EFR summary

Empirical Marketing, FEB12018X

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Lectures 1 to 6

Weeks 1 to 6

Details

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Empirical marketing – IBEB – Lecture 1, week 1 - Introduction

Brief history of marketing strategy

Strategy arose from a military context: “The forces available must be employed with such skill that even in the absence of absolute superiority, relative superiority is attained at the decisive point” - Karl von Clausewitz, On War (1832)

- Management scholars added two elements to apply the strategy concept to business: the need to make the differential advantage sustainable and the idea that the objective of any business strategy is to enhance firm performance (60s and 70s)
- Marketers argue that it must be from the perspective of the customer (90s)

Marketing strategy consists of decisions and actions focused on building a sustainable differential advantage, relative to competitors, in the minds of customers, to create value for stakeholders.

Why is marketing strategy essential for financial performance?

A large amount of research documents its impact on financial performance, but many people don’t realise the scope of influences on sales and profits.

- Expand market size (new products and services, lower prices)
- Increasing Market Share(offering superior products or services and building customer loyalty
- Enhancing profit margin (improve loyalty, brand image, relationships, products, targeting of high margin customers)
- Reduce costs (WOM, brand, relationships, retain with loyalty)

Example: Apple (US)
Launch of Apple’s iPhone catalyzed explosive growth of smartphone market:

- Market grew from 109 million units than 486 million in 5 years

- iPhone’s market share increased from 3.3% to 18.4%.
- Apple maintains premium pricing.

Marketing strategy vs corporate strategy

Marketing strategy: Marketing strategy comprises of choices and activities targeted at creating a lasting competitive edge in customers' minds in order to maximize value for all parties involved.

5 key questions that define any entity’s marketing strategy:

1. Who are your consumers?
2. What value—such as a product, service, experience, or status—do you offer your customers?
3. How are you creating a distinct advantage over rivals for these customers?
4. What benefits (sales, income, or recommendations) do you receive from your consumers as a result of this competitive advantage?
5. How will you maintain this competitive edge going forward?

Corporate strategy consists of the additional questions that arise regarding other aspects of the business (e.g. cash flow plans, tax considerations, policies, etc.)

First principles approach to marketing strategy

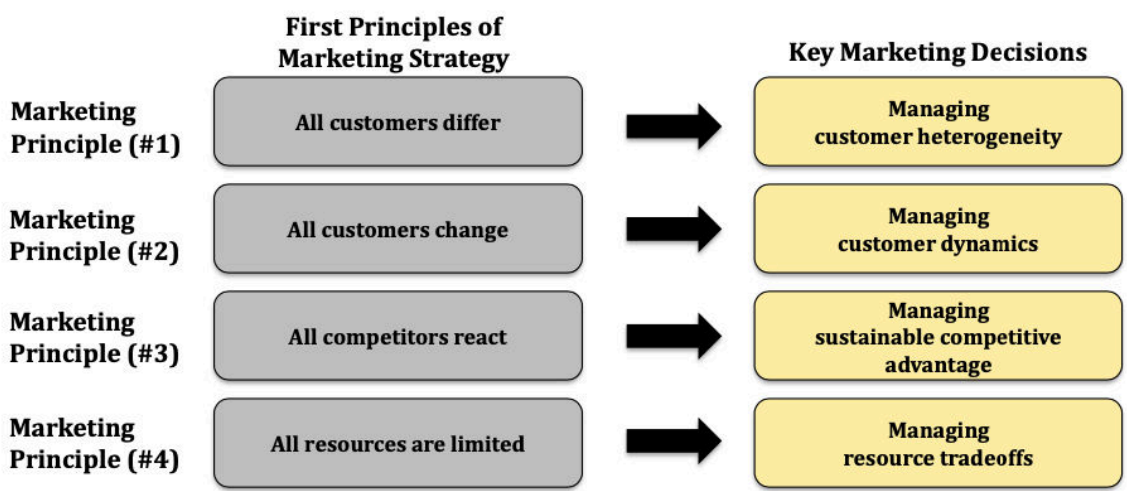
The first principle approach argues that marketing strategy is the pursuit of solutions to four fundamental marketing problems and organizes all frameworks, processes, and analyses to solve these problems.

- Managers are being overwhelmed with more and more analysis tools, processes, and research techniques, but hard to know when to apply each one
- Why not just use “case” examples?
    - Hard to find a case example for every marketing problem
    - Often what works for “case firm” will not work for your firm because:
        - Different customers
        - Different stage of product or industry lifecycle
        - Different competitive situation
        - Different resources

Thus, a key requirement for making good marketing decisions is to identify underlying factors on which the decisions depend.

The underlying ideas or presumptions upon which a theory, system, or approach is built are known as "first principles." Each First Principle, when matched with associated marketing decisions, produces a Marketing Principle (MP). These First Principles (followed by their Marketing Principles (MP)) are:

1. All customers differ
    a. MP: Managing customer heterogeneity
2. All customers change.
    a. MP: managing consumer dynamics
3. All competitors react.
    a. MP: Managing sustainable competitive advantage
4. All resources are limited
    a. MP: Managing resource tradeoffs



Source: Lecture 1, Marketing Principles (Karpienko, 2022)

First principle #1: All Customers Differ -> Managing Customer Heterogenity

- For most products and services customers vary widely on desires/needs
    - E.g. Grocery stores can carry 60,000,+ SKUs
- Thus, firms are targeting smaller & smaller segments

- Mass marketing =>niche marketing => 1-to-1 marketing
- Competitive race as firms target smaller segments

- Why?
  - Matches inherent customer desires (real, perceived)
  - Faster response to customer trends and changes
  - Technology enabled (more economical to target/customize)
  - Only limited by tradeoff in efficiency (cost) versus benefit of better match to need (solution)

Example: Godiva

Addressed MP #1 by developing different products for different consumers.
3 reasons people buy chocolate

1. To gift to others
2. To eat by themselves
3. To share

Expanded product line to meet all these needs (individually wrapped candies for candy dishes, fondue baskets for sharing with a group, packaged candy bars for people to eat themselves)
=>Sales have increased by more than 10% per year for many years

MP#1: Managing Customer Heterogeneity

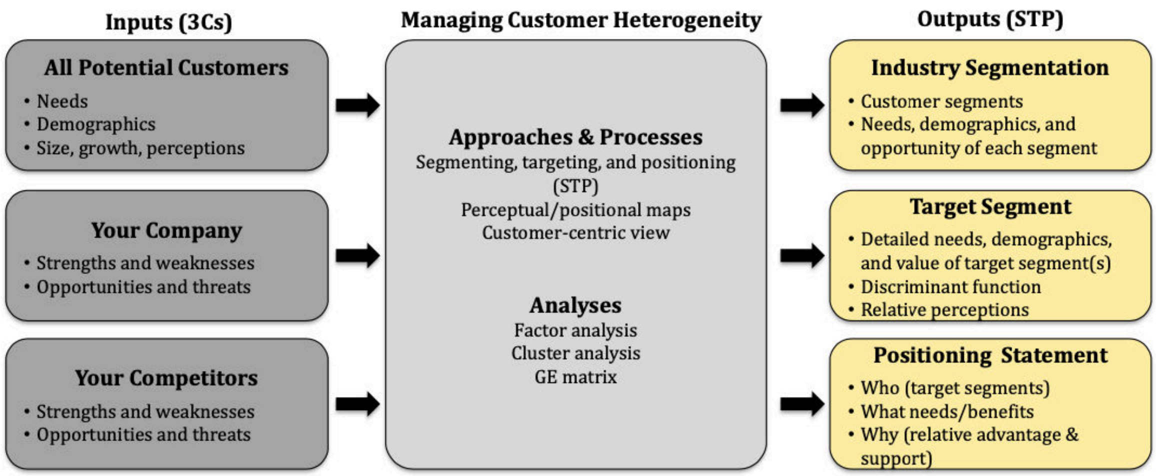
The difference among consumers in terms of their wants, desires, and subsequent behaviors is known as **"customer heterogeneity."**

Managing Customer Heterogeneity

The figure below shows the input- output framework for managing customer heterogeneity. It shows approaches, processes and analyses that help managers to make decisions.

The key inputs required are:

1. All Potential Customers: gather their needs, desires and preferences (like segmentation)
2. Your Company
3. Your Competitors



Source: Lecture 1, Managing Customer Heterogeneity (Karpienko, 2022)

Inventories of the company's and its competitors' strengths and weaknesses are needed to evaluate the firm's strength in each segment, which supports the targeting and positioning statement.

<u>Ways firms can manage customer heterogeneity</u>

1. Ignore customer heterogeneity, focus on matching average consumer needs
    a. Result: temporary profitability. Soon a competitor will appeal to one of their subsegments and the firm will lose profits.
2. Offer range of products to satisfy needs of different consumers
    a. Result: Highly effective but costly & difficult
3. Predict that customers will take a good-enough product, if the price is sufficiently low.
    a. Result: Can be viable
4. Select a specific Segment of customers and target them
    a. Known as: **Segmentation, Targeting, and Positioning (STP)** approach
    b. Customer-centric approach where firms recognize their long-term value
    c. Strong brand that consumers know and respect

<u>Outputs - Segmentation, Targeting, and Positioning (STP)</u>

1. Industry segmentation
    a. Subdivided into homogenous groups?
    b. What does each group of customers want?
2. Target Segment
    a. Which segments to pursue?

    b. How can the firm identify with each group of target consumers?
3. Positioning statement
    a. Whom should the firm target?
    b. What needs and benefits are being fulfilled?
    c. What are the relative advantages of this offering versus competitive offerings?

The process of converting customer, company, and competitor (3Cs) inputs into a representation of the firm's environment, using industry segmentation, target segments, and positioning statement (STP) outputs, is a critical first step in developing a marketing strategy.

First principle #2: All Customers Change

- ➔ Customer's desires/needs for most products and services change over time or due to specific events. This is called **customer dynamics**
    - ◆ **Consumer needs** change: cars, clothes, food, financial services, and healthcare as consumers age
    - ◆ **Trigger events**: marriage, kids, job change, finances, move, graduation, acquisition, new managers, legal changes
    - ◆ **Industries/markets** change: experience curve, diffusion, competitive responses, overproduction
- ➔ Customer's needs vary not only due to inherent differences in people (heterogeneity) but also as people and markets change (dynamics)
- ➔ Thus, segmentation and targeting needs to account for lifecycle changes/customer dynamics

Customer dynamics

The processes by which customers' desires and needs change over time are called customer dynamics. The drivers of it are the following:

1. Seminal events
    a. Eg. graduation, accident, promotions
2. Life stages
    a. Eg. single → married → children
3. Knowledge/expertise
    a. Learning effect (e.g., first time guitar buyer focuses on price and color, musician eventually focuses on fretboard material, tone woods, etc)

4. Product category maturity
    a. Another learning effect (I.e. Given that practically everyone now is familiar with these technical specifications thanks to the development of this market, digital photographers are likely to take a camera's pixels and zoom rates into account.)
5. Regular exposure to relevant information

MP#2: managing customer dynamics

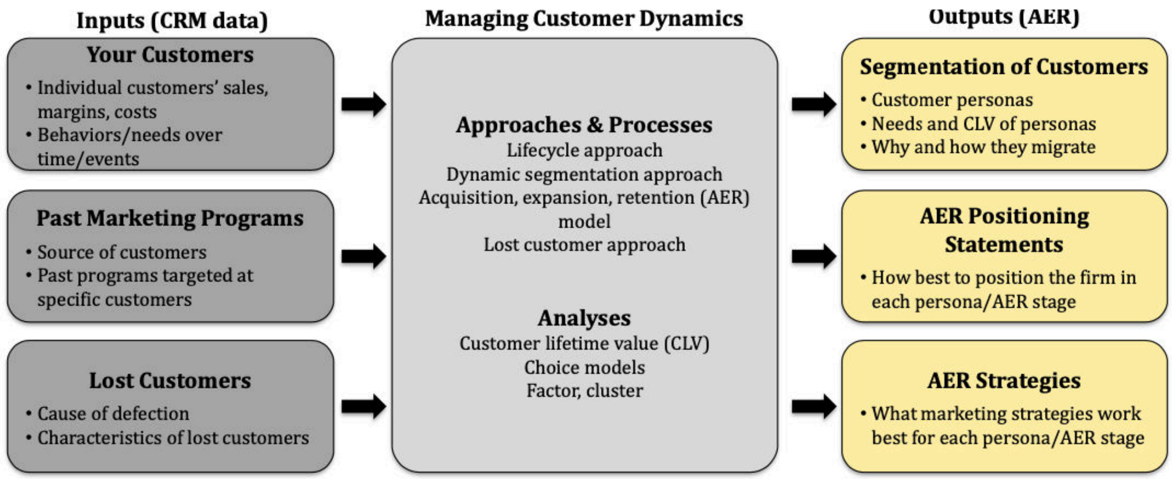
While MP#1 concentrates on the market as a whole, MP#2 focuses just on current clients. It proves that a business must make an effort to comprehend how its clients develop over time. This can be done through:

1. Lifecycle perspectives
    a. **Consumer lifecycle:** average changes that customers undergo as they age, independent of the specific product or industry.
    b. **Product/industry life cycle**: reflects changes as the product category matures, which leads to different typical user experiences and industry effects.
2. Acquisition, expansion, retention (AER) approach
    a. For existing customers
        i. Grouping them into 3 stages: recently acquired, longer term customers, and those lost or at risk of being lost
        ii. Then create personas for each group
3. Customer lifetime value (CLV)
    a. capture the financial contribution of each customer by determining the discounted value of the sales and costs associated with them, according to their expected migration path over the entire relationship with the firm.
    b. Accounts for heterogeneity of consumers.
    c. Calculated at individual level

Managing Customer Dynamics

There are three categories of input in the framework.
1. Your Customer: It should provide detailed, customer-level data such as financial accounting, product purchase..

2. Past Marketing Programs: It describes how customers have responded to specific marketing programs in the past, like advertising, new customer promotion as well as their costs.
3. Lost customer: It is to figure out why and what they choose instead. It can help to suggest some potential recovery strategies.



Source: Lecture 1, Managing customer dynamics (Karpienko, 2022)

By describing customer personas, their needs and preferences, and how and when customers migrate across personas, a marketing strategist can answer several crucial questions:

1. What critical triggers lead to migration across stages?
2. Which products and services do customers buy in different stages in their lifecycle, and why?
3. When and why do they stop buying?
4 . What is the CLV of customers who represent each persona?

The second (AER positioning statements) and third (strategies) outputs are closely related, in that they represent strategic decisions that managers must make to manage customer dynamics. The process of identifying where specific personas/segments want to go, then developing strategies to guide them reach these positions, shows the process by which a firm establishes its market positioning.

First principle #3: All Competitors React

Competitors are always copying successful strategies and innovating new ones

- ➔ Only one firm remains from the original Dow 30 firms (GE)
- ➔ Given enough money and time, most strategies can be copied
- ➔ **Customer Equity:** Customer equity is "the total of the discounted lifetime values of all of [the firm's] customers.

Thus, companies need to build a "barrier" to being copied, giving them time to adapt to innovation by others. These barriers are termed **sustainable competitive advantage (SCA)** and are critical to long-term superior financial performance

SCAs must meet 3 conditions

1. Customers care
2. Company does "it" better than competitors
3. Hard to duplicate

Sources of SCA

1. Building brands and relationships
    a. Awareness, image, status, meaning, reciprocity debts
    b. Unconscious psychological barriers
2. Innovative offerings
    a. Products, services, and experience (value)
    b. Patents, trade secrets, habits, switching costs
    c. Costs, scale, location, first mover

Example: General Electric (GE)

- ➔ History shows few firms can maintain a leadership position forever
- ➔ Of the original Dow 30 companies, only one remains: General Electric (GE)
- ➔ GE has repositioned itself during multiple drastic, company-wide initiatives to stay competitive
- ➔ From 1929-2013, the Dow Jones top firms were replaced 56 times due to their failure to respond to market changes and competitive threats

First, the firm should make brand decisions, according to its overall positioning objectives. Second, the firm should make choices about its offering, because product and service innovation and R&D efforts must align with both brand strategies and the firm's positioning. Third, relationship strategies get determined last. They involve the delivery and experience of offerings

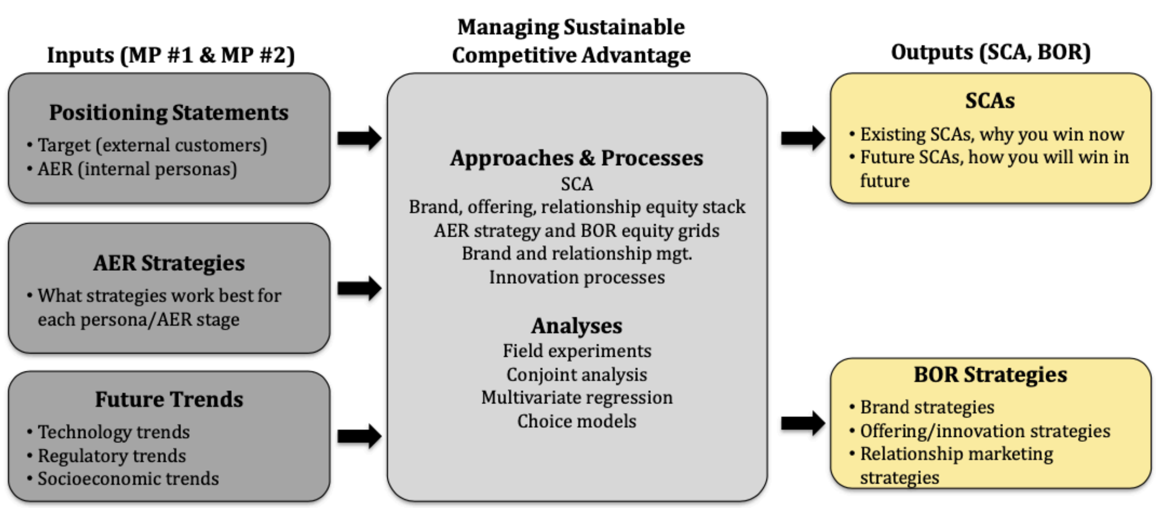
MP#3 Managing SCA

This can be done through the **brand, offering, relationship (BOR) equity stack**

- representative of firms overall customer equity
- At an individual level, customer equity is analogous to customer lifetime value (CLV).

Example: Socks are no longer commodities or a holiday gift. A market for luxury sock gift has risen and one of the key players in the market is Stance. This company maintains a competitive advantage which can be explained by its impressive BOR equity stack. It brands itself as hip and unconventional by using the line " The Uncommon Thread". It also established relationships with NBA to function as the league's official on court sock.

Managing Sustainable Competitive Advantage (SCA)



Source: Lecture 1, Managing SCA (Karpienko, 2022)

MP#1 focuses on figuring out what consumers desire in the general market and how the company should occupy this space. To determine which AER techniques work best as customers change over time, MP#2 focuses on the company's own customers. The next logical step is MP#3. It explains how to create and keep up solid barriers to fend off competitor assaults on high-value client segments. These obstacles, or long-term competitive advantages, are the result of marketing initiatives to create brand, offering, and relationship (BOR) equities.

First principle #4: All Resources are Limited

- ➔ Most marketing decisions require trade-offs across multiple objectives where resources are constrained and often interdependent
    - Advertising vs. salespeople vs. discounts vs. channel co-ops vs. R&D vs. online
    - Many "messages" are mutually exclusive (high status and low price) or (high performance and economical)
    - Short-term vs. long-term trade-offs
- ➔ Thus, need to balance marketing resources across:
    - Customers (STP)
    - Acquisition, Expansion, and Retention stages (AER)
    - Brand, Offering, Relationships (BOR)
    - Marketing mix elements (4 to 7 Ps)

MP#4: managing resource trade-offs

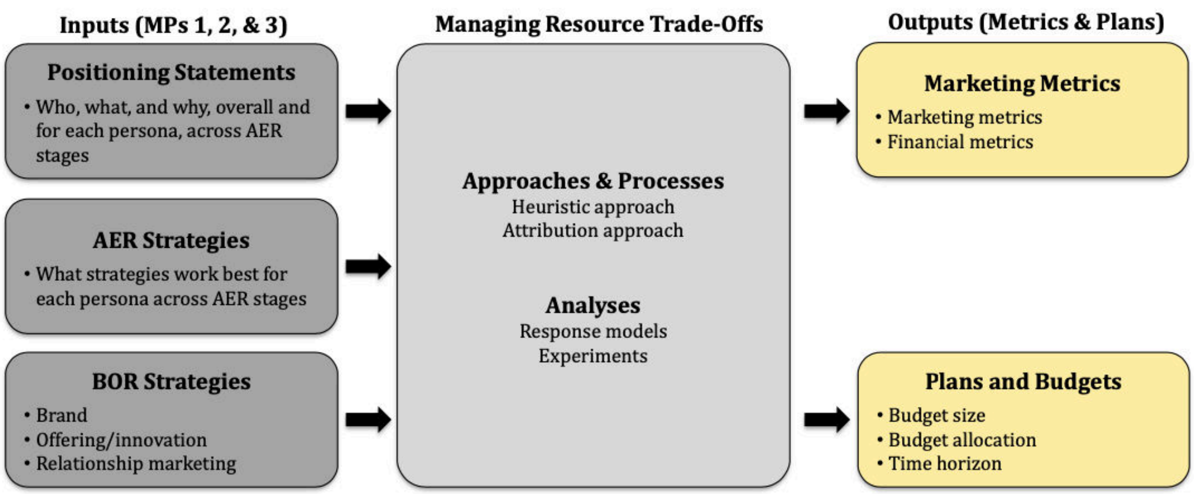
2 approaches:

1. **HEURISTIC-BASED PROCESS**: decision making process where an individual uses lay theories or common beliefs to make decisions with uncertain outcomes.
    a. Used if: lacking data about attractiveness of each resource option
    b. Use simple rules of thumb, driven by intuition and judgment, such as allocating some percentage of sales to marketing.
    c. Con: Mostly incorrect, lack scientific basis, assumes that advertising works just as well today as it did in the past even if customers change.
        i. Solution: "anchoring & adjusting" heuristic processes.
        ii. Ex: For instance, managers may use an initial heuristic to decide how to allocate resources (i.e., anchors), then modify their choices each period in response to the results.

