



PROJECT OVERVIEW

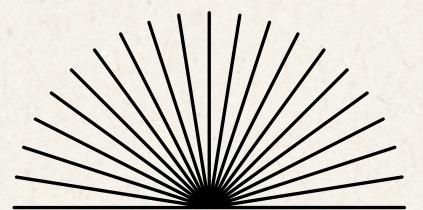
- Analyzed transaction-level data from a digital wallet platform
- Focused on customer behavior, retention, and value creation
- Applied monthly trend analysis, cohort retention, and RFM segmentation
- **Objective:** identify churn risk segments and support data-driven growth decisions

NAME OF PROJECT:

FinTech Customer Analytics – Digital Wallet Transactions

PRESENTED BY:

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Dataset and Analytical Approach

Dataset:

- X transactions, Y unique users
- Time range: Aug 2023 – Jul 2024
- Fields: transaction date, user ID, amount, product category, payment method, cashback, etc.

Methods:

- Exploratory data analysis (EDA)
- Monthly metrics (GMV, active users, transaction volume)
- Cohort-based retention analysis
- RFM segmentation and churn labelling

Key Behavioral and Retention Insights

- **Retention:** Month-1 retention is relatively strong but drops significantly by Month-3 → early churn risk
- **Value concentration:** A small high-Monetary segment contributes a large share of total GMV
- **Churn signal:** Users with high Recency show sharply lower engagement and retention
- **Implication:** Retention and revenue are driven by a small but critical user segment

Business Performance Overview (GMV & Activity)



Monthly GMV shows a relatively stable upward trend with moderate fluctuations, while transaction volume remains consistent across months.

This indicates that **revenue growth is driven more by stable user activity rather than sudden spikes**, suggesting healthy and predictable usage behavior. The absence of extreme volatility suggests that the product is primarily used for **routine, recurring payments**, rather than one-off events.

