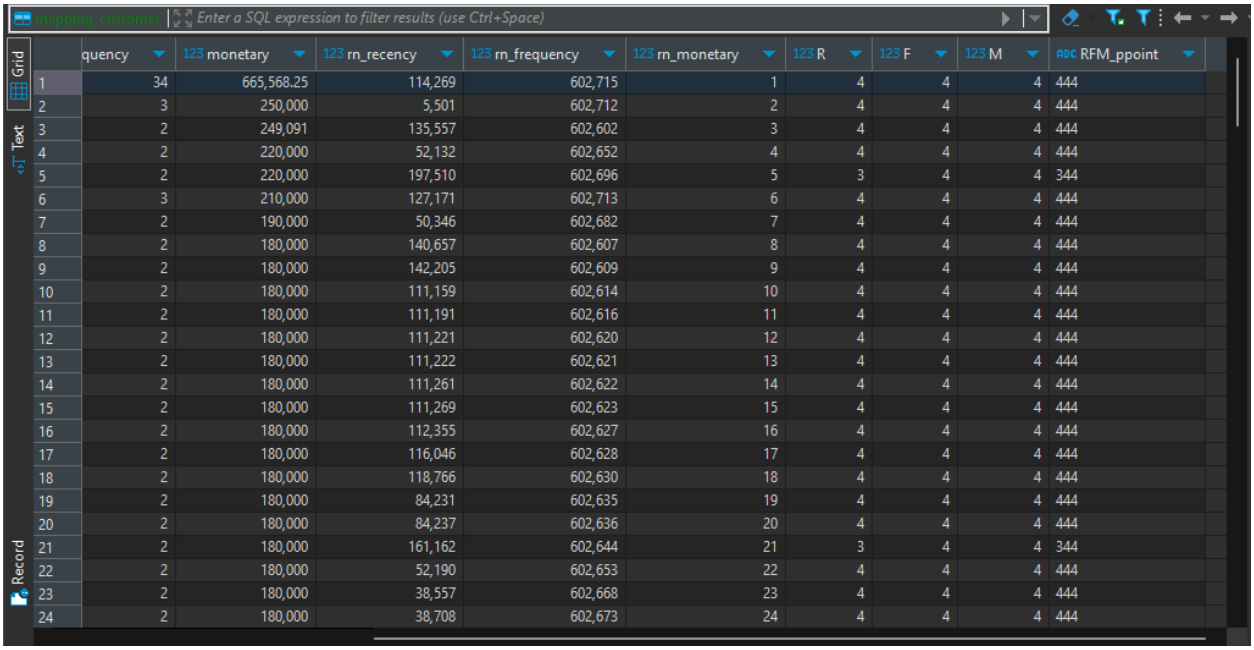
This is the output for calculating R,F,M.

	customerid	contract	recency	frequency	monetary
1	3,279,158	BTFD52612	31	34	665,568.25
2	3,283,422	SGJ059875	31	3	250,000
3	3,282,803	BGAAA8941	31	2	249,091
4	3,285,613	TNAAA6344	31	2	220,000
5	3,283,041	PYAAA2257	31	2	220,000
6	3,284,029	HNH090987	31	3	210,000
7	3,283,091	TIAAA6428	31	2	190,000
8	3,282,705	BLAAA2046	31	2	180,000
9	3,283,176	BNAAB0295	31	2	180,000
10	3,283,749	HNAAR1641	31	2	180,000
11	3,284,832	HNAAR2093	31	2	180,000
12	3,284,244	HNAAR2379	31	2	180,000
13	3,285,368	HNAAR2404	31	2	180,000
14	3,284,455	HNAAR2936	31	2	180,000
15	3,284,089	HNAAR3036	31	2	180,000
16	3,284,457	BTD016481	31	2	180,000
17	3,285,050	CTFD05303	31	2	180,000
18	3,284,254	DAD033216	31	2	180,000
19	3,284,007	DNAAC4194	31	2	180,000
20	3,282,974	DNAAC4293	31	2	180,000
21	3,284,323	HPAAB8685	31	2	180,000
22	3,283,609	TND013929	31	2	180,000
23	3,284,782	SGAAR4444	31	2	180,000