2. **ATTRIBUTION-BASED PROCESS :** method for assessing marketing effectiveness that attributes casual economic effect to a marketing investment, in environments where multiple marketing and complicating events may shape an economic event.

a. improved computing power and advances in statistics and data management.
b. Review historical data

Managing Resource Trade-offs



Source: Lecture 1, Managing resource trade-offs (Karpienko, 2022)

Empirical marketing – IBEB – Lecture 2, week 1
MP#1: All consumers differ

Introduction

5 sources of customer heterogeneity:

1. Individual differences
2. Life experiences
3. Functional needs
4. Self-identity/image
5. Marketing activities

Source	Description	Examples
Individual difference	A person's stable and consistent way of responding to the environment in a specific domain	Favourite colors, Big 5 Personality traits, openness)
Life experiences	An individual's life experiences capture events and experiences unique to his or her life that have lasting impact on the value and preference he or she places on products and services, which in turn affects preferences independent of individual differences	A child raised closer to the equator, in warmer climates, will typically have a higher preference for a spicy foods, as a carryover of past periods when spices were used to preserve and help mask the taste of food more likely to spoil in warmer climates.
Functional needs	An individual's personal decision weightings across functional attributes based on his or her personal circumstances.	What price can they afford to pay(income), how long does the product need to last (quality, warranty), when will they use the product(batter powered, size) and are there any special usage features that they need (waterproof)?
Self-identity / image	Customers actively seek products that they feel will support or promote their desired self-image.	Motorcycle riders often wear leather (functional and image driven). Goths like the color black because of their desire to identify with the image of a specific user or a social group.
Marketing activities	Firms' attempt to build linkages between their brands and protypical identities or meanings.	BMW paid $25 million to have James Bonds drive a BMW in the movie "Skyfall".

Source: Lecture 2, Five Sources of Customer Heterogeneity (Karpienko, 2022)

Customer Heterogeneity: A Fundamental Assumption of Marketing Strategy

Customer heterogeneity is a fundamental "problem" that all firms must address when developing an effective marketing strategy.

Customer heterogeneity may be latent or hidden:

- ➔ Customers vary on some underlying preferences, but no firms are supplying offerings that fit their desires, so those preferences are not evident
- ➔ Customers might not even know of their diverse preferences, because they have no options to evaluate

Assuming all customers are the same is a recipe for failure, at least in the long term, as competitors will better satisfy subsegments with more aligned offerings. This leads to a downward spiral in which the firm has fewer, less profitable customers that are more costly to serve.

Latent Customer Heterogeneity

Potential differences in desired that are unobserved and have not manifested in customer purchase preferences or behaviours yet.

Constraints:

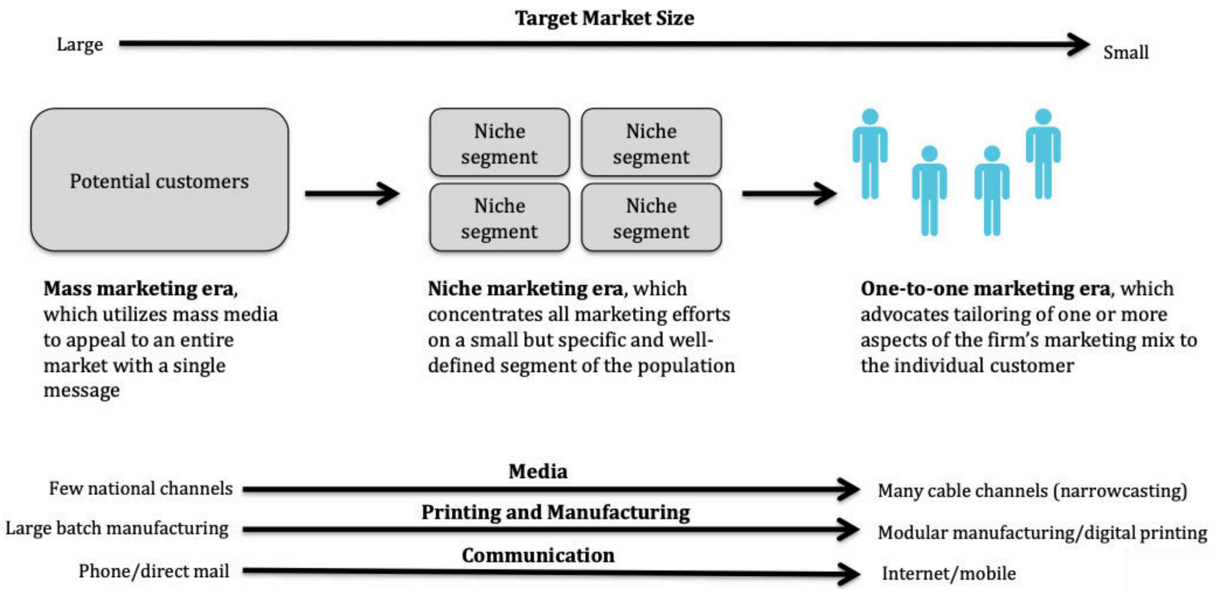
- ➔ Legal constraints (government regulations, patents)
- ➔ Economic constraints (prohibitive prices, due to the size of the market or the costs of providing)
- ➔ Technological constraints (only way known to make something)
- ➔ Innovative constraints (no firm has yet identified and satisfied the need)

Example: AT&T (US)

- ➔ In 1984, AT&T lost its U.S. government–granted monopoly => direct competition began
- ➔ By 1991, the company lost 83% of its sales revenue
- ➔ Deregulation of this market allowed for the entrance of many new competitors, determined to satisfy customer needs better
- ➔ Western Electric (the subsidiary of AT&T) came to an end in 1995

Approaches for managing customer heterogeneity

<u>Evolution of approaches for managing customer heterogeneity</u>



Source: Lecture 2, Evolution of approaches for managing customer heterogeneity (Karpienko, 2022)

- **Mass marketing era** used mass media to appeal to an entire market with a single message, is a marketing strategy in which a firm mostly ignores customer heterogeneity, with the assumption that reaching the largest audience possible will lead to the largest sales revenue
- **Niche marketing era** focused marketing efforts on well-defined, narrow segments of consumers, and by specializing, this method seeks to give the firm a competitive advantage
- **One-to-one marketing era** is marked by a shift towards one-to-one marketing, such that firms attempt to apply marketing strategies directly to specific consumers

Across all three eras, the underlying method for dealing with customer heterogeneity is the same: focus on smaller and smaller groups of customers, such that the needs of each group are more similar as they get subdivided into smaller units, until the focus reaches an individual customer.

Segmenting, targeting, and positioning (STP) approach

In order to better match heterogeneous customer needs, firms focus their efforts on small "homogenous" customer groups

➔ Segmenting: Dividing market into groups of similar customers (slice the pie into pieces)
➔ Targeting: Selecting best customer group to sell to (picking the slice to eat)
➔ Positioning: Improve your relative advantage in the minds of your targeted customers (also addresses Marketing Principle 3 by building SCA)

Segmenting

Consists of dividing the market into groups of customers where:

➔ Segmentation starts with random sample of *potential* customers (not just existing ones)
➔ Customers within group have very similar needs
➔ Customers across groups have different needs (maximise the difference between segments)

Needs: Needs and benefits desired by customers for your offering

➔ Segment on needs/benefits not descriptors
➔ Uses one of the "Cs" as input: customers

Descriptors: Observable customer characteristics that help you find and classify customers (e.g., gender, age, income, size, education, etc.)

<u>**Segmentation steps:**</u>

1. Identify and refine "pool" of potential customers' needs and descriptors (qualitative research)
2. Collect data from random assortment of potential customers on "importance" of needs/benefits to purchase decision
3. Use "needs/benefits" to segment the market into 3 to 7 homogeneous customer groups
    a. Often need to group like questions together using factor analysis before clustering customers

    b. Choose number of segments based on results and ability to manage them
4. Name segments

Analysis method #1: Cluster Analysis

- One important data-driven partitioning technique is cluster analysis, which can separate and categorize a big collection of diverse clients into a smaller number of segments with a higher degree of homogeneity.
- Before starting any cluster analysis, it is necessary to conduct a factor analysis of all measures of customer preferences.

When to use it?

• To demystify customer heterogeneity by understanding similar preferences across subsets of customers.

• To discover how consumers naturally differ and cater to the unique needs o chosen target customer segments.

How it works?

It consists of two steps

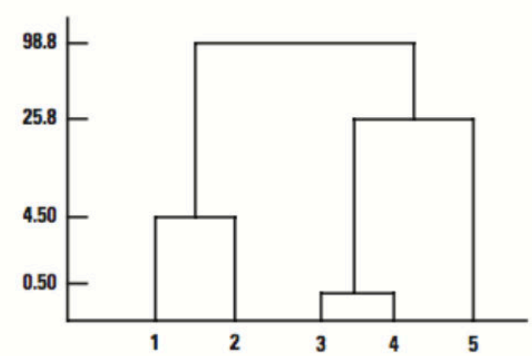
1. In the segmentation step, we identify subsamples of customers that are homogeneous in their bases (e.g., ratings on product preferences) and markedly different from other subsamples. For example, customers in one cluster might have strong quality preferences and do not mind paying a high price; customers in another cluster may be very value conscious and refuse to pay high prices.

2. In the describing step, we use descriptor variables to explain how the subsamples differ. We use them to derive efficient targeting strategies, tailored to each subsample. For example, customers in the quality cluster might be mostly men in their early 40s, but those in the price cluster are mostly women in their early 20s. Using both bases and descriptor variables, we reveal how customers differ, which customers to target, and what marketing program to use.

Example 1.

Imagine there are five customers, rated on their intention to purchase (1–15 scale). A hierarchical clustering procedure, based on Ward's minimum variance criteria to minimize the sum of the square of errors, starts by assuming each customer is its own cluster. However, combining customers 3 and 4 seems intuitive since they have similar purchase intentions and it results in limited loss of information (0.5 on the dendogram). Similarly, combining customers 1 and 2 results in limited loss of information (4.5). Thus, five customers could be combined into three segments (1,2), (3,4), and (5). If we then try to combine (3,4) and (5) as one customer, the loss of information (25.8) is prohibitive. Thus, we stop at three segments (1,2), (3,4), and (5)

Customers	Purchase Intentions
1	3
2	6
3	10
4	11
5	14



Source: Lecture 2, Cluster Analysis Example 1(Karpienko, 2022)

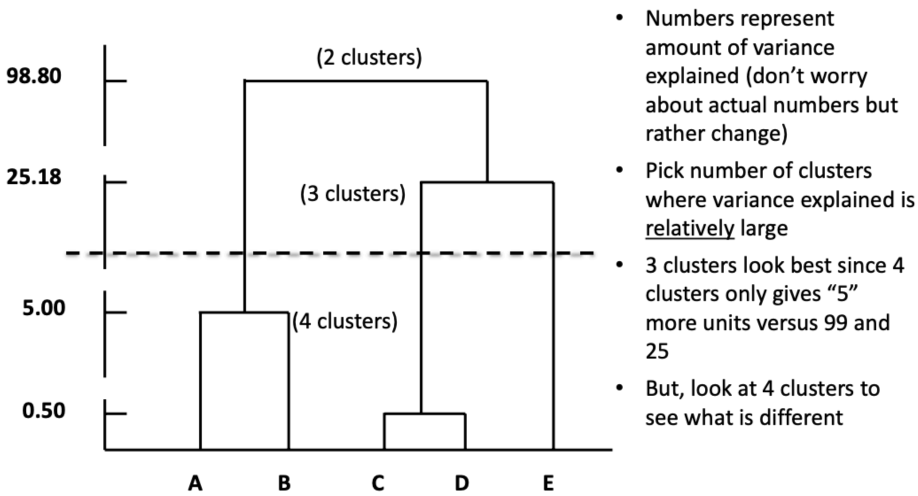
Example 2.

A company conducted an annual customer satisfaction survey for an advertised product, collecting perceptions of the product's price, quality, and distribution (on a 5-point scale). To improve customer satisfaction and design more efficient targeting strategies, the company conducted a partition-based clustering analysis of the data and thereby identified three segments: consumers who are dissatisfied on all three attributes (Segment 1), consumers who are highly satisfied on all three attributes (Segment 2), and consumers who are highly satisfied on quality and distribution but dissatisfied on price (Segment 3). The table gives the mean statistics for each segment.

	Price	Quality	Distribution
Segment 1	1.82	1.97	2.95
Segment 2	4.31	4.05	4.57
Segment 3	2.75	4.45	4.32

Source: Lecture 2, Cluster Analysis Example 2(Karpienko, 2022)

Hierarchical clustering procedure gives a Dendogram



Source: Lecture 2, Dendogram (Karpienko, 2022)

Analysis method #2: Factor Analysis

Factor analysis is a data reduction technique that can be used to identify a small number of latent "factors" that explain the major variation in a large number of observed variables

When to use it?

- To condense a large "pool" of potential customer needs, wants, and preferences into a short set of similar characteristics
- To reduce high correlation among predictors

How it works?

- Start with a large number of measured variables (eg., 30) from customer surveys.
- Synthesizes these many variables into smaller sets (eg., 3-4) of latent "factors" that capture the meaning of measures.
- To choose the total number of factors to retain, we observe how many factors have an Eigenvalue greater than 1. The strength of the association between a measure variable and its factor is called the "factor loading." When a measured variable has a factor loading greater than
- 0.3, it is generally associated with a factor. We categorize the measured variable by the factor on which it has the highest loading (e.g., if a variable shows factor loadings of 0.01 and 0.8 with Factors 1 and 2, we associate the

measured variable with Factor 2). Finally, we interpret each latent factor, according to the conceptual commonalities that indicate why the measured variables load on this factor.

Analysis method #3: Multiple discriminant analysis (MDA)

- ➔ Classifies respondents into appropriate segments, using demographic characteristics as predictors. A

Summary

Summary: To prevent biasing subsequent studies, factor analysis groups related questions (purchase characteristics); Similar clients are grouped together into segments via cluster analysis, and classification analysis (MDA) predicts the true segment membership using demographic factors.

Targeting

A market needs to select segments to target based on certain selection criteria:

1. Market attractiveness (size, growth rate, price sensitivity, etc.)
2. Competitive strength (captures the relative strength of a firm, versus competitors, at securing and maintaining market share in a given segment)

This uses all three "C's" as input: customer, company and competitors

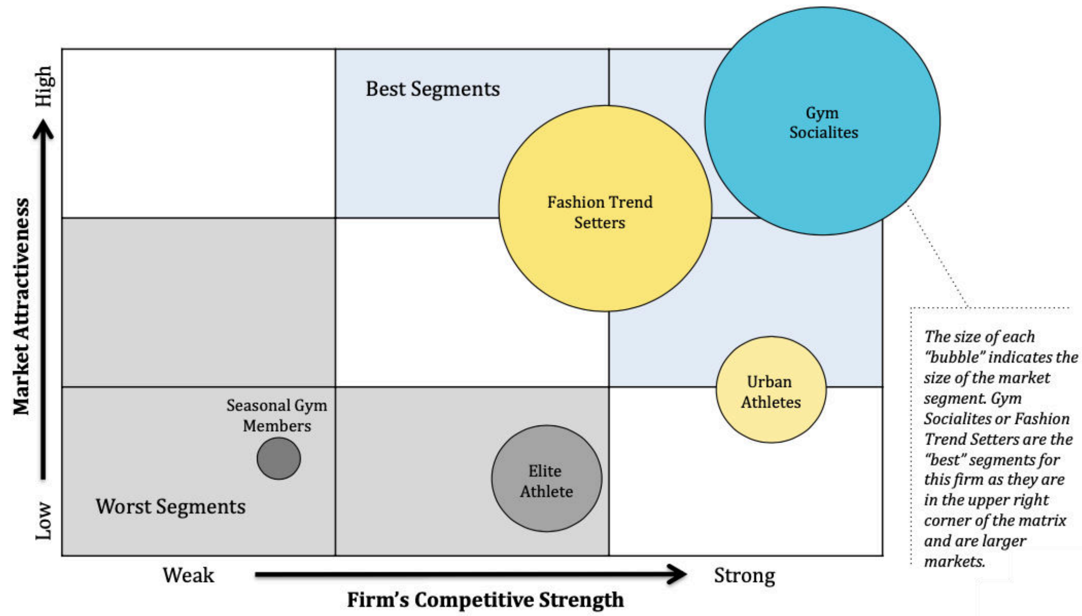
Criteria of ideal target segments

An ideal target segment should meet six criteria:

1. Based on customer needs (customer care)
2. Different than other segments (little crossover competition)
3. Differences match firm's competences (firm can execute within resource constraints)
4. Sustainable (can keep customers)
5. Customers are identifiable (can find targeted customers)
6. Financially valuable (valuable in the long term)

GE matrix

Analysis tool: GE Matrix → help managers visualize and select target segments



Source: Lecture 2, GE Matrix: Analysis tool for targeting (Karpienko, 2022)

Positioning

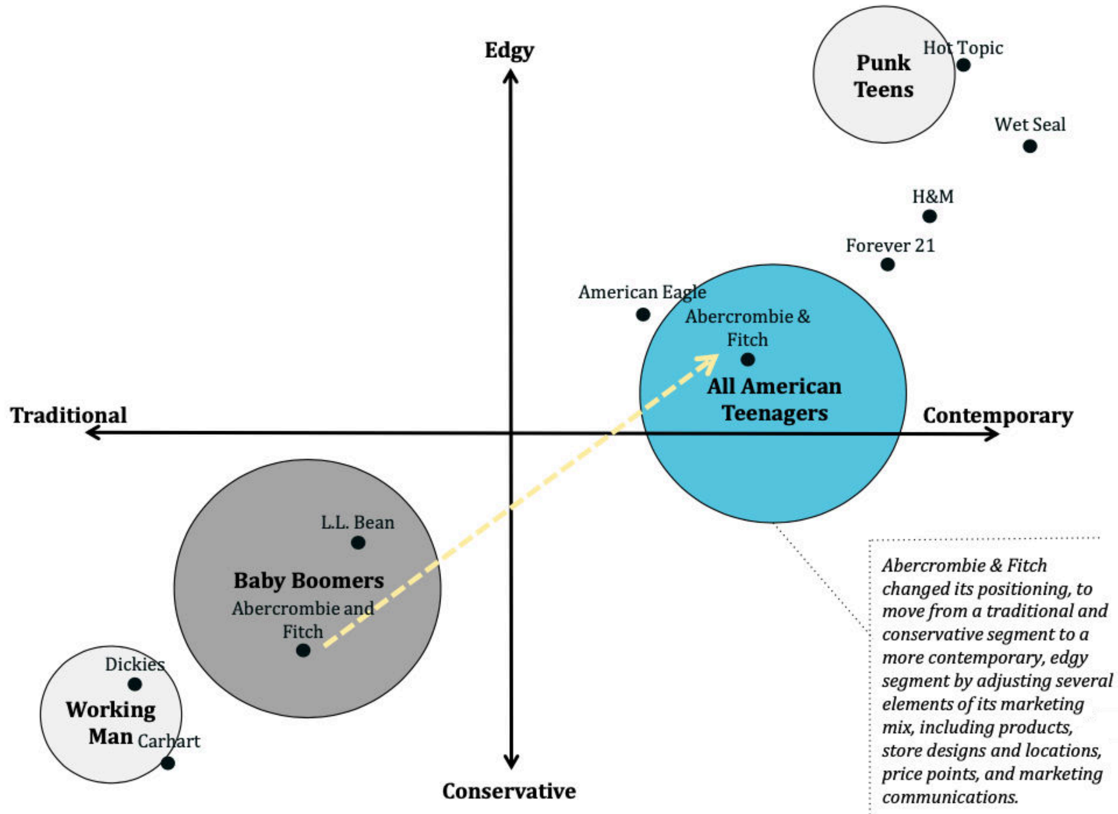
Process of improving your relative advantage in the minds of your targeted customers • Changing both your actual (e.g., innovation) and perceived offering (e.g., branding, relationships)

Uses all three "Cs" as inputs: Customer, Company, Competitors

Nearly everything you do impacts your positioning:

- Place (Channel): E.g. Samsung dropping Kmart
- Price: E.g. No discounts at Tiffany
- Promotion: E.g. Tiger Woods at Nike, Starbucks
- Product: E.g. Bose, Apple

Perceptual Maps: analysis tool to aid in positioning decisions
Repositioning: process by which a firm shifts its target market



Source: Lecture 2, Perceptual Map: Analysis Tool for Positioning (Karpienko, 2022)

Positioning Statement must address three key questions:

1. Who are the customers?
2. What is the set of needs that the product or service fulfils?
3. Why is this product/service the best option to satisfy your needs (relative to competition or substitute; support for why)?

