



2nd May, 2030

Purwadhika Digital School
Data Science

AI² Mart Customer Behavior Analysis (2016): RFM Segmentation and CV-Based Purchasing Behavior

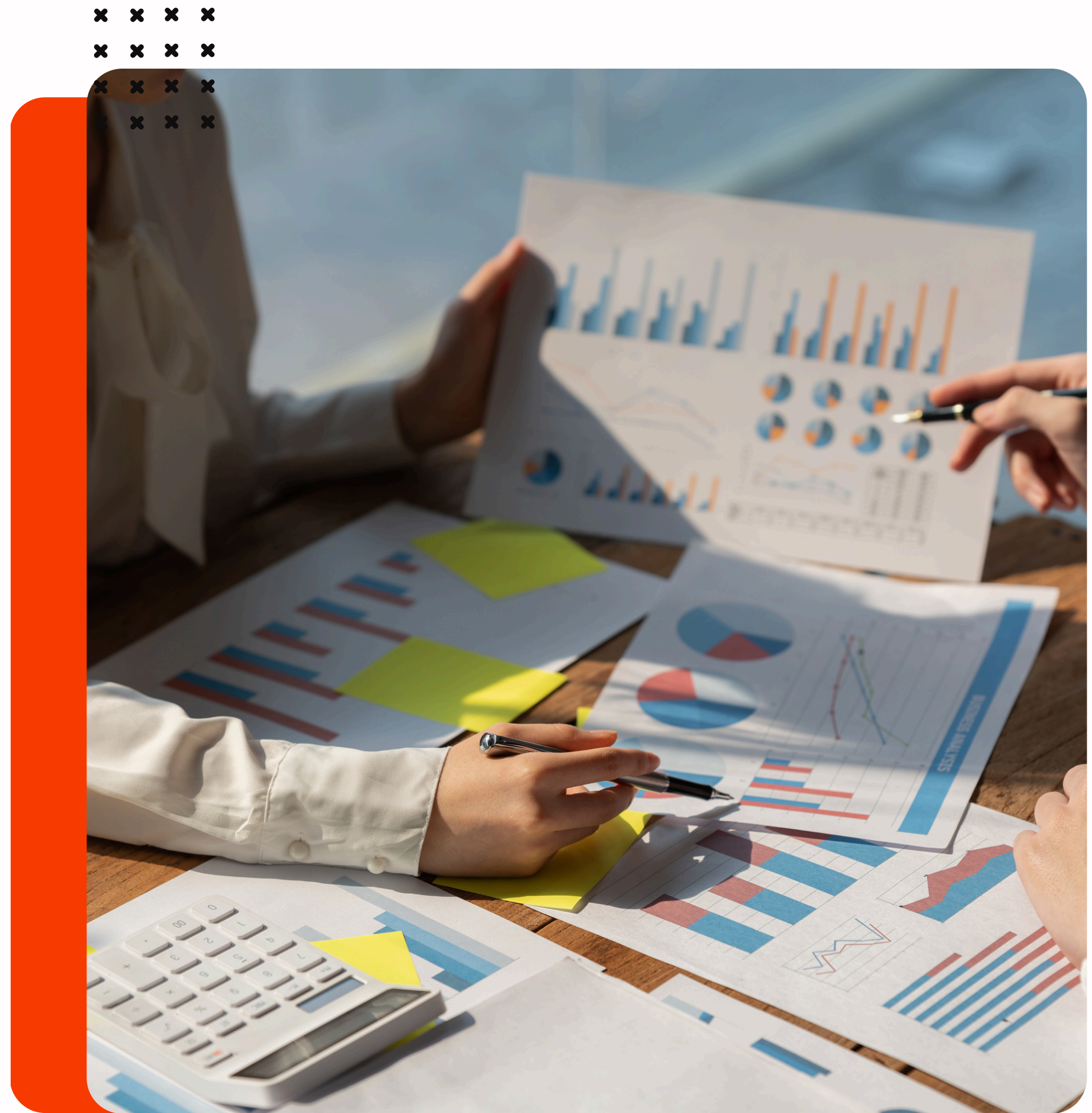
**Indurasmi Dian M
Akbar Kanugraha
Indira Faisa A.
Mutiarra Ayu Alzahra R.**

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Business Context & Stakeholders



- This dataset contains all customer transactions of AI² Mart in 2016 in Jakarta.
- The primary stakeholders are **the Management & Business Team.**



Problem Statements

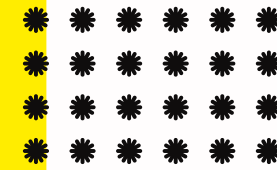


Difficulty in understanding ***customer purchasing behavior patterns.***

Difficulty in identifying ***the most effective marketing campaign*** for different customer segments.



