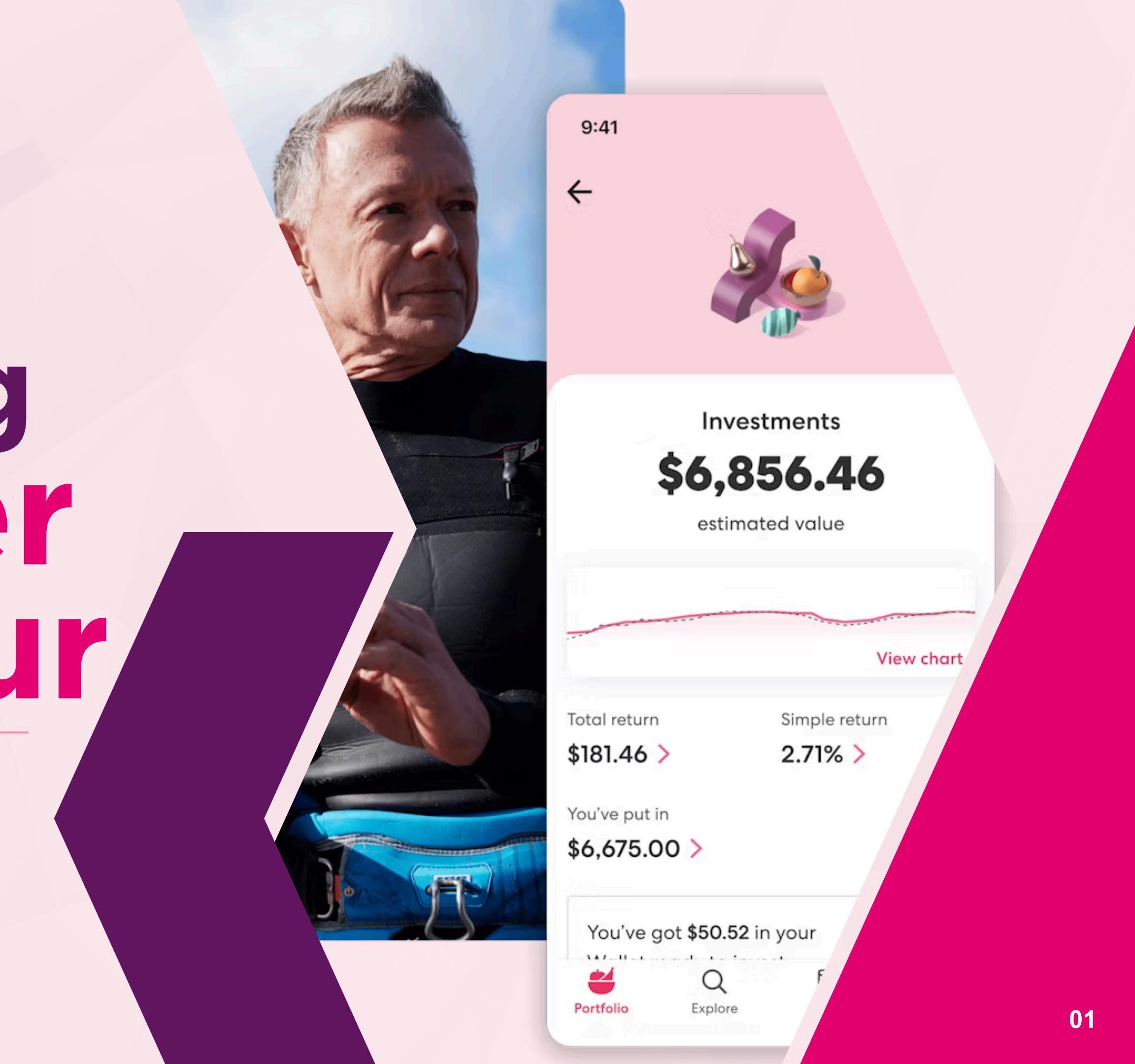




Sharesies

# Classifying Customer Behaviour

Note: Sensitive information has been removed from the following slides to maintain client confidentiality