User Retention & Early Churn Pattern

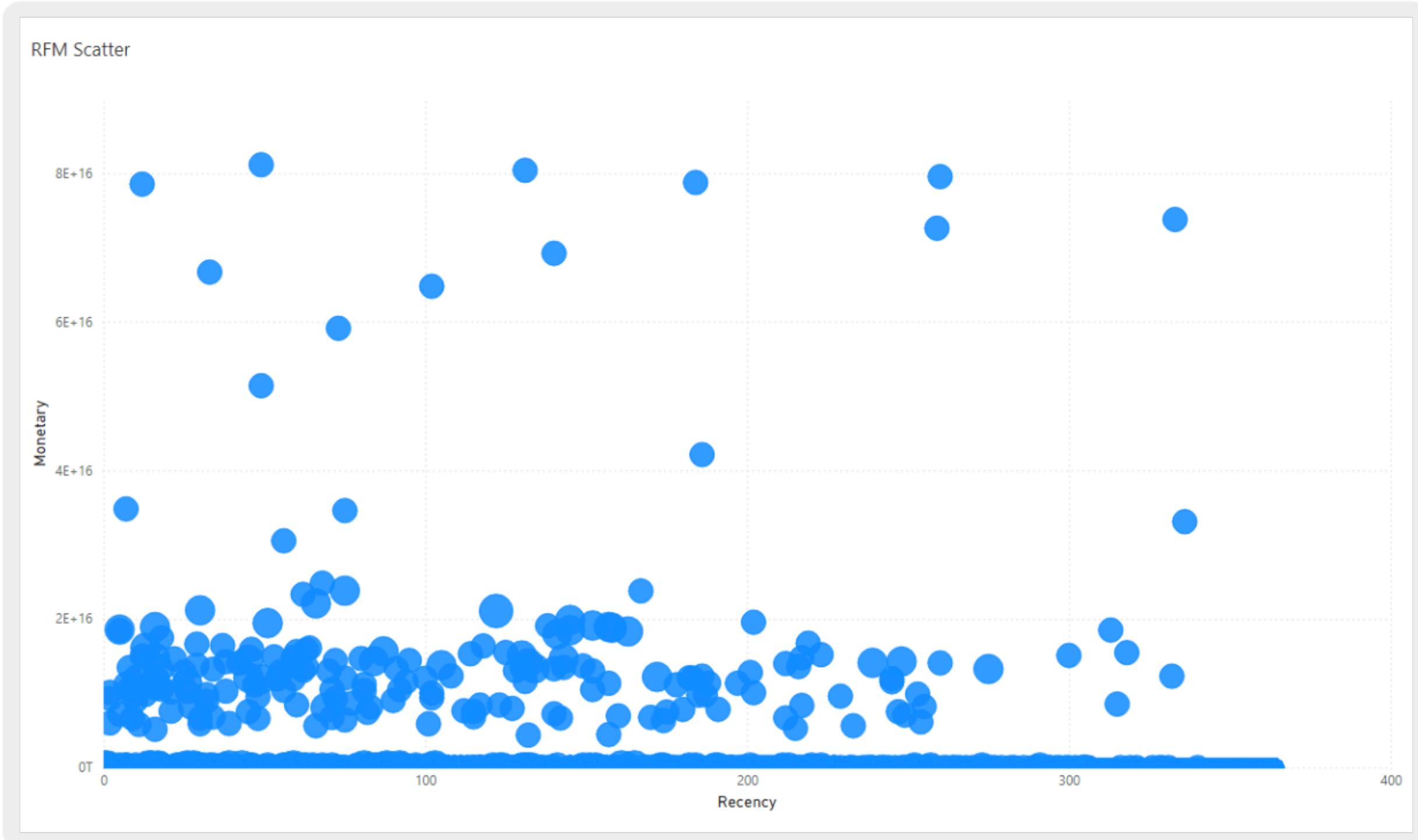
Cohort Retention

cohort_month	1	2	3	4	5	6	7	8	9	10	Total
2023-08	0.03	0.07	0.04	0.04	0.06	0.05	0.04	0.04	0.04	0.01	0.04
2023-09	0.04	0.03	0.05	0.03	0.04	0.03	0.04	0.04	0.04	0.02	0.04
2023-10	0.05	0.04	0.05	0.03	0.03	0.05	0.04	0.05	0.06	0.03	0.04
Total	0.04	0.05	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.02	0.04

Retention drops significantly after the first month, with the largest decline occurring between Month 0 and Month 1. After the initial drop, retention stabilizes at a lower but consistent level across subsequent months.

This pattern suggests that **early user experience** is critical, and customers who remain active beyond the first month are more likely to stay long-term.