The Goal!



- * Segment the customers based on their **transaction behavior** using **the RFM analysis**
- * Understand the **customer purchasing consistency** using the **Coefficient of Variance (CV)**
- * Combine both approaches to uncover **the customer personality patterns**
- * Provide **actionable marketing strategies** for each customer segment.



Analysis Framework

RFM Analysis

Customer Segmentation

Behavior Variability (CV)

Customer Personality

Marketing Campaign Strategy

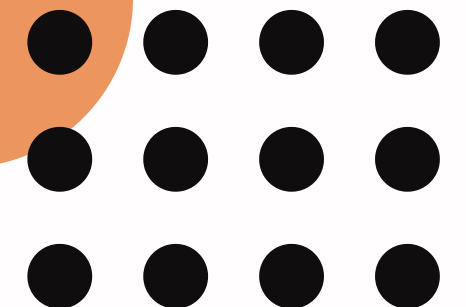




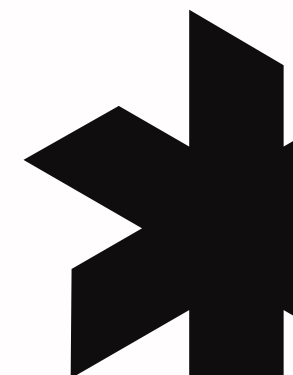
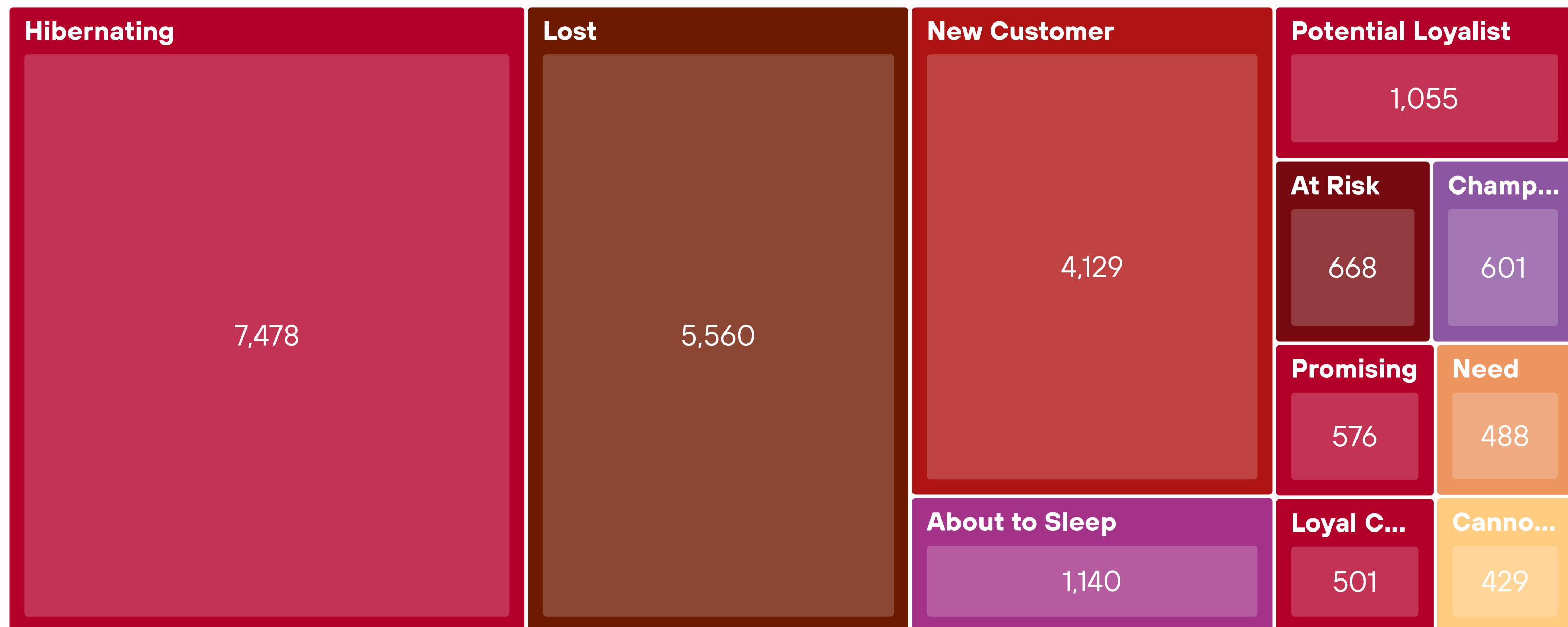
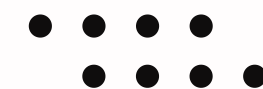
What is RFM