This is output for preparing using quartile statistics then group them into 1 to 4. Rank each value of R,F,M to be unique value

	ustomerid	contract	recency	frequency	monetary	rn_recency	rn_frequency	rn_monetary
1	3,279,158	BTFD52612	31	34	665,568.25	114,269	602,715	1
2	3,283,422	SGJ059875	31	3	250,000	5,501	602,712	2
3	3,282,803	BGAAA8941	31	2	249,091	135,557	602,602	3
4	3,285,613	TNAAA6344	31	2	220,000	52,132	602,652	4
5	3,283,041	PYAAA2257	31	2	220,000	197,510	602,696	5
6	3,284,029	HNH090987	31	3	210,000	127,171	602,713	6
7	3,283,091	TIAAA6428	31	2	190,000	50,346	602,682	7
8	3,282,705	BLAAA2046	31	2	180,000	140,657	602,607	8
9	3,283,176	BNAAB0295	31	2	180,000	142,205	602,609	9
10	3,283,749	HNAAR1641	31	2	180,000	111,159	602,614	10
11	3,284,832	HNAAR2093	31	2	180,000	111,191	602,616	11
12	3,284,244	HNAAR2379	31	2	180,000	111,221	602,620	12
13	3,285,368	HNAAR2404	31	2	180,000	111,222	602,621	13
14	3,284,455	HNAAR2936	31	2	180,000	111,261	602,622	14
15	3,284,089	HNAAR3036	31	2	180,000	111,269	602,623	15
16	3,284,457	BTD016481	31	2	180,000	112,355	602,627	16
17	3,285,050	CTFD05303	31	2	180,000	116,046	602,628	17
18	3,284,254	DAD033216	31	2	180,000	118,766	602,630	18
19	3,284,007	DNAAC4194	31	2	180,000	84,231	602,635	19
20	3,282,974	DNAAC4293	31	2	180,000	84,237	602,636	20
21	3,284,323	HPAAB8685	31	2	180,000	161,162	602,644	21
22	3,283,609	TND013929	31	2	180,000	52,190	602,653	22
23	3,284,782	SGAAR4444	31	2	180,000	38,557	602,668	23

For each variable (R, F, M), we divide them into groups from 1 to 4, where group 4 represents the highest values and group 1 represents the lowest values. Specifically for R, a score of 4 means that the customer has recently made a purchase, while a score of 1 indicates that the customer has not had any transactions with the business for a long time.

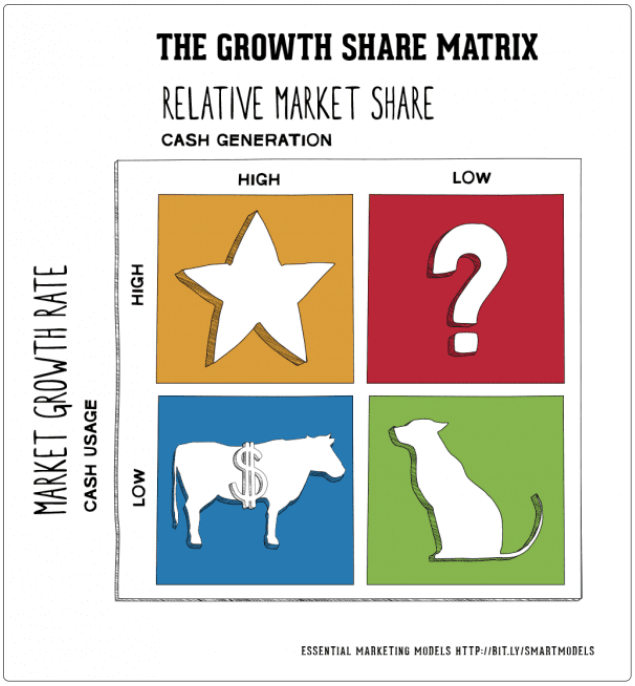


Enter a SQL expression to filter results (use Ctrl+Space)

	quency	monetary	rn_recency	rn_frequency	rn_monetary	R	F	M	RFM_ppoint
1	34	665,568.25	114,269	602,715	1	4	4	4	444
2	3	250,000	5,501	602,712	2	4	4	4	444
3	2	249,091	135,557	602,602	3	4	4	4	444
4	2	220,000	52,132	602,652	4	4	4	4	444
5	2	220,000	197,510	602,696	5	3	4	4	344
6	3	210,000	127,171	602,713	6	4	4	4	444
7	2	190,000	50,346	602,682	7	4	4	4	444
8	2	180,000	140,657	602,607	8	4	4	4	444
9	2	180,000	142,205	602,609	9	4	4	4	444
10	2	180,000	111,159	602,614	10	4	4	4	444
11	2	180,000	111,191	602,616	11	4	4	4	444
12	2	180,000	111,221	602,620	12	4	4	4	444
13	2	180,000	111,222	602,621	13	4	4	4	444
14	2	180,000	111,261	602,622	14	4	4	4	444
15	2	180,000	111,269	602,623	15	4	4	4	444
16	2	180,000	112,355	602,627	16	4	4	4	444
17	2	180,000	116,046	602,628	17	4	4	4	444
18	2	180,000	118,766	602,630	18	4	4	4	444
19	2	180,000	84,231	602,635	19	4	4	4	444
20	2	180,000	84,237	602,636	20	4	4	4	444
21	2	180,000	161,162	602,644	21	3	4	4	344
22	2	180,000	52,190	602,653	22	4	4	4	444
23	2	180,000	38,557	602,668	23	4	4	4	444
24	2	180,000	38,708	602,673	24	4	4	4	444