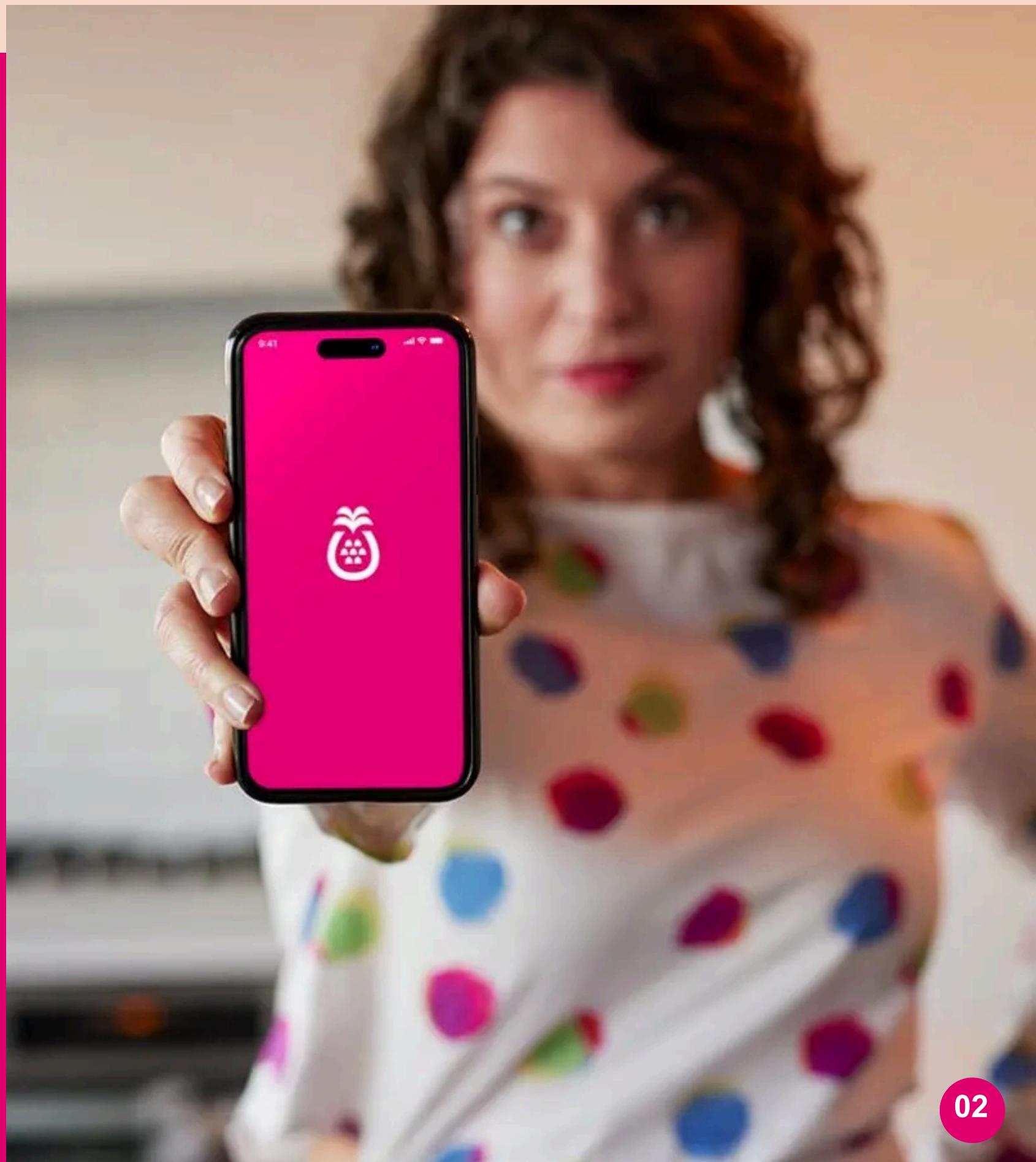


# AGENDA

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<b>Introduction and Business Context</b>	<b>3</b>
<b>Data Foundations &amp; Findings</b>	<b>6</b>
<b>Modelling and Analysis</b>	<b>15</b>
<b>Key Findings &amp; Recommendations</b>	<b>18</b>

