

Name: Vishal Pal

Market Segmentation Analysis (Summary)

Github : <https://github.com/vissul299/Project-T1.git>

Step 1: Deciding Whether or Not to Segment

1.1 Implications of Committing to Market Segmentation:

Long-term Commitment: Market segmentation is a long-term strategy that requires a strong commitment. It's not just a one-time effort; it involves ongoing changes and investments.

Costs Involved: Segmentation involves costs such as conducting research, surveys, focus groups, and creating multiple packages and advertisements. It's important to ensure that the expected increase in sales justifies these costs.

Required Changes: Implementing a segmentation strategy may require developing new products, modifying existing ones, and changing pricing, distribution channels, and communication methods. These changes can affect the internal structure of the organization, which may need to be adjusted to focus on different market segments.

Organizational Structure: To maximize the benefits of segmentation, organizations should consider organizing around market segments rather than products. Strategic business units focused on segments can help maintain a consistent focus on the needs of different market segments.

Executive Decision: The decision to pursue market segmentation must be made at the highest executive level. It should be systematically communicated and reinforced throughout the organization.

In summary, deciding to segment the market is a significant, long-term commitment that involves substantial changes and costs. It should be carefully considered and justified by the potential increase in sales.

1.2 Implementation Barriers:

Senior Management Barriers:

Lack of Leadership: If senior management doesn't lead, support, and get involved in the segmentation process, it can fail.

Resource Allocation: Not providing enough resources for the analysis and long-term implementation can hinder success.

Organizational Culture Barriers:

Resistance to Change: If the company resists new ideas, lacks market orientation, or has poor communication, it can block successful segmentation.

Lack of Training: Without proper training, senior management and teams may not understand market segmentation, leading to failure.

No Marketing Expertise: A lack of formal marketing function or qualified experts can be a significant obstacle.

Limited Resources: Financial constraints or inability to make necessary structural changes can prevent successful segmentation.

Process-Related Barriers:

Poor Planning: Not clarifying objectives, lack of planning, structured processes, responsibility allocation, and time pressure can lead to poor outcomes.

Complexity: Management may not use techniques they don't understand. Making segmentation analysis easy to understand and using graphical visualizations can help.

Proactive Measures:

Identify Barriers Early: Recognize and remove barriers early in the process. If barriers can't be removed, reconsider pursuing segmentation.

Commitment: A strong sense of purpose, patience, and willingness to address problems is essential for successful implementation.

In summary, several barriers can hinder the successful implementation of market segmentation, including issues with leadership, organizational culture, resource

allocation, planning, and complexity. Identifying and addressing these barriers early on is crucial for success.

Step 2: Specifying the Ideal Target Segment

2.1 Segment Evaluation Criteria:

In this step, the organization needs to provide important input to guide the market segmentation analysis. This input is essential for several following steps, especially data collection and selecting target segments. The organization must determine two sets of evaluation criteria:

Knock-out Criteria:

These are the essential, non-negotiable features that a segment must have for the organization to consider targeting it.

Attractiveness Criteria:

These criteria help evaluate the relative attractiveness of segments that meet the knock-out criteria.

Although the literature doesn't always distinguish between these two sets, it offers a variety of potential criteria to evaluate market segments. Here's a simplified list of proposed criteria from various sources:

Measurable: The segment can be identified and measured.

Substantial: The segment is large enough to be profitable.

Accessible: The segment can be reached and served.

Differentiable: The segment is distinct and responds differently to marketing efforts.

Actionable: The organization can implement effective marketing programs for the segment.

Growing: The segment shows potential for growth.

Competitively Advantageous: The segment offers a competitive edge.

Profitable: The segment can generate profits.

Compatible: The segment aligns with the company's strengths and image.

Other criteria may include sensitivity to price, barriers to entry, socio-political factors, lifecycle position, and compatibility with the company's resources and objectives.

In summary, the organization needs to set clear, non-negotiable criteria (knock-out criteria) and a detailed set of criteria to evaluate segment attractiveness. This input is crucial for guiding the subsequent steps of the market segmentation analysis.

2.2 Knock-Out Criteria

Knock-out criteria are essential features that a market segment must have to be considered for further evaluation. These criteria help determine if a segment is worth assessing using the attractiveness criteria.

Key knock-out criteria include:

Homogeneous: Members of the segment must be similar to one another.

Distinct: The segment must be different from other segments.

Large Enough: The segment must have enough consumers to justify the cost of customizing the marketing mix for them.

Matches Organizational Strengths: The organization must have the capability to meet the needs of the segment members.

Identifiable: It must be possible to identify and spot the segment members in the marketplace.