This statement is the roadmap for a plethora of implementation decisions involved in marketing a product (both inside and outside the company)

Customer-centric alignment

What does it mean for a firm to be Customer Centric?
Places customer at centre of organization's vision/mission/strategy/structure/culture/metrics

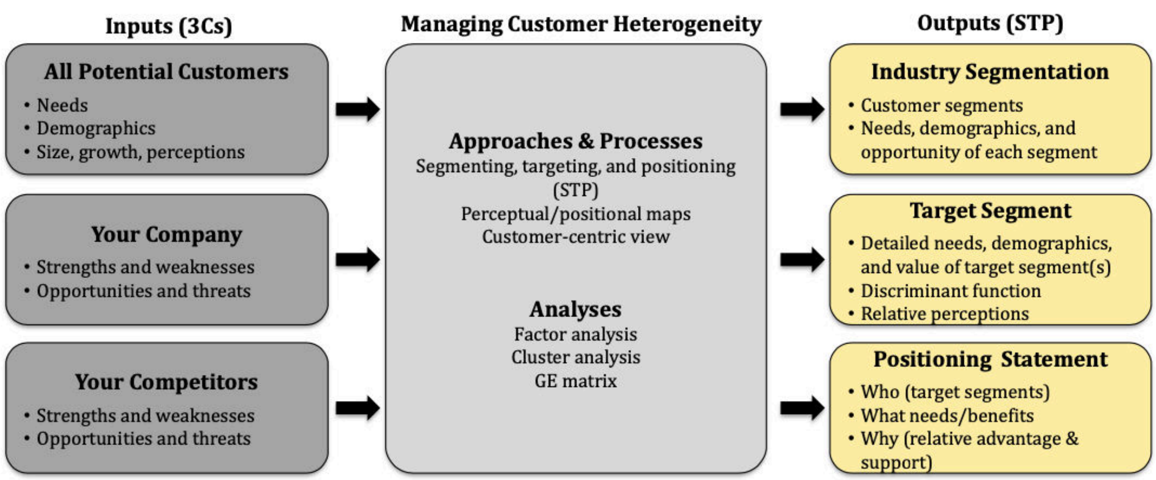
1. Input: uses customers' needs to drive decisions

2. Output: measures success from customer's perspective
    a. Customer satisfaction
    b. Net promoter Score (NPS), loyalty
3. Processes: system to link customer data to all aspects of firm
    a. Compensation
    b. Scorecards

Firms are shifting towards a customer-centric structure.

Framework for managing customer heterogeneity

MP#1: All customers differ → Managing Customer Heterogeneity



Source: Lecture 2, Managing Customer Heterogeneity (Karpienko, 2022)

Inputs (3Cs)

1. All potential Customers (needs, desires and preferences across customers in an industry, geographic region, market segment, or product category)
2. Your Company (an inventory of the company's strengths, weaknesses, opportunities, and threats or SWOT analysis)
3. Your Competitors (an inventory of your competitor's strengths, weakness, opportunities, and threats or SWOT analysis)

SWOT and 3C Analyses

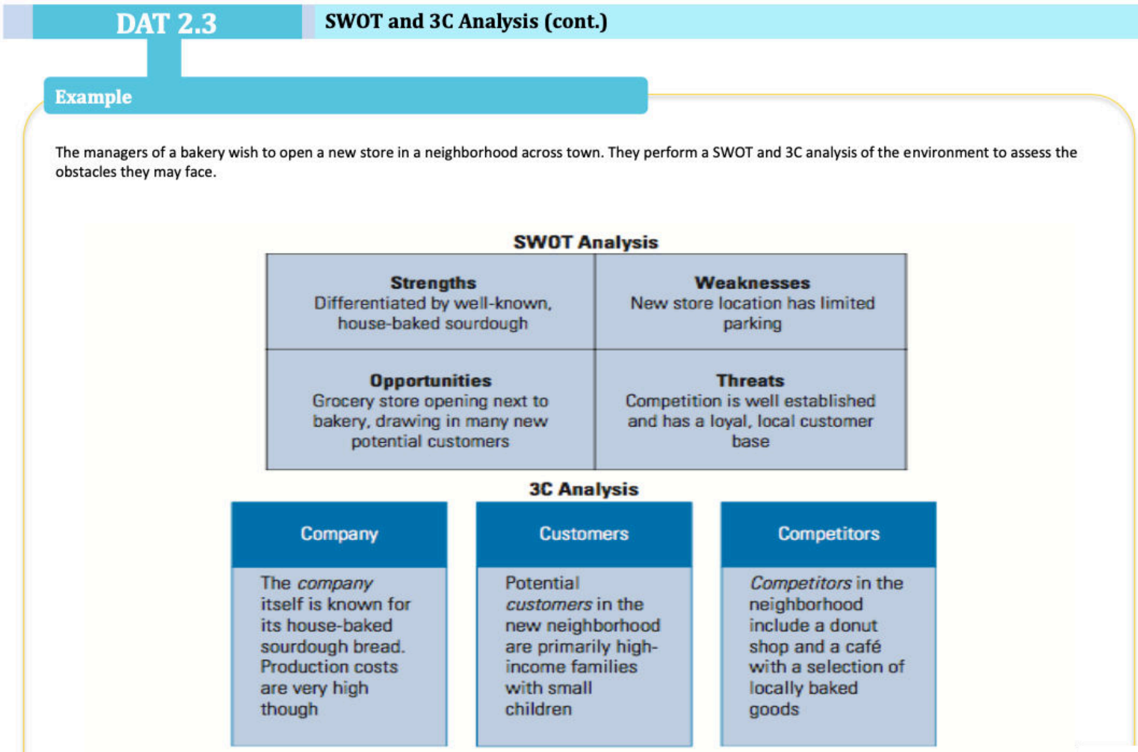
Description : A SWOT analysis appraises the strengths, weaknesses, opportunities, and threats that affect a company's success. The 3C analysis evaluates customers, competitors, and the company.

Inputs :
• External (environmental) factors: relevant legal structure, competitors' core competencies and market share, changes in customer demographics
• Internal (company-level) factors: core competencies, market share, competitive advantages

When to use it?
• To assess strategic marketing decisions by identifying critical internal and external environmental factors that will contribute to the success or failure of a strategy.
• A SWOT analysis assesses the internal and external nature of the business, across current and future situations.
• The 3C analysis focuses on these three perspectives to gain competitive advantages.

	Explanation	Strategy implications
Internal		
Strengths	Current strengths, such as a strong financial performance or a reputed brand	The firm can develop new products to leverage these strengths
External		
Strengths	Future opportunities, such as environmental factors that may work in the company's favor	Strategies need to be devised to take advantage of the potential opportunities
Weaknesses	Future threats, such as increasing competition	Strategies need to be devised to overcome the threats, such as lowering prices or increasing promotions

Source: Lecture 2, SWOT analysis and 3C analysis (Karpienko, 2022)



Source: Lecture 2, SWOT analysis and 3C analysis Example (Karpienko, 2022)

Outputs of Managing Customer Heterogeneity

Industry Segmentation describes industry segments and includes, for each named segment, salient purchase preferences, demographic variables, and potential demand opportunities:

- How can the marketplace be described using homogenous groups?
- What does each group of potential customers want?

Target Segmentation moves from the overall market landscape to the specific segment(s) of interest, such that it extends the first output by providing a very detailed description of each target segment.

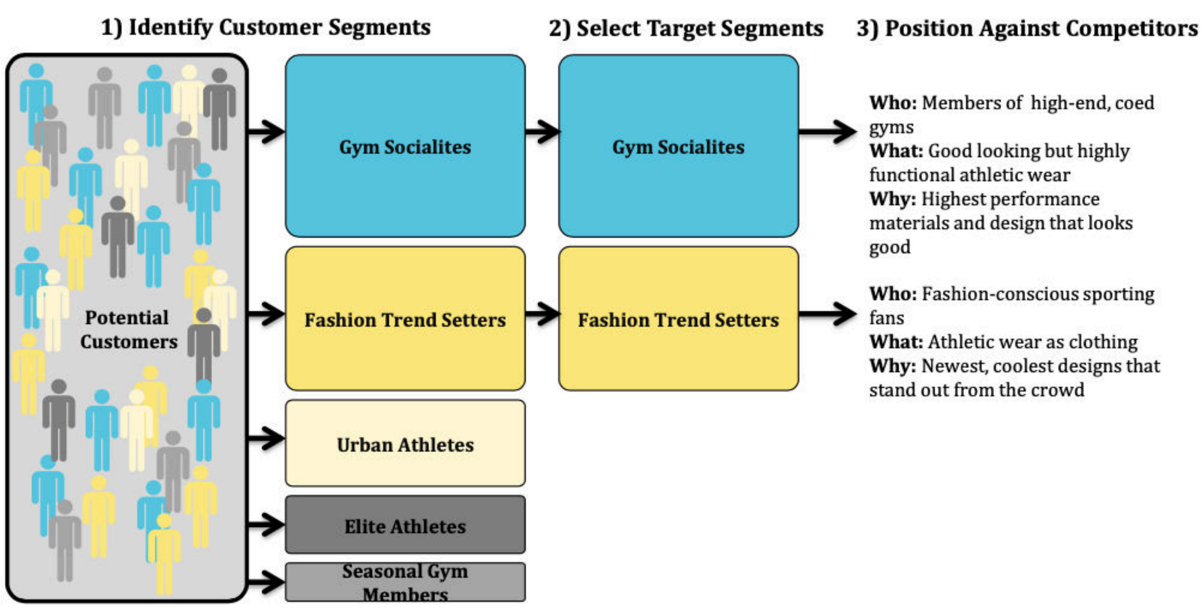
- What set of segments will the firm pursue?
- How does the firm identify each group of target customers?

Positioning Statements encapsulate the three questions into one concise statement that firms use to direct their internal and external marketing activities: who should the firm target, what needs and benefits are being fulfilled, and why does this offering provide a relative advantage over competitive offerings.

Process for Managing Customer Heterogeneity

To convert inputs into outputs, marketers conduct a series of process steps:

1. **Segmenting**: To initiate the segmentation, managers need to identify the key purchase attributes, that is the needs and desires that a potential customer evaluates when making a purchase decision for this category
2. **Targeting**: The targeting process follows naturally from segmentation, to identify which segments the firm wants to sell to, based on the attractiveness of each segment and the firm's competitive strength in each segment
3. **Positioning**: The separation between targeting and positioning is often blurry. Many of the factors used to evaluate competitive strengths to select a target segment also impact the difficulty of executing an effective positioning strategy for that segment
4. **Building Customer Centricity**: Building a customer-centric organization is different from executing an STP process, in that it requires a top-down, enduring commitment from senior leaders to institute a customer-centric philosophy across the firm's entire organization



Source: Lecture 2, Example of Managing Customer Heterogeneity (Karpienko, 2022)

Empirical marketing– IBEB – Lecture 3, week 2
MP#2 All customers change

Sources of customer dynamics:

Individual level

1. Discrete life events
    - Daily purchasing habits are hard to change, preferences shift after life events, which can lead to a change in the distribution of spending. Example: Student vs Graduate
    - Using specific product purchases as predictors of preference changes is standard in marketing analytics
2. Typical lifecycle
    - As people get older, they become more focused on risk reduction, comfort and health
3. Learning effect
    - Enhanced product knowledge and experience changes the importance each consumer attaches to different attributes
    - Example: Increasing importance of social media for learning effect : increase brand awareness and reputation through effective communication

Product Market level

4. Product lifestyle

- In early stages, consumers buy multiple new features, and in later periods, they become more price sensitive.

Environmental level

5. Constantly changing environmental context

- Governments, lobbyists, and marketers are working to change perception and regulations in climate, health and technological development.
- Discrete events such as COVID also have an impact on the environment.

Interaction between sources:
- Individual life cycle also interacts with environment and life events.
- Younger segments react more strongly to an economic shock when compared to older segments.

MP#2 → approaches for managing customer dynamics

Evolution of Approaches for Managing Customer Dynamics:

1. **Lifecycle Approach** uses generic stages of growth and their position in the lifecycle to determine customer preferences and associated strategies

Pros	Cons
Simplicity	Assumes all customers follow one curve
Ease of use	Averages all customers
	Ignores causes of customer dynamics

2. **Dynamic Customer Segmentation** segments a firm's existing customers on the basis of their similar, expected migration patterns

Pros	Cons
Combines lifecycle and segmentation methods.	Segments are not perfectly homogeneous
Matches strategic marketing thinking	Puts continuous change into discrete stages
Identifies temporally homogenous groups	

3. **Customer Lifetime Value** captures the contribution of each customer according to his or her expected migration path over the entire lifetime with the firm.

Pros	Cons
Provides insights for AER decisions	Requires insight into future migration
Supports a customer-centric culture	Requires detailed financial data
Captures dynamics and heterogeneity.	

Different Lifecycle Approaches

- Customer lifecycle attempts to capture how individuals typically change as they age and reach common age-related milestones
- Product lifecycle proposes that various products go through four typical stages in relation to their acceptance by society: introduction, growth, maturity, and decline

Industry lifecycle comprises of five stages

1. Early establishment of its range and boundaries
2. An innovation stage to set a “dominant design”
3. The shakeout stage, marked by economies of scale, such as that smaller players get forced out
4. Maturity, when firms focus on market share and cash flows
5. The decline stage, when sales decay for the industry as a whole

Descriptions of the Stages:

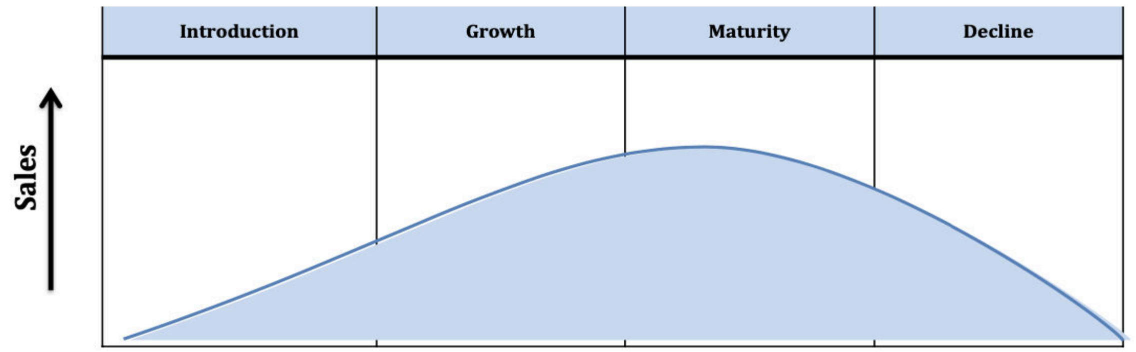
Introduction

• 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.



Source: Lecture 3, Typical Customer Product Lifecycle (Karpienko, 2022)

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 costs and those without a unique advantage exit the market.

• Market often consolidates with fewer suppliers.

Acquisition–Expansion–Retention (AER) model / Customer Dynamic Segmentation Approach

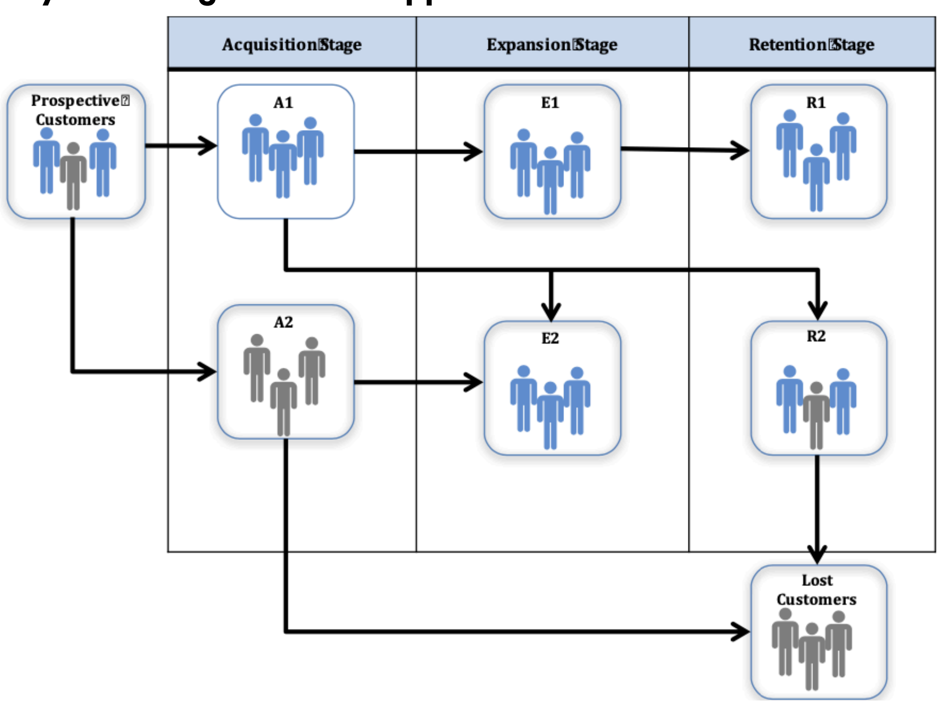
Evaluates existing customers' behaviours/needs in each AER stage to understand temporal differences

- 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

- **Acquisition stage** begins with first contact, typically before the first purchase occurs, when prospects and early customers have similar needs
    - *customer onboarding* is the planned process of introducing new customers to a firm to improve their long-term satisfaction and loyalty.
- **Expansion stage** has firms that are trying to upsell or cross-sell to expand their sales and engagement with existing customers
- **Retention stage** deals with customers who migrate not because of a mismatch in the core offering or a life event but because they have a basic propensity to switch, in pursuit of "greener pastures"

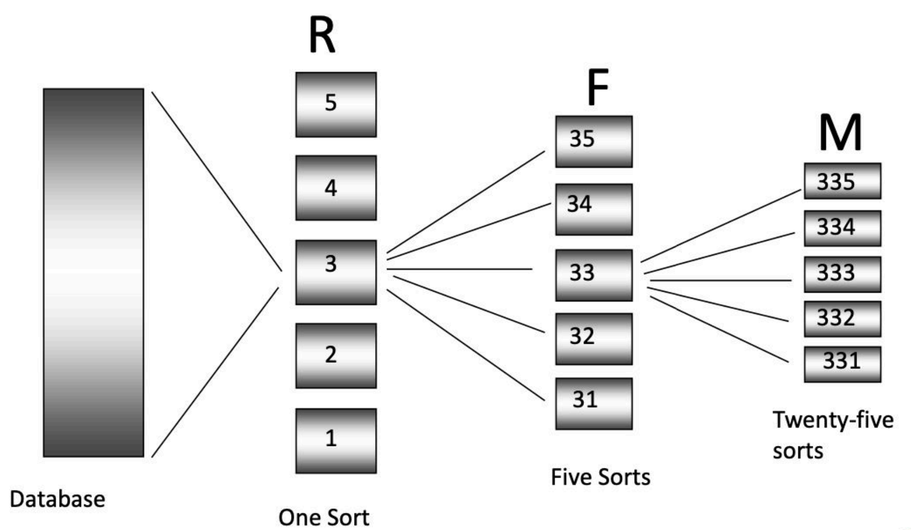
Customer Dynamic Segmentation Approach:



Source: Lecture 3, Customer Dynamic Segmentation Approach (AER Model) (Karpienko, 2022)

RFM Analysis for Segmentation

- Direct marketers have been using a simplified version of the CLV for decades, targeting customers to receive expensive catalogue mailings. They use three readily available customer behaviours:
    - 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 modelling 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 catalogue only to the groups with an acceptable return on investment



Source: Lecture 3, RFM Code Construction Where Higher Numbers are Better (Karpienko, 2022)

Customer Lifetime Value (CLV) approach

Customer Lifetime Value (CLV) is a Key Analysis Tool for Making AER decisions
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:

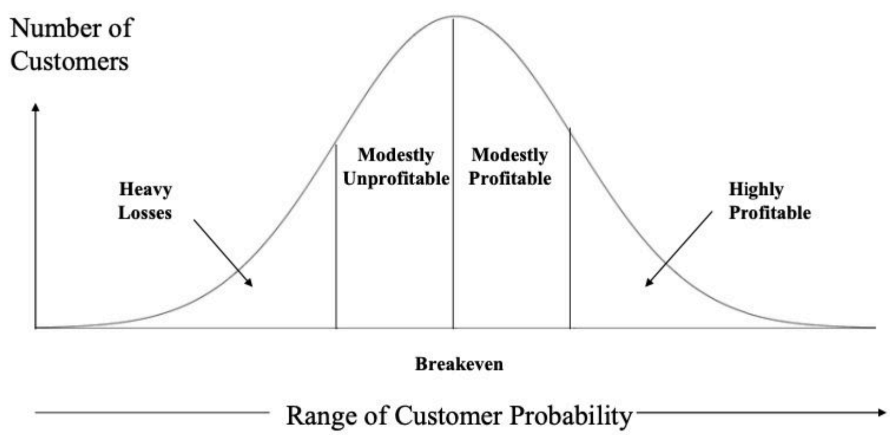
- **Customer heterogeneity and dynamic effect**s (individual level, uses transition expectations, and discounts future profits)
- **Tradeoffs among AER strategies** (e.g., how acquisition may affect retention)

Example: CLV Approach (Australia and New Zealand CMO Survey)

- *Survey conducted on 255 CMOs and marketing directors in Australia and New Zealand.*
- *Those who "always measure the lifetime value of each customer" achieved a 16% average increase in their annual marketing budget as compared to 0% for those who do not measure it.*
- *75% of the marketers are engaged in some level of CLV effort within the organization.*

CLV also accounts for varying profits across customers:

- Beyond 80/20 rule: firms earn 150% of their profits from 30% of their customers
- CLV captures these difference in your existing customers so you can acquire, expand, and retain the "best customers"



The Right Customers: Acquisition, Retention, and Development (HBR Press)

Source: Lecture 3, CLV Accounts for Varying Profits Across Customers (Karpienko, 2022)

- On average, annual earnings typically increase over a customer's life due to cross/up- selling
- But, some customers are more costly to acquire or retain (lowering prices, high service levels)

