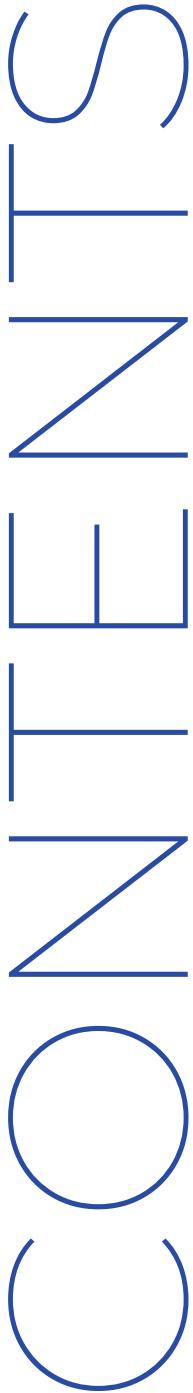# CUSTOMER ANALYTICAL REPORT

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JULY, 2023

This report applies the RFM model to conduct customer segmentation analysis based on transaction data. Four distinct customer segments are identified and providing actionable recommendations for optimizing marketing strategies.

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INTRODUCTION

Segmentate existing customers according to their transaction in the 3rd quarter of 2022

Purpose: Plan for build customer service strategy, characterized by segmentation, to boost sales in the 4th quarter & whole year. This report provides customer segmentation analysis based on RFM model, focusing on customer behavior through transaction data. Accordingly, customers are characterized into 4 segments with insights and suggesting actionable recommendations.

ABOUT CUSTOMER 360

Customer 360, also known as 360-degree customer view or 360-degree customer profile, refers to a complete and unified view of each customer by consolidating data from multiple sources. It enables organizations to understand customer preferences, behaviors, and needs, leading to personalized experiences and improved decision-making.

There are some benefits when applying Customer 360:
- It acts as the single source of truth
- It prevents data silos from forming
- It enables teams to provide more personalized customer experiences

RFM ANALYSIS

RFM (Recency, Frequency, Monetary) analysis is a popular method used to segment customers based on their purchasing behavior and it is usually used in customer relationship management (CRM). It helps identify different customer segments by analyzing three key metrics:

1. Recency: The time elapsed since the customer's last purchase.
2. Frequency: The number of purchases made by the customer within a specific timeframe.
3. Monetary: The total amount of money spent by the customer within a specific timeframe.

_____
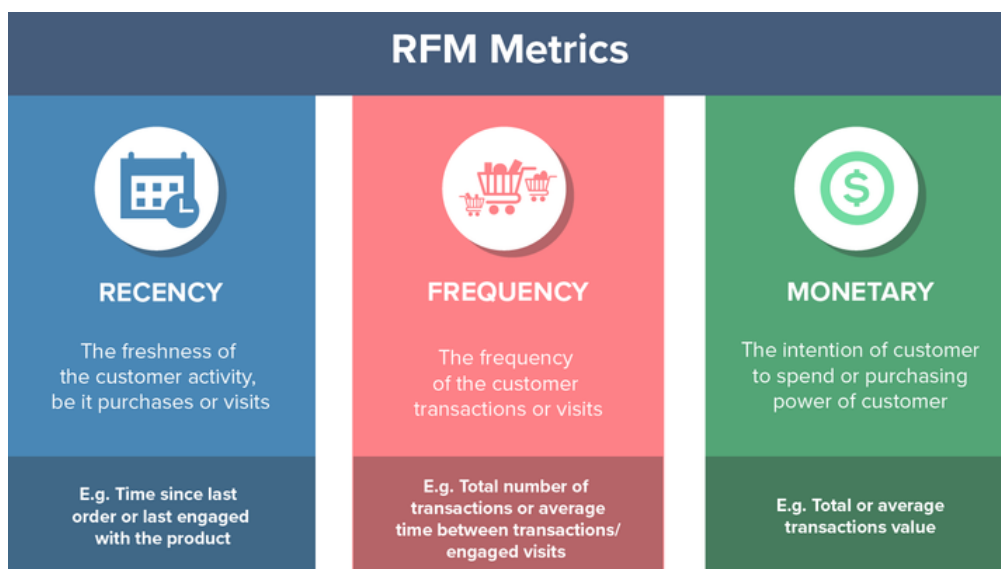
- Recency reflects how recently a customer has interacted or made a purchase from the business. Customers with a more recent purchase are often considered more engaged and potentially more valuable.
- Frequency indicates the level of customer loyalty and engagement. Customers with a higher frequency of purchases are typically more loyal and may have a stronger relationship with your brand.
- Monetary quantifies the customer's value in terms of revenue generated. Customers with higher monetary values often contribute more to your business's bottom line.