5. BCG Matrix, Customer Group Classification

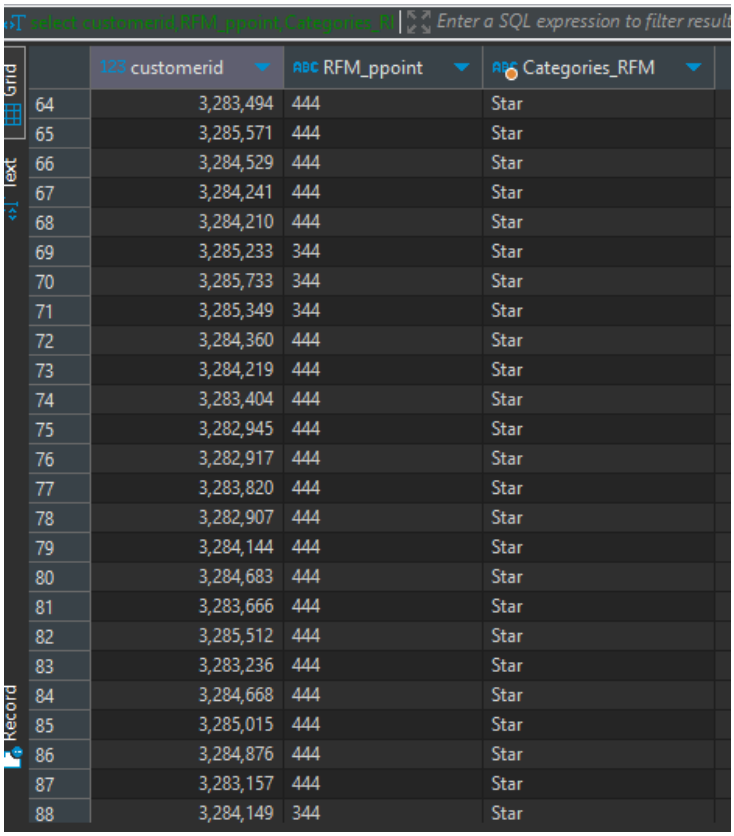
5.1 BCG Matrix Categorization



Dog	a low market share in a low-growth market. They typically do not generate much revenue and may even operate at a loss. Companies are advised to consider discontinuing or divesting dogs unless they serve a strategic purpose such as complementing other products or maintaining customer relationships.
Cow	a high market share in a low-growth market. They are considered cash cows because they generate a steady stream of income with minimal investment required. Companies often use the profits from cash cows to invest in other products or services with higher growth potential.
Question mark	As the name suggests, it's not known if they will become a star or drop into the dog quadrant. These products often require significant investment to push them into the star quadrant. The challenge is that a lot of investment may be required to get a return.
Star	Can be the market leader though require ongoing investment to sustain. They generate more ROI than other product categories.

5.2 Customer Group Classification

150588	260472	112422	75967
Star	Question Mark	Cow	Dog



	customerid	RFM_ppoint	Categories_RFM
64	3,283,494	444	Star
65	3,285,571	444	Star
66	3,284,529	444	Star
67	3,284,241	444	Star
68	3,284,210	444	Star
69	3,285,233	344	Star
70	3,285,733	344	Star
71	3,285,349	344	Star
72	3,284,360	444	Star
73	3,284,219	444	Star
74	3,283,404	444	Star
75	3,282,945	444	Star
76	3,282,917	444	Star
77	3,283,820	444	Star
78	3,282,907	444	Star
79	3,284,144	444	Star
80	3,284,683	444	Star
81	3,283,666	444	Star
82	3,285,512	444	Star
83	3,283,236	444	Star
84	3,284,668	444	Star
85	3,285,015	444	Star
86	3,284,876	444	Star
87	3,283,157	444	Star
88	3,284,149	344	Star

7. Implementation Recommendations

The implementation recommendations section provides practical guidance on how to execute the marketing strategies and customer group classifications outlined in the report. It includes actionable steps for integrating the insights into the company's operations, implementing targeted campaigns, and enhancing customer retention efforts based on the analysis conducted.

8. Conclusion

The analysis conducted in this report underscores the importance of leveraging RFM analysis and customer group classifications to tailor marketing strategies for different customer segments effectively.

By implementing targeted campaigns for the Star and Question Mark groups and focusing on retention strategies for the Cow group, companies can optimize their marketing efforts and enhance customer engagement.

In conclusion, the insights derived from this report have the potential to drive significant improvements in customer targeting, retention, and overall marketing performance when implemented thoughtfully and strategically.