Customer Lifetime Value (CLV) Analysis

- Net cash flow (sales-cost) for individuals customers or group of customers
- Calculate CLV of each customer:

$$CLV_i = \sum_{t=0}^{T} \frac{CF_{i,t}}{(1+d)^t}$$

where
$CF_{i,t}$ = net cash flow generated by the customer *i* at time *t*
T = time horizon for estimating the CLV
d = discount rate
CLV is the “value” added, by an individual customer, to the company
CLV approach is a form of **customer-centric accounting** where firm’s value is the sum of all its customers’ CLV

Simplified Customer Lifetime Value Analysis

- Several simplifications make CLV calculations even more straightforward
- Assuming that T → infinity and that the contribution margin and marketing costs (weak) do not vary over time
- Assuming that the contribution margin and marketing costs do not vary over time, the CLV in dollars for i_{th} customer reduces to five inputs:

1. Mi = margin for ith customer in $ (sales $ and margin as %)
2. Ci = annual marketing cost for ith customer in $
   ri = retention rate for ith customer as a %
3. d = discount rate as a %
4. ACi = acquisition cost for ith customer in $

CLVi = (Mi - Ci) / (1 - ri + d) - ACi

When to use it?
- To identify which customers are worth acquiring and retaining
- To determine where to target marketing programs to maximise the firm’s return on marketing investments
- To understand the true value of a customer to the firm

Firms can use such a graph to identify and target the most profitable customers:

Source: Lecture 3, Customer Lifetime Analysis (CLV) Analysis (Karpienko, 2022)

Generalizations on AER Strategies from CLV Analysis

- AER strategy that maximizes CLV maximizes neither the acquisition rate nor retention rate
- Investments in customer acquisition and retention have diminishing marginal returns
- Under spending in acquisition and retention is more detrimental and results in smaller CLV than overspending
- A suboptimal allocation of retention expenditures will have a larger detrimental impact on long-term customer profitability than suboptimal acquisition expenditures

Customer Referral Value (CRV)

- Lifetime value of customer bringing the firm another customer
- Highest CLV customers do not always generate the highest CRV
- "Advocates" real value is higher than a CLV would predict so you need to protect these customers (3x more in one study)
- Identifying advocates: protect, enable, expand
    - E.g., Referral programs

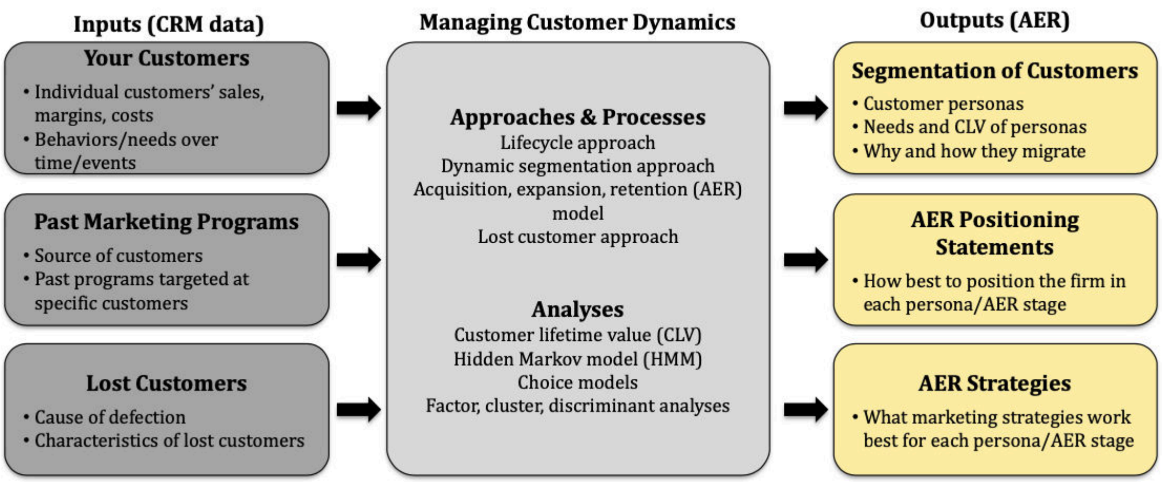
Lost Customer Analysis Informs AER Strategies

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.
It 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, which provides insights into both strengths and weaknesses:

1. Firms set regular intervals for contacting lost customers to identify the cause of their transition, where they went, and potential recovery strategies
2. If the lost customer is not in the firm's main target segment, firms could either change their acquisition criteria or evaluate an expansion strategy to address a new subsegment of customers
3. If the lost customer is in the firm's target market, firms should either fix the problem or implement retention strategies to build brand and relational loyalty

MP #3: Managing Customer Dynamics



Source: Lecture 3, Managing Customer Dynamics (Karpienko, 2022)

Inputs to the Customer Dynamics Framework

1. **The firm's existing customer portfolio** – ideally a firm's CRM system provides detailed customer-level data for the dynamic segmentation analysis
2. **Data linking past customer responses** with specific marketing programs and the programs' cost
3. **The qualitative and quantitative information** gleaned from the lost customer analysis, which reveals the causes of customer defection, where they go, and potentially effective recovery strategies

Outputs of the Customer Dynamics Framework

1. A description of the firm's customer personas and expected migrations to understand how they change, including:
   - Critical life event triggers
   - The products and services they buy at different points in their lifecycle migration • When they stop buying and why
   - How they feel at different stages in their lifecycle
   - The CLV of customers in each persona
   - When consumers stop buying and why
2. AER Positioning statements – how to best position the firm in each persona/AER stage
3. AER strategies – what marketing strategies work best for each persona/AER stage

Process for Managing Customer Dynamics

To convert CRM, marketing program, and lost customer input data into dynamic segmentation and AER positioning statements and strategies, managers should follow a series of steps:

1. Dynamic segmentation
   a. Depending on how long they have been clients and other pertinent information, existing customers should be split into AER stages. Finally, using surveys and CRM data, the cluster analysis technique can be used to analyze current clients in each of the three stages.
2. Migration Paths and Triggers
3. Customer Lifetime Value of Segments and Migrations
4. AER positioning statements
   a. These statements are:
      i. Internally focused on existing customers
      ii. customer needs over time
      iii. Addresses "when" queries, triggers, and migration mechanisms, which are not included in typical positioning statements.
5. AER strategies

Empirical marketing – IBEB – Lecture 4a, week 3
MP#3 All competitors react

Introduction

Competitors can displace firms in many different ways:

1. Technical innovations that provide competitors with a platform to launch a disruptive offering
2. Exploiting changes in customers' desires due to cultural, environmental and other factors
3. Individual entrepreneurship that constantly seeks a better way to solve a problem
4. Copycats that improve the efficiency or effectiveness of an existing execution

Thus, managers need to anticipate competitors' reactions, now and in the future, by building barriers or sustainable competitive advantages that can withstand competitive assaults.

This is related to Marketing Principle #3: all competitors react, and an effective marketing strategy must manage the firm's sustainable competitive advantage (SCA)

Sustainable Competitive Advantage (SCA)

A firm has SCA when it is able to generate more customer value than competitive firms in its industry for the same set of products and service categories and when these other firms are unable to duplicate its effective strategy.

- Being first to market with a new idea is not sufficient to create barriers to competitors

Good SCA criteria(s)

1. Customers care about what this SCA offers
2. The firm does it better than competitors, which generates relative advantage
3. The SA must be hard to duplicate or substitute, even with significant resources

Marketing-based sources of Sustainable Competitive Advantage

There are 3 market-based sources of sustainable competitive advantage:

1. Brand:
    - Most effective in large consumer markets
    - Most effective for consumer goods
    - Advertising, PR, sponsors
2. Offerings
    - It is effective because new and innovative products have the potential to disrupt virtually any market segment
        - R&D
        - New products and services
        - New tech
3. Relationships
    - Most effective for B2B, service and complex offering settings
    - Salespeople, any boundary spanner, online relationships

The 3 sources of sustainable competitive advantage: brands, offerings and relationships (BOR) are additive and often work synergistically to give a firm a strong relative position in the marketplace.

Source	Barriers to Duplication	Where is it most effective?	Examples
Brands	Brand images reside in consumers' minds, which makes them difficult to duplicate, facilitates habitual buying	Large consumer markets (soft drinks, beer, fashion, automobiles)	BMW, Anhueser-Busch

	through awareness, and provides identity benefits to customers		
Offerings	Cost benefits, performance advantages, access to distribution channels	Most markets, technology-based businesses (software, electronics)	Apple Iphone, Bose, Tesla
Relationships	Leads to trust, commitment, and interpersonal reciprocal bonds that are hard to build or duplicate	Business-to-business markets, services, complex products (test equipment, haircut, financial services)	Edward Jones, Grainger

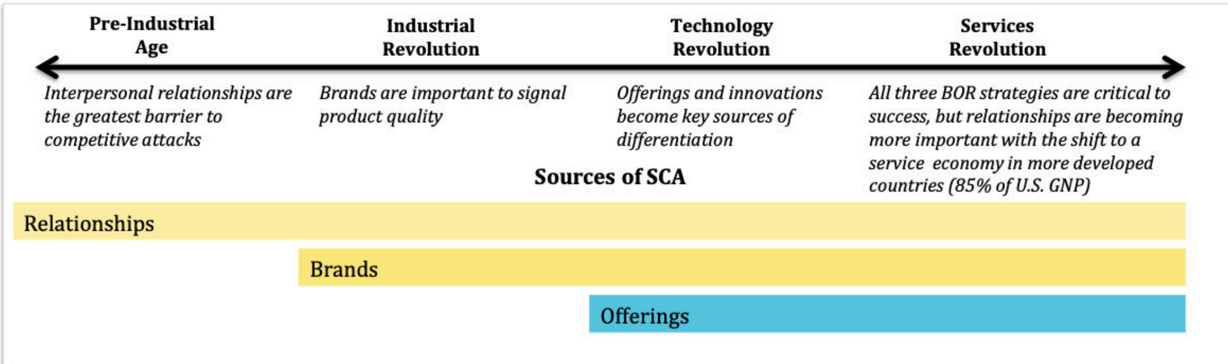
Source: Lecture 4, Market-based Sources of SCAs (Karpienko, 2022)

Example: Starbucks

- *Starbucks has a high-quality brand (valued at $5.4 billion) that customers feel emotionally attached to*
- *Distinctive offering of unique coffee-based drinks and store environments*
- *Customers develop relationships with the employees in their local stores, who remember their drink orders or recognize them by name*
- *These sources of SCAs, generated from effective BOR strategies, work together to increase customers' loyalty, and competitors find it very hard to overcome these barriers.*
- *Starbucks continues to innovate its offerings (e.g., Teavana tea products) and technology-based services (e.g., mobile payment) to maintain its SCA in this category*

Managing sustainable competitive advantage

Evolution of Approaches for Managing Sustainable Competitive Advantage in Marketing:



Source: Lecture 4, Evolution of Approaches for Managing Sustainable Competitive Advantage in Marketing (Karpienko, 2022)

Despite the shifting emphases on the different sources of SCA, all three sources build on one another and often combine synergistically to determine a firm's overall SCA

Customer Equity Perspective

- Customer equity = total of the discounted lifetime values of all its customers"
- When a firm advertises to build strong brands, make R&D investments to develop innovative products, it should increase the brand, offering and relationship equities
- BOR Equity Stack: BOR equities constitute the firm's customer equity and often is the best barrier to competitive assault

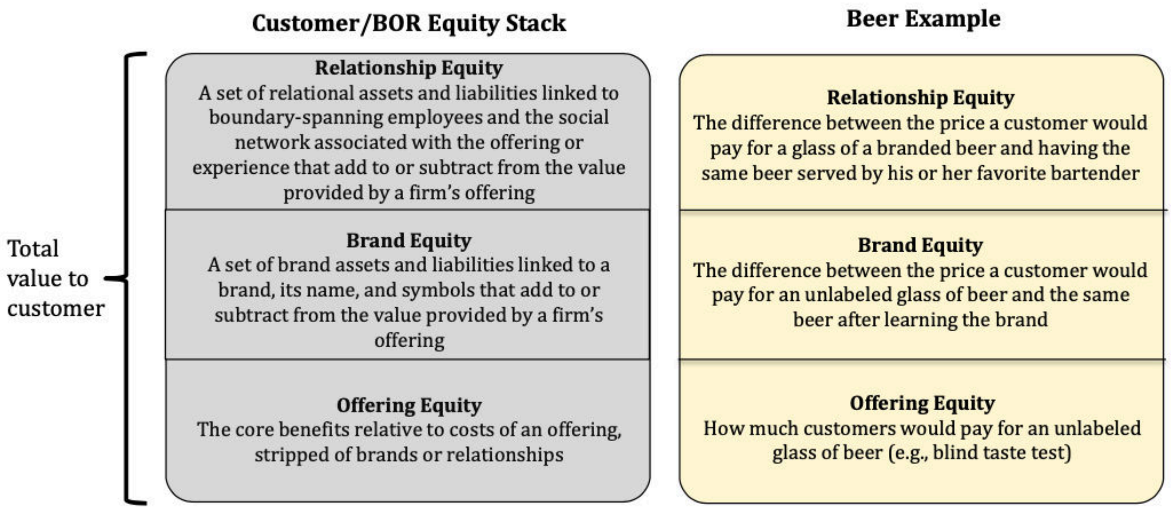
Customer Equity a Different Measure of a Firm's Most Important Assets

- Premise: customers are considered financial assets (should be measured, managed and maximised)
    - Treat customers just like other assets even though accountants typically don't treat "customers" as assets
- Customer-centric accounting:
    - Primary driver of many firms' sales and profits
    - Brand, offering and relational equities are primary source of firm's SCA
    - Captures long-term impact of marketing actions

BOR Equity Stack

Three equities combine in an additive customer or BOR equity stack:

1. Brand equity
2. Offering equity
3. Relationship equity
    - Individual level: customers equity = customer's lifetime value (CLV)
    - Customer's equity is added together, it generate the firm's overall customer equity
    - BOR equities are similar to tangible assets: they generate ROA, which can be built through investments and depreciate over time if not maintained



Source: Lecture 4, Customer Equity Perspective: Brand, Offering, Relationship Equity Stack (Karpienko, 2022)

Brand Equity

- knowledge of the brand differentially affects behaviour
- Brand equity "lies in the minds of the customer"
- Key for consumers goods, status-based offerings and as consumption is more visible
- better for offerings with large homogenous user group
- Hard to quickly adapt or change brand equity

Offering Equity

- Price and performance only
- Represents a large portion of total equity for commodity products
- Less important for:
  - Services and high involvement products
  - products that provide meaning or status
  - Maturing markets/industries

Relationship Equity

- Relationship affect behaviour
  - Relational-based decision making is ingrained in our psyche
  - Many psychological processes are engaged in relational our pseudo-relational context
- Key for B2B, services and complex selling cycles
- Can target and adapt more easily than brands

Using experiments to Determine Customer Equity:

- Strong test of causality since: there are random assignments of customers, control of conditions or treatments and comparison to control groups overtime
- Use to test "findings" from other methods

Data Analytics Technique : Marketing Experiment

Description : Marketing experiments test how customers might respond to marketing decisions, while ruling out confounds that otherwise would be present when comparing a treatment to a control group.

When to use it?

- To determine if there is a direct causal relationship between a specific BOR (brand/offering/relational) investment and customer or firm outcomes.
- To choose among a set of BOR investment strategies and tactics, according to their financial impacts (e.g., lift in sales).

How it works?

An experiment seeks to establish a causal relationship between an independent variable (e.g., BOR investment) and an outcome. Causality implies:

1. the independent variable and outcome variable co-vary (e.g., 10% off the price on a website and greater online sales).
2. the independent variable occurs before the outcome variable in time (e.g., online sales are measured after the price promotion begins).
3. alternative explanations for the measured effect can be ruled out.

To ensure causality in a marketing experiment, a well-defined **treatment group** and **control group** are essential. The treatment group receives the intervention being tested (e.g., increased sales commission), while the control group remains unchanged. To ensure valid comparisons, both groups should be similar in key characteristics such as size, demographics, experience, and motivation. **Random assignment** is typically used to evenly distribute differences across groups, ensuring that any observed effect is due to the treatment rather than external factors

Then, in the equation, $\mathbf{Y_i = \beta_1 I_j + \beta_2 X_i + \varepsilon_i}$ **,**

Y_i is the dependent variable of interest for customer i, the indicator variable I_j is coded 1 if subject I is assigned to the treatment group and 0 otherwise, the coefficient β_1 is the treatment effect, and the vector coefficient β_2 captures any characteristics of the subject or environment that need to be
statistically controlled for to establish the causal treatment effect, other than the random assignment of the treatment. Finally, ε_i captures random statistical error.

Example:

DFG, a floral delivery company, was having its quarterly marketing budget meeting. Noting that the company spent $250,000 in annual advertising, one manager questioned whether it was warranted or if DFG was overspending. In the ensuing discussion, some managers insisted that local television advertising was crucial to creating brand equity and generating revenues, while others believed the company was overspending.

To resolve the predicament, DFG decided to use a controlled experiment. To ensure causality, it defined the treatment as a 10% increase in local television spots in the next quarter in 50 selected regional markets (treatment territories). As a control group, it used 50 territories in which the amount of local television spending remained the same. In addition, DFG gathered brand awareness, brand recall, and sales figures in the quarter preceding (T0) and the quarter during (T1) the treatment, then calculated the differences between T0 and T1, across the treatment and control territories (i.e. before-and-after design). To ensure validity, DFG statistically controlled for the demographic (income, education, age, race, gender distribution) and economic (buying power, retail penetration, Internet penetration) makeup of both the control and treatment territories. For the brand awareness measure,its equation was:

Change (brand awarenessi) = $\beta 1Ij + \beta 2\ Xi + \varepsilon i$,

where Change (brand awarenessi) is the change in T1 (over T0) in brand awareness in territory i, theindicator variable Ij is coded as 1 if the territory I is assigned to the treatment group and 0 otherwise, the coefficient β1 is the treatment effect, the vector coefficient β2 captures any characteristics of the territory that need to be statistically controlled for to establish the causal treatment effect, and εi captures random statistical error.

Natural Experiments

- Not a strong test of causality but often the only choice
- Use natural variation or shock to business

Framework for managing competitive advantage

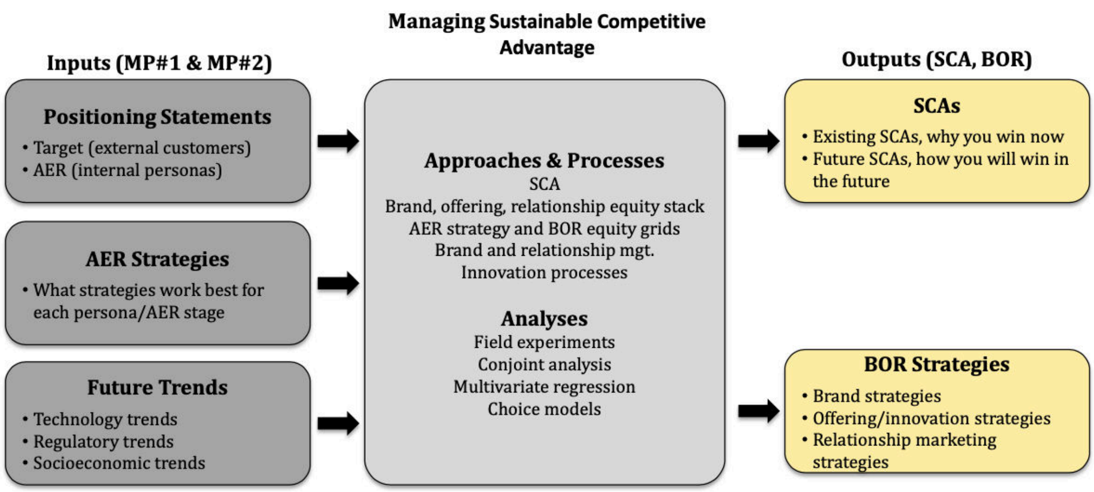
3 Key Inputs

1. Positioning Statements
2. AER Strategies
3. Future trends

Two Outputs

1. SCAs
2. BOR strategies

MP#3: All competitors react → Managing Sustainable Competitive Advantage



Source: Lecture 4, Marketing Principle #3 (Karpienko, 2022)

Inputs to the Sustainable Competitive Advantage Framework

- Positioning statements:
  - Who are the customers
  - What set of needs the product or service fulfils
  - Why this product/service is the best option to satisfy customer needs (relative to competition)
- AER Strategies: provide key guidance into how a firm should invest to acquire and keep customers
- Future Trends: long-term technology, regulatory, socioeconomic trends, which clearly can disrupt any organization's SCAs

Outputs of the Sustainable Competitive Advantage Framework

- Descriptions of the firm's SCA now and in the future: needs to be clearly address the three conditions for SCA:
  1. Customers care about it

