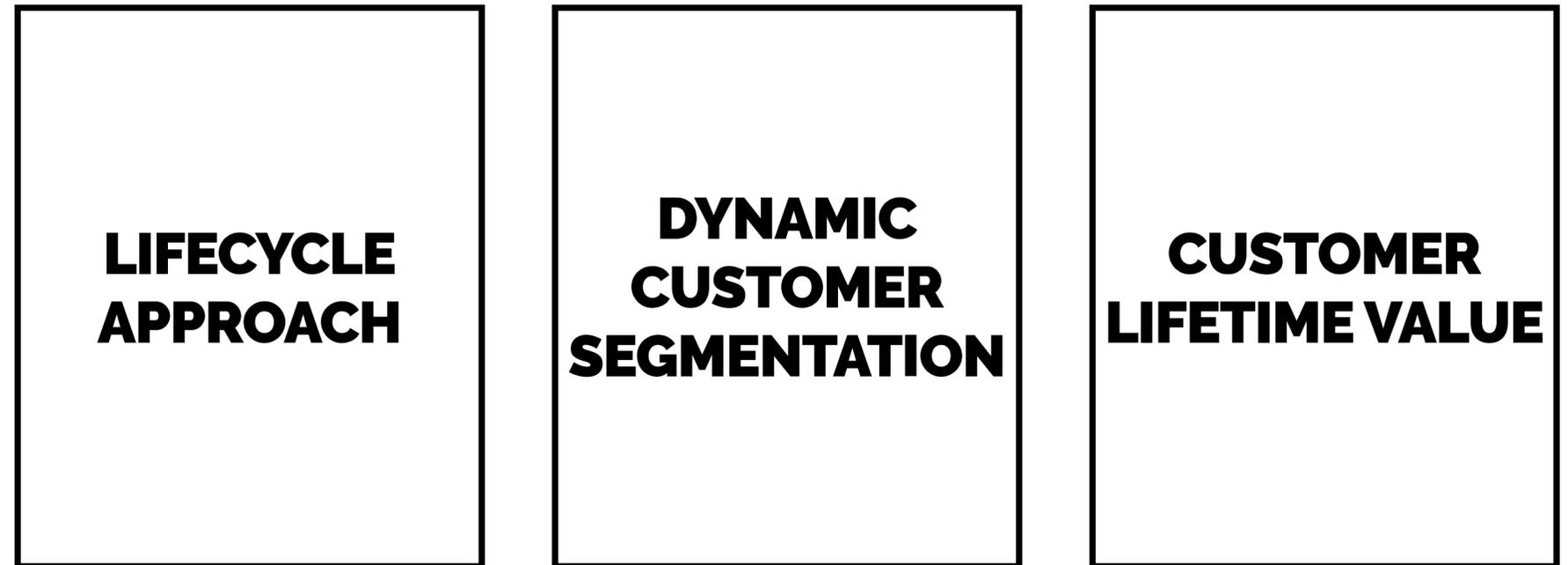
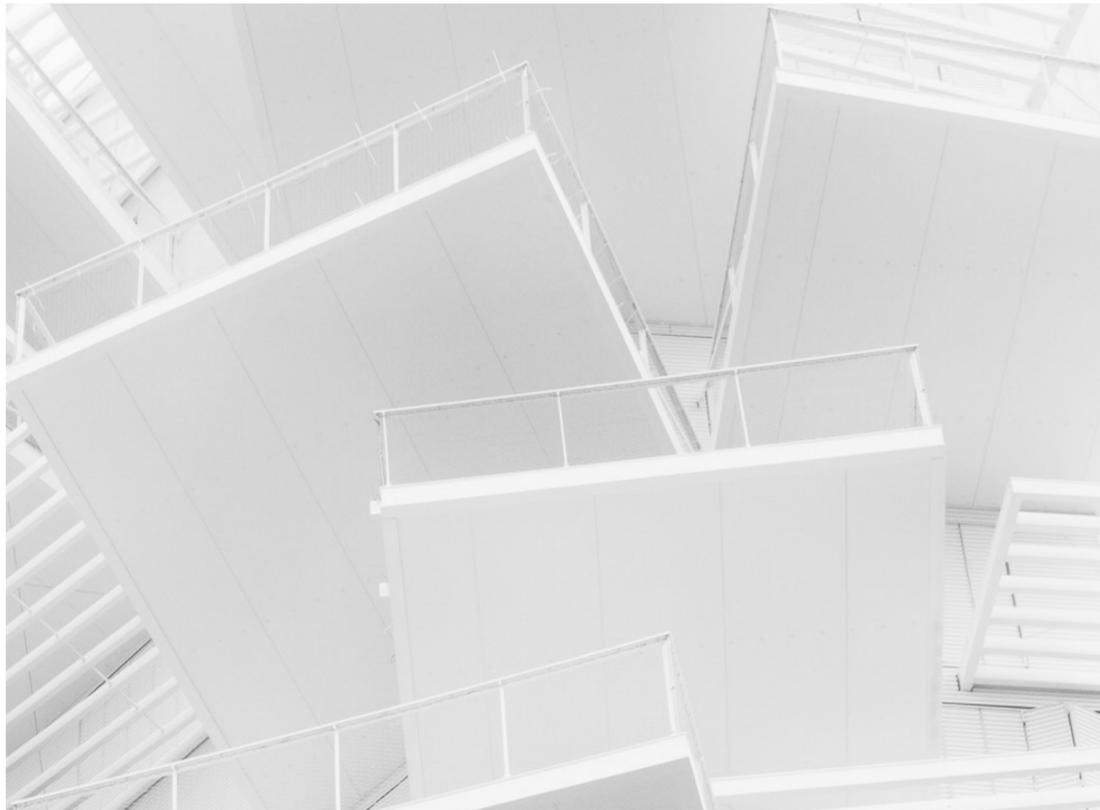




