

# Customer Segmentation Portfolio

Credit Card Behavioral Analysis · GMM Clustering · 7 Segments · 10 Features

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## FEATURE DEFINITIONS

Feature	Description
<b>BALANCE</b>	Balance amount left in account to make purchases
<b>PURCHASES</b>	Total amount of purchases made from account
<b>ONEOFF_PURCHASES</b>	Maximum purchase amount done in one-go
<b>CASH_ADVANCE</b>	Cash in advance given by the user
<b>CASHADVANCE_TRX</b>	Number of transactions made with cash in advance
<b>PURCHASES_TRX</b>	Number of purchase transactions made
<b>PAYMENTS</b>	Amount of payment done by user
<b>MINIMUM_PAYMENTS</b>	Minimum amount of payments made by user
<b>PRC_FULL_PAYMENT</b>	Percent of full payment paid by user
<b>CREDIT_LIMIT</b>	Limit of credit card for user

## Cluster 0 - Cash Advance Reliant

Users who primarily withdraw cash rather than make purchases

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$2,850	CREDIT_LIMIT	~\$6,000
CASH_ADVANCE	Very High	CASHADVANCE_TRX	~8 transactions
PURCHASES	Moderate	PRC_FULL_PAYMENT	~6%

### BEHAVIORAL PROFILE

Relies heavily on cash advances with a large revolving balance. Very low PRC\_FULL\_PAYMENT (~6%) means they rarely clear the balance, indicating financial pressure.

### RECOMMENDED STRATEGIES

- Debt consolidation and low-APR transfer offers
- Financial wellness and budgeting programs
- Proactive outreach before delinquency risk rises

## Cluster 1 · High Balance Revolvers

Carry large balances and consistently pay only the minimum

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$2,600	CREDIT_LIMIT	~\$4,500
MINIMUM_PAYMENTS	Highest of all clusters	CASH_ADVANCE	High
PURCHASES	Moderate	PRC_FULL_PAYMENT	~5%

### BEHAVIORAL PROFILE

Highest MINIMUM\_PAYMENTS across all clusters, meaning they pay regularly but only meet the threshold. Deeply revolving — profitable from interest revenue but at elevated delinquency risk.

### RECOMMENDED STRATEGIES

- Balance transfer offers with low intro rates
- Loyalty rewards to improve retention
- Early intervention risk monitoring

## Cluster 2 · Low Activity Users

Hold a card but barely use it for purchases or cash

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$1,450	CREDIT_LIMIT	~\$4,700
PURCHASES	Low	PURCHASES_TRX	~6 transactions
CASH_ADVANCE	Low	PRC_FULL_PAYMENT	~10%

### BEHAVIORAL PROFILE

Low PURCHASES and PURCHASES\_TRX with minimal CASH\_ADVANCE — very little card engagement. Not financially stressed, just inactive. Represents untapped revenue potential.

### RECOMMENDED STRATEGIES

- Re-engagement campaigns with spend incentives
- Bonus cashback on first purchase after inactivity
- Personalized offers based on lifestyle triggers

## Cluster 3 · Active Big Spenders

The highest-value segment — maximum purchases and transaction volume

### KEY METRICS

Feature	Value	Feature	Value
PURCHASES	~\$2,800 — Highest	ONEOFF_PURCHASES	Highest
PURCHASES_TRX	~41 — Highest	CREDIT_LIMIT	~\$5,900
PAYMENTS	~\$2,500	PRC_FULL_PAYMENT	Moderate

### BEHAVIORAL PROFILE

Most commercially valuable segment. Highest PURCHASES, ONEOFF\_PURCHASES, and PURCHASES\_TRX across all clusters. Regular PAYMENTS keep balance manageable. Strong interchange revenue and premium upgrade potential.

### RECOMMENDED STRATEGIES

- Premium or metal card upgrade
- Travel rewards and airline miles programs
- Higher credit limit to capture more spend

## Cluster 4 · Inactive Credit Holders

Have credit available but show near-zero card activity

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$1,500	CREDIT_LIMIT	~\$4,000
PURCHASES	Near Zero	PURCHASES_TRX	Very Low
PAYMENTS	Low	PRC_FULL_PAYMENT	~4%

### BEHAVIORAL PROFILE

Fully dormant — PURCHASES and PURCHASES\_TRX near zero, CASH\_ADVANCE also low. The card is simply not used. Ties up credit allocation with no revenue return. High churn risk.

### RECOMMENDED STRATEGIES

- Spend-to-earn activation campaigns
- Dormancy alerts with retention offers
- Category-specific offers to spark first use

## Cluster 5 - Responsible Transactors

Regular card users who pay most of their balance in full

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$450 — Low	CREDIT_LIMIT	~\$3,100
PRC_FULL_PAYMENT	~31%	PURCHASES	Moderate
PURCHASES_TRX	~12 transactions	MINIMUM_PAYMENTS	Low

### BEHAVIORAL PROFILE

Disciplined users with high PRC\_FULL\_PAYMENT (~31%) and very low BALANCE. Active PURCHASES\_TRX with zero CASH\_ADVANCE reliance. Low credit risk — valuable for interchange fees and referrals.

### RECOMMENDED STRATEGIES

- Rewards for consistent full-payment behavior
- Credit limit increase to grow spend volume
- Referral programs leveraging high satisfaction

## Cluster 6 · Affluent Full Payers

High credit limit holders with the best payment discipline

### KEY METRICS

Feature	Value	Feature	Value
BALANCE	~\$450 — Low	CREDIT_LIMIT	~\$5,000 — Highest
PRC_FULL_PAYMENT	~33% — Highest	PURCHASES	Moderate-High
ONEOFF_PURCHASES	Moderate	CASH_ADVANCE	Very Low

### BEHAVIORAL PROFILE

Most financially healthy segment. Highest PRC\_FULL\_PAYMENT (~33%) and high CREDIT\_LIMIT (~\$5,000) with very low BALANCE. Zero CASH\_ADVANCE reliance. Prime target for premium products and wealth management cross-sell.

### RECOMMENDED STRATEGIES

- Metal card with luxury lifestyle benefits
- Airport lounge and travel insurance perks
- Wealth management and investment product cross-sell

## Segment Summary

#	Segment	BALANCE	CREDIT LIMIT	PURCHASES	CASH ADVANCE	FULL PAY%	Key Insight
0	Cash Advance Reliant	High	~\$6,000	Moderate	Very High	6%	Cash-dependent
1	High Balance Revolvers	High	~\$4,500	Moderate	High	5%	Min-pay revolvers
2	Low Activity Users	Moderate	~\$4,700	Low	Low	10%	Disengaged
3	Active Big Spenders	Moderate	~\$5,900	Highest	Low	Mod	Most valuable
4	Inactive Holders	Moderate	~\$4,000	Near Zero	Low	4%	Dormant, churn risk
5	Responsible Transactors	Low	~\$3,100	Moderate	Very Low	31%	Disciplined
6	Affluent Full Payers	Low	~\$5,000	Mod-High	Very Low	33%	Premium target