RFM RANK SCORE

The data is compiled from 942,339 customers, with transaction data spanning from June 01, 2022, to August 31, 2022 (3 months in the 3rd quarter 2022)

01 RECENCY

Score 1: Last transaction was at least 92 days ago.
Score 2: Last transaction was between 62 and 91 days ago.
Score 3: Last transaction was between 31 and 61 days ago.
Score 4: Last transaction was between 1 and 30 days ago.

02 FREQUENCY (Monetary > 0)

Score 1: First quartile in boxplot
Score 2: Second quartile in boxplot
Score 3: Third quartile in boxplot
Score 4: Fouth quartile in boxplot

03 MONETARY

Score 1: First quartile in boxplot
Score 2: Second quartile in boxplot
Score 3: Third quartile in boxplot
Score 4: Fouth quartile in boxplot

→ **We got 50 groups of RFM**

To effectively analyze customer groups and allocate resources, this report is based on the BCG (Boston Consulting Group) matrix or market share growth matrix and divide into 4 groups:

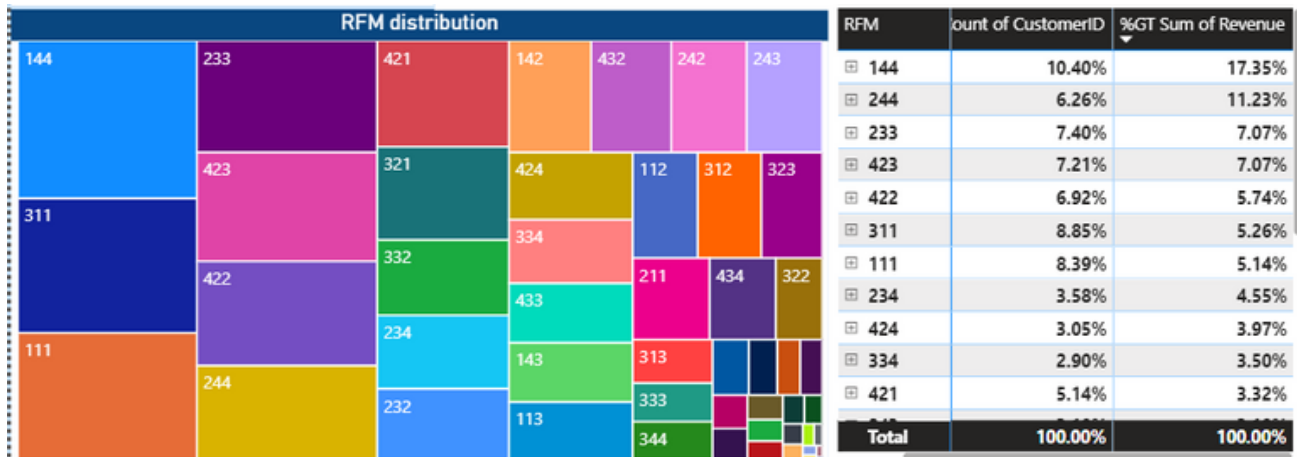| SEGMENTS	RFM COMBINATION	COMMENT
Star/Vip	233,234,243,333,334, 343,344,433,434,443 ,444	These are the most potentially profitable consumer segments that contribute the most value. They frequently use our services and spend a lot of money.
Cash Cow/ Loyal	141,142,143,144,231,23 2,241,242,244,331,33 2,342,342,431,432	These customer groups generate steady cash flow but have limited growth potential. They frequently use our service yet don't spend a lot of money.
Question Mark/ Attention	313,314,321,322,323,3 24,413,414,422,423,4 24	These consumer groups are typically brand-new customers, and further research and investment are needed to assess their potential, since they just recently used our service.
Dog/ Low	111,112,113,114,211,212,2 13,214,311,312,411,412, 421	These customer groups have low potential andand may not be a priority for resource allocationThey might just be random shoppers, or they might have been devoted clients in the past.