MANAGING CUSTOMER DYNAMICS: APPROACHES

MANAGING CUSTOMER DYNAMICS

Evolution of Approaches



Slow

Speed of response

Fast

All customers

Size of segment managed

Niche segment

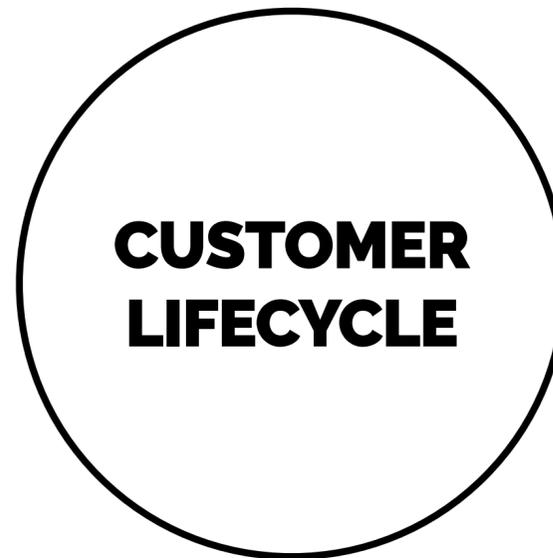
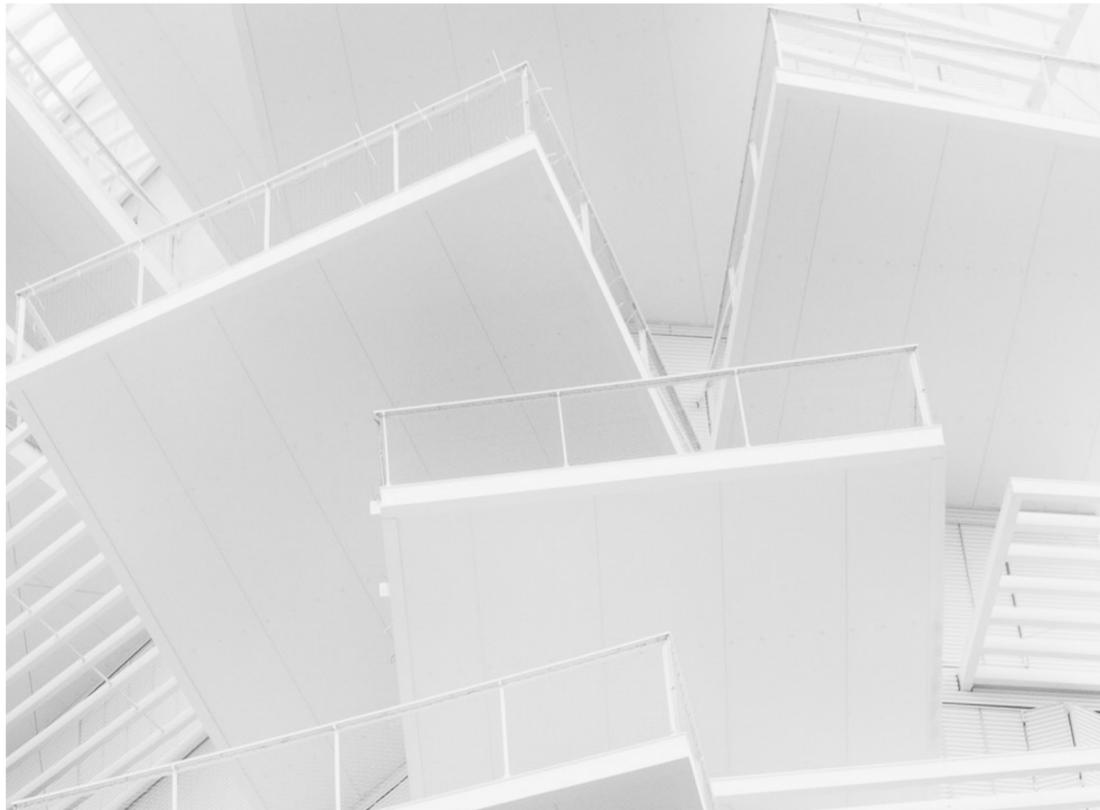
MANAGING CUSTOMER DYNAMICS

LIFECYCLE APPROACH

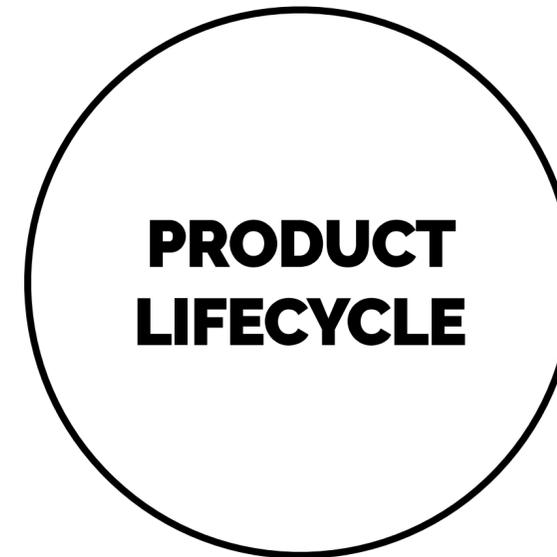
DYNAMIC CUSTOMER SEGMENTATION

CUSTOMER LIFETIME VALUE

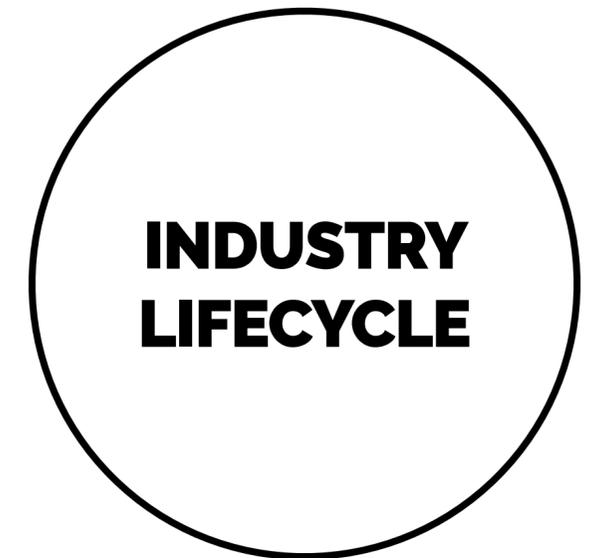
Lifecycle Approach



attempts to capture how individuals typically change as they age and reach common age-related milestones



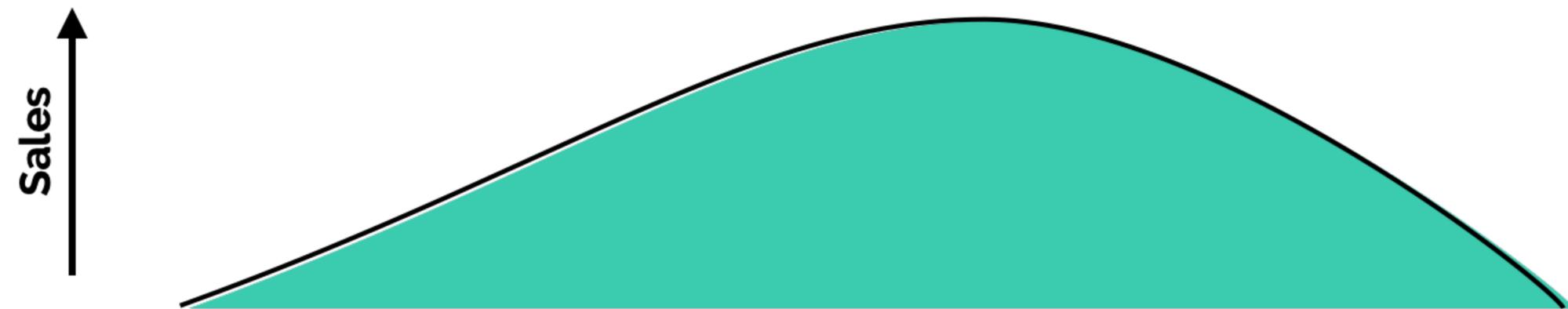
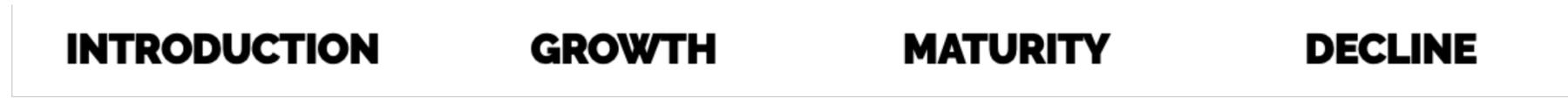
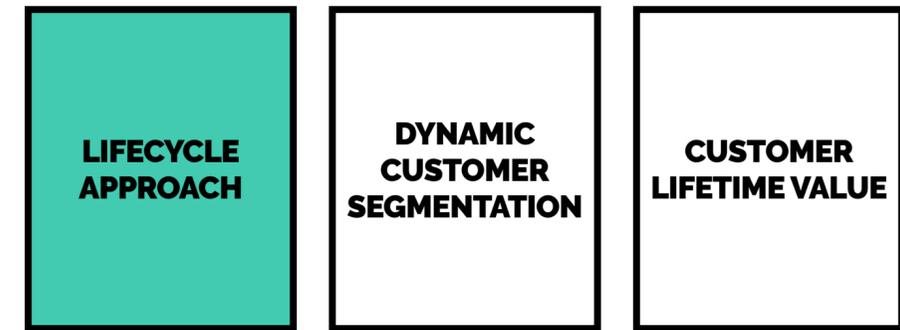
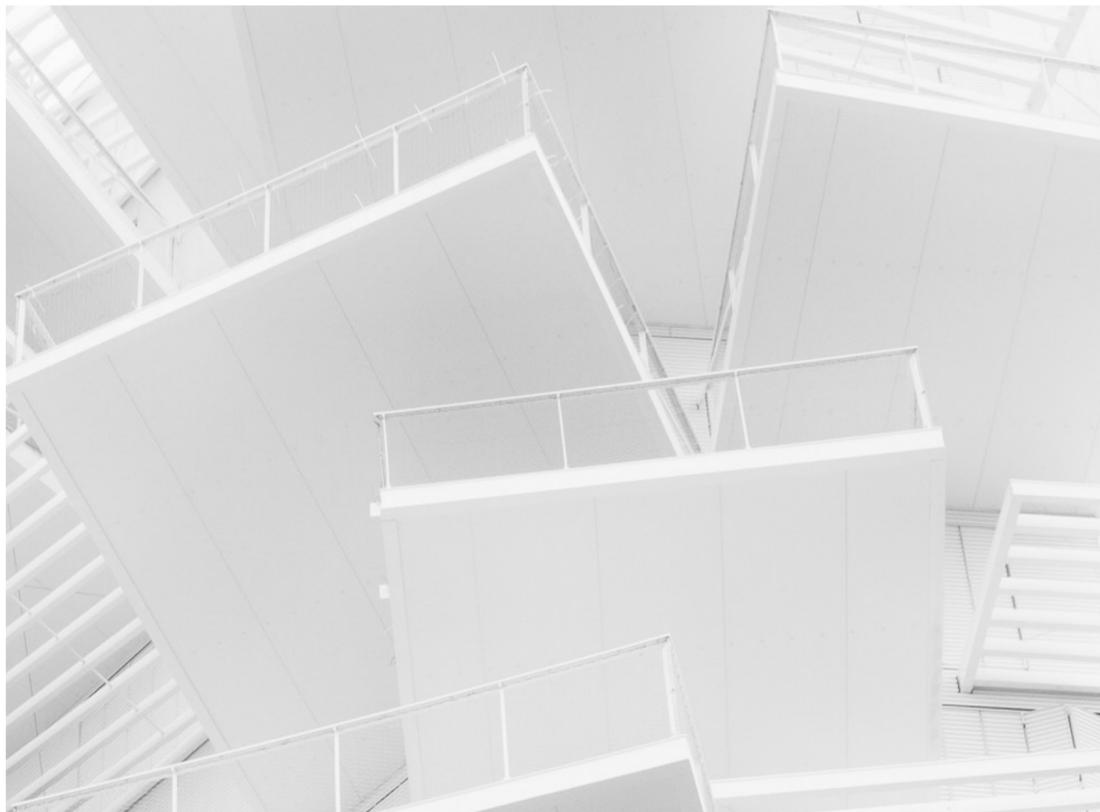
proposes that various products go through four typical stages in relation to their acceptance by society: introduction, growth, maturity, and decline