Reachable: There must be a way to contact segment members to make the customized marketing mix accessible to them.

These criteria must be clearly understood by senior management, the segmentation team, and the advisory committee. While some criteria are straightforward, others, like the minimum viable segment size, need specific details.

2.3 Attractiveness Criteria

Attractiveness criteria are used to evaluate the relative attractiveness of market segments that meet the knock-out criteria. These criteria help determine which segments are the most suitable targets.

Unlike knock-out criteria, attractiveness criteria are not binary. Instead, segments are rated based on how well they meet each criterion. The overall attractiveness of a segment across all criteria influences its selection as a target segment in the later stages of market segmentation analysis.

Here are some common attractiveness criteria:

Market Potential: The size and growth potential of the segment.

Competitive Advantage: The segment offers a competitive edge or less competition.

Profitability: The potential for high returns on investment.

Compatibility: The segment aligns with the company's strengths, resources, and objectives.

Accessibility: The ease of reaching and serving the segment.

Consumer Behavior: The segment's responsiveness to marketing efforts.

Stability: The segment's long-term viability and lack of volatility.

Legal and Ethical Considerations: Compliance with legal standards and alignment with the company's ethical values.

Each segment is evaluated and rated on these criteria, helping the organization prioritize segments that offer the best opportunities for growth and profitability.

2.4 Implementing a Structured Process

To evaluate and select target market segments effectively, it's beneficial to follow a structured process. One popular method involves using a segment evaluation plot, which shows segment attractiveness on one axis and organizational competitiveness on the other. This plot helps visualize and compare different segments.

Steps to Implement a Structured Process:

1. Determine Evaluation Criteria:

Segment Attractiveness: Factors that make a segment appealing.

Organizational Competitiveness: Factors that reflect the company's ability to compete in that segment.

There is no universal set of criteria; each organization must decide which factors are most important to them. Typically, no more than six key factors should be used.

2. Involve a Team:

A core team of 2-3 people should lead the market segmentation analysis.

They should propose initial criteria and report to an advisory committee for discussion and potential adjustments.

The advisory committee should include representatives from all organizational units to bring diverse perspectives and ensure buy-in.

3. Select Attractiveness Criteria Early:

Decide on the attractiveness criteria before collecting data to ensure relevant information is captured.

This early selection makes the later steps easier and more effective.

4. Weight the Criteria:

Each criterion should have a weight indicating its importance relative to others.

A common approach is to distribute 100 points among the criteria, reflecting their importance.

Team members should negotiate these allocations until they reach an agreement.

Approval from the advisory committee is recommended to ensure all perspectives are considered.

By the end of this step, the team should have a list of about six attractiveness criteria, each with a corresponding weight. This structured approach helps lay the groundwork for collecting relevant data and simplifies the selection of target segments in later stages.

Step 3: Collecting Data

3.1 Segmentation Variables

In market segmentation analysis, empirical data plays a crucial role in both commonsense and data-driven approaches. Here's how segmentation variables are utilized:

Commonsense Segmentation:

Segmentation Variable: This is a single characteristic used to divide a sample into segments. For example, gender can split a sample into male and female segments.

Descriptor Variables: Other personal characteristics (e.g., age, vacation habits, benefits sought during vacations) describe these segments in detail. They help tailor marketing strategies to each segment's needs.

Data-Driven Segmentation:

Multiple Segmentation Variables: Unlike commonsense segmentation, data-driven segmentation uses multiple variables. These variables aim to identify naturally existing or artificially created segments that are useful to the organization.

Example: Instead of using gender alone, data-driven segmentation might group tourists based on common vacation benefits sought, such as relaxation, culture, or social interaction.

Importance of Data Quality:

Critical Role: High-quality empirical data is essential for accurate segmentation solutions.

Commonsense Segments: Accurate data ensures correct assignment of individuals to segments and enables effective segment descriptions.

Data-Driven Segments: Quality data leads to precise identification and description of segments, enabling effective marketing strategies.

Sources of Empirical Data:

Surveys: Commonly used but may not always reflect actual behavior accurately, especially for socially desirable behaviors.

Other Sources: Include observational data like scanner purchases linked to loyalty programs, and experimental studies.

Optimal Data: Preferably reflects actual consumer behavior to enhance segmentation accuracy.

Good market segmentation hinges on the quality of empirical data collected, which guides effective marketing decisions tailored to distinct consumer segments.

3.2 Segmentation Criteria

Before extracting segments or collecting data, organizations must decide on segmentation criteria, which determine the nature of information used for market segmentation.