DATA DESCRIPTION

Customer_Registered

Column Name	Data type	Length
ID	bigint	8
Contract	varchar	100
LocationID	int	4
BranchCode	tinyint	1
Status	tinyint	1
created_date	datetime	8
stopdate	datetime	8

Customer_Transaction

| CustomerID	bigint	200
Purchase_Date	datetime	8
GMV	bigint	8

Customer_transaction Table: records the transactions of the customers. Each row on the table is a transaction. The Customer_transaction table has 4 columns of data. Each transaction will be assigned with [Transaction_ID]. Each transaction records information: Which customer [CustomerID], purchase date [Purchase_Date], how much money [GMV].

RFM Distribution

RFM	ount of CustomerID	%GT Sum of Revenue
⊞ 144	10.40%	17.35%
⊞ 244	6.26%	11.23%
⊞ 233	7.40%	7.07%
⊞ 423	7.21%	7.07%
⊞ 422	6.92%	5.74%
⊞ 311	8.85%	5.26%
⊞ 111	8.39%	5.14%
⊞ 234	3.58%	4.55%
⊞ 424	3.05%	3.97%
⊞ 334	2.90%	3.50%
⊞ 421	5.14%	3.32%
Total	100.00%	100.00%

The top three RFM market distributions, which belong to the Passerby and Loyal segments, are 144, 311, and 111.
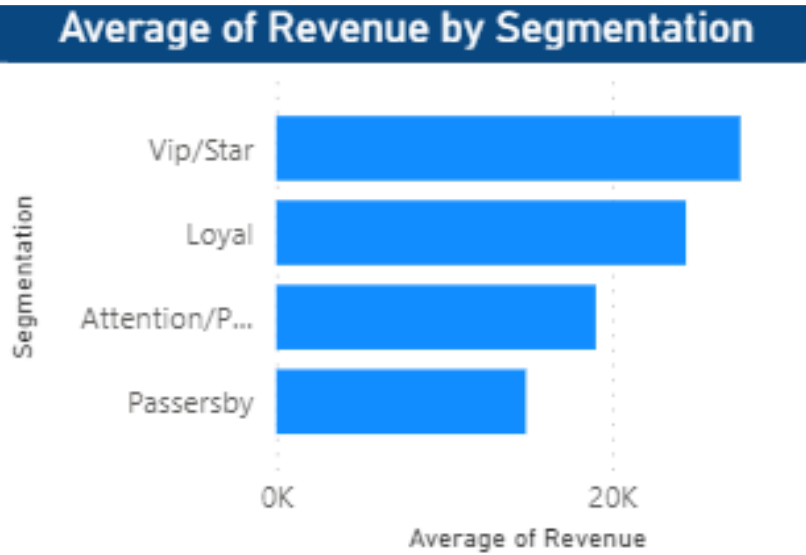The loyal customer segment and VIP segment, represented by the numbers 144, 244, 233, and 423, respectively, take up the largest percentage of the dataset and contribute significantly to the overall revenue percentage. This indicates that the service attracts customers and keeps them engaged with the brand.
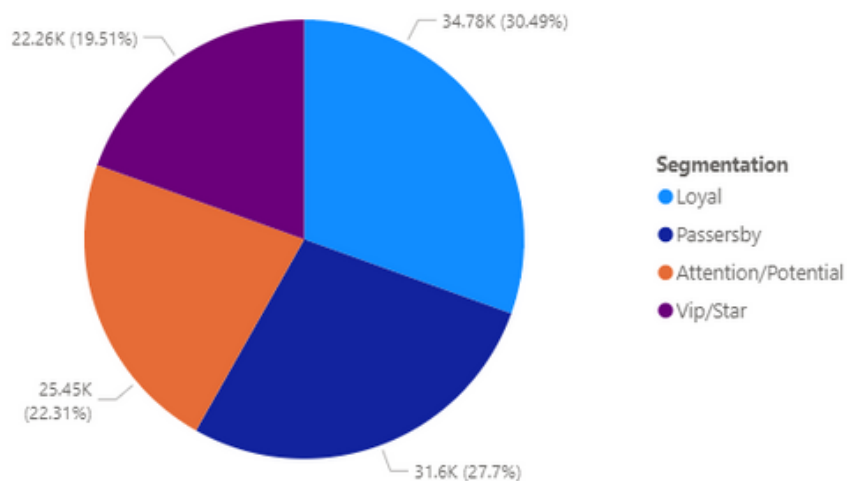
After conducting research on Customer distributions by segments, we found that loyal customers emerge as the most prominent group, accounting for a significant proportion of 30.49%. Passerby customers follow closely behind with a substantial presence of 27.7%. Additionally, the potential customer segment has composition of 22.31%, while the VIP customer segment represents a considerable share of 19.5% within the total customer base.

