MARKET SEGMENTATION ANALYSIS

Steps of Market Segmentation Analysis:

1 Step 1: Deciding (not) to Segment

1.1 Implications of Committing to Market Segmentation:

- Market segmentation is a significant marketing strategy used by many organizations but may not always be the best choice.
- Before investing in market segmentation analysis, understanding its implications is crucial.
- Market segmentation requires long-term commitment and substantial changes and investments from the organization.
- Cahill emphasizes that segmentation should only be pursued if the expected increase in sales justifies the strategy's costs.
- Potential changes include developing new products, modifying existing ones, adjusting pricing and distribution channels, and refining communication strategies.
- Organizational structure may need adjustment to focus on market segments rather than products.
- The decision to pursue market segmentation should be made at the highest executive level and continuously communicated throughout the organization.

1.2 Implementation Barriers:

- Lack of leadership and involvement from senior management can hinder successful implementation.
- Insufficient resources allocated by senior management is another barrier.
- Organizational culture factors such as resistance to change, lack of creativity, and poor communication can impede segmentation efforts.
- Lack of understanding and training in market segmentation concepts among management and team members is detrimental.

- The absence of a formal marketing function or qualified marketing experts within the organization is a significant obstacle.
- Objective restrictions like financial limitations or inability to make required structural changes can hinder segmentation efforts.
- Process-related barriers include unclear objectives, lack of planning, and time pressure.
- Making market segmentation analysis understandable and presenting results clearly is essential for acceptance by management.

1.3 Key Takeaways:

1. Market segmentation requires long-term commitment, substantial resources, and organizational changes.
2. Success depends on leadership support, organizational culture, understanding of segmentation concepts, and resource availability.
3. Barriers should be identified and addressed proactively, or the option of abandoning segmentation should be considered.
4. A resolute sense of purpose and dedication, along with patience, are essential for successful implementation.

2 Step 2: Specifying the Ideal Target Segment

2.1 Segment Evaluation Criteria:

- User input is crucial throughout the market segmentation analysis process.
- The organization's contribution to Step 2 is conceptual but guides subsequent steps, especially data collection (Step 3) and selecting target segments (Step 8).
- Two sets of segment evaluation criteria are determined: knock-out criteria and attractiveness criteria.
- Knock-out criteria are essential features that segments must possess to be considered for targeting.
- Attractiveness criteria are used to evaluate the relative attractiveness of remaining segments compliant with knock-out criteria.
- A wide array of proposed criteria from literature are available for evaluation.

2.2 Knock-Out Criteria:

- Segments must be homogeneous, distinct, large enough, matching organizational strengths, identifiable, and reachable.
- These criteria automatically eliminate some segments from consideration.
- Understanding knock-out criteria is essential for senior management, the segmentation team, and the advisory committee.

2.3 Attractiveness Criteria:

- Segments are rated based on attractiveness across various criteria to determine target segments.
- Criteria are not binary; segments are assessed as more or less attractive.
- Attractiveness across all criteria determines selection as target segments.

2.4 Implementing a Structured Process:

- Following a structured process for evaluating market segments is beneficial.
- A popular approach is using a segment evaluation plot, showing segment attractiveness and organizational competitiveness.
- Factors constituting attractiveness and competitiveness need negotiation and agreement.
- The selection of attractiveness criteria ensures that relevant information is captured during data collection (Step 3).
- Each attractiveness criterion should be weighted based on its importance to the organization.
- Weighting is typically determined through team negotiation and ideally approved by the advisory committee.

2.5 Key Takeaways:

1. User input and organizational contribution are critical in specifying target segments.
2. Knock-out criteria are essential features that segments must possess, while attractiveness criteria determine relative segment attractiveness.
3. Following a structured process, including using a segment evaluation plot, ensures thorough evaluation and selection of target segments.
4. Weighting of attractiveness criteria is important and should be negotiated among team members, ideally with approval from the advisory committee.