comprises five stages: (1) early establishment of range and boundaries, (2) innovation, (3) shakeout, (4) maturity, and (5) decline.

MANAGING CUSTOMER DYNAMICS

A Typical Customer Product Lifecycle

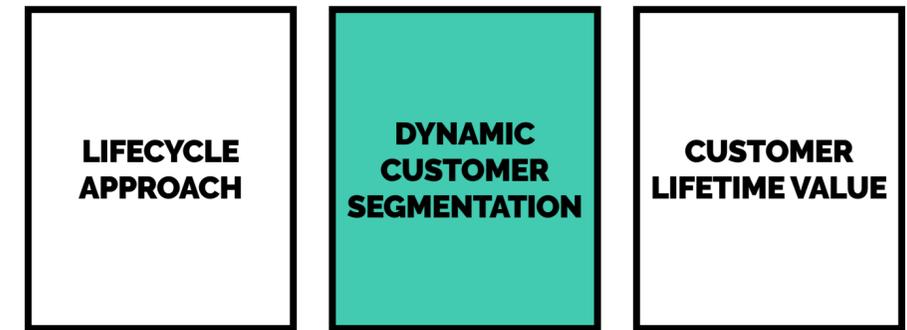
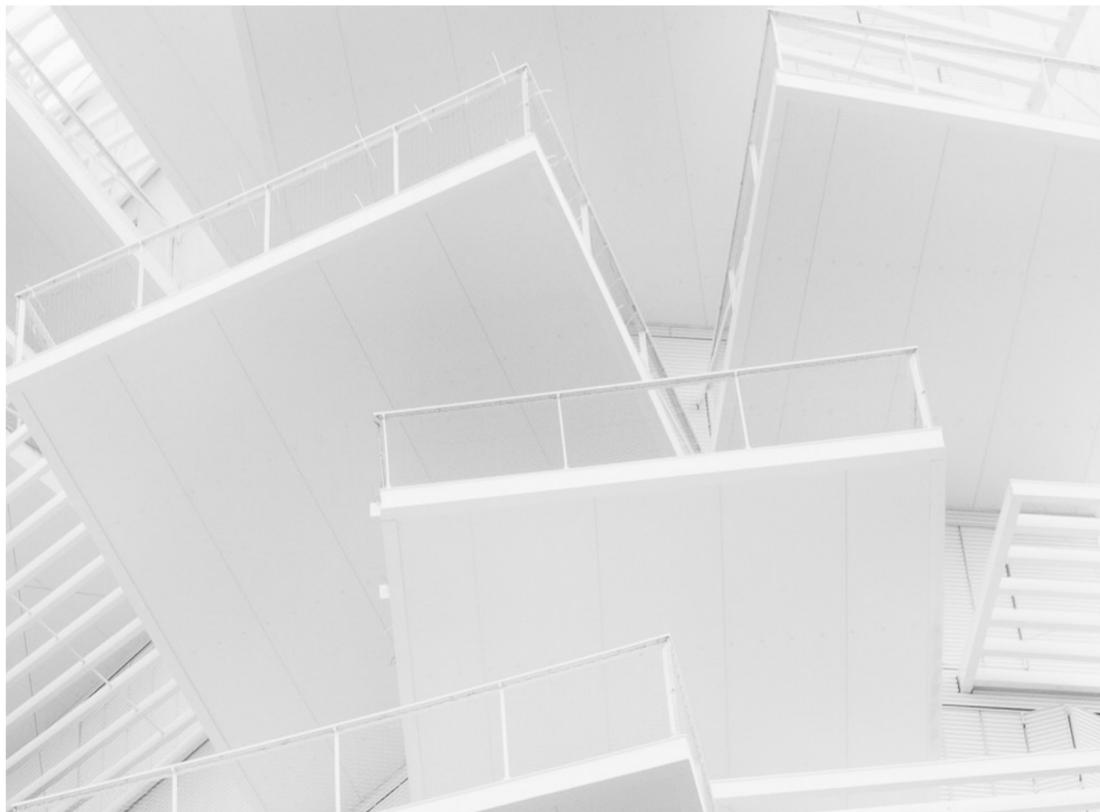


Descriptions of the Stages

- INTRODUCTION**
 - Product just launched on the market, often perceived as risky by customers.
 - Most relevant features are still unknown by customers and sellers.
 - High prices.
 - Seller focuses on finding new customers and promoting product trials.
- GROWTH**
 - Product gains acceptance in the market, and sales expand quickly.
 - Users are more comfortable with the product and know which features they want.
 - More focus on retaining customers and generating repeat sales.
 - Customers become increasingly price sensitive.
- MATURITY**
 - Product is widely accepted, and growth begins to slow, because fewer new users are available.
 - Market becomes competitive, and some firms drop out.
 - Intense price competition reduces profits.
 - Some sellers focus on niche segments to avoid competitive pressures.
- DECLINE**
 - Destructive competition and changing consumer needs and desires lead to product decline.
 - Firms' sales and profits decline.
 - Firms with higher cost and those without a unique advantage exit the market.
 - Market often consolidates with fewer suppliers.