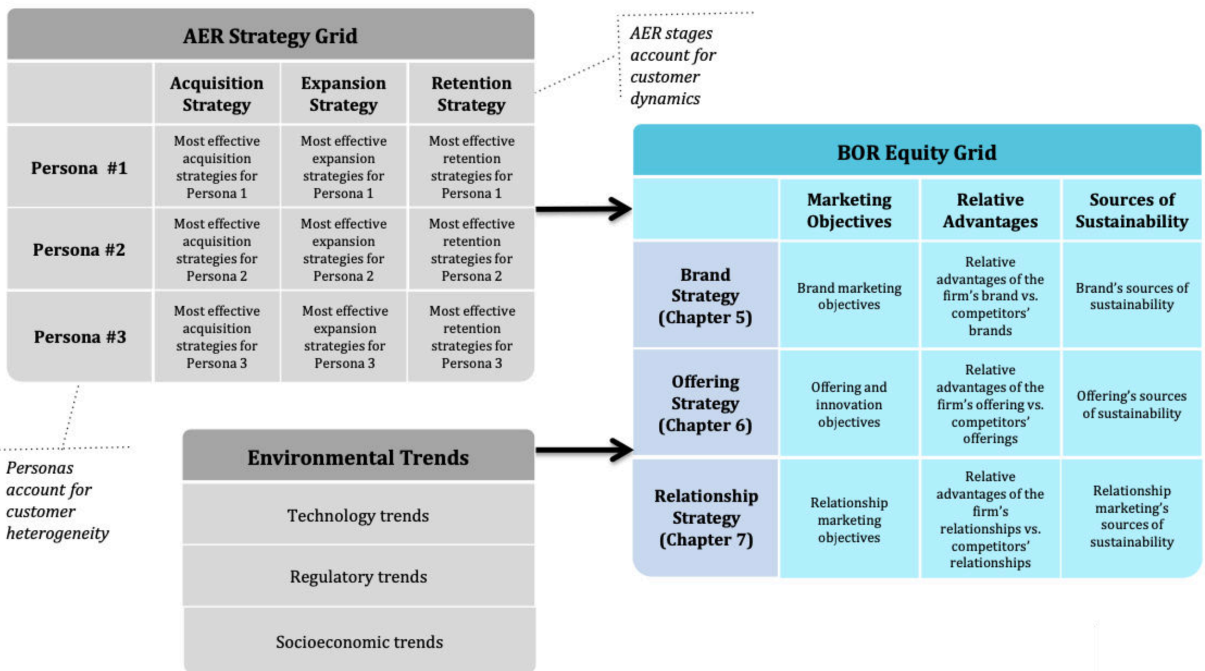
    2. The firm does it better than competitors
    3. It is hard to duplicate or substitute
- Detailed BOR strategies: aggregate and reorganize each targeted customer segment and persona according to its needs; the most effective strategies across time (accounting for customer dynamics) are in the brand, offering, and the relationship categories
- Both these outputs (SCA and BOR strategies) represent aggregations of insights gained from more fine-grained analyses, combined and reorganized to support effective macro-level decision making

Process for Managing Sustainable Competitive Advantage

1. Step 1: AER Strategy Grid – each box in this grid describes the most effective strategy for a unique persona at a single point in time
2. Step 2: Key Trends – managers should account for key environmental trends (e.g., long-term technology or regulatory changes) so that investments in BOR strategies lead to SCA, now and later
3. Step 3: BOR Equity Grid – completed to describe three key pieces of information for the BOR strategies
    a. Marketing objectives
    b. Relative advantages
    c. Sources of sustainability

Natural Sequence

1. A firm should make brand decisions, which are influenced by the firm's overall positioning objectives from MP#1 and MP#2 and largely determine how the firm will be positioned in the overall marketplace and in existing customers' minds
2. The firm can then focus on its offering decisions; product and service innovation and R&D efforts need to support both brand strategies and the firms positioning objectives
3. Relationship strategies normally are determined last, because they involved the delivery and experiential aspect; in this case, boundary spanners are critical to the customer experience and the firm's overall value proposition



Source: Lecture 4, Connections Between AER Strategy and BOR Equity Grids (Karpienko, 2022)

AER Strategy Grid

	Acquisition Strategy	Expansion Strategy	Retention Strategy
Persona #1	Most effective acquisition strategies for Persona 1	Most effective expansion strategies for Persona 1	Most effective retention strategies for Persona 1
Persona #2	Most effective acquisition strategies for Persona 2	Most effective expansion strategies for Persona 2	Most effective retention strategies for Persona 2
Persona #3	Most effective acquisition strategies for Persona 3	Most effective expansion strategies for Persona 3	Most effective retention strategies for Persona 3

- Output of MP#2 is a microanalysis of customer heterogeneity and dynamics in the firm's customer portfolio
- The insights from MP#2 then can be inserted into the AER strategy grid to reveal high-impact strategies
- Each box in this grid describes the most effective strategy for a unique persona at a single point in time

Source: Lecture 4, AER Strategy Grid: Micro-Analysis of Customer Heterogeneity and Dynamics (Karpienko, 2022)

BOR Equity Grid			
	Marketing Objectives	**Relative Advantages**	**Sources of Sustainability**
Brand Strategy (Chapter 5)	Brand marketing objectives	Relative advantages of the firm's brand vs. competitors' brands	Brand's sources of sustainability
Offering Strategy (Chapter 6)	Offering and innovation objectives	Relative advantages of the firm's offering vs. competitors' offerings	Offering's sources of sustainability
Relationship Strategy (Chapter 7)	Relationship marketing objectives	Relative advantages of the firm's relationships vs. competitors' relationships	Relationship marketing's sources of sustainability

- Brand, Offering, and Relationship (BOR) Equity Grid represents the last step in the process
- BOR equity grid offers a high-level summary of what the firm is trying to achieve with each BOR strategy
- Using the inputs from the AER strategy grid and key environmental trends, the BOR equity grid can be completed to describe three key pieces of information for the BOR strategies:
  - Marketing objectives
  - Relative advantages over competition
  - Maintaining the SCA over time

Source: Lecture 4, BOR Equity Grid: Macro-Perspective of Market- Based Sources of SCA (Karpienko, 2022)

Empirical Marketing – IBEB – Lecture 4b, week 3 Relationship Marketing

Marketing-Based Sources of Sustainable Competitive Advantage

1. Brand
2. Offerings
3. Relationships: the most effective in business-to-business, service, and complex offering settings
   - More effective for B2B goods, services, intangibles and complex or risky offerings
   - Salespeople, any boundary spanner, online relationships

Relationship Marketing

- This relationship marketing (RM) process—namely, identifying, developing, maintaining, and terminating relational exchanges to improve performance—can produce relationship equity
- Relational exchanges happen in B2B and B2C
- This form of equity, in combination with brands and offerings, in turn can lead to a sustainable competitive advantage (SCA)
- Customer relationship management is the managerially relevant, organization-wide, customer-focused application of RM, using IT to achieve performance objectives.

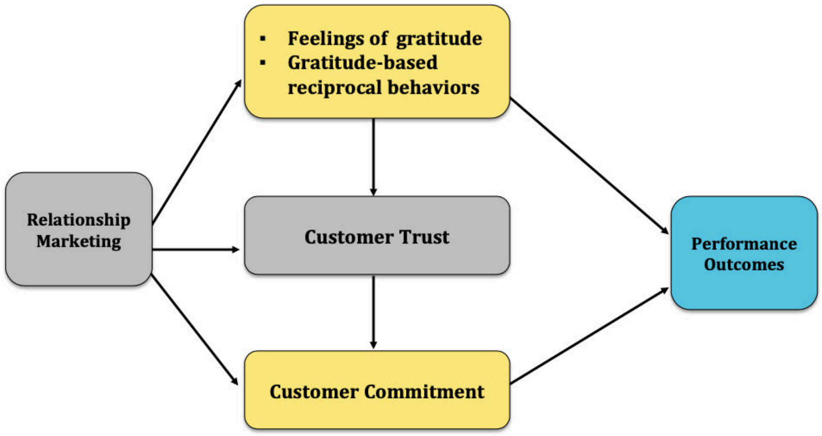
Relationship Marketing Builds Customer Relational Equity

- Relationship equity refers to the aggregation of relational assets and liabilities, associated with the firm's boundary-spanning employees and social networks linked to the offering or experience, that add to or subtract from the value provided by the firm's offering
- Marketing Principle #3 focuses on building and maintaining barriers, or sustainable competitive advantages (SCA), to competitive attacks, based on the premise that competitors react continually to firm's success

Trends are increasing the needs or effectiveness of Relationship Marketing Strategies

- Shift to service economies
- Increase in use of different marketing channels
- Increased global competition
- "me too" offerings, and faster "product" commoditization

The effects of RM on Gratitude: Enhancing Returns

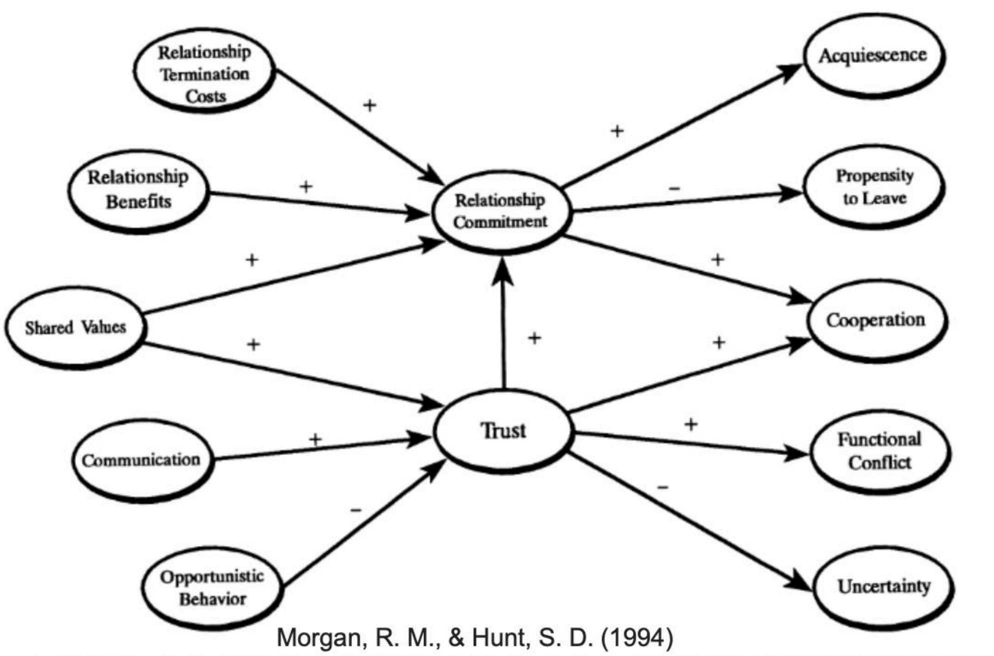


Source: Lecture 6, The effects of RM on Gratitude: Enhancing Returns (Karpienko, 2023)

Relationship Marketing Theory: Social Exchange Theory

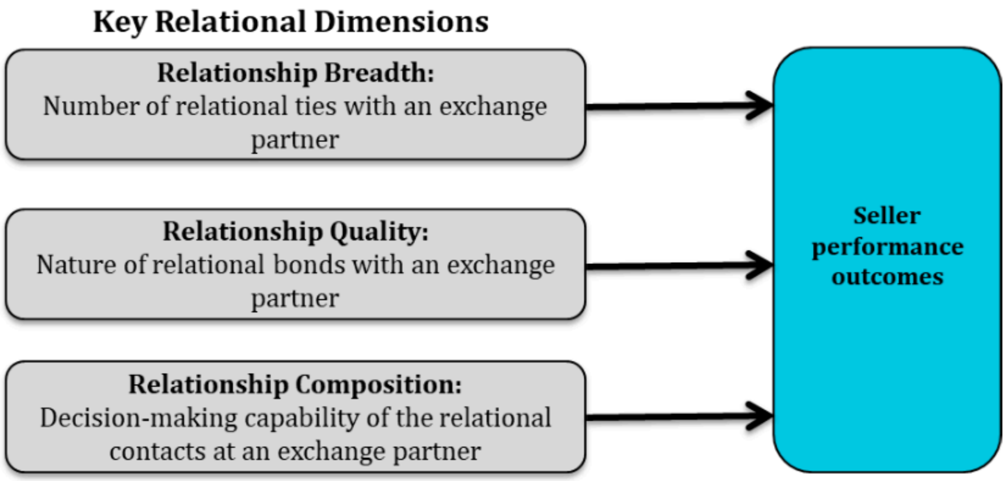
Geyskens, I., Steenkamp, J. B. E., Scheer, L. K., & Kumar, N. (1996)

Construct	Sample items [a]
Commitment	
Affective commitment	We want to remain a member of the supplier's network because we genuinely enjoy our relationship with them.
Calculative commitment	It would be too expensive for us to terminate our relationship with the supplier.
Trust	
Honesty	Our organization can count on the supplier to be sincere.
Benevolence	When making important decisions, the supplier is concerned about our welfare.



Source: Lecture 6, Social Exchange Theory (Karpienko, 2023)

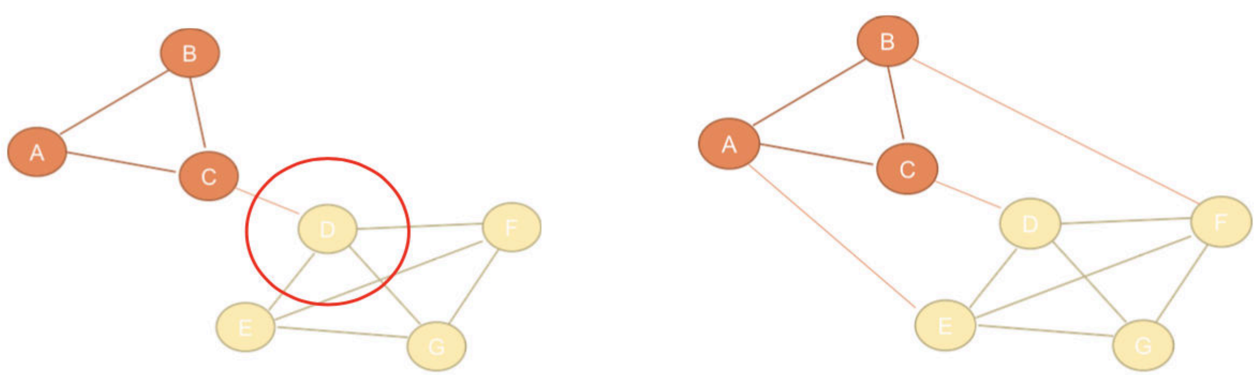
Relationship Marketing builds Customer Relational Equity



Source: Lecture 6, RM Building Customer Relational Equity (Karpienko, 2023)

- Breadth: number of relational ties/contacts with the partner
  - More ties = more information
  - More ties = less risk when a contact is lost
- Quality: trust, commitment and gratitude between the contacts
  - Higher quality = higher value
- Composition: diversity of ties/contacts with the partner
  - Higher diversity = higher chance of broad and meaningful impact

Relationship Marketing Theory: Network Theory



Source: Lecture 6, Network Theory (Karpienko, 2023)

Looking at the right network, if person D and C loses contact, it matters less because A and B are also connected with E and F accordingly. This contradicts thee left network, that when C and D are no longer connected, it loses the entire relationship between the two groups.

Brands from Relationship Equity

This chain of effects operates through four mechanisms:

1. Relational loyalty:
    - Relational loyalty is the likelihood that the customer provides the seller benefits in the exchange process due to their relational attitudes and ties
    - Relationships positively influence this loyalty, because customers perceive less risk dealing with trusted partners, act on relationally generated belonging, and minimize costs by buying from valued sellers
    - Loyalty = determinant of firm success in competitive marketplaces

2. Referrals or word of mouth (WOM)
    - Reflecting the likelihood that a customer comments positively about a seller to others
    - Relational bonds, feelings of gratitude, and positive attitudes drive the motivation and willingness to provide requested or unrequested referrals
    - Only customers with strong, trusting relationships are likely to risk their reputations by advocating a seller to another potential customer
    - Referrals and WOM differ from loyalty-favoured behaviours, because they represent different performance-enhancing pathways

3. Empathetic behaviours
    - Empathic behaviours are defined as having a greater likelihood to be influenced by perceptions of the seller's position
    - Customers in a strong relationship may attribute service failures to external causes that the seller cannot control, which would reduce the impact of those failures on their purchase behaviours
    - Their sensitivity to and empathy for the seller's difficulties also may prevent them from imposing the price-reduction pressures that are common responses to service failures

4. Cooperative behaviours
    - Cooperative behaviours are coordinated, complementary actions between partners to achieve a mutual goal
    - This creates value beyond what each individual firm could do on its own, cooperation increases customers' flexibility and adaptiveness to sellers' requests for changes, information, or reciprocation
    - If the customer obtains its portion of that created value before the seller (or vice versa), then the seller must wait for the reciprocal benefits
    - Commitment encourages the parties to remain in their valued relationships and bonds, even if the reciprocity is delayed or non-equivalent

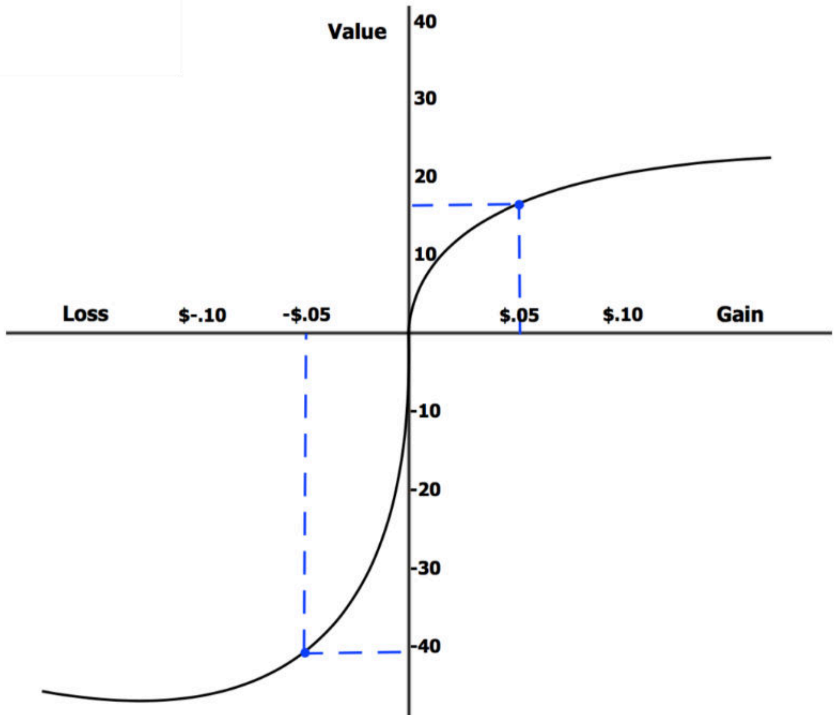
RM activities do not affect financial performance directly. Instead, they help build relationship equity, which influences customer behaviours, which improves the seller's financial outcomes

Relationship marketing strategy

Building and maintaining relationships

Example: United Airlines

- *United Airlines cited its contractual policies when it refused to spend $1200 to repair a passenger's guitar that its baggage handlers had carelessly broken. The passenger received word that he was ineligible for compensation because he failed to make the claim within United's stipulated 24-hour timeframe. The passenger vented his frustration by creating a song entitled "United Breaks Guitars" and uploaded it on YouTube. As of 2019, it garnered almost 20 million views. The song has been estimated to have cost United Airlines $180 million. In this case, losses loom larger than gains as the loss of just repairing the guitar for $1200 translates to a loss of up to $180 million.*
- Why are companies trying to omit such situations? Prospect Theory: losses loom larger than gains
    - When you exceed customer expectation, it leads to a lower increase in value compared to a bigger loss when customer expectations are not fulfilled.



Source: Lecture 6, Losses loom larger than gains (Karpienko, 2023)

As seen through the graph above, when exceeding customer expectation by 0.05, it leads to a value for the customers of around 16. However, when you lose customer expectation by 0.05, it leads to a loss of value of up until 40.

Highest Impact Relationship Marketing Activities

Relationship Activity	Definitions	Correlation Coefficient Between Activity and Relationship Quality
Conflict	Overall level of disagreement between exchange partners	-0.67
Seller expertise	Knowledge, experience, and overall competency of seller	0.62
Communication	Amount, frequency, and quality of information shared between exchange partners	0.54
Relationship investments	Seller's investment of time, effort, spending, and resources focused on building a stronger relationship	0.46
Similarity	Commonality in appearance, lifestyle, and status between individual boundary spanners or similar cultures, values, and goals between buying and selling organizations	0.44
Relationship benefits	Benefits received, including time saving, convenience, companionship, and improved decision making	0.42
Dependence on seller	Customer's evaluation of the value of seller-provided resources, for which few alternatives are available from other sellers	0.26
Interaction frequency	Number of interactions or number of interactions per unit time between exchange partners	0.16
Relationship duration	Length of time that the relationship between the exchange partners has existed	0.13

Note: The results in this table are from a meta-analysis performed by Palmatier, Dant, Grewal, and Evans (2006), which only evaluated relationship activities studied in previous research.