Understanding Segmentation Criteria:

Definition: Segmentation criteria refer broadly to the type of information used in segmentation, not just individual variables.

Choosing Criteria: This decision requires market knowledge and cannot be outsourced solely to consultants or analysts.

Common Criteria: Includes geographic, socio-demographic, psychographic, and behavioral factors.

3.2.1 Geographic Segmentation

Definition and Use:

Original Criterion: Geographic information, such as location of residence, divides markets based on regional or national boundaries.

Application: Useful when language or cultural differences across regions impact product appeal or service delivery.

Examples: Companies like Amazon and IKEA adjust offerings based on geographic location, reflecting local preferences and operational needs.

Advantages and Disadvantages:

Advantages: Simplifies targeting through tailored communication channels and local adaptations.

Disadvantages: Location alone does not always correlate with consumer preferences or behaviors relevant to marketing goals.

International Challenges:

Revival in Use: Increasingly used in international segmentation studies, requiring meaningful variables across diverse cultural contexts.

Example: Studies like Haverila's segmentation of young mobile phone users across national borders highlight these challenges.

3.2.2 Socio-Demographic Segmentation

Definition and Use:

Criteria Examples: Age, gender, income, and education categorize consumers based on societal and economic factors.

Industry Relevance: Effective in industries where these factors strongly influence purchasing behaviors (e.g., luxury goods, baby products).

Advantages and Limitations:

Advantages: Easily identifiable segments; can explain certain product preferences based on demographic characteristics.

Limitations: Limited explanatory power for broader consumer behaviors and preferences beyond demographic traits.

Critique and Alternatives:

Effectiveness Debate: Some argue that socio-demographics explain a small percentage of consumer behavior variance compared to values and preferences.

Market Insight: Emphasizes the importance of deeper insights into consumer values and preferences for more effective segmentation decisions.

Choosing the right segmentation criteria is pivotal in shaping effective marketing strategies that resonate with target segments' needs and behaviors.

3.2.3 Psychographic Segmentation

Psychographic segmentation categorizes people based on their psychological attributes, such as beliefs, interests, preferences, aspirations, or benefits sought when making purchasing decisions.

Definition and Types:

Scope: Haley (1985) defines psychographics broadly as measures of the mind, encompassing various dimensions like lifestyle, attitudes, and motivations.

Popular Approaches:

Benefit Segmentation: Focuses on identifying segments based on the specific benefits consumers seek from a product or service (Haley, 1968).

Lifestyle Segmentation: Groups consumers by their activities, opinions, and interests, providing insights into their broader lifestyle choices (Cahill, 2006).

Complexity and Variables:

Nature: Psychographic criteria are inherently complex because a single characteristic rarely captures the entire psychographic profile of an individual.

Usage: Studies often employ multiple segmentation variables, such as different travel motives or perceived risks, to better capture psychographic dimensions.

Advantages and Challenges:

Advantages: Offers deeper insights into the underlying reasons for consumer behavior variations.

Example: Tourists motivated by cultural exploration are likely to choose destinations rich in cultural experiences, demonstrating the relevance of travel motives in psychographic segmentation.

Disadvantages: Challenges include the complexity of determining segment membership based on psychographics and the necessity for reliable and valid measures to capture these dimensions accurately.

3.2.4 Behavioural Segmentation:

Behavioural segmentation involves grouping consumers based on their observed or reported behaviors related to a product or service.

Approach and Variables:

Focus: Identifies similarities in behavior patterns such as purchase frequency, spending habits, product usage, or brand loyalty.

Comparative Advantage: Studies show that behavioral criteria, particularly actual behavior data, can provide superior segmentation outcomes compared to geographic or demographic variables (Moscardo et al., 2001).

Benefits of Behavioral Segmentation:

Basis of Segmentation: Uses actual behavior as the primary criterion, which directly relates to consumer preferences and actions.

Examples: Researchers like Tsai and Chiu (2004) analyze consumer expenses, while Heilman and Bowman (2002) study purchase data across product categories for segmentation purposes.

Challenges and Limitations:

Availability of Data: Behavioral data may not always be readily accessible, especially when targeting potential customers who haven't previously purchased from the organization.

Development of Measures: Unlike psychographics, behavioral segmentation may not require complex psychological constructs, but it relies heavily on accurate and comprehensive data collection.

Understanding these segmentation approaches helps organizations tailor their marketing strategies more effectively by aligning them with the specific behaviors, preferences, or motivations of their target consumer segments.

3.3 Survey Data for Market Segmentation

Why Use Survey Data?

Survey data is cheap and easy to collect.

However, survey data can be biased, affecting the quality of the analysis.