3 Step 3: Collecting Data

3.1 Segmentation Variables:

- Empirical data forms the basis for both commonsense and data-driven market segmentation.
- Segmentation variables are used to split the sample into market segments.
- In commonsense segmentation, a single characteristic (e.g., gender) serves as the segmentation variable.
- Descriptor variables describe segments in detail and include socio-demographic information and media behavior.
- Data-driven segmentation involves multiple segmentation variables to identify or create useful market segments.
- Quality empirical data is critical for both commonsense and data-driven segmentation solutions.
- Data sources for segmentation studies include surveys, observations (e.g., scanner data), and experimental studies.
- Survey data, although common, may be unreliable, and alternative data sources reflecting actual consumer behavior should be explored.

3.2 Segmentation Criteria:

- Segmentation criterion refers to the nature of information used for market segmentation.
- Common segmentation criteria include geographic, socio-demographic, psychographic, and behavioral.
- Choosing the segmentation criterion requires prior knowledge about the market and cannot be easily outsourced.
- Relevant differences between consumers for segmentation include profitability, bargaining power, preferences, barriers to choice, and interaction effects.
- The recommendation is to use the simplest approach, such as demographic or geographic segmentation, if it suits the product or service.

3.2.1 Geographic Segmentation:

- Geographic information is one of the oldest segmentation criteria used.
- It divides consumers based on their location of residence.
- Geographic segmentation is useful, especially when language or cultural differences are significant.
- Companies like Amazon and IKEA customize offerings based on geographic location.

- Advantages include easy targeting of communication messages, but it may overlook other relevant characteristics shared by consumers.

3.2.2 Socio-Demographic Segmentation:

- Involves criteria such as age, gender, income, and education.
- Useful in industries like luxury goods, cosmetics, and tourism.
- Provides easy determination of segment membership but may not always explain product preferences adequately.
- Socio-demographics explain only a small portion of consumer behavior.

3.2.3 Psychographic Segmentation:

- Groups consumers based on psychological criteria like beliefs, interests, and preferences.
- Includes benefit segmentation and lifestyle segmentation. Offers insights into underlying reasons for consumer behavior but requires multiple segmentation variables.
- Relies on the reliability and validity of empirical measures.

3.2.4 Behavioral Segmentation:

- Segments consumers based on behavior or reported behavior.
- Uses variables like prior experience, purchase frequency, and amount spent.
- Behavior-based segmentation can outperform geographic variables in tourism studies.
- Offers direct insight into relevant consumer behavior but may lack data for potential customers who haven't made previous purchases.

3.3 Data from Survey Studies

Choice of Variables:

- Selecting relevant and necessary variables is crucial for segmentation quality.
- Avoid unnecessary variables to prevent respondent fatigue and extraction difficulties.

Response Options:

- Survey response options influence subsequent analysis.
- Binary or metric options are preferred for segmentation analysis to avoid distance measure issues.

Response Styles:

- Response biases affect survey data.

- Response styles like extreme answers or agreement with all statements can skew segmentation results.
- Minimizing response styles is important for accurate segmentation.

Sample Size:

- Sample size impacts segmentation accuracy.
- Larger samples improve correctness of segment extraction.
- Recommendations suggest a sample size of at least 100 respondents per segmentation variable.

3.4 Data from Internal Sources:

- Organizations can use internal data like scanner data or online purchase data for segmentation.
- Internal data represent actual consumer behavior but may be biased toward existing customers.

3.5 Data from Experimental Studies:

- Experimental data from field or laboratory experiments can be used for segmentation.
- Choice experiments and conjoint analyses provide insights into consumer preferences.
- Experimental data offer valuable insights into consumer behavior and preferences.

4 Step 4: Exploring Data

Data exploration is crucial post-collection to extract meaningful insights. Key aspects:

- Variable Measurement: Identifying measurement levels aids in choosing analysis techniques.
- Univariate Distributions: Individual variable distributions reveal patterns and outliers.
- Dependency Structures: Evaluating relationships between variables uncovers potential clusters.

Travel Motives Dataset Characteristics:

- Example: 1000 Australian respondents, half aged 32-57, with varied travel motivations.
- Income data with missing values (66 respondents), requiring careful handling.

Data Cleaning: Steps:

- Verify value ranges.
- Validate categories.

- Correct errors.
- Re-order factors logically.
- Document and save cleaning steps.