This emphasizes the importance of nurturing and retaining loyal customers. The significant presence of passerby customers and potential customers is a valuable insight, we can devise targeted strategies to convert them into loyal patrons. Furthermore, maintaining a strong focus on the VIP customer segment will help foster continued growth and enhance overall customer satisfaction.

Revenue distribution by Segment


Average of Revenue by Segmentation

The Loyal Segment and Vip Customer groups contribute to the largest share of revenue and average of revenue.

Although the VIP group's distinction from other groups is satisfactory, additional efforts are required to significantly increase sales in this group and to make the most of its enormous clustering size.

Orders from Loyal customers have a value of 25,000 VND, 20,000 VND for Attention customers, and 15,000 VND. As a result, only a minimal difference between the three groups is reported. To enhance the revenue per order, attention must be paid to the potential group.

Transaction frequency distribution by Segment


Average of Frequency by Segmentation
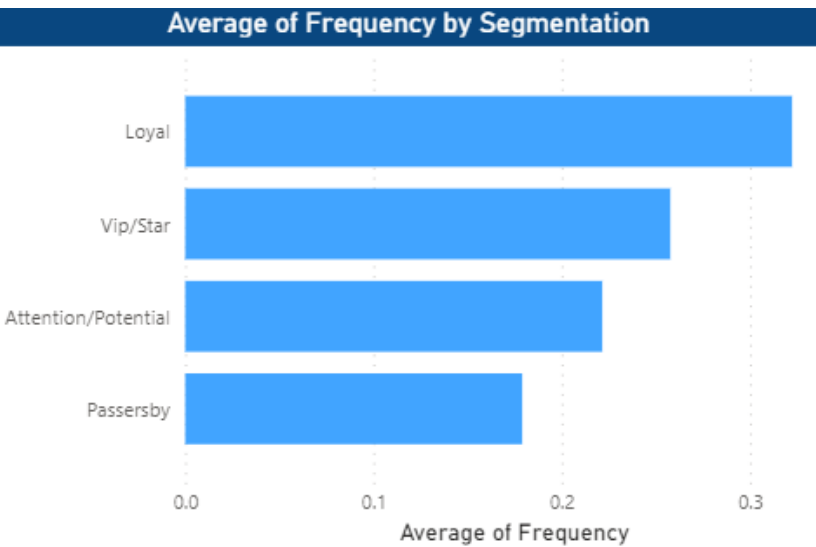
While VIP customers lead in terms of monetary value spent with our business, it is the Loyal Segment that consistently exhibits a higher frequency of transactions.

The Loyal Segment stands out with the highest transaction frequency, exceeding 0.3 and much higher than other groups.

This finding highlights the exceptional commitment and dedication of our loyal customer base, who continuously choose our products or services, resulting in frequent interactions and transactions.

Transaction recency distribution by Segment
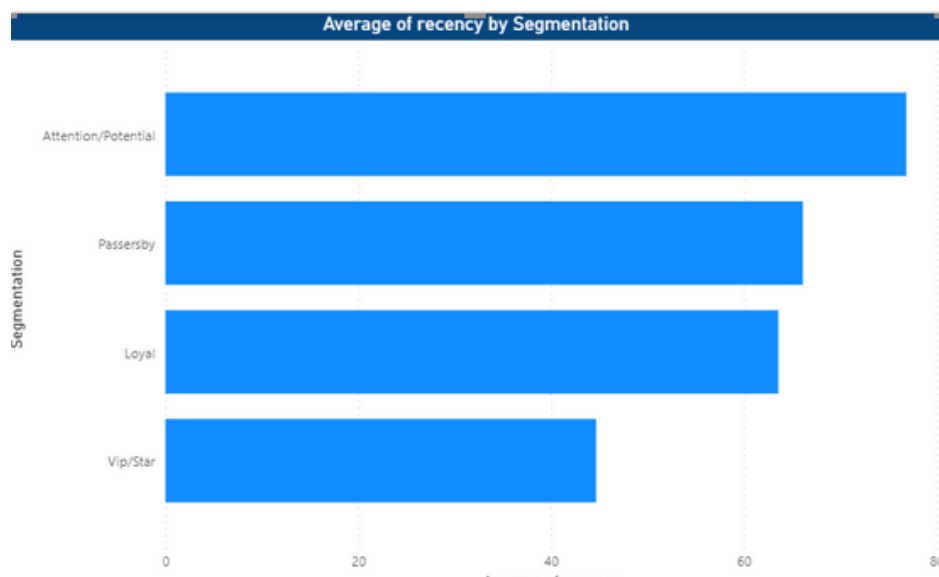
The VIP group frequently uses the service; perhaps they are new users. When the average transaction's recency is taken into account, another peculiar purchase pattern is seen: A VIP placed an order once every 45 days, or around once a month.