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## Section 1

# INTRODUCTION AND BUSINESS CONTEXT

# PROJECT OBJECTIVES



Detect Early Signs of Disengagement



Create a Flagging System



Deliver Insights for Re-engagement

# ROADMAP

## Data Collection

Gathered transactional data



## Exploratory Insights

Performed visual and statistical analyses



## Flag Creation

Labelled disengagement by creating a flag



## Interpretations

Derived key insights from model results



## Data Cleaning

Removed duplicates, handled missing values, and corrected inconsistencies



## Defining Behaviour

Created meaningful features such as trade and index frequency metrics



## Modelling

Developed a model to classify disengaged customers



## Recommendations

Proposed actionable strategies



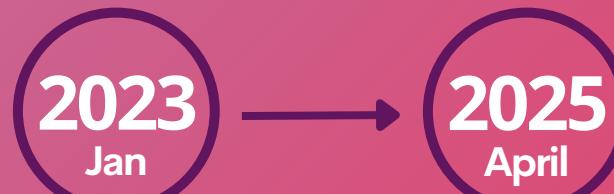
## Section 2

# DATA FOUNDATIONS & FINDINGS

# DATASET OVERVIEW

97

Features

	Features	Data Type	Timeperiod
Trade	 Product Atributes	 Trading Activity	Categorical 61
Customer	 Customer Behaviour	 Customer Profile	Numerical 16
		Binary 20	



# DATA CLEANING



Removed Irrelevant Fields



Eliminated Redundant Columns

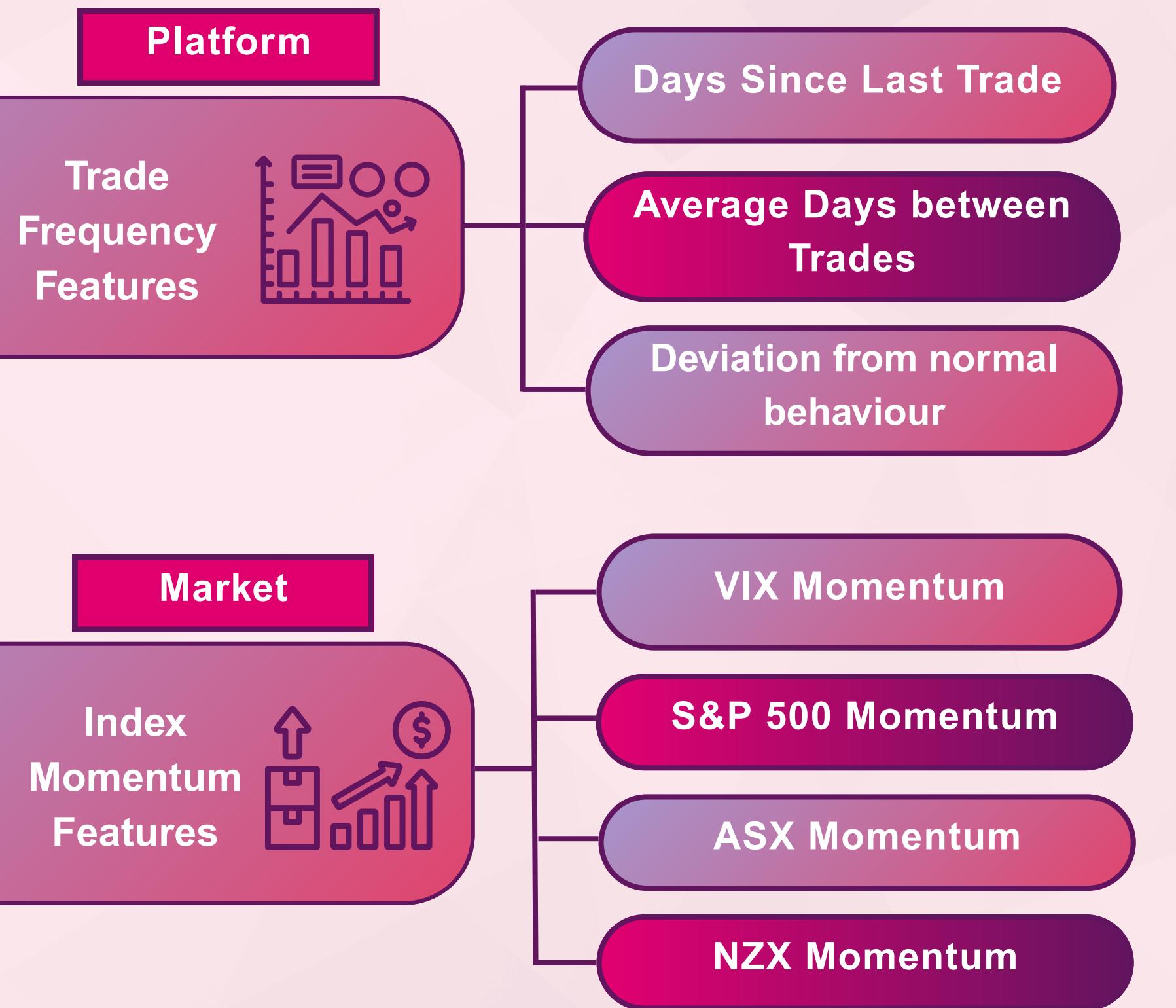


Imputed Missing Values



Standardized Dates

# FEATURE ENGINEERING





# FREQUENCY SCORE

(Days Since Last Trade - Average Days Between Trades)