MANAGING CUSTOMER DYNAMICS

Dynamic-Based Segmentation

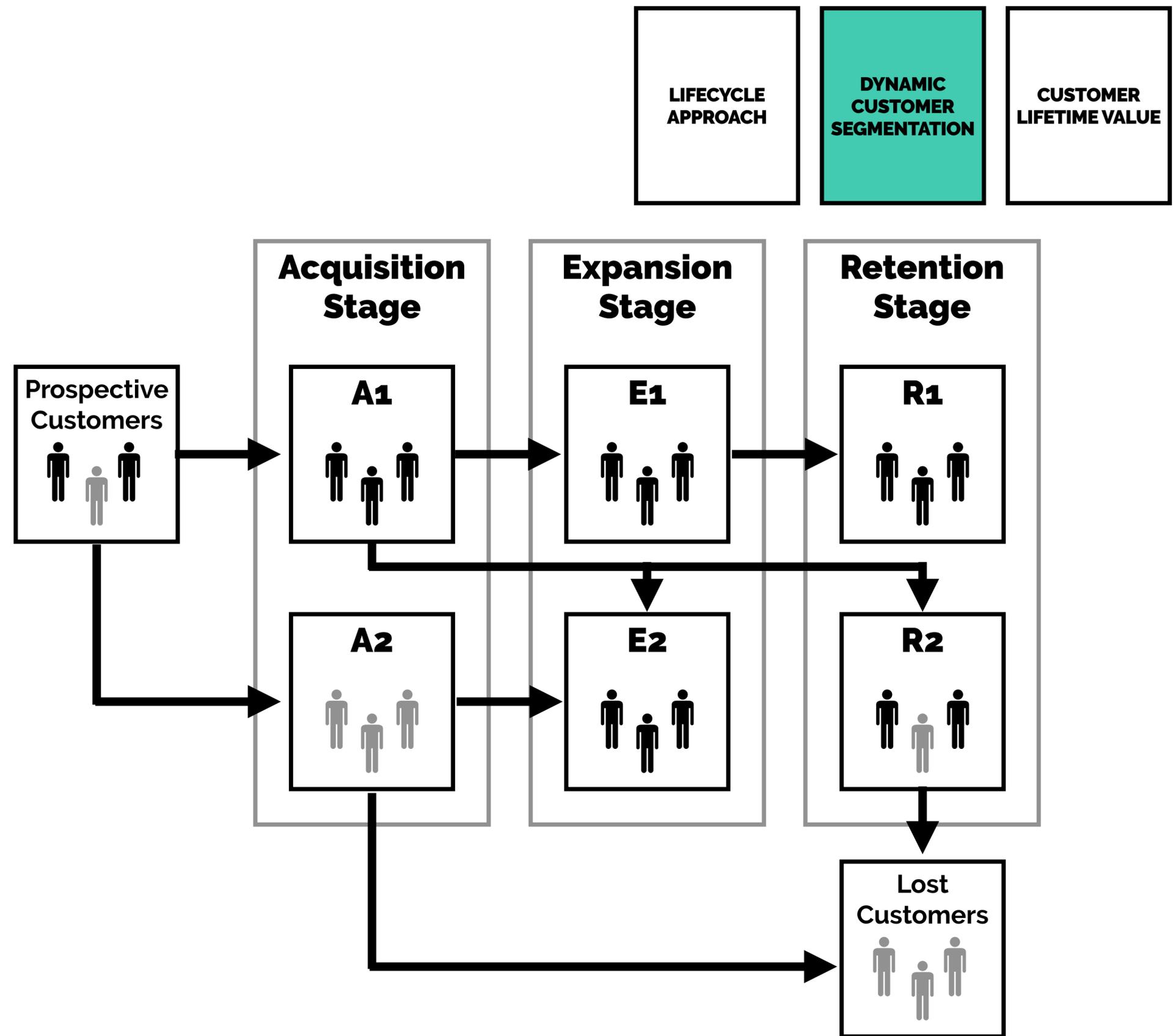
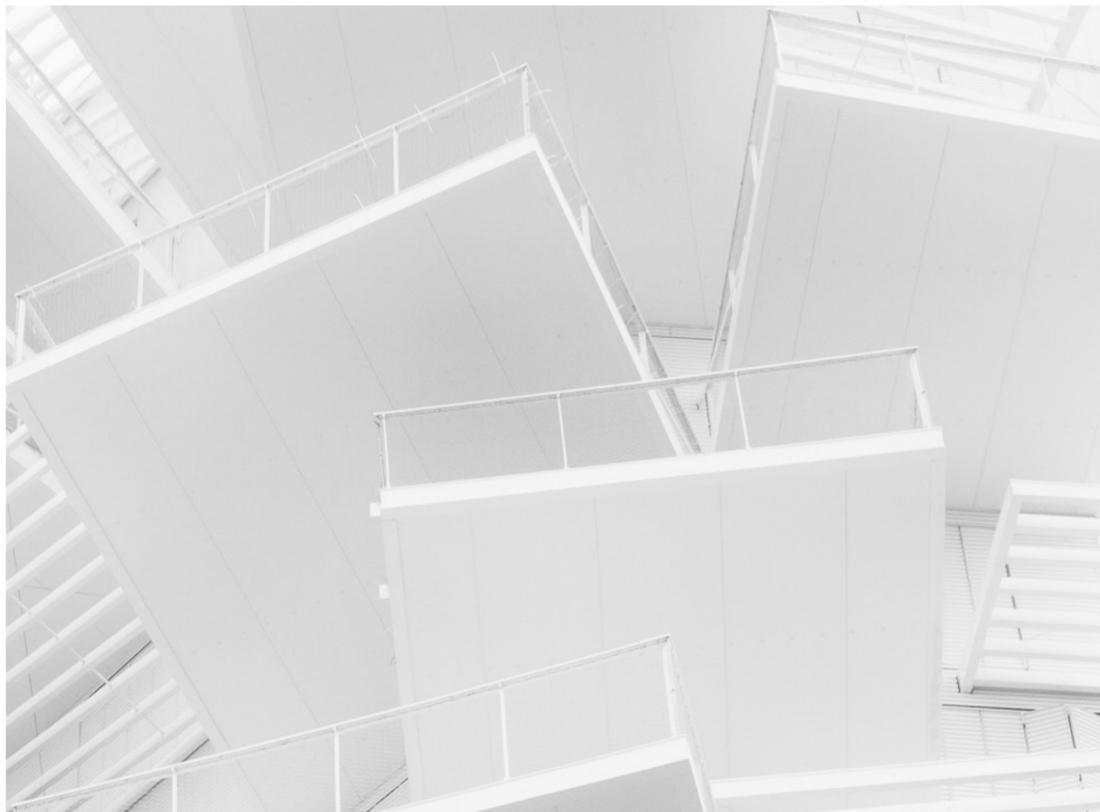


- Evaluates **existing customer's** behaviors/needs in each AER stage to understand temporal differences
 - Customers are “temporally” similar in each stage (assumption)
 - Matches marketing action domains (i.e., acquisition is often a self-contained marketing domain)
- **Dynamic-based segmentation** is sometimes called the **Acquisition–Expansion–Retention (AER)** model, because it captures customers entering the firm’s portfolio and expanding over time, even as other customers slowly leave:



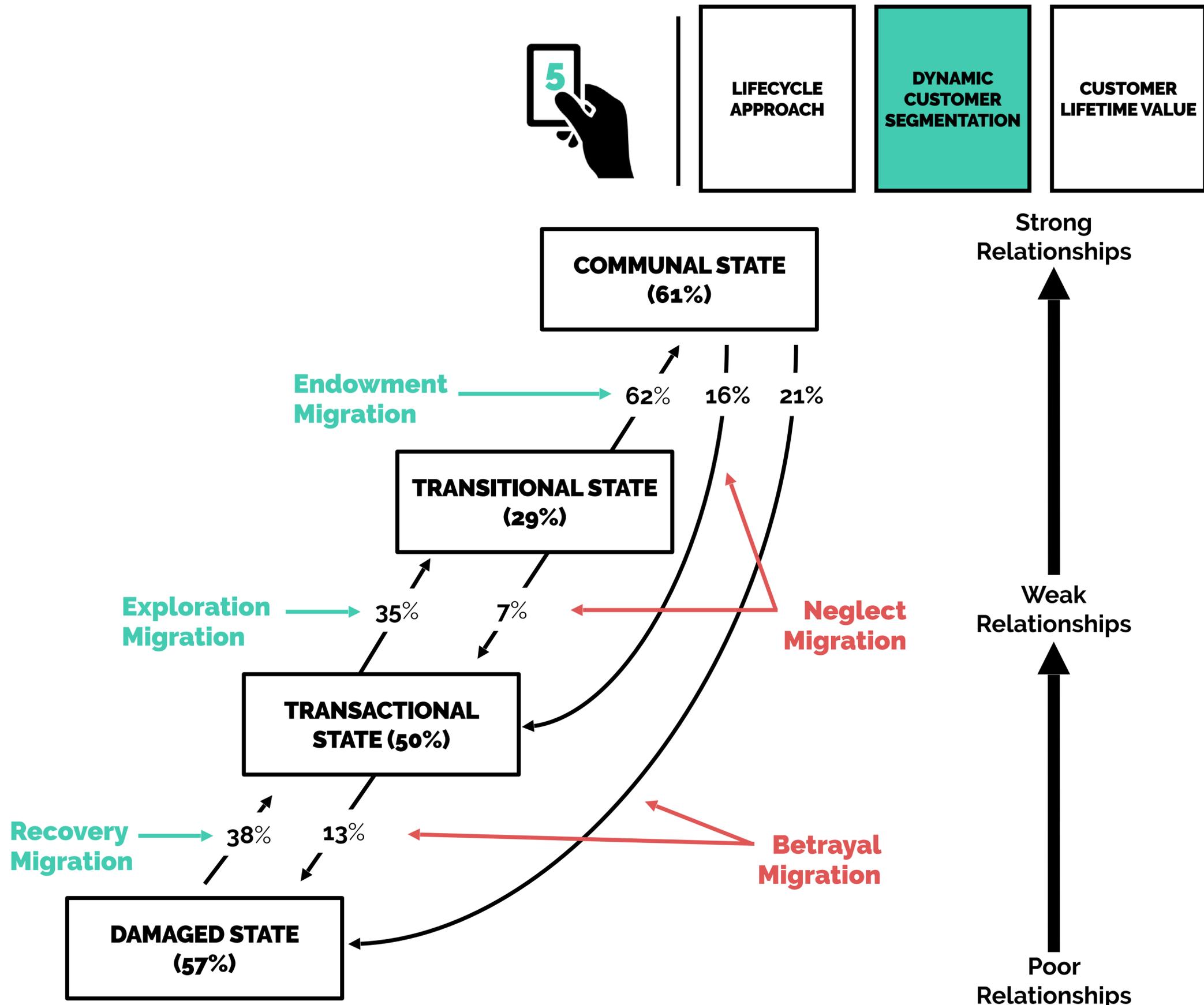
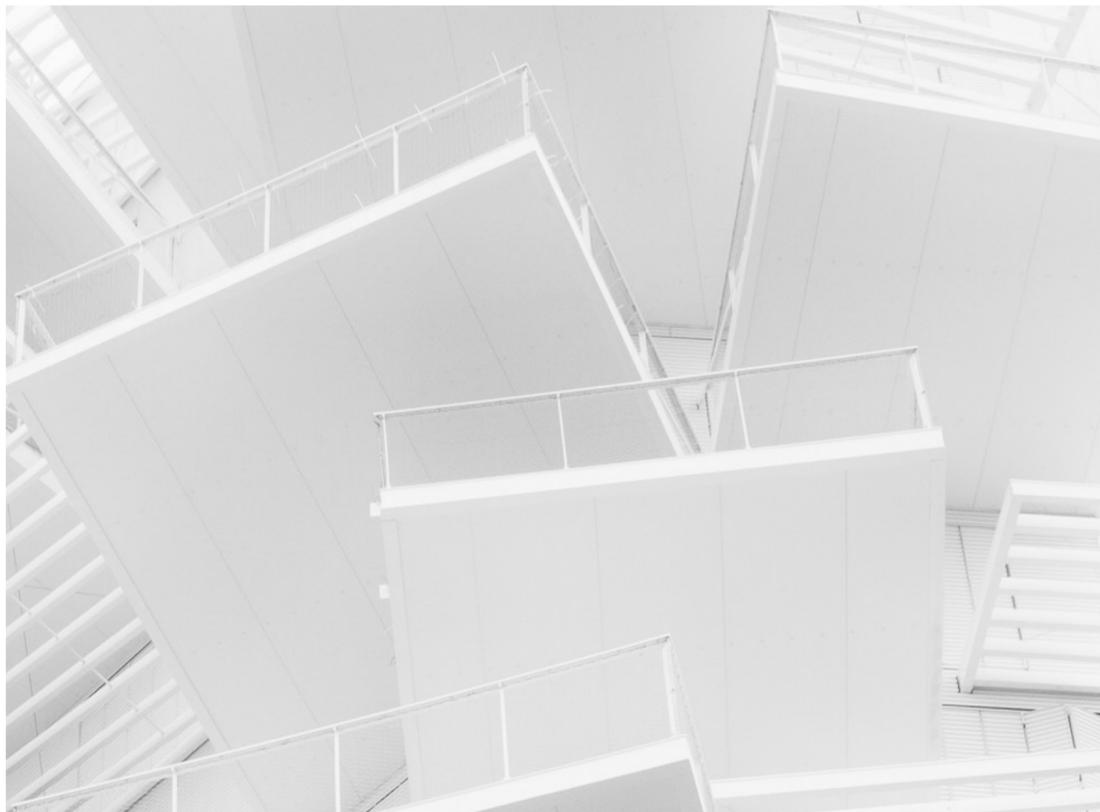
MANAGING CUSTOMER DYNAMICS

Dynamic-Based Segmentation



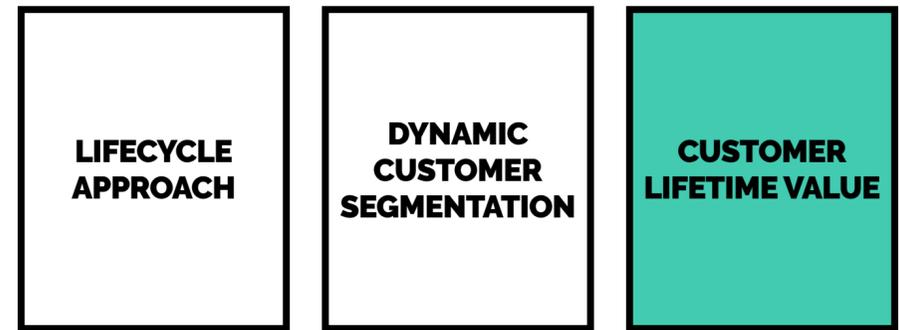
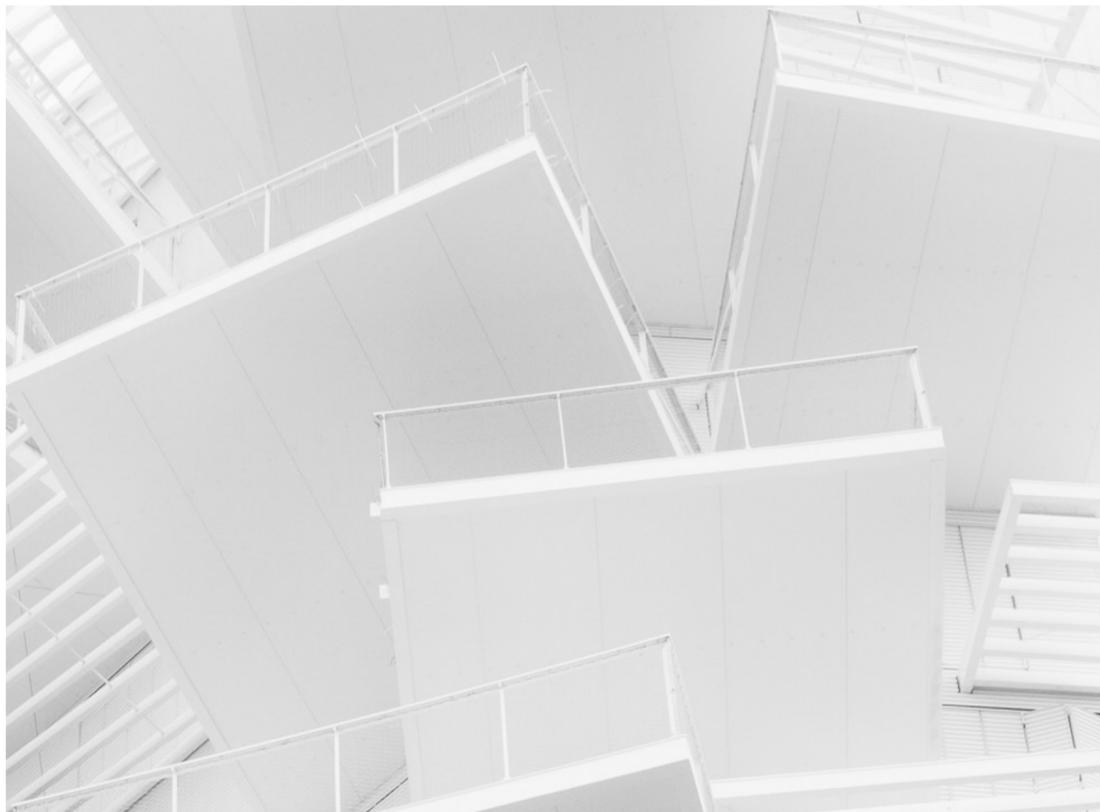
MANAGING CUSTOMER DYNAMICS