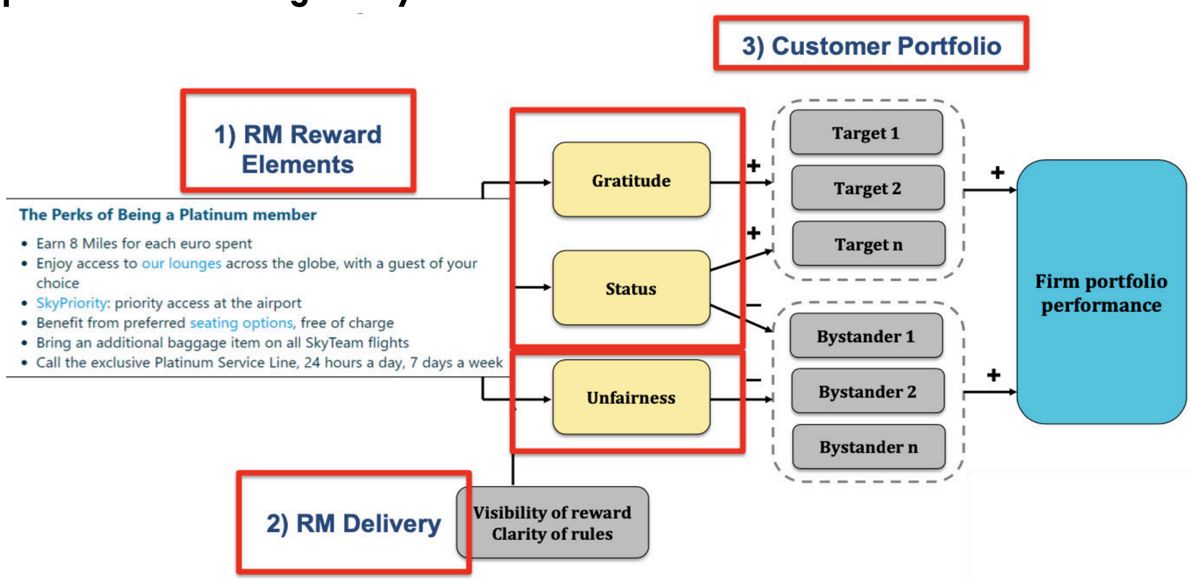
Source: Lecture 6, Highest Impact Relationship Marketing Activities (Karpienko, 2023)

Maintaining Relationships

- Toxic Poisons: engaging in actions that generate and even encourage perceptions of unfairness (often because of loyalty, reward or relationship programs)
- When managers recognize unfairness as a relationship poison, they should find the antidote by revising their RM and loyalty programs to make the benefits for targeted customers invisible to bystanders
- Antidote: pre-emptive approaches (A pre-emptive approach aims to personalize care for the customer, taking into consideration their genomic, cultural, and environmental profiles.)
- Negative event → affects largely towards the positive activities
- Long-term RM success often depends more on preventing the bad than on promoting the good
- Negative activities generally have approximately twice as strong an effect as positive activities, but not all negative events are the same

Targeting and adapting relationship marketing strategies

Relationship Marketing can simultaneously help and hurt Firm's overall performance through 3 key elements:



Source: Lecture 6, Relationship Marketing and Firm’s Overall Performance (Karpienko, 2023)

- The perks of membership or extra service to customers (reward elements) might lead to gratitude or status for some customers. However, for some customers, this would lead to an increase in the perceived unfairness, especially for bystanders.
- Reward elements: the elements that will be given to customers
- RM Delivery: delivery of these elements, information and rules to customers (which results in their perception)
- Customer portfolio: which results in a segmentation of customers, of who we are going to target and why, and who will be the bystanders.
    - If this is done well, this will result in a positive impact towards the firm portfolio performance

Maintaining Relationships

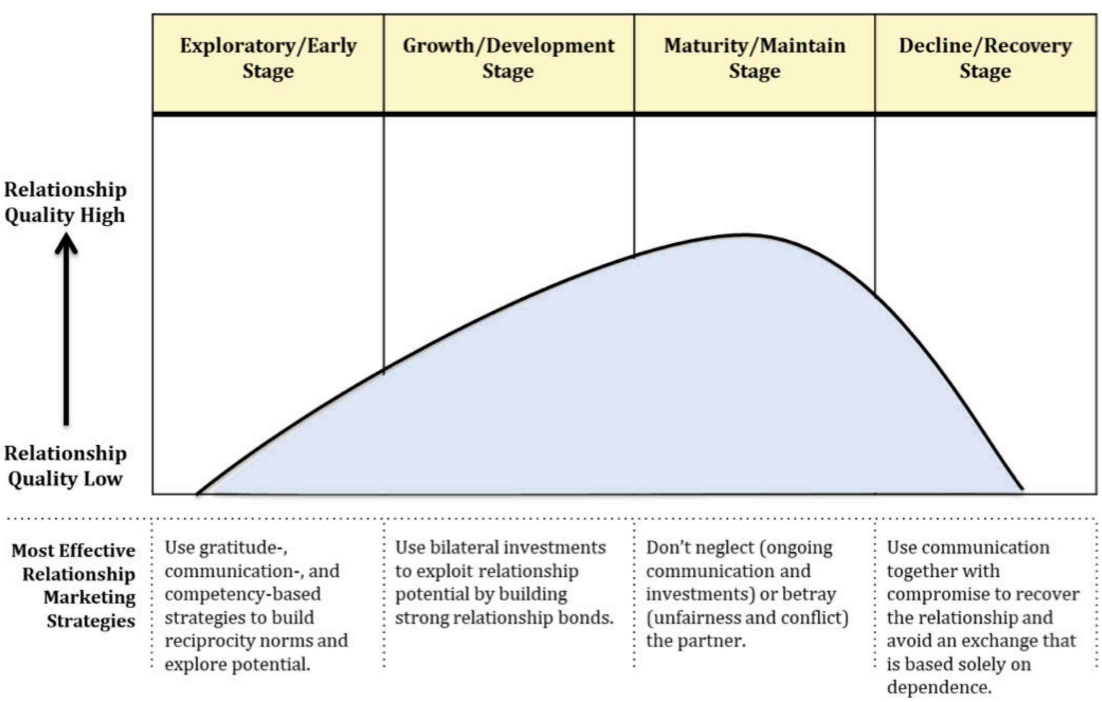
- Preventing customer perceptions of unfairness; may be "highest impact" RM strategy
    - Prevents large negative effect
    - Suppresses negative effect of other negative activities
    - Prevents punishing or retaliatory behaviours
- Understanding "true effectiveness" of relationship programs needs a multidimensional view:
    - Reward element perspective
    - Reward delivery perspective
    - Portfolio perspective (targets and bystanders)

The effect also depends on environmental or contextual factors, for example:

- Relationship proneness (does the customer actually want to engage in a relationship with the firm and the sellers. For example, at supermarkets, especially in the pandemic right now, most people would not want to engage with people in a store. Therefore, the relationship proneness would be very low in this situation)
- These factors and its impact towards the customer's relationship orientation, would be affected greatly by the products that the firm is trying to send
- Other examples include: Exchange and product uncertainty, Involvement, services, B2B, Emerging Markets

Relationship dynamics and lifecycle stages

- Most relationships begin with an exploratory or early stage, featuring limited confidence in the partner's ability and trustworthiness but also a willingness to explore the relationship
- If the initial experiences are positive and produce the desired outcomes, as well as evidence of trustworthiness, relationships move into the growth or developing stage
- If the relationship continues, the partners continue to obtain benefits and greater interdependence, such that they reach the maturity or maintaining stage
- Even successful relationships can enter a decline or recovery stage in response to specific events (conflict, unfairness, betrayal) or passive neglect (failure to communicate, ending investments)



Source: Lecture 6, Customer Relationship Lifecycle (Karpienko, 2023)

Managing relationship-based sustainable competitive advantage

Building relationship equity

Steps in building relationship equity:

1. Develop a strong foundation that supports relationship building and maintenance
    - Counterproductive to increase RM budgets without having a process that deals with customer problems, service failures or trust violations
    - Personnel with whom customers interact usually are the most critical means to create and maintain strong customer relationships
    - Dedicate their RM Investments to selecting, training, and motivating boundary-spanning employees
    - Increasing the amount, frequency and quality of communication with customers
    - Unfairness and unresolved conflict can undo years and fortunes spent on relationship building
2. Implement relationship marketing and loyalty programs targeted at specific customer groups, designed to generate specific relational outcomes across the firm's customers portfolio
    - Social RM programs: use social engagements to convey the customer's special status, e.g. free tickets to concerts or sporting events
    - Structural RM programs: provide investments that customers might not make themselves e.g. customized packaging
    - Financial RM programs: provide economic benefits, in the form of special discounts, giveaways, free shipping or extended payment terms that ultimately tend to offer little relative advantage, because competitors can easily match them

Measuring relationship equity

- Assessed on an ongoing basis to support learning and refinement over time
- Requires a clear definition of the target of that measure
- If RM efforts inherently results in longer relationships, then it may seem that duration should be a good proxy for relationship strength or equity

- Other approaches: measuring level of commitment, trust, gratitude, CLV or level of interfirm relationships

Important Relationship Dimensions and Example Measures

Constructs	Measures (Respondent)	Item Loadings
Relationship Quality (Reported by Customer)		
Commitment (Cronbach's α = .82)		
	•We are willing "to go the extra mile" to work with this rep.	.82
	•We view the relationship with this rep as a long-term partnership.	.85
Trust (Cronbach's α = .82)		
	•We have trust in this rep.	.86
	•This rep is trustworthy.	.82
Reciprocity norms (Cronbach's α = .71)		
	•There is a norm of reciprocity guiding our relationship with this rep.	.76
	•We would help each other without expecting an immediate favor in return.	.74
Exchange efficiency (Cronbach's α = .68)		
	•Our interactions with this rep are often inefficient. (reverse scored)	.63
	•Our dealings with this rep are very efficient.	.84
Contact Density (Reported by Customer)		
	•How many different relationship ties are there among employees at this rep and your firm? (number)	—
Contact Authority (Reported by Customer)		
	•This rep knows the key decision makers at our firm.	.74
	•This rep deals with the important decision makers in our company.	.74
	•This rep has relationships with the important gatekeepers at our firm.	.73

Source: Lecture 6, Important Relationship Dimensions and Example Measurers (Karpienko, 2023)

Multiple regression

Multivariate Regression Analysis

Captures the statistical association between a focal marketing outcome of interest (e.g., sales, loyalty, CLV, profitability) and several marketing interventions that simultaneously may affect the focal outcome (e.g., relationship marketing efforts, marketing mix).

1. Discern whether a particular marketing intervention truly influences a marketing outcome (significant or not)
2. Learn the sign of the relationship between a marketing invention and a marketing outcome.
3. A multivariate regression helps researchers compare the relative strength of multiple marketing interventions.
4. With a multivariate regression, we can control for confounds

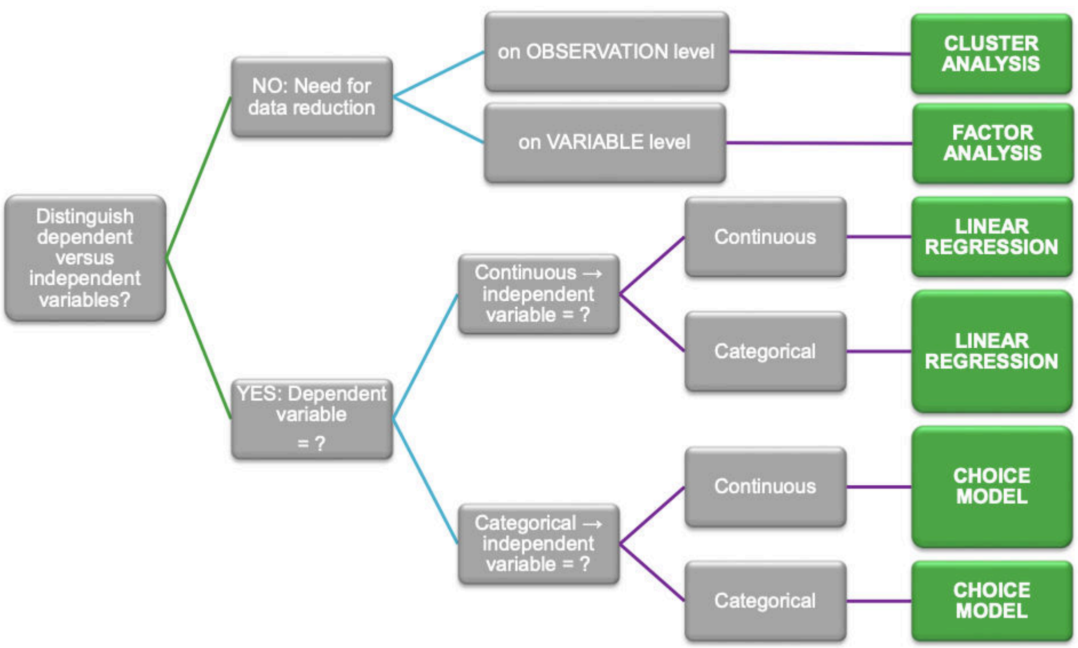
$$\text{Relational equity}_i = \beta_1\text{SocialRM}_i + \beta_2\text{StructualRM}_i + \beta_3\text{FinancialRM}_i + \beta_4\text{Location}_i + \beta_5\text{Number of Employees}_i + \beta_6\text{Industry}_i + \varepsilon_i$$

Variable	Coefficient Capturing Weight of Intervention	*p*-Value for Statistical Significance
Social RM Efforts	1.26	0.03
Structural RM Efforts	0.20	0.89
Financial RM Efforts	2.50	0.01
Buyer Firm Location (East Coast)	0.80	0.02
Buyer Firm Number of Employees	1.10	0.03
Buyer Firm Industry (Corporate)	0.08	0.41

- Only social and financial RM are significant
- RMs have a positive impact
- Financial RM is more effective than Social RM
- Important to control for location and number of employees

Source: Lecture 6, Effect of RM Programs on Relational Equity (Karpienko, 2023)

When to use which method of analysis:



Source: Lecture 6, Method of Analysis (Karpienko, 2023)

Discrete Choice Models

$$ContinueRelationship_1 = \beta_1\ SocialRM_1 + \beta_2\ StructuralRM_1 + \beta_3\ FinancialRM_1 + \varepsilon_1$$

Where ContinueRelationship = 0 if th relationship ends and = 1 if it continues.

We assume that there is a latent variable z that is continuous AND that there is a limit value δ:

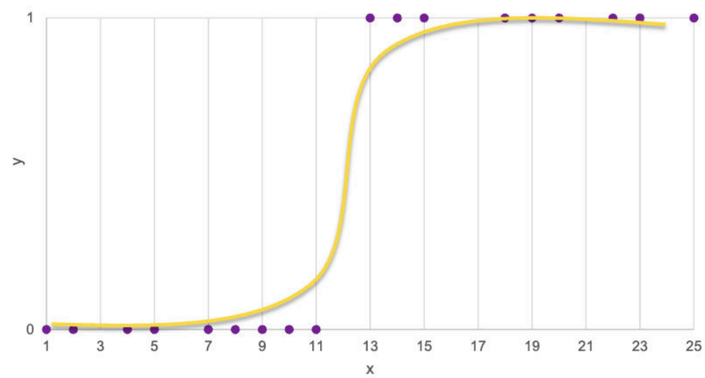
$ContinueRelationship_1 = 1$ if $z > \delta$
$ContinueRelationship_1 = 0$ if $z \leq \delta$

$z_1 = \beta_0 + \beta_1 x_1 + \varepsilon$

$ContinueRelationship_1$ are linked by the logistic function:

P(ContinueRelationship = 1)

$= e^r / (1 + e^r)$



$ContinueRelationship_i = \beta_1 SocialRM_i + \beta_2 StructualRM_i + \beta_3 FinancialRM_i + \epsilon_i$ β_1 shows the effect SocialRM on

$z = \log(P(ContinueRelationship=1) / (1 - P(ContinueRelationship=1)))$

➔ Probability can rise (pos. β_1) or fall (neg. β_1)
➔ Effect size is not immediately clear.

Empirical Marketing– IBEB – Lecture 5, week 4
Managing Offering-Based SCA

Innovative offering

- Innovative offerings help firms build and maintain SCA and barriers to the competitive attacks that arise because competitors continually react to a firm's success (MP#3)
- **Offering** is a purposely broad term that captures both tangible products and intangible services provided by firms
- Most offerings must be augmented by and linked to brands and relationships to ensure the firm's SCA, because it is relatively easy for competitors to copy offerings, given enough time and money

Innovation: the creation of substantial new value for customers and the firm by creatively changing one or more dimensions of the business.

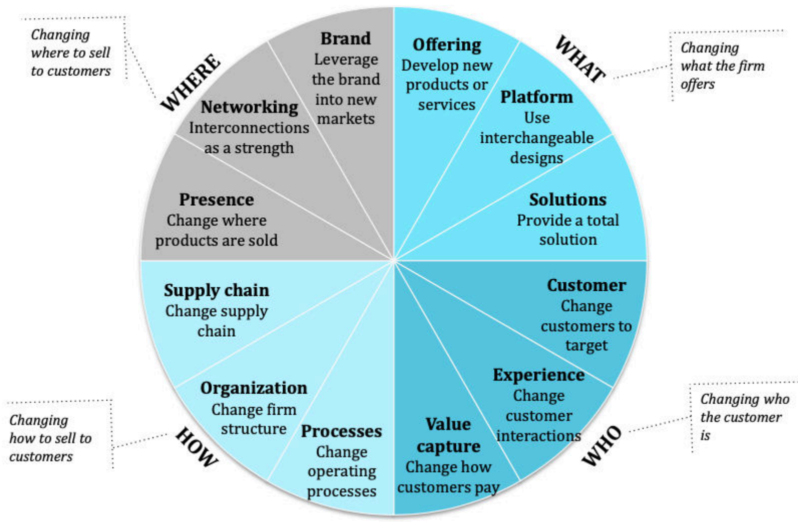
Key Aspects of Innovation

- Broader than product of technology innovation
- Must generate new value for customer and seller
- Involves change leading to differentiation and SCA

How can a firm innovate?

- Change WHAT the firm offers
- Changing WHO the customer is
- Changing HOW you sell to customers
- Changing WHERE to sell to customers

Innovation Radar: captures different ways a firm can innovate and helps define the innovation space



Adapted from Sawhney, M., Wolcott, R.C., & Arroniz, I. (2006), "The 12 Different Ways for Companies to Innovate," *MIT Sloan Management Review*, Vol. 47 (3), p. 75.

Example of different innovation radars:

Source: Lecture 5, Examples of Innovation Radar (Karpienko, 2022)

The Role of Marketing in Innovation Strategies

Marketing contributes to innovation strategies in two main ways:

1. **Launch** new offerings to customer => generate sale with acceptable profit levels
    - Many good products fail to achieve financial goal due to poor launches

2. **Develop** innovative offering by collecting customer input and forecasting trends

    - Extensive efforts go into test marketing and understanding the factor that will influence customers to adopt the new offering

"75% of products launched end up failing to meet objectives"
Reasons:

- Failure to provide large enough perceived benefits
- No differential advantage
- Price vs performance
- Poor product launch
- Poor positioning of new product
- Competitive response

Example: Kellogg's (US)

- Launched Breakfast Mates: a single serving of breakfast cereal, a spoon, and pasteurized milk that did not require refrigeration
- Positioned the innovation as a solution for harried parents
- However, the positioning was ineffective because Kellogg's failed to realize that parents hated the idea of giving their children a product that would allow their children to spill milk all over their car.

Sustaining vs. Disruptive Innovation

- **Classic STP** focuses on **red ocean** strategies:
    - Known market space, competitive rules, and industry boundaries (lifecycle mindset)
    - Product mature and become commodities
    - Can be managed, tested, and analysed

- **Disruptive positioning** focuses on the **blue ocean**:
    - Market space does NOT exist (unknown boundaries)
    - Demand is created rather than fought over (often NO direct competition)
    - Hard to test, more of an art, often requires intuition, high risk

Red Ocean Strategies	Blue Ocean Strategies
New offerings are brand and line extensions, representing	Less numerous but more radical and repositioned offerings,

incremental innovations (uses STP processes)	focused on creating new markets
Account for the majority of sales but earn lower relative profit levels	Success generates higher profit levels
High competitive rivalry in existing markets	Creates a new market with less competitive rivalry
Must beat existing competition	Often transforms the image of competitor's brand features such that they become a negative attribute in the new market
Attempts to capture a portion of existing market demand	Attempts to create new market demand

Source: Lecture 5, Comparison of Red and Blue Ocean Strategies (Karpienko, 2022)

Sustaining vs. Disruptive Innovation

A technological innovation can undermine a firm's leadership position in a market, even if that firm is doing everything else well.