Deviation from normal behaviour

Highly Active

Likely to Be Disengaged

0

>3

# INDEX MOMENTUM



Momentum measures how much an index has risen or fallen over a set period

3 Months

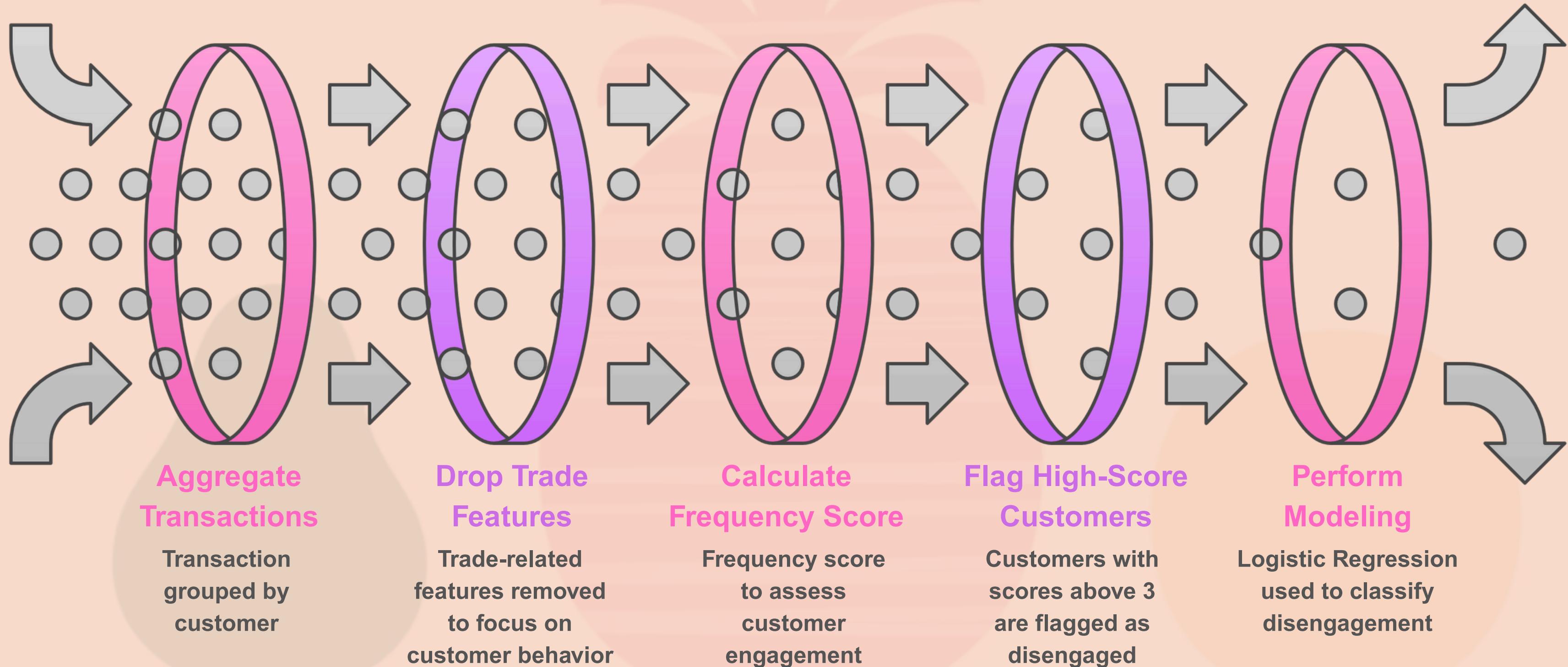
6 Months

12 Months

$$\frac{(\text{Price Today} - \text{Price N months ago})}{\text{Price N months ago}}$$