Distribution of transaction by Loaction
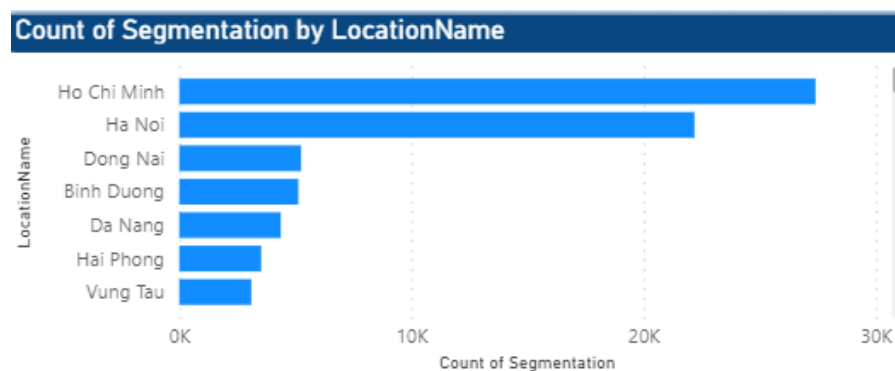
The two main cities in Vietnam, Ho Chi Minh and Hanoi, are where the company's services are most frequently employed; however, the area around Ho Chi Minh City is also a prospective target for exploitation. The company has a concentrated customer base of approximately 25,000 in Hanoi and close to 30,000 in Ho Chi Minh. This service is suitable for customers in the plain terrain

THE
SOLUTIONS

VIP CUSTOMER GROUP
AND LOYAL CUSTOMER GROUP

the VIP segment dominates the market share, signifying its significant importance to our business while loyal segment has the least occupation in the whole. In order to maintain and further enhance our relationship with these valued customers, it is imperative to implement tailored programs and strategies that foster a positive and satisfying experience with our company. To archive this we can offer exclusive discounts, gratitude policies, loyalty rewards

ATTENTION GROUP

Customers in this group hold immense potential to transition into loyal patrons. This group holds great potential, constituting nearly a quarter of our customers. They are likely new customers with substantial initial purchases. In light of this promising prospect, it is essential to implement effective policies that encourage customer retention and foster a sense of comfort and satisfaction with our services. To encourage retention and satisfaction, we suggest onboarding support, follow-up communication, and exclusive offers.

PASSERBY GROUP

The Passerby Group, our second-largest customer segment, shows occasional engagement and promising potential, they make sporadic purchases without establishing a clear pattern. While not as active as our loyal customers, the Passerby segment shows promise for increased engagement and loyalty. To capitalize on this potential, we must deploy targeted personalized strategies and incentives that can encourage more frequent purchases, strengthening their connection to our brand and driving sustainable growth.
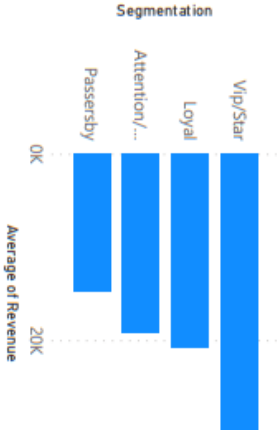
OVERVIEW DASHBOARD

CUSTOMER SEGMENTATION OVERVIEW DASHBOARD

942.34K
Count of CustomerID

50
Count of RFM

Average of Revenue by Segmentation

Segmentation
- Vip/Star
- Loyal
- Attention/...
- Passersby

Average of Revenue: 0K — 20K

Count of Segmentation by LocationName

LocationName
- Ho Chi Minh
- Ha Noi
- Dong Nai
- Binh Duong
- Da Nang
- Hai Phong
- Vung Tau