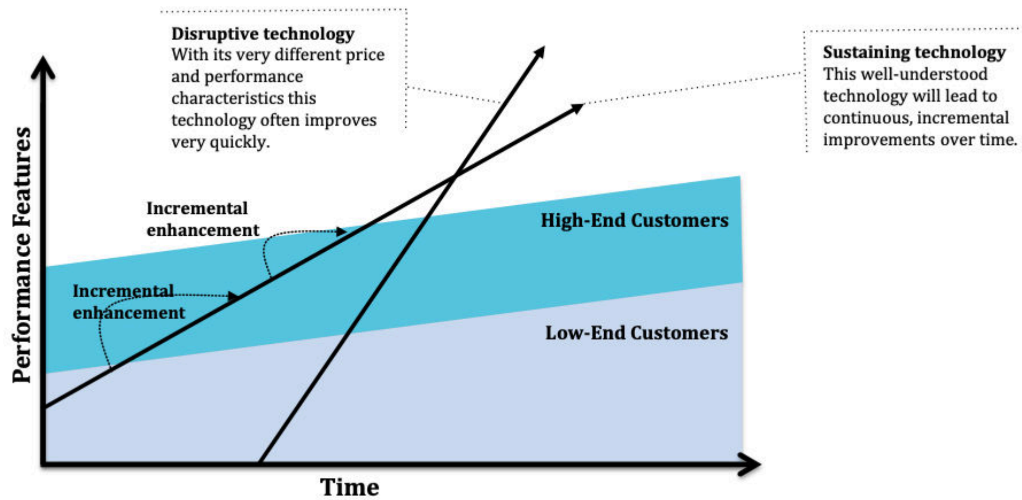
2 main categories of technologies:

1. **Sustaining technologies:** well-understood and typically exploited by market leaders, which produce continuous, incremental improvements overtime
    - Improve performance of established products along dimensions valued by mainstream customers in major markets
        - Products often overshoot customer needs
        - Processes support incremental product improvements (lower risk)

2. **Disruptive technologies:** accordingly present highly different price and performance characteristics or value propositions and usually result in 'worse' performance in the short term

- Brings to market a different value proposition than available previously
- Underperforms established products in mainstream markets
- Typically cheaper, simpler, smaller, or more convenient to use
- Eventually are good enough (servers vs. mainframes)

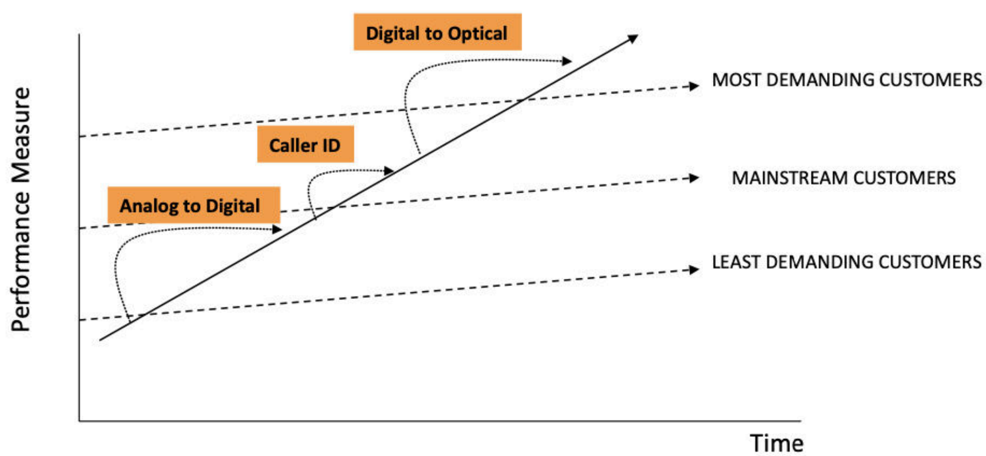
Examples of sustaining => disruptive: camera => phone, maps => google maps, cinemas => netflix



Adapted from Christensen, C.M. (1997), *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail.* (Boston, Mass.: Harvard Business School Press)

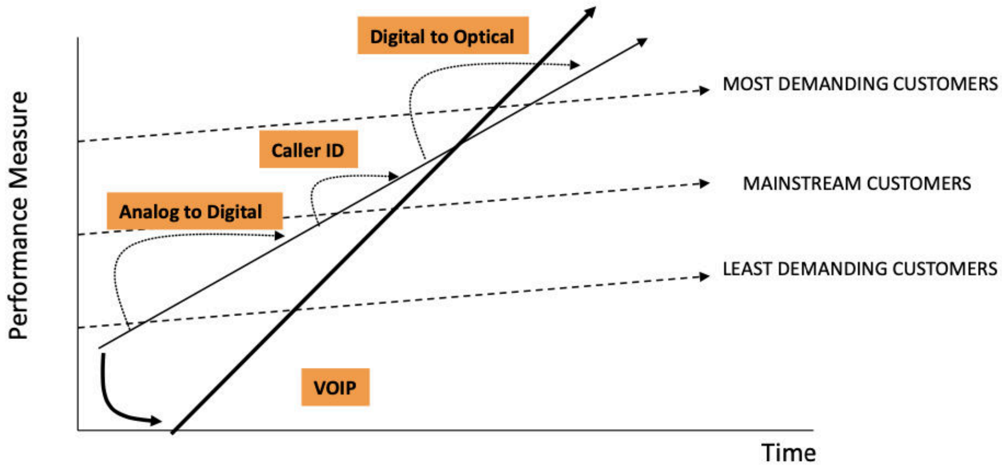
Source: Lecture 5, Sustaining versus Disrupting Technical Innovations (Karpienko, 2022)

a. Market leaders (incumbents) usually win the battles of sustaining innovation



Source: Lecture 5, Market Leaders (Karpienko, 2022)

b. New Entrants usually win the battles of Disruptive Innovations



Source: Lecture 5, New Entrants (Karpienko, 2022)

Why do Market Leaders fall into this trap?

- Companies find it difficult to invest in disruptive innovations => lower-margin opportunities that their customers do NOT want
- Growth targets bias firms toward larger markets
- Markets for disruptive innovations cannot be quantified
- Competition leads to oversupplying performance relative to what customers want

Solution: *set up an autonomous organization tasked with building an independent business around disruptive innovations in parallel*

Launching and Diffusing Innovation Strategies

Drivers of Adoption:

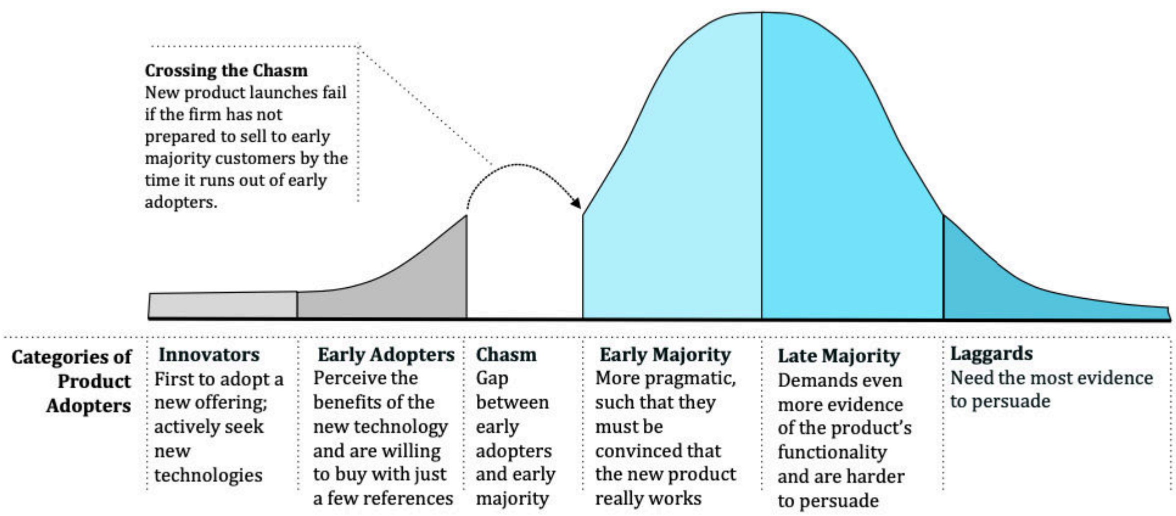
1. People: users with different propensities to adopt new product
2. Psychology: what are the sources of persuasion?
3. Products: specific product characteristics may help or hinder adoption

People

The adoption lifecycle of an innovative offering suggests five groups of potential users:

1. **Innovators**: first to adopt, often before the new offering even is officially launched

2. **Early adopters**: see the benefits of the new technology and are willing to adopt it after just a few references
3. **Early majority**: pragmatic consumers, who need to be convinced that the new product really works
4. **Late majority & laggards**: want more evidence, and are especially hard to persuade



Adapted from Moore, G.A. (2006), *Crossing the Chasm: Marketing and Selling Disruptive Products to Mainstream Customers*, 1st rev. ed., (New York: Collins Business Essentials)

Source: Lecture 5, Crossing the Chasm: Adoption Lifecycle (Karpienko, 2021)

Psychology

1. **Social Proof**: looking at others is a way we determine what to do
   a. More people => larger belief that it is correct
   b. More similar people => large impact on behaviour
2. **Authority**: we have a deep-seated sense of respect for authority and status
3. **Scarcity**: things seem more valuable when their availability is limited
4. **Prospect Theory**: perceived value for an objective gain or loss (higher value for loss - scared of losing more than gaining)

Product

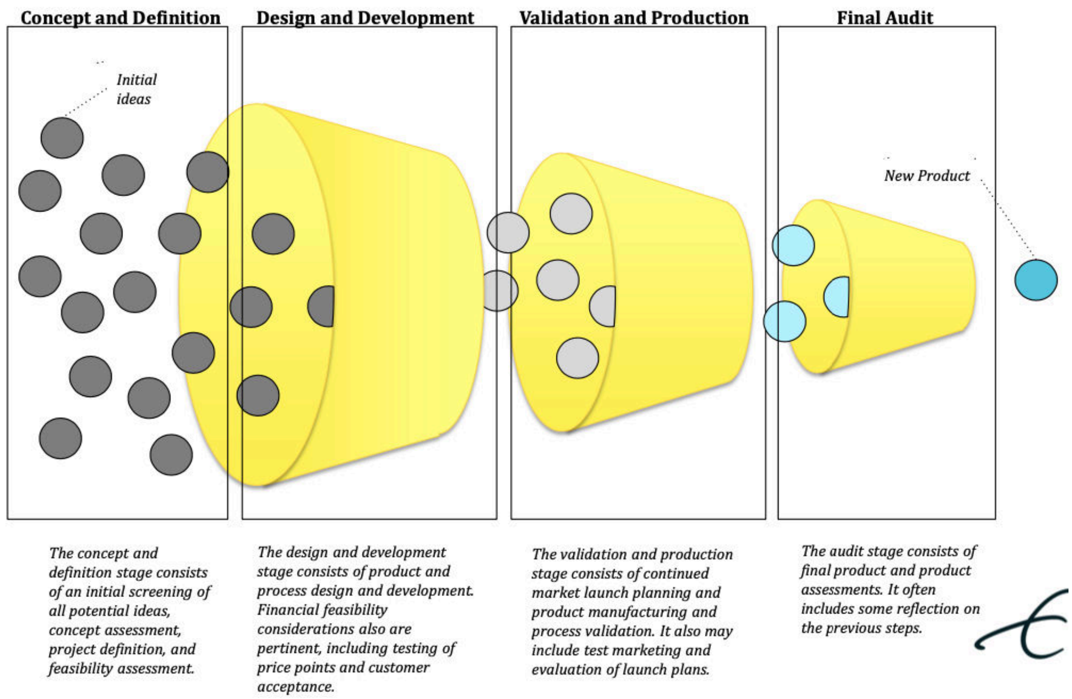
1. **Relative advantage:** degree to which an offering is perceived as being better than the ideas it supersedes
   - Economic: costs, price
   - Status, prestige, etc

2. **Compatibility:** degree to which an offering is perceived as consistent with existing values and experiences
    - Often must break habits, perceptions or beliefs
3. **Complexity**: degree to which an offering is perceived as relatively difficult to understand
    - Education is key
    - Speed and easy use of Google
4. **Trialability**: degree to which an offering may be experimented with on a limited basis
    - free samples, demo, test drive
    - especially salient for high cost, time, risky products
5. **Observability**: degree to which the results of an offering are visible to others
    - Especially salient for status products
    - Can be negative

Developing innovative offerings

Stage-Gate Design Review Process for Effective Product Development

- Divides the development process into a series of steps or stages
- Each project gets evaluated, on multiple dimensions, by independent evaluators in each stage
- This method helps ensure effective development approaches



Source: Lecture 5, Stage-Gate Design Review Process for Effective Product Development (Karpienko, 2022)

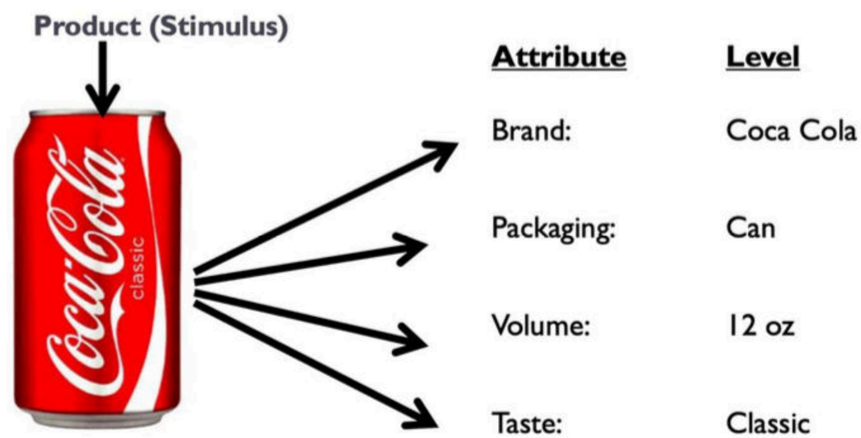
Conjoint Analysis

Definition: rocess for determining the 'unit-less' trade-off among attributes and set of attributes that maximizes appeal (sales, share).

- Helps understand customer value
- Product superiority drives financial success
- Product design require making trade-off decisions (price, performance, size, location, features, etc)

2 Main Stages:

1. **Conjoint Design**: attributes and levels, type of conjoint, selecting profiles
    - Products are represented as bundles of attributes
    - The levels of each attribute define the product:



Source: Lecture 5, Conjoint Analysis Helps Understand Customer Value (Karpienko, 2021)

Attribute	Partworth - utility
Screen 6.5 inch	20
Camera 8 MP	10
Price 500	25

Source: Lecture 5, Conjoint Analysis & Conjoint Analysis Example (Karpienko, 2022)

Willingness to Pay:

- The part-worth difference between the $500 and $600 smartphones was 25 (25 – 0 = 25) => each part-worth unit is worth $4 ($100 = 25 units, or 1 unit = $4)
- Noting that the part-worth difference between the 5.5- and 6-inch phone options was 20 units, we can estimate that customers are willing to pay $80 (i.e. $4 x 20 units = $80) more for a 6-inch screen than for a 5.5-inch version

Attribute Importance:

- We can compute the relative importance in % of each product attribute by dividing the partworth-utility
- *Importance of Attribute = Attribute's PW - utility Range/ sum(all Attributes' range of PW - utility)*
    - Importance Screen = 20 [i.e. 20 – 0] / (20 [i.e. 20 – 0] +10 [i.e. 10 – 0] +25 [i.e. 25 – 0]) = 36,36%

2. **Conjoint Analysis**: recovering part-worth utilities, identify segments

- Respondents rate several profile on 1-10 or 1-100 scale
- Use linear regression to recover part-worth utilities

$$Rating_i = \beta_0 + \beta_1 * Brand_i + \beta_2 * Packaging_i + \varepsilon_i$$

Other Empirical Applications:

- Conjoint studies are widely used across disciplines to study consumer preference and the resulting market shares of offering.

Example: study effects of policy changes on the demand for guns (Moshary et al. 2023)

- Idea: Simulate market shares of specific gun types based on the conjoint-based preferences and price
- Discovery: bans or restrictions that specifically target "assault weapons" increase demand for handguns

Data analysis technique : Cojoint Analysis

Description: With a conjoint analysis, marketers can design and develop new products by thinking of products as bundles of attributes, then determining which combination of attributes is best suited to meet the preferences of customers.
When to use it?

- To identify product attribute trade-offs that customers are willing to make for a new product.
- To predict the market share and impact of a proposed new product (i.e., bundle of attributes).
- To determine the amount that customers are willing to pay for a new product.

How it works?

Conjoint analysis assumes that a product is made up of multiple attributes that collectively create value for the customer. For instance, when choosing a smartphone, a customer may consider factors like call quality, operating system, screen size, and camera quality. However, simply asking customers which features they prefer isn't effective, as most will desire the best of everything. Instead, firms can simulate trade-offs, such as asking whether a customer would prioritize better camera quality over another feature.

Example

A smartphone manufacturer wants to design a new phone for its target demographic. The key product attributes for the manufacturer are camera resolution quality, screen size, and price. The manufacturer also wants to understand customers' willingness to pay for the new smartphone. Thus, it designs a conjoint study for 250 customers to provide a product rating score (0 = least preferred, 100 = most preferred) for eight alternative smartphones, according to their price, camera resolution, and screen size. The question
for one of the eight products is provided in Table below for illustration.

How likely are you to buy this smartphone? Use a scale from 0 to 100, 0 = definitely will not purchase and 100 = definitely will purchase	
Price	$ 500
Camera Resolution	5MP
Screen size	2.5 inches
Your rating (0 to 100, where 100 is most likely to buy)	

The manufacturer uses conjoint analysis to estimate customer preferences for smartphone attributes. Customers prefer a $500 phone (partworth = 25) over a $600 one (partworth = 0), an 8 MP camera (partworth = 10) over a 6 MP one (partworth = 0), and a 6.5-inch screen (partworth = 20) over a 5.5-inch one (partworth = 0). Screen size is twice as important as camera quality, based on partworth differences. Since each partworth unit is valued at $4, customers are willing to pay $80 more for a 6-inch screen. The optimal product configuration would be a $580 smartphone with a 6-inch screen and a 6 MP camera.

Empirical Marketing – IBEB – Lecture 6, week 5 - Brand Based Competitive Advantage

Brand: name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers.

Brand elements: characterize a brand and is used to identify that brand

- Include Name, Symbol, Package design, and any other features that serve to differentiate that brand's offering from competitors

Brand Equity

Brand equity: The set of assets and liabilities linked to a brand, its name, and its symbol, which add to or subtract from the value provided by the firm's offering and relationships

Lies in the mind of the customer: it is difficult for competitors to copy it, adding to the sustainability of brand-based barriers => hard for firms to change their brand identity

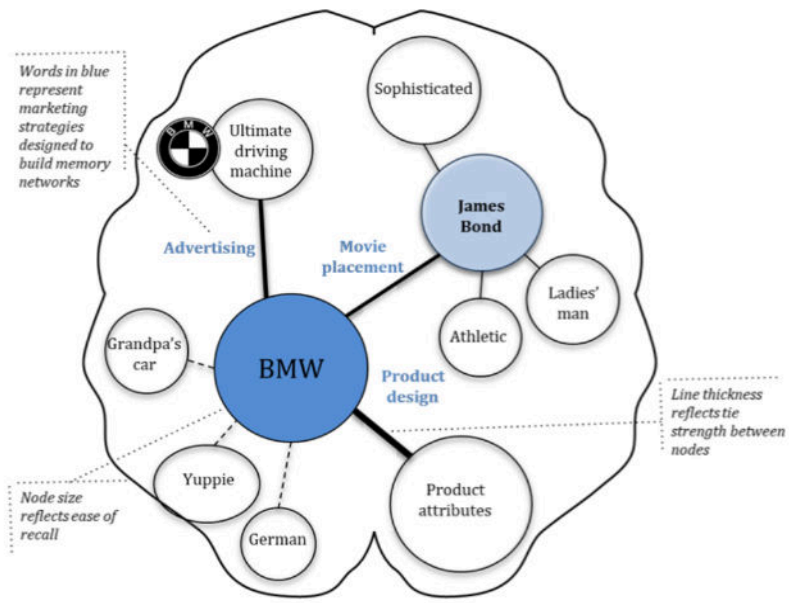
Associative Network Memory Model of Brand Equity

The key characteristics of a brand, which influence its brand equity:

1. **Brand Awareness or Familiarity**: the customer's ability to identify a brand
2. **Brand Image**: customers' perceptions and associations with the brand

A**ssociative Network Memory Model:** Argues that the human mind is a network of nodes (represent brand awareness) and connecting links (represent brand image).

Brand Positioning: how and where the firm hope to appear in mind.
Design elements include: brand awareness, image, objectives, relative advantage, and sustainability



Lecture 7, Associative Network Memory Model of Brand Equity (Karpienko, 2023)

Step to Build Brand Equity

	Brand Building Activities		Key Objectives
1st Step	Build a high level of brand awareness	→	Provide an anchor point for linking meaning to the brand in later steps
2nd Step	Link the brand name to its points of parity and difference	→	Define the brand's relative advantage(s)
3rd Step	Build a deep emotional connection or "relationship" between brand and targeted customers	→	Generate powerful, long-lasting barriers to competitors (i.e., SCA)

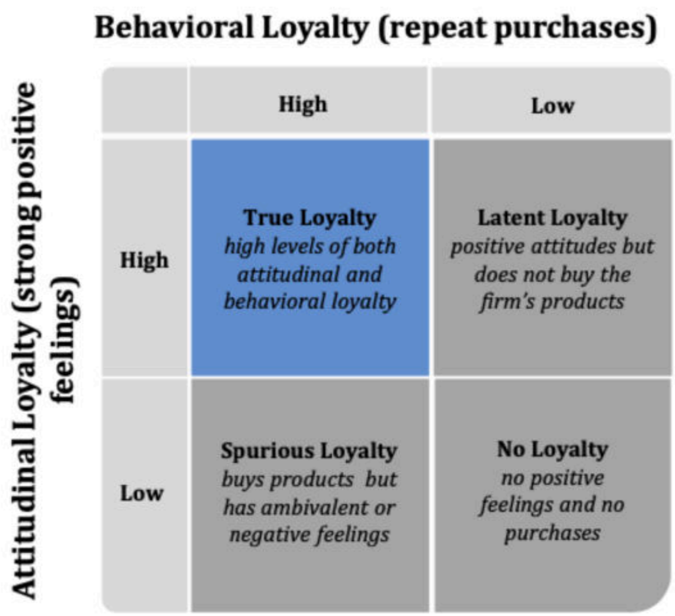
Source: Lecture 7, Three Steps to Building Brand Equity (Karpienko, 2023)

Benefits from Brand Equity

- **Sales growth** → sales benefit from strong brands, because brands make it easier to acquire new customers, who perceive less risk, higher quality, and better performance of a brand strong equity

- **Profit enhancement** → the benefits that drive sales growth also can enhance a firm's profitability by reducing costs or allowing the firm to charge higher prices for its products
- **Loyalty effects** → a strong brand makes customers more loyal, which often provides the largest barrier to competitive entry

The Loyalty Matrix

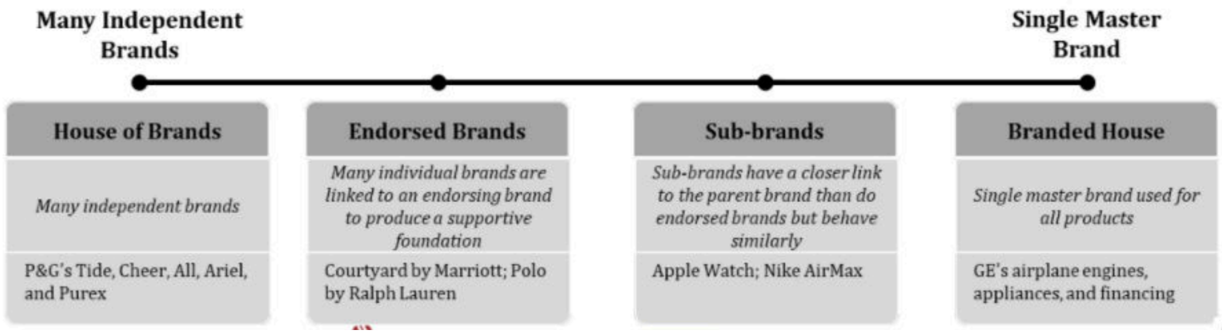


Source: Lecture 7, True Loyalty Matrix (Karpienko, 2023)

- **True loyalty:** positive feelings and actions
- **Spurious loyalty:** at the first convenient opportunity, they will switch
- **Latent loyalty:** usually due to a lack of local purchase access or prices beyond their means

Brand Architecture

Brand Architecture: defines both the rationale and the structure among the firm, its products, and its brand/product extension.