Customer Value and Churn Risk Segmentation

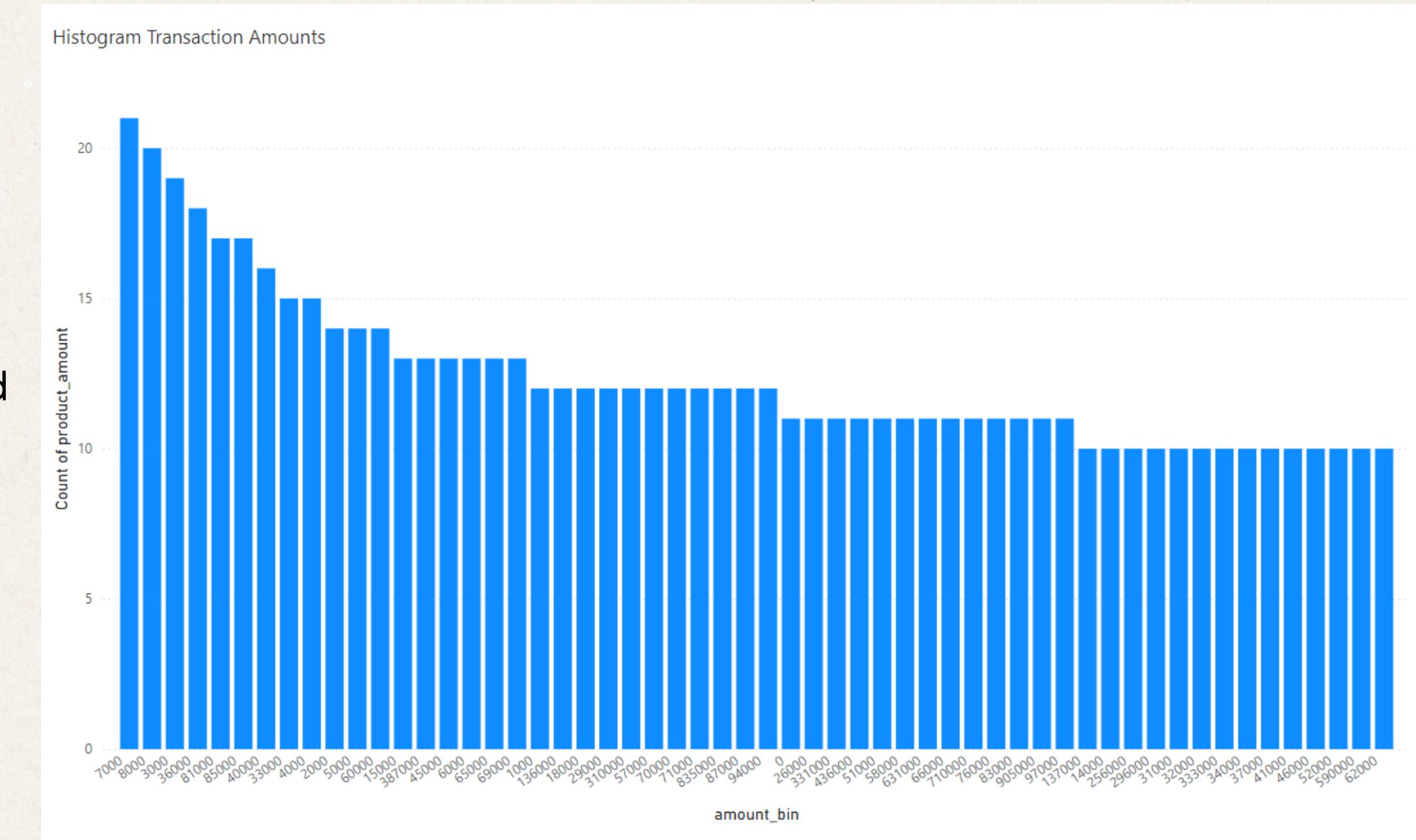


Customers with **high Recency** and **declining Frequency** show clear signs of churn risk, even if they previously had high monetary value.

A small group of customers with **low Recency and high Monetary value** contributes disproportionately to total revenue. Meanwhile, a large number of users exhibit low monetary value and low frequency, indicating a long tail of casual or inactive users.

Transaction Size Distribution and Pricing Sensitivity

- Transaction amounts are heavily skewed toward lower-value ranges, with most transactions concentrated in small-ticket sizes.
- High-value transactions are rare and form a long tail.



This confirms that the digital wallet is primarily used for **everyday payments**, such as bills, recharges, and subscriptions, rather than large purchases.

Customer-Centric Recommendations and Next Steps

Recommendation 1 - New Users (Onboarding & Early Activation)

New users in their first 30 days, especially those with:

Low Frequency Low Monetary value

- Cohort analysis shows **the largest retention drop occurs between Month 1 and Month 3**, indicating weak early engagement.

Actionable recommendations

- Introduce a **guided onboarding flow** highlighting 2–3 core use cases
- Offer a **time-limited first-month incentive** (e.g. cashback on the 2nd transaction)
- Trigger **behavior-based nudges** if no transaction occurs within the first 7 days

Success metrics

- Month-1 retention rate
- Avg. transactions per new user (first 30 days)
- Time-to-first and time-to-second transaction

Recommendation 2 - High-Value but Inactive Users (Win-back Focus)

Users with:

High Recency (e.g. > 30 days since last transaction)

High Monetary Value

- RFM analysis shows this segment drives a **disproportionate share of GMV**, but becomes high churn risk once inactive.

Actionable recommendations

- Launch **personalized win-back campaigns** based on previous spending categories
- Use **non-generic incentives** (e.g. category-specific cashback instead of blanket discounts)
- Prioritize this group in **CRM and lifecycle marketing flows**

Success metrics

- Reactivation rate within 14–30 days
- Incremental GMV from reactivated users
- Cost per reactivated high-value user

Recommendation 3 — Price-Sensitive Frequent Users (Monetization Optimization)

Users with:

High Recency

Low-to-mid Monetary value per transaction

- Transaction amount distribution shows most users make **small, frequent payments**, indicating high price sensitivity.

Actionable recommendations

- Test **tiered cashback or fee structures** based on monthly transaction count
- Bundle incentives (e.g. “transaction streak rewards”) instead of single-use discounts
- A/B test fee thresholds to balance usage and profitability

Success metrics

- Transaction frequency per active user
- Average transaction value (ATV)
- Incentive ROI (incremental GMV vs incentive cost)

From Descriptive to Predictive