Descriptive Analysis:

- Visual interpretation using histograms, bar plots, and box plots.
- Detect data skewness with boxplots.

Principal Component Analysis (PCA):

- Method for transforming datasets into uncorrelated principal components, ordered by variance importance.

Key Takeaways:

- Reduce dimensionality.
- Analyze variance for valuable information.
- Visualize data using informative principal components.
- Use PCA cautiously; avoid using a subset for segmentation.

5 Step 5: Extracting Segments

5.1 Grouping Consumers

- Market segmentation analysis is exploratory, influenced by unstructured consumer data. The method used shapes the segmentation solution based on assumptions about segment structure.
- No single best algorithm exists; the data's structure determines the impact of different algorithms. Well-structured data minimizes algorithm tendencies, while less structured data magnifies their influence.
- Segmentation methods often stem from cluster analysis, with clusters representing market segments. Choosing the right clustering method involves aligning analytic features with researcher requirements.

5.2 Distance-based Methods

- Use similarity between observations (consumers) to find similar groups (market segments).
- Distance measures like Euclidean and Manhattan Distance are based on data scale.
- Hierarchical methods mimic human approach in dividing observations into groups.

5.3 Partitioning Methods

- Ideal for small datasets; larger ones struggle with dendrograms and pairwise distances.
- Clustering methods creating a single partition are better for datasets with over 1000 observations. Distances to segment centers are computed instead of all pairwise distances.
- K-Means and K-Centroid Clustering are popular for dividing consumers.

5.4 Model-Based Methods

- Model-based methods provide an alternative to distance-based methods, pioneered by Wedel and Kamakura.
- Mixture methodologies have gained interest among marketing researchers and consultants.

5.5 Algorithms with Integrated Variable Selection

- Many algorithms assume each variable contributes to the segmentation solution.
- Preprocessing methods help identify redundant or noisy variables.

5.6 Data Structure Analysis

- Market segmentation being exploratory makes traditional validation impossible.
- Stability-based data structure analysis offers insights into data properties, guiding methodological decisions.

5.7 Segment-Level Stability Analysis

- Selecting the best global segmentation solution doesn't ensure a single market segment.
- Assessing both global and segment-level stability is crucial to avoid discarding solutions with individual segments.

Key Takeaways:

1. Market segmentation analysis is exploratory and influenced by data structure.
2. No single best algorithm exists; the choice depends on the data's characteristics.
3. Understanding how algorithms impose structure on segments is crucial.
4. Assessing both global and segment-level stability is vital for accurate segmentation.

6 Step 6: Profiling Segments

6.1 Identifying Key Characteristics of Market Segments

- Profiling segments is essential for understanding their unique characteristics, needs, and preferences.
- Profiling is crucial in data-driven segmentation and helps in making strategic marketing decisions.
- Good profiling enables correct interpretation of segments, leading to effective marketing strategies.

6.2 Traditional Approaches to Profiling Market Segments

- Data-driven and traditional segmentation methods are both valuable for profiling market segments.
- Traditional approaches often simplify or present data in tables, which may not provide a comprehensive understanding.
- Choose profiling methods based on marketing goals, available data, and target audience.
- Consider hybrid approaches and continuously refine segmentation profiles with new data and insights.

6.3 Segment Profiling with Visualizations

- Visualizations enhance segment profiling by providing deeper insights and facilitating effective communication.
- Selecting one segmentation solution from many alternatives is critical, and visualizations aid in this decision-making process.
- Effective visualizations are clear, concise, and aligned with specific marketing goals.
- Use visualizations alongside qualitative analysis to create a comprehensive narrative about market segments.

Key Takeaways:

1. Segment profiling is crucial for understanding the unique characteristics of each segment.
2. Visualizations aid in gaining deeper insights and making informed decisions about segmentation solutions.
3. Continuous refinement of segmentation profiles is essential for maximizing the potential of market segmentation in marketing strategies.

7 Step 7: Describing Segments

7.1 Developing a Complete Picture of Market Segments

- Segment profiling involves understanding differences in segmentation variables across market segments, crucial for tailored marketing strategies.
- Describing segments adds additional information about segment members beyond what was