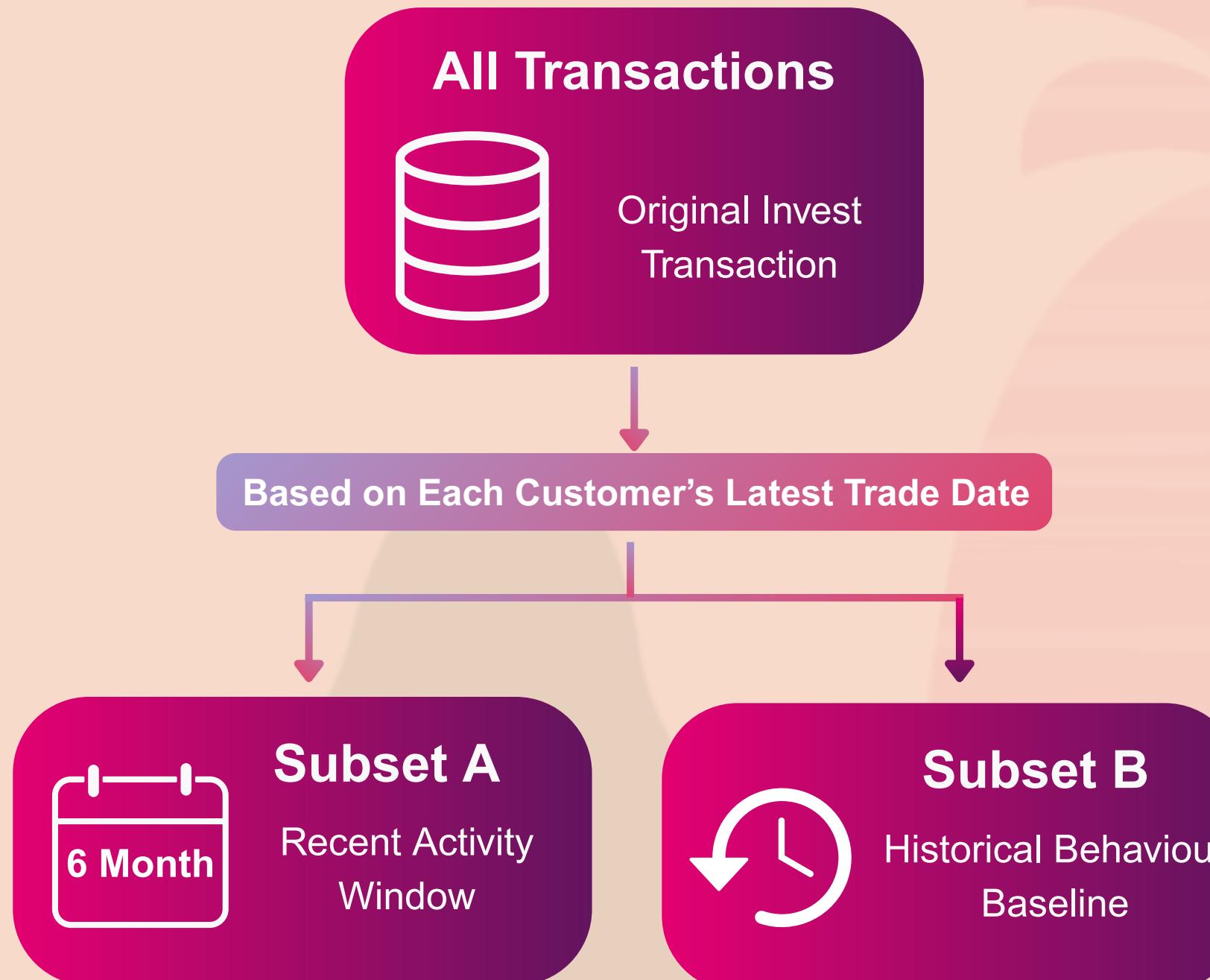


## CUSTOMER LEVEL AGGREGATED APPROACH

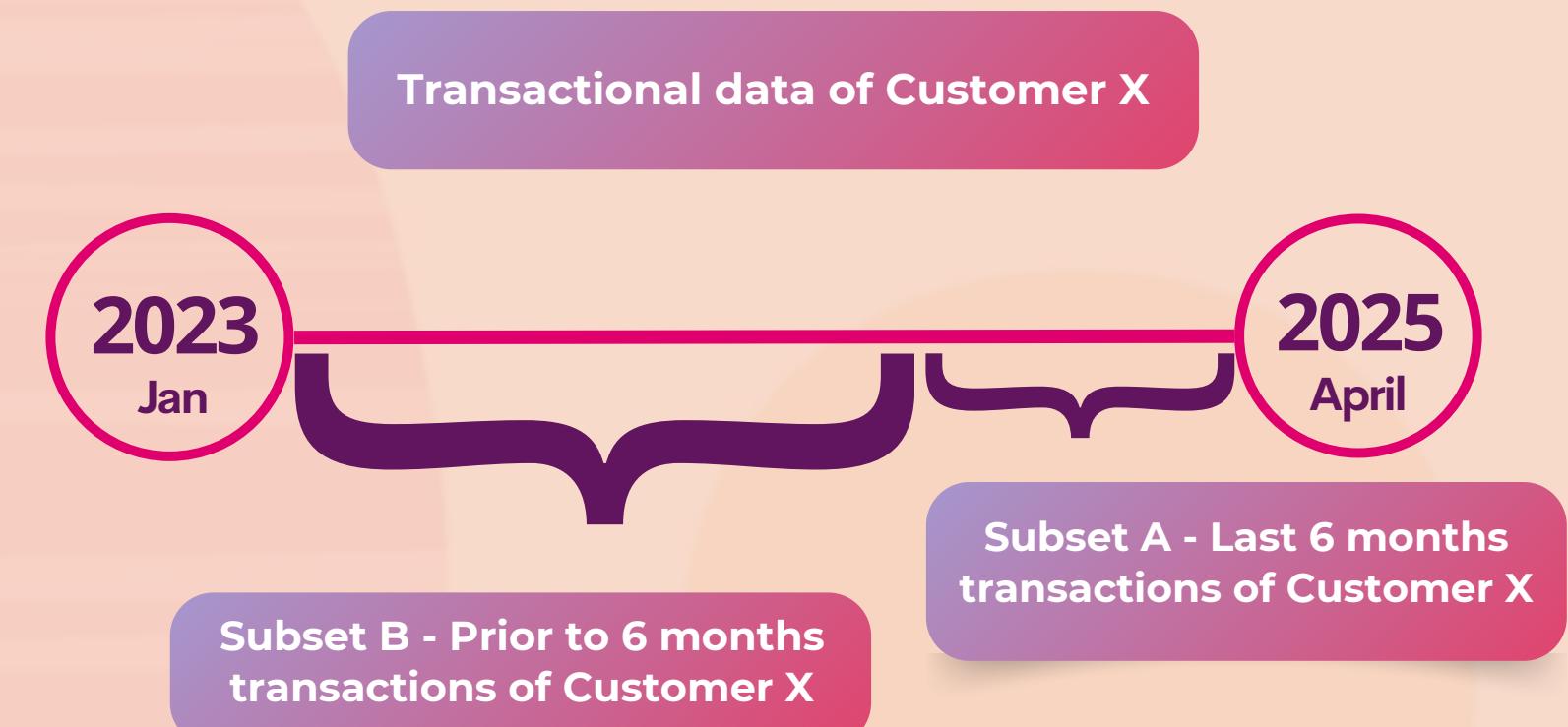




## TRANSACTIONAL APPROACH



For example:



# FLAG CREATION

## FREQUENCY BASED SCORING

<b>Flag 1 - Likely to Disengage</b>	<b>Frequency Score &gt; 3</b>
<b>Flag 0 - Likely to stay Active</b>	<b>Frequency Score <math>\leq 3</math></b>

## Section 3

# MODELLING AND ANALYSIS



# MODEL COMPARISON

Performance	Platform Features	Platform + Market Features
Transactions accurately classified	63%	70%
Transactions correctly classified as disengaged	67%	72%
Transactions correctly classified as engaged	63%	70%

# LIMITATION



## Platform Features

Platform performs strongly, but market impacts disengagement.



## Customer Features

Reflects current state of the customers

## Section 4

# KEY FINDINGS & RECOMMENDATIONS

# KEY FINDINGS



## Market Features

Index momentum drives engagement.



## Platform Features

Automatic features drives engagement.



## Volatility Driving Activity

High market volatility boosts customer engagement.



## Customer Pattern

Behavior does not vary across quarterly, half-yearly, and yearly cycles for most users.

# RECOMMENDATIONS & FUTURE PLANS

“ Actionable recommendations and future plans were proposed to enhance customer engagement through improved communication and new product features ”

Specific Recommendations were removed due to client confidentiality



# THANK YOU

**PRESENTED BY:**

**AKSHIT TRIPATHI CHRISTIENE CHERIAN GLEN LASRADO**

**REGAN LING SHARAN SRINIVASAN TAHA SAMEER**