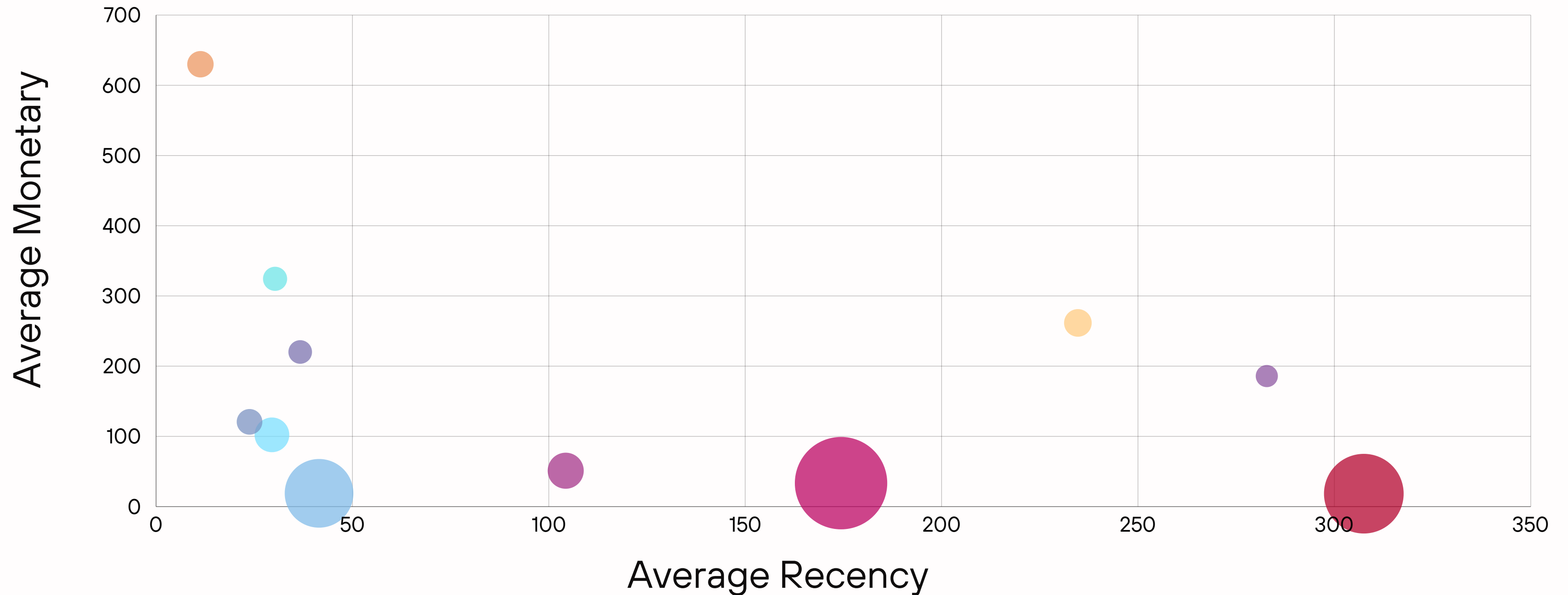
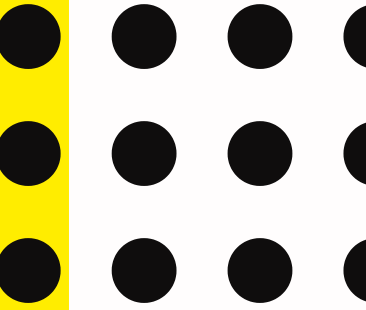
RFM Analysis



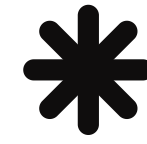
A 5x4 grid of 20 plus signs. There are 5 rows and 4 columns, with a plus sign in each cell.



RFM Segmentation of Customers



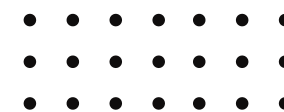
What is CV



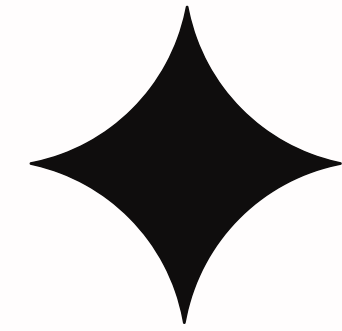
Coefficient of Variance (CV) Formula

As it is mentioned earlier, the **Coeviciant of Variience (CV)** is calculated by dividing the **standard deviation (STD)** by the **average (mean)**.