3.3.1 Choosing the Right Variables:

Carefully select variables for segmentation.

Include only relevant variables to avoid long and tiring questionnaires.

Unnecessary variables can cause respondent fatigue and reduce data quality.

Problems with Unnecessary Variables:

Including too many variables makes segmentation difficult.

Unnecessary variables, called "noisy variables," can confuse algorithms and prevent finding the right market segments.

Noisy variables come from poorly developed survey questions or poor selection of segmentation variables.

Avoiding Noisy Variables:

Only ask necessary and unique questions.

Avoid redundant questions, as they can interfere with segmentation algorithms.

Developing a Good Questionnaire:

Conduct exploratory or qualitative research first to gain insights.

Use these insights to create a list of answer options for the survey.

This two-stage process ensures no important variables are missed.

3.3.2: Response Options

Types of Survey Response Options

Binary/Dichotomous Data:

Respondents choose between two options (e.g., yes/no).

Data is represented by 0s and 1s.

Easy to use in segmentation analysis because the distance between 0 and 1 is clear.

Nominal Data:

Respondents choose from a list of unordered categories (e.g., occupation).

Can be transformed into binary data for analysis.

Metric Data:

Respondents provide numerical answers (e.g., age, number of nights stayed at a hotel).

Well-suited for segmentation analysis because any statistical procedure can be performed on metric data.

Ordinal Data:

Respondents choose from a limited number of ordered options (e.g., a scale of 1 to 5).

Distance between options is not clear, making standard distance measures difficult without assumptions.

Preferred Response Options:

Binary or Metric Options

These are preferred because they avoid complications related to measuring distance in segmentation analysis.

If binary or metric options are meaningful for the question, they should be used.

Using Visual Analogue Scales

For capturing fine nuances, visual analogue scales (slider scales) can be used.

These scales allow respondents to indicate their answer along a continuous line, producing data that can be treated as metric.

Benefits of Binary Response Options:

Binary options often perform better than ordinal options, especially when they avoid bias.

They can capture detailed responses without the issues of ordinal scales.

3.3.3 Response Styles:

Response Biases in Survey Data

Understanding Response Bias:

Response bias occurs when respondents answer questions based on something other than the specific item content.

If this bias is consistent over time, it is called a response style.

Types of Response Styles:

Extreme Answer Options:

Some respondents tend to choose extreme options like "Strongly Agree" or "Strongly Disagree."

Midpoint Bias:

Some respondents often choose neutral options like "Neither Agree Nor Disagree."

Acquiescence Bias:

Some respondents agree with all statements, regardless of their true feelings.

Impact on Market Segmentation:

Response styles can distort segmentation results because algorithms cannot distinguish between true beliefs and biased responses.

For example, a segment showing high agreement with all spending-related questions might seem attractive but could just reflect acquiescence bias.

Minimizing Response Styles:

To reduce the impact of response styles, careful data collection is crucial.

If a segment appears due to response styles, further analysis is needed to verify its validity.

Alternatively, respondents with identified response styles can be excluded from the analysis to ensure accurate segmentation.

3.3.4 Sample Size in Market Segmentation

Importance of Sample Size:

Larger sample sizes help segmentation algorithms identify correct market segments.

Insufficient sample sizes make it hard to determine the number and nature of segments.

Recommendations from Studies:

Formann (1984): Sample size should be at least $2p$ (p = number of segmentation variables), preferably five times $2p$ for goodness-of-fit testing in latent class analysis.

Qiu and Joe (2015): For clustering algorithms, sample size should be at least 10 times the number of segmentation variables times the number of segments ($10 \cdot p \cdot k$).

Simulation Studies:

Dolnicar et al. (2014) recommend a sample size of at least $60p$, ideally $70p$.

Dolnicar et al. (2016) emphasize the need for high-quality, unbiased data and suggest at least 100 respondents per segmentation variable.

Effect of Sample Size:

Increasing sample size generally improves the accuracy of segment extraction.

Benefits of increasing sample size diminish after a certain point.

Market and Data Characteristics:

Market characteristics (e.g., segment size equality, overlap) and data characteristics (e.g., sampling error, response biases) affect segment recovery.

Some issues can be mitigated by larger sample sizes, while others cannot.

Optimal Data for Segmentation:

Contain necessary items, no unnecessary or correlated items.

High-quality responses, binary or metric.

Free of response styles.

3.4 Data from Internal Sources:

Organizations have access to substantial internal data, such as scanner data, booking data, and online purchase data, which can be used for market segmentation analysis.

Advantages:

Represents actual consumer behavior, avoiding biases like imperfect memory and social desirability bias.