Count of Segmentation: 0K — 10K — 20K — 30K

Purchase_Date
6/1/2022 — 8/31/2022
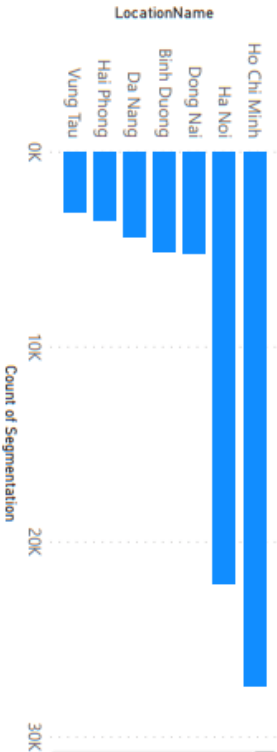
Total Contracts over year

Year	Count of Contract
2009	3874
2010	1810
2011	1482
2012	1986
2013	3157
2014	19877
2015	151895
Total	**1048576**

Geo Filter

LocationName
- [ ] An Giang
- [ ] Bac Giang
- [ ] Bac Lieu
- [ ] Bac Ninh
- [ ] Ben Tre
- [ ] Binh Dinh

RFM distribution

144 | 233 | 421 | 142 | 432 | 242 | 243
311 | 423 | 321 | 424 | 112 | 312 | 323
111 | 422 | 332 | 334 | 211 | 434 | 322
244 | 234 | 433 | 313 | 333 | 344
232 | 143
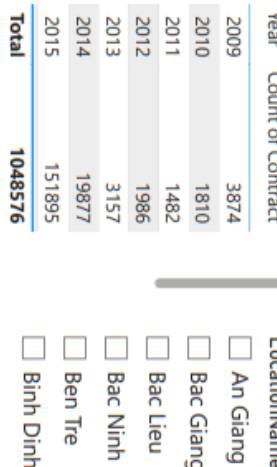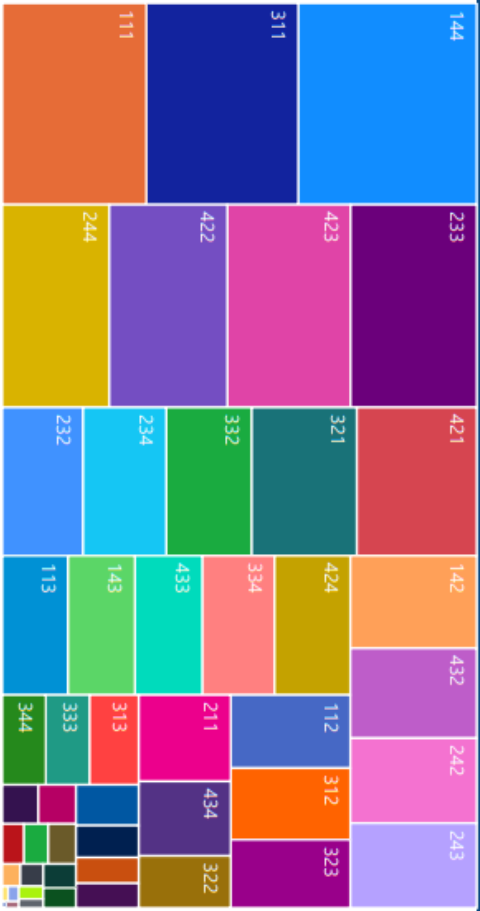
RFM

RFM	%GT Count of CustomerID
⊟ 144 Vip/Star	10.40%
⊟ 311 Vip/Star	10.40%
⊟ 244 Vip/Star	6.26%
⊟ 233 Vip/Star	7.40%
⊟ 423 Vip/Star	7.40%
⊟ 422 Attention/Potential	7.21%
⊞ 423	7.21%
⊞ 244	6.92%
⊞ 311	8.85%
⊞ 111	8.39%
Total	**100.00%**

Contribution of Each Segmentation

- 24... (...) 33.11K (29.02%)
- 21.06K (18.46%)
- 35.59K (31.2%)

Segmenta...
- Vip/Star
- Passers...
- Attenti...
- Loyal
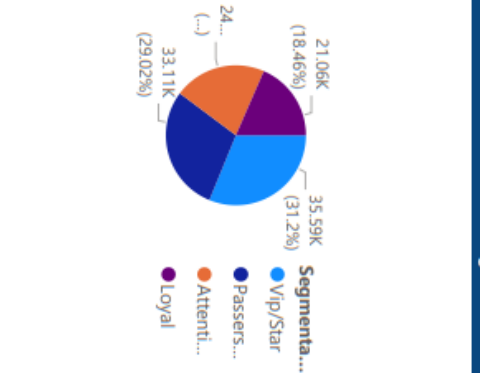
THANK YOU

github.com/VoUyennhi1/Customer-Segmentation-

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