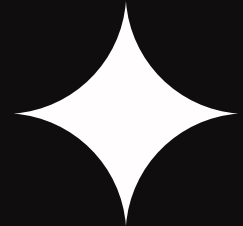
$$CV = \frac{\sigma}{\mu}$$

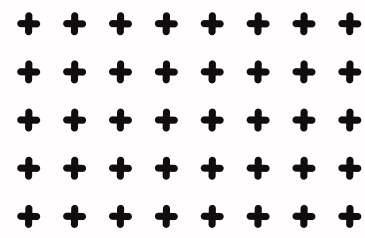


CV Value Interpretation

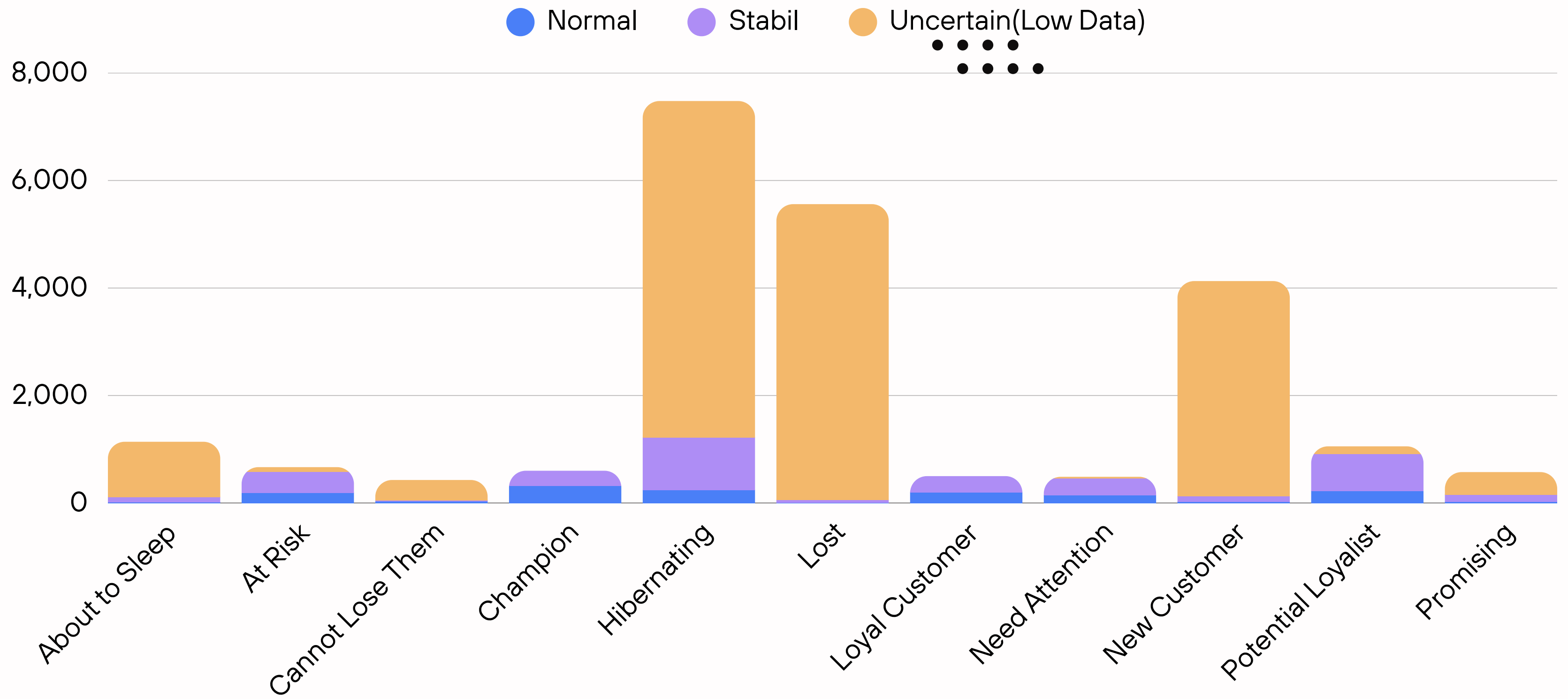
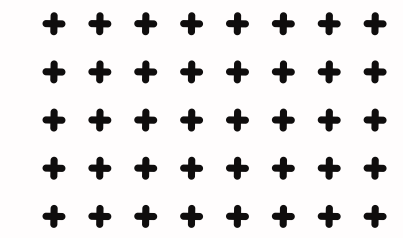