Source: Lecture 7, Brand Architecture (Karpienko, 2023)

1. **House of Brands**

- Can create distinctly positioned brands that convey the personality of a firm's products by means of physical or perceptual benefits
- Each brand has its own brand equity
- A firm commands more shelf space
- Firm incurs higher costs of advertising and new product introductions

2. **Endorsed Brands**

- Endorsed brands help differentiate and boost corporate brand
- Faster market penetration
- Quality assurance
- Can be subject to negative spill over effect of brand image in case of scandal
- Brand dilution

3. **Sub-brands**

- High visibility parent brand
- Vulnerability
- The stronger is the link between the master brand and sub brand the stronger will be the positive and negative spill over.
- High operating expenses of managing multiple brands

4. **Branded House**

- Economies of scale in marketing and efficiency in creating brand equity
- Lower per-item promotion cost
- Consumers are likely to transfer loyalty from one brand to another
- Efficient means to communicate with public, government and stakeholders
- Helps brand extensions

- Limited ability to expand in unknown product categories due to loss of brand identity

Brand Extensions

- Launch of new offerings by leveraging an existing brand
    - Through line or category extensions

Brand Line Extensions: the new offering is in the same product category but targets a different segment of customers, usually with a slightly different set of attributes.

Brand Category Extensions: the new offering instead moves to a completely different product category.


- NOT all brand extensions succeed as there must be perceived fit between the parent brand's image and the extension on a dimension that is relevant to the customer.

Managing Brand-Based SCA

Integrated Marketing Communication

To reach the steps in **building brand equity** => firms use multiple marketing communication formats.

Examples of marketing communication formats:

- Advertising
- Sales promotion
- Public Relations (PR)
- Events and Experiential marketing
- Direct & interactive marketing
- Word-of-mouth (WOM)
- Personal Selling

Approaches for Understanding and Measuring Brand Equity

A firm must measure brand equity to:

1. Track effectiveness
2. Returns on marketing expernditures that seek to build brand equity over time
3. Understand the state of the brand following strategy changes/ competitive disruptions

Different approaches, methods, and metrics for measuring a brand's health:

- **Qualitative Analyses:** used in the early stages of a brand audit, e.g., to discover the level of brand awareness or brand associations via in-depth interviews or focus groups.
- **Quantitative analyses:** used to identify the causes or drivers of desired outcomes, e.g., the effect of marketing communications on brand equity.

Measuring Brand Equity

1. Social Media
    - **User Generated Content:** create a narrative about how people perceive a product or a brand.
    - Rich associative information contained in social tags can act as a proxy measure of customer-based brand equity.

2. Surveys

3. Experiments

- Strong test of causality
    - Random assignment of customers
    - Control of conditions or treatments
    - Comparison to control groups over time
- Used to test findings from other methods
- For our experiment, we need:
    - **Internal validity** (can we estimate the effect for our sample?)

- Fails when there are differences between treated and control groups (other than the treatment itself) that affect the outcome and cannot be controlled for.

Most common threats to internal validity:

- Failure of randomization (e.g., Facebook ads)
- Non-compliance with the experimental protocol
- Attrition

    - **External validity** (can we use our estimates for other populations?)

- Fails when the treatment effect is different outside the evaluation environment.

Most common threat to external validity

- Non-representative sample – This becomes an issue when coupled with segmentation if the trial sample is not representative of the underlying population segment.
- Non-representative program
- Hawthorne effects

  Simple process:

    1. Randomly divide customers into groups (2 to 3)

2. Do nothing to one group (control group)
3. Do your test (conditions/treatments) to other group(s), but nothing else (ideally customers and employees involved do NOT know the difference; **“double blind”**
4. After a period of time test the difference in outcomes across groups and see if it varied significantly

Marketing Experiments

Description : Marketing experiments test how customers might respond to marketing decisions, while ruling out confounds that otherwise would be present when comparing a treatment to a control group.

When to use it

-Identify if a BOR (brand/offering/relational) investment directly impacts customer or firm outcomes.

- Select the best BOR investment strategy based on financial impact (e.g., sales lift).

How it works?

Establishing Causality in Experiments
An experiment determines if a BOR (brand/offering/relational) investment causes an outcome. Causality requires:

1. Co-variation – Changes in the independent variable (e.g., price discount) correspond to changes in the outcome (e.g., higher sales).

2. Temporal precedence – The independent variable occurs before the outcome (e.g., sales measured after a price promotion).

3. Elimination of alternative explanations – Other factors must be ruled out.

Key Design Elements for Causal Experiments

- Treatment group – Receives the intervention (e.g., increased commission for salespeople).

- Control group – Does not receive the intervention (e.g., commission remains the same).

- Random assignment – Ensures treatment and control groups are similar (e.g., demographics, experience).

Causal Equation

$Y_i = \beta_1 I_j + \beta_2 X_i + \varepsilon_i$

- Y_i: Outcome for customer i.

- I_j: 1 if in the treatment group, 0 otherwise.

- β_1: Treatment effect.

- β_2: Controls for other factors.

- ε_i: Random error.

A well-designed experiment ensures observed effects are truly due to the treatment.

The Experimental Idea

The treatment effect for unit i is the difference between its two potential outcomes: $Y_{1i} - Y_{0i}$

D_i: Indicator of treatment intake for unit *i* (i can be a firm, a store, a consumer…)

D_i = { 1 if unit *i* received the treatment

0 otherwise.

Y_i: Observed outcome variable of interest for unit *i* (e.g. sales)

Y_{0i} and Y_{1i}: Potential outcomes for unit *i*

- Y_{1i}: Potential outcome for unit *i* with treatment

- Y_{0i}: Potential outcome for unit *i* without treatment

Stable Unit Value Assumption

- Potential outcomes for unit i (Y_{1i} , Y_{0i}) are unaffected by the treatment of unit j
    - No interference across units (e.g. free product samples in two different stores)

- Choose units i that minimize interference (e.g. IP addresses from different time zone)

Other Empirical Approaches

Example: Study brand equity in a field experiment with customer purchase histories (Bronnenberg et al. 2020)

Idea: Study effect of a blind test (treatment) of branded vs. private label products on future purchases of branded products

Empirical marketing – IBEB – Lecture 7, week 6

All resources are limited

ALL Resources are Limited:

- Often interdependent
- Requires resource tradeoffs
- Mismanaging the tradeoff may have cascading effects
- Tough decisions that happen in real-time

Outputs of Managing Resource Trade-Offs

- Fundamental Problem: identifying the best or most appropriate metrics
  - “A firm is only likely to achieve what it measures.”

Components of Resource Allocation:

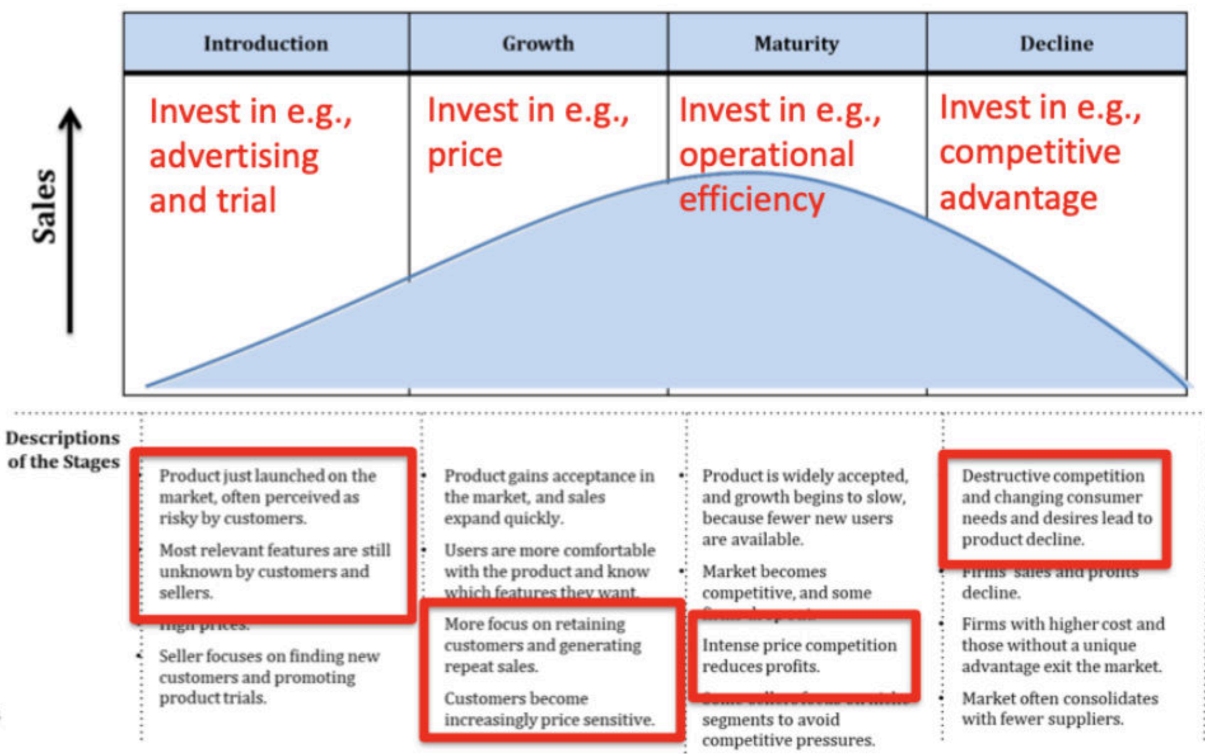
1. Budget per marketing activity
2. Allocation across categories
3. Time horizon of the budget

Reasons Why Resource Trade-Off Decisions Constantly Evolve

1. **Changes in Resource Limits**
   All firms' resources are limited and therefore the resources to spend are finite:
   - **Resource Slack:** "potentially utilizable resources a firm possesses that it could divert or redeploy to achieve organisational goals"
     - May fluctuate and evolve over time, e.g., depending on the state of the economy
   - In periods of downturn, marketing investments are often cut or scaled down

2. **Changes in Customers' Needs**

- **MP1:** customers differ and it is crucial to identify target segments.
  The size, needs, and financial payoff across these segments are not fixed, but change often. Therefore, allocation decisions across these segments need to change too.



Source: Lecture 8, Changes in the Lifecycle stage of a firm's product (Karpienko, 2023)

3. **Changes in the Lifecycle Stage of a Firm's Products/Services**

- **MP2:** products go through different lifecycle stages
  Each stage requires different investments. Therefore, firms should shift resources over time.

4. **Changes in the Market Landscape**

- **MP3:** SCAs form a buffer against competitive attacks
  Attractive markets will attract new competitors and increased competition will lead to competitor exits. The market landscape constantly changes because of these competitive entries and exits, thus, resource allocations need to also change.

5. **Changes in the Effectiveness of Marketing Activities**

- Changing segments, different lifecycle stages, changing economy or competitive landscape may change marketing effectiveness
  - E.g. price is more effective in periods of economic downturn, while advertising is more effective in periods of economic expansion
- Even in stable times, marketing activities can lose or gain effectiveness over time
  - E.g. image seeing the same commercial month after month for years

Note: there is NO “perfect system” for allocating resources. The “best” approach is an **iterative approach** which makes optimal allocations across nested levels of decisions.

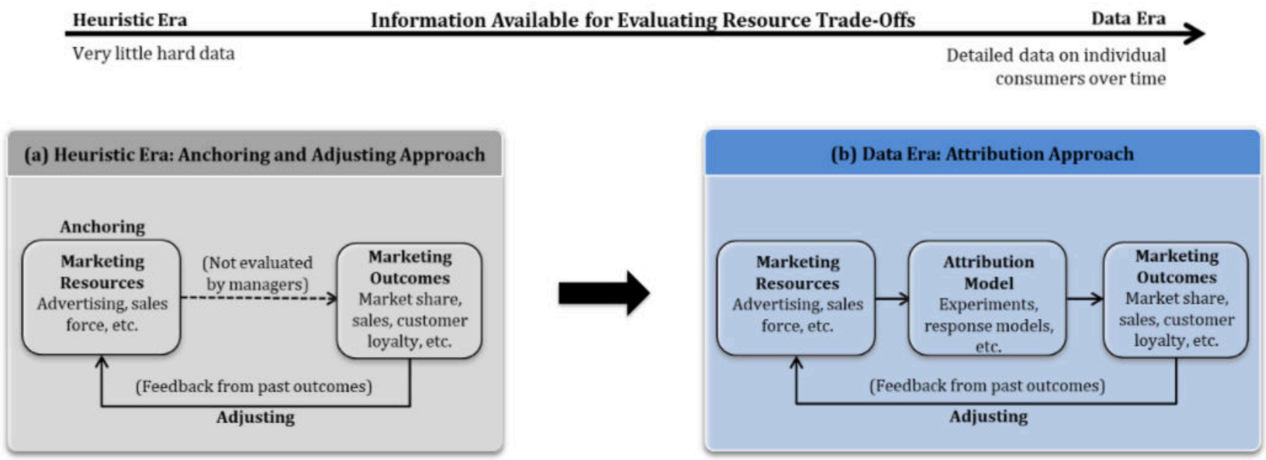
- Methods should be **simple** enough to be transparent to managers and **sophisticated** enough to account for the interdependencies across multiple inputs with different effects.

Evolution of Approaches for Managing Resource Trade-Offs

Heuristics Era:

- No hard data about resource allocation options
- Managers use simple rules of thumb for allocating resources
- Anchoring and adjustments heuristics are widely used:
  - **Percentage of Sales Method:** marketing resources reflect the sales revenue earned from the focal product

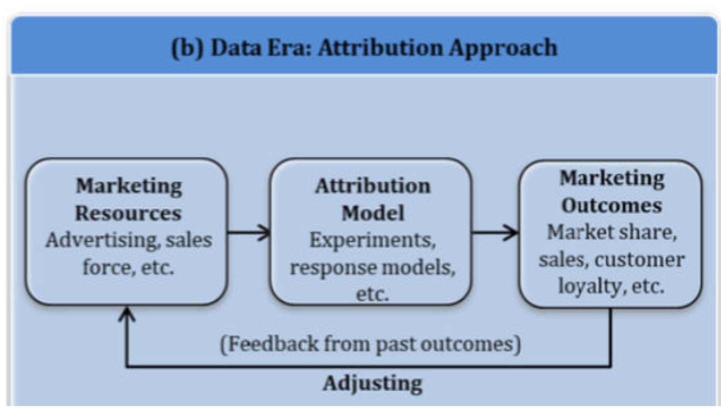
- **Percentage of Profits Method:** the resources dedicated to marketing instead vary with the profits earned by the product in previous periods
- **Historical Method:** simply set their present resource allocations to a level very close to the previous year's spending
- **Competitive Parity Method:** implies that managers set resource allocation levels to match those of their competitors



Source: Lecture 8, Evolution of Approaches for Managing Resource Trade-Offs (Karpienko, 2023)

Data Era:

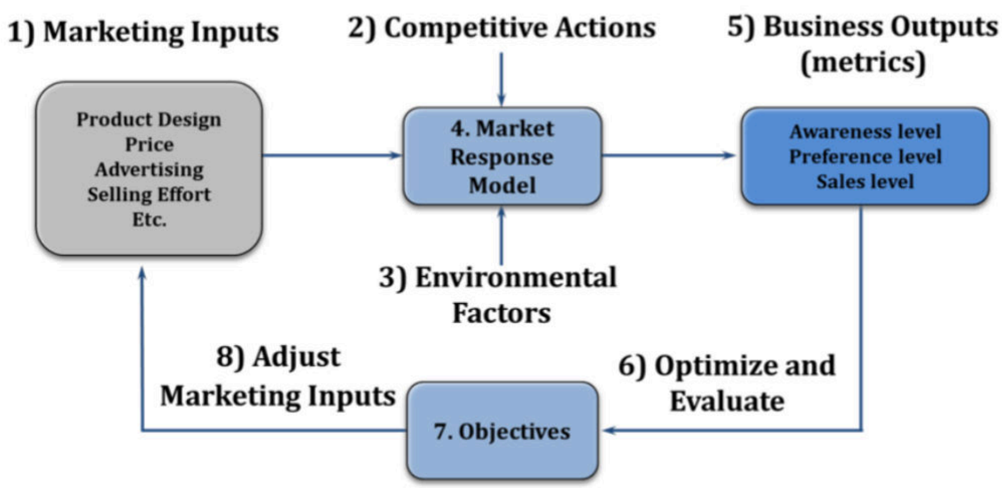
- Use historica data to link past resource trade-off decisions and outcomes
- Information Technology infrastructure has become well-developed
- Avoids waste or reliance on arbitrary heuristics
- Proactive rather than reactive
- **Empirical Models:** reveal whether a firm should continue its level of resource commitments or adjust them.
- **Attribution Models:** gives the exact impact of a small resource increase
  - Experimental-based attribution
  - Response model-based attribution



Source: Lecture 8, Data Era (Karpienko, 2023)

Response Model

- A response model is statistical model that captures the relationship between past marketing resource and past outcomes.
- A response model system has eight key "parts"



Source: Lecture 8, Response Model System (Karpienko, 2023)

Marketing Inputs

- Marketing actions (advertising, price, promotion, sales coverage)
- Competitive Actions (advertising, price, new products, discounts)
- Environmental factors (economic metrics, government, trade barriers)

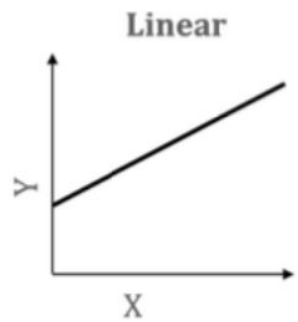
Marketing Outputs

- Managers need intermediate metrics to capture the effects of their decisions in order to adjust actions
- The metric should align with objectives
- Common marketing metrics:
    - Sales
    - Customer satisfaction
    - Service quality
    - Brand awareness
    - Brand strength and quality
    - Customer retention
    - Loyalty

The Response Model Form

- You have to select a response model's functional form that captures reality

1. **Linear**: constant relationship between input and output (infrequent)

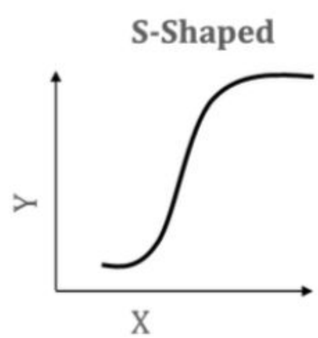


Source: Lecture 8, Linear Relationship (Karpienko, 2023)

2. **Concave/Saturation:** curve flattens at some higher level (diminishing returns, common)

Source: Lecture 8, Saturation (Karpienko, 2023)

3. **S shape**: slow to start and reach saturation (common)



Source: Lecture 8, S--Shaped (Karpienko, 2023)

Log-Log Model vs Linear Model

Linear Model :Beta (β) captures the **effect of a 1 unit change** in the independent variable on the unit change in the dependent variable.

Formula:
$Sales\_i = \beta0 + \beta1 * Advertising\_i + Error\ Term$

Interpretation:
$\beta1 = change\ in\ Y / change\ in\ X$

Log log model : Beta (β) captures **elasticity** (the effect of a 1% change in the independent variable on the % change in the dependent variable).

Formula:
$Ln(Sales)\_i = \beta0 + \beta1 * Ln(Advertising)\_i + Error\ Term$

Interpretation:
$\beta1 = (\%\ change\ in\ Y) / (\%\ change\ in\ X)$

Example:

- If the marketing outcome **Y** is Sales of a newspaper, and we have two marketing efforts **X** (newsroom investments and sales force investments), as well as that of its competitor **Z** (Z1), the formula for a response model is given by

$$\mathbf{ln(Y) = \beta1 * ln(x1) + \beta2 * ln(x2) + \beta3 * ln(Z1) + \beta4 * ln(Z2) + \varepsilon}$$

Variable	Coefficient Capturing Elasticity	*p*-Value for Statistical Significance
Ln(Newsroom investments)	0.36	0.03
Ln(Sales force investments)	0.24	0.02
Ln(Competitive newsroom investments)	-0.12	0.01
Ln(Competitive sales force investments)	-0.08	0.02

- A 1% increase in newsroom investments leads to a 0.36% increase in Sales
- A 1% increase in sales force investments by the competition leads to 0.08% decrease in Sales

Transformation	Model	Interpretation
No transformations	$Y = \beta_0 + \beta_1 * X$	A 1 unit increase in X is associated with an average change of β_1 units in Y.
Log-transformed predictor	$Y = \beta_0 + \beta_1 * \log(X)$	A 1% increase in X is associated with an average change of $\beta_1/100$ units in Y.
Log-transformed outcome	$\log(Y) = \beta_0 + \beta_1 * X$	A 1 unit increase in X is associated with an average change of $100 \times \beta_1$ % in Y.
Log-log model	$\log(Y) = \beta_0 + \beta_1 * \log(X)$	A 1% increase in X is associated with an average change of β_1 % in Y.

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