Dynamic-Based Segmentation: HMM



MANAGING CUSTOMER DYNAMICS

Customer Lifetime Value (CLV)



- How do you know best customers to acquire/expand/retain?
 - In many banking initiatives only 1 in 3 “customers” remain after incentive ends
 - Are all customers worth acquiring or retaining?

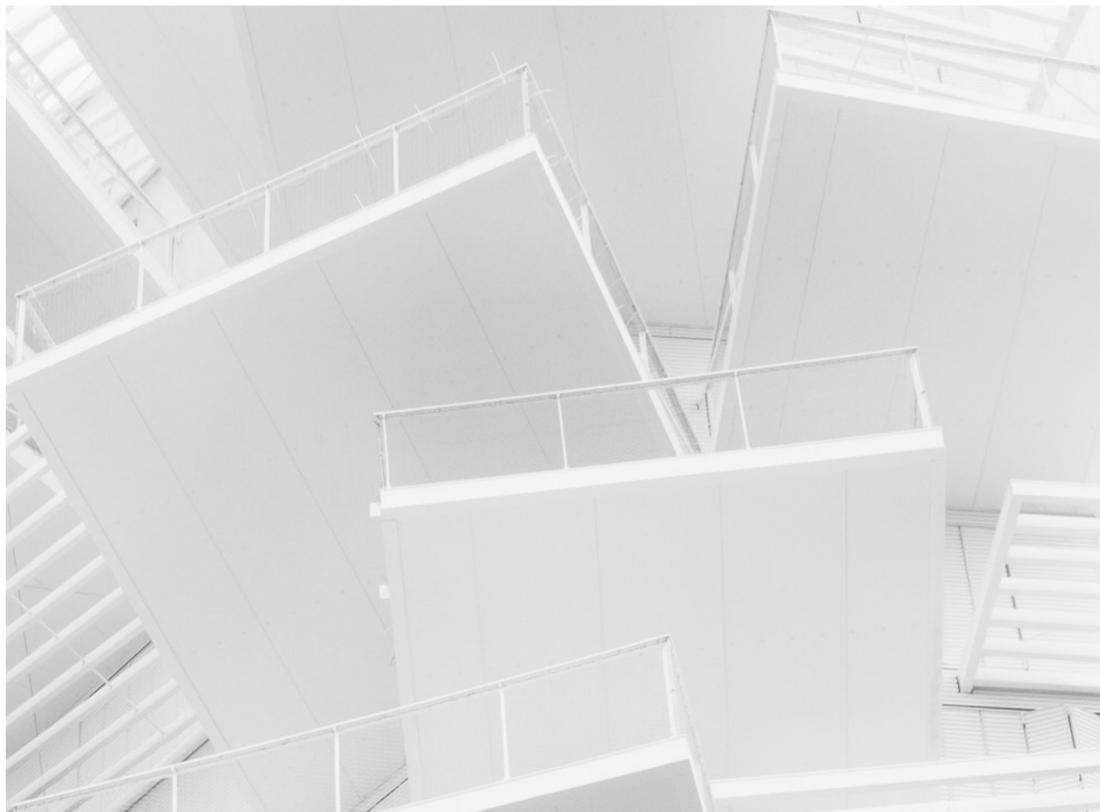
▶ **CLV APPROACH:**

evaluates a firm’s profit as the sum of each customer’s lifetime discounted cash flows

- Approach captures “true” contribution of each customer at any stage by accounting for:
 - **Customer heterogeneity** and **dynamic effects** (individual level, uses transition expectations, and discounts future profits)
 - Tradeoffs among AER strategies (e.g., how acquisition may affect retention)

MANAGING CUSTOMER DYNAMICS

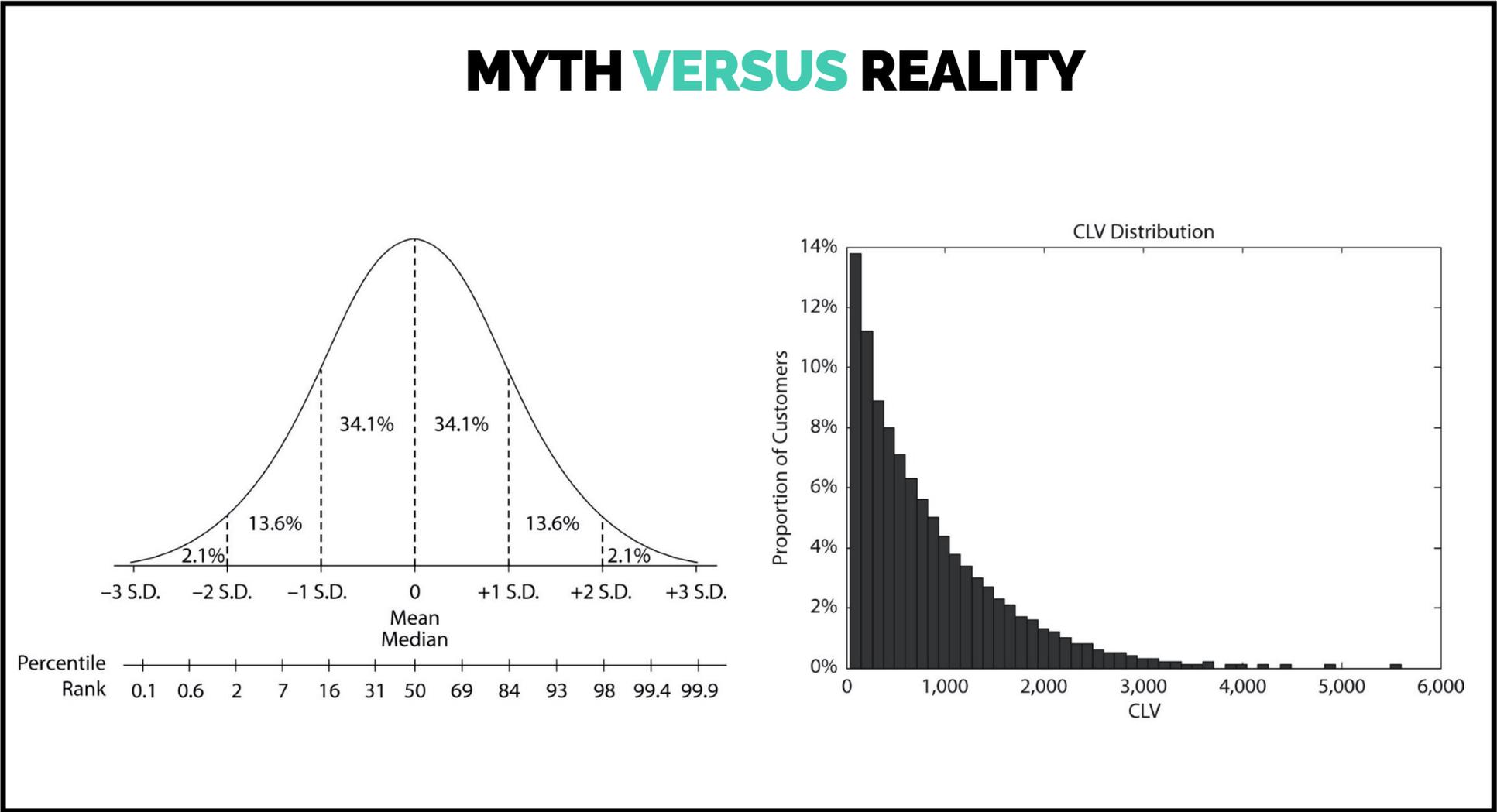
Customer Lifetime Value (CLV)



LIFECYCLE APPROACH

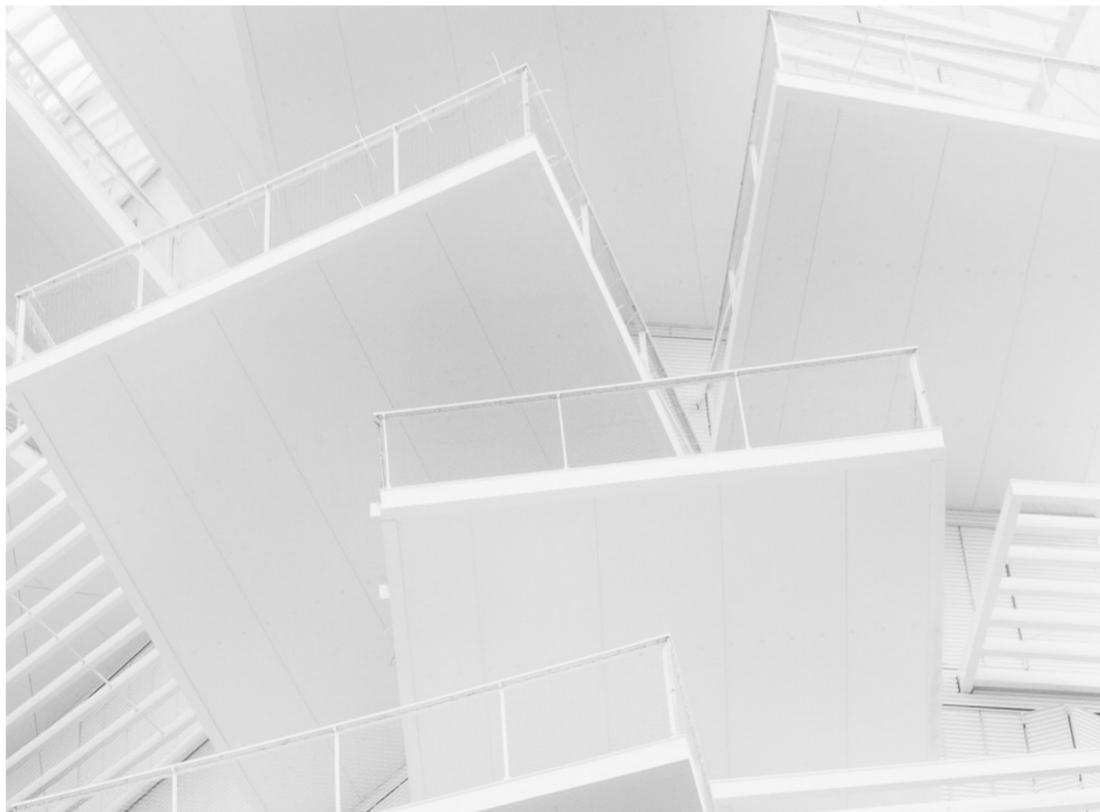
DYNAMIC CUSTOMER SEGMENTATION

CUSTOMER LIFETIME VALUE



MANAGING CUSTOMER DYNAMICS

Customer Lifetime Value (CLV)



CUSTOMER LIFETIME VALUE

LIFECYCLE
APPROACH

DYNAMIC
CUSTOMER
SEGMENTATION

CUSTOMER
LIFETIME VALUE

Understanding: CLV is the monetary value of a customer relationship based on the present value of the projected future cash flows from the customer relationship.

Purpose: CLV is an important concept that encourages firms to shift their focus from quarterly profits to the long-term health of their customer relationships.

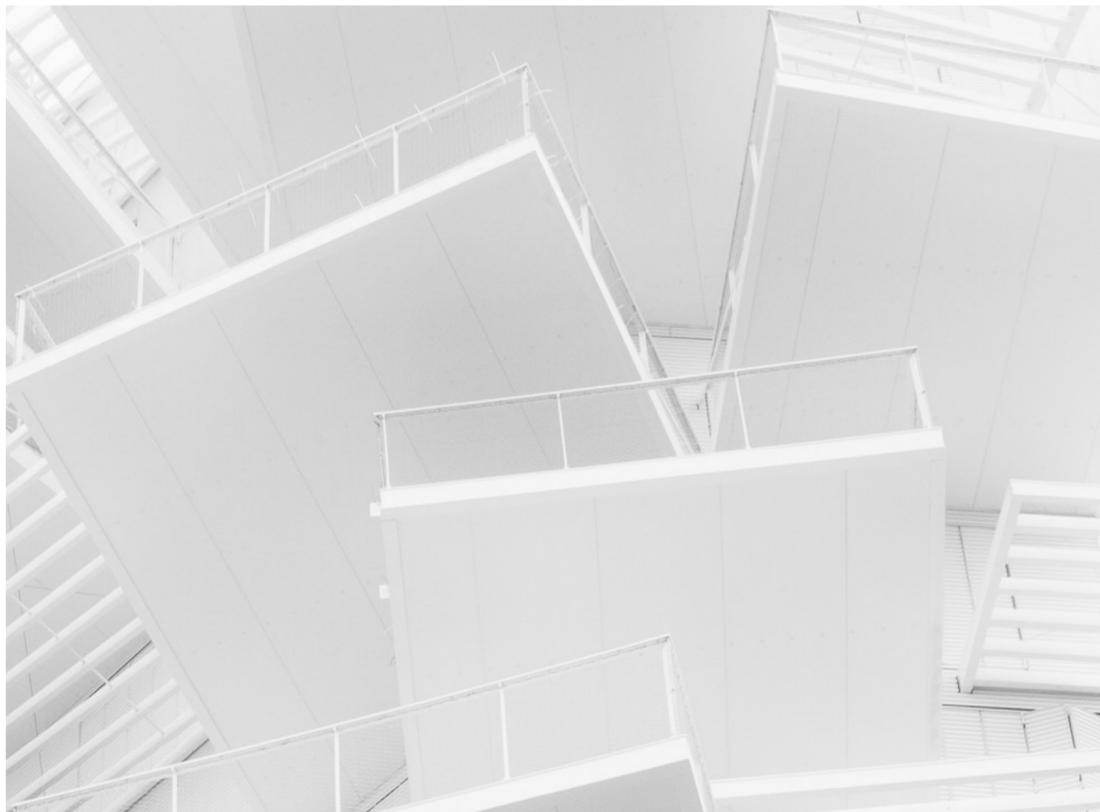
$$\text{CLV (€)} = \sum_{t=0}^T \frac{\text{Margin in period } t \text{ (€)} * \text{Retention Rate (\%)}^{\text{Period } t}}{(1 + \text{Discount Rate (\%)})^{\text{Period } t}} - \text{Acquisition Costs}$$

The geometric series in the preceding equation can be rewritten as:

$$\text{CLV (€)} = \frac{\text{Margin (€)} * (1 + \text{Discount Rate (\%)})}{[1 + \text{Discount Rate (\%)} - \text{Retention Rate (\%)}]} - \text{Acquisition Costs}$$

MANAGING CUSTOMER DYNAMICS

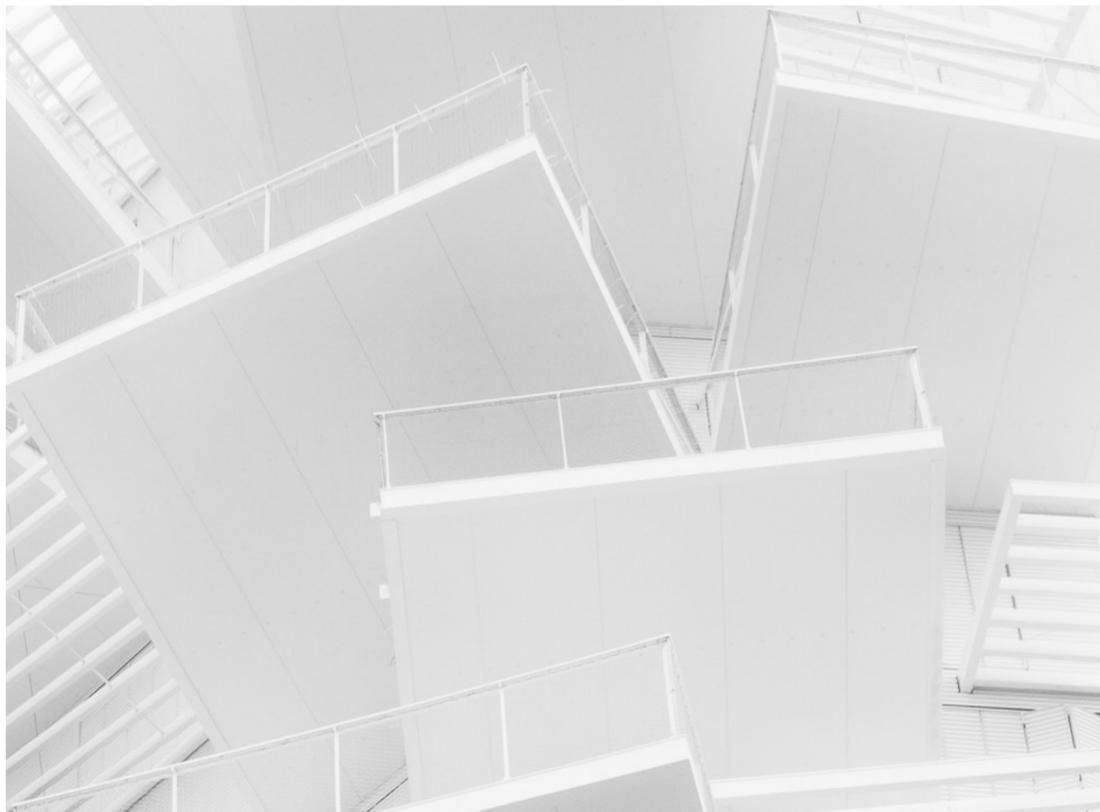
RFM Analysis is “Poor Man’s” CLV



- Direct marketers have been using a simplified version of the CLV for decades, targeting customers to receive expensive catalog mailings. They use three readily available customer behaviors:
 - **Recency** or time elapsed since last purchase
 - **Frequency** of purchases in last period
 - **Monetary** purchases in last period
- These RFM (recency, frequency, and monetary) variables put customers **in rank-ordered groups**, based on their value in the past year (not by modeling but by rank-order sorting)
- Using the profits generated from a test mailing to a few customers from each group, direct marketers then mail the catalog only to the groups with an acceptable return on investment

MANAGING CUSTOMER DYNAMICS

Lost Customer Analysis Informs AER Strategies



- A firm contacts customers that have migrated away, to identify the cause for this change, then works backward to fix the problem and ensure other customers don't leave for the same reason.
- Takes a significant number of lost customers before a firm recognizes that it isn't just "normal" customer churn but rather an indication of an underlying problem.

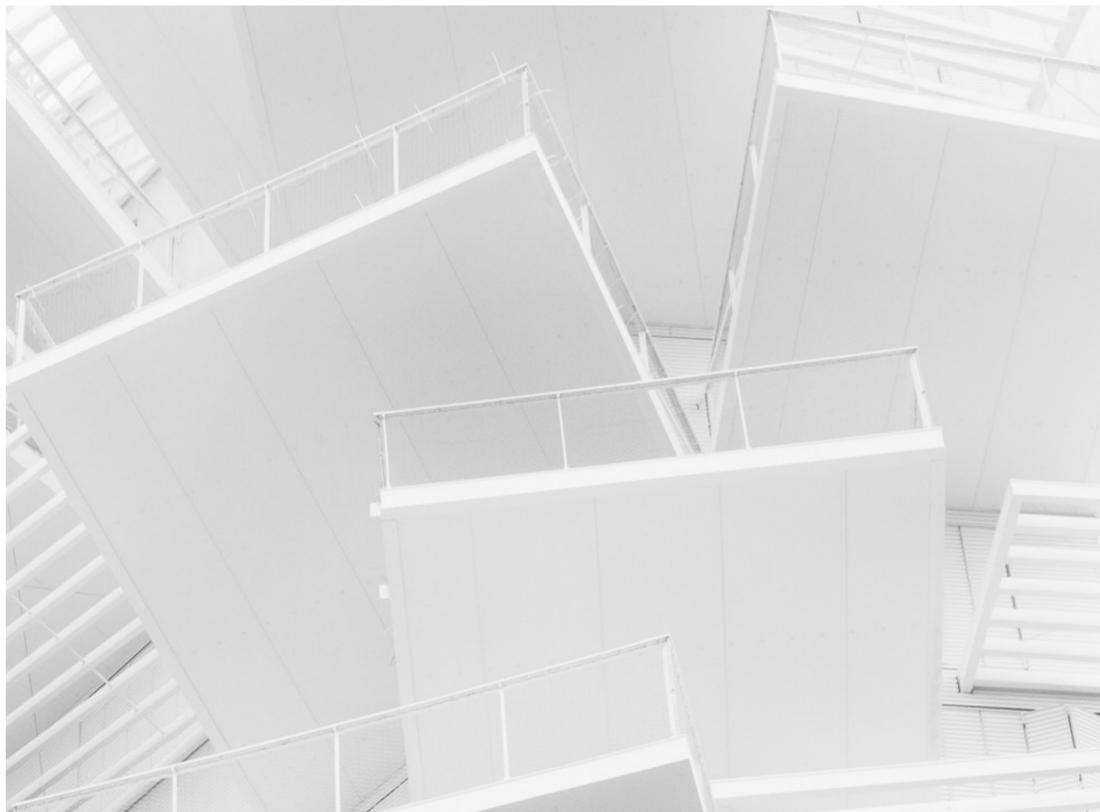
THREE-STEP PROCESS



- ▶ A **choice model** can benefit the lost customer analysis, and can inform analyses across all AER stages, because it predicts the likelihood of observed customer choices/responses, using data about that customer's characteristics and past behaviors, as well as the firm's marketing interventions

MANAGING CUSTOMER DYNAMICS

Choice Models



- Analysis approach that attempts to determine the impact of different factors (price, promotion) on consumer's individual choices (joining, cross buying, leaving):
 - Most popular individual-level response model;
 - Uses past behavioral data;
 - No need to survey or get customer input (infers weights from past customer's behaviors);
 - Determines probability of choices and elasticities of marketing variables.
- While regression analysis:
 - Is not an individual model and uses continuous outcomes;
 - Gives weights of inputs, but not probabilities or elasticities;
 - Does not use "logit model," which is better predictor of how people act by capturing diminishing effects (inputs have less effect as you do it more).