CV Scores	Customer Category
$cv < 0.5$	Stable
$0.5 \leq CV < 1$	Normal
$CV \geq 1$	Impulsive

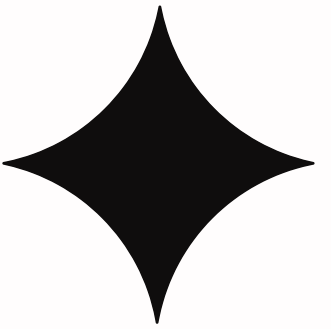




Stacked Bar



Insight & Suggestion



CHAMPION

Stable:

- Replenishment reminder
- Functional bundling
- VIP access

Normal:

- Discovery bundling
- Product recommendation
- VIP acces

LOYAL CUSTOMER

Stable:

- Replenishment reminder,
- Functional bundling

Normal:

- Cross-Sell Recommendation
- Curated bundles

POTENTIAL LOYALIST

Stable:

- Loyalty rewards program
- Exclusive access to promotions

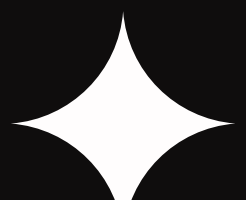
Normal:

- Personalized transaction
- Offer limited promotions

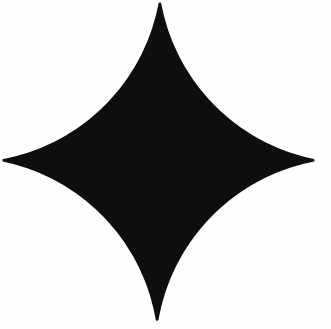
Uncertain:

- Promoting different product categories

xxx
xxx
xxx



Insight & Suggestion



xxx
xxx
xxx

NEW CUSTOMER

Uncertain:

- Welcome campaign
- Next purchase voucher
- Follow-up emails

PROMISING

Stable:

- Loyalty program
- Personalized product recommendation

Uncertain:

- Promotion or discount
- Promote best selling products

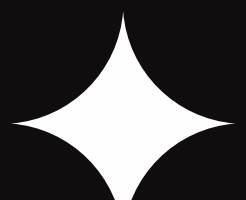
NEED ATTENTION

Stable:

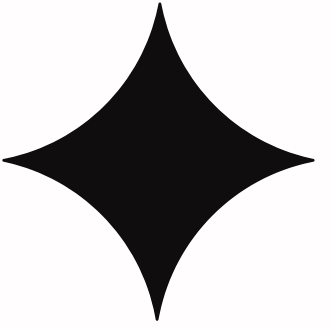
- Behavioral reminder
- Personalized product
- Comeback discount

Normal:

- Product discovery trigger
- Personalized product
- Limited-time offer



Insight & Suggestion



CANNOT LOSE THEM

Stable:

- Replenishment reminder
- Functional bundling
- VIP access

Normal:

- Discovery bundling
- Product recommendation
- Early access campaign

LOST

Stable:

- Replenishment reminder
- Functional bundling
- VIP access

Normal:

- Discovery bundling
- Product recommendation
- Early access campaign

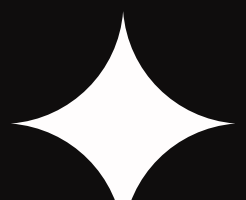
ABOUT TO SLEEP

Stable:

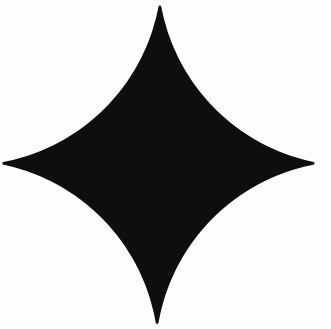
- Replenishment reminder
- Functional bundling
- VIP access

Normal:

- Discovery bundling
- Product recommendation
- Early access campaign



Insight & Suggestion



HIBERNATING

Stable:

- Reactivation reminder
- Comeback incentive

Normal:

- Broad Reactivation Campaign
- Entry-level promotion

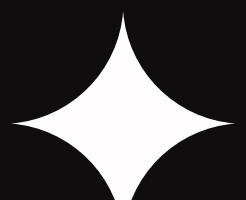
AT RISK

Stable:

- Win-back campaign
- Replenishment
Reactivation

Normal:

- Product recommendation
- Comeback promotion





**THANK YOU
FOR YOUR
ATTENTION !**



Key Takeaways



Others are more consistent in posting

Engagement style needs improvement

Huge opportunity to form deeper connection

We can outperform with better content value