Automatically generated, reducing data collection efforts if stored properly.

Disadvantages:

Potential bias towards current customers, lacking information on potential new customers with different consumption patterns.

3.5 Data from Experimental Studies:

Experimental data can serve as a valuable source for market segmentation analysis, derived from field or laboratory experiments.

Types of Experimental Data:

Advertising Response: Tests consumer responses to advertisements, which can be used as segmentation criteria.

Choice Experiments and Conjoint Analyses: Present consumers with product attribute combinations to determine preferences, providing insights into segmentation based on attribute effects on consumer choice.

Step 9: Customising the Marketing Mix

9.1 Implications for Marketing Mix Decisions

1. Evolution of Marketing:

- Initially a toolbox to help sell products.
- Early marketing mix included 12 ingredients (e.g., product planning, packaging, pricing).
- Simplified to 4Ps: Product, Price, Promotion, Place.

2. Market Segmentation:

- Works with positioning and competition.
- Part of the segmentation-targeting-positioning (STP) approach.
- Steps:
 - Segmentation: Identify and profile market segments.
 - Targeting: Assess and select target segments.
 - Positioning: Ensure product stands out and meets segment needs.

3. Integration with Marketing Mix:

- Segmentation affects the development of the marketing mix.
- Traditional 4Ps model is used as the basis.
- Marketing mix needs customization for target segments.

4. Adjusting the Marketing Mix:

- Product: Design or modify products.
- Price: Change prices or discount structures.
- Place: Select suitable distribution channels.
- Promotion: Develop new communication messages and promotion strategies.

5. Purpose-Driven Segmentation Analysis:

- For Pricing Decisions:
 - Variables: Price sensitivity, deal proneness.

- For Advertising Decisions:
 - Variables: Benefits sought, lifestyle, psychographic factors.
- For Distribution Decisions:
 - Variables: Store loyalty, store patronage, benefits sought.

6. General Approach:

- Insights from detailed target segment descriptions guide adjustments to the marketing mix.

9.2 Product:

1. Product Specification:

- Tailor products to customer needs, often by modifying existing ones.
- Decisions include naming, packaging, warranties, and after-sales support.

2. Example with Australian Vacation Activities:

- Target Segment 3:
 - Interests: Museums, monuments, gardens, scenic walks, markets.
 - Common activities: Relaxing, eating out, shopping, sightseeing.

3. Product Development for Segment 3:

- New Product Idea: "MUSEUMS, MONUMENTS & MUCH, MUCH MORE" package with an activities pass.
- Highlight local gardens as attractions to draw interest.

9.3 Price:

1. Pricing Decisions:

- Set the product price.
- Decide on discounts.

2. Example with Segment 3 from Australian Vacation Data:

- Identifying Segment 3:
 - Create a binary vector to identify members of Segment 3.

- Initialize a vector with missing values and assign cluster numbers from biclustering.
- Construct a segment membership vector with 12 clusters.

3. Segment 3 Characteristics:

- Higher vacation expenditures per person per day compared to other tourists.

4. Pricing Strategy:

- No need to offer the "MUSEUMS, MONUMENTS & MUCH, MUCH MORE" product at a discounted price.
- Potential to attach a premium price due to higher spending capacity of Segment 3 members.

9.4 Place:

1. Distribution Decisions:

- Determine whether to sell products online, offline, or both.
- Decide whether to sell directly to customers or through wholesalers/retailers.

2. Example with Segment 3:

- Booking Preferences:
 - Survey data includes how segment 3 members booked accommodation on their last holiday.
 - Use booking preference data to ensure the "MUSEUMS, MONUMENTS & MUCH, MUCH MORE" product is available through preferred channels.

3. Visualization:

- Use propBarchart from the flexclust package to visualize booking behavior.
- Analyze booking preferences to optimize distribution strategy for segment 3.

9.5 Proportion:

1. Promotion Decisions:

- Develop an advertising message for the target market.

- Identify the most effective communication channels.
- Use tools like public relations, personal selling, and sponsorship.

2. Example with Segment 3:

- Compare information sources used for the last domestic holiday and preferred TV stations.
- Use propBarchart to visualize these preferences

3. Promotion Strategy for Segment 3:

- Tourist Centers:
 - Segment 3 relies heavily on information from tourist centers.
 - Provide specific information packs on the "MUSEUMS, MONUMENTS & MUCH, MUCH MORE" product both in hard copy and online at tourist centers.

4. TV Channels:

- Segment 3 prefers Channel 7.
- Develop a media plan to maximize exposure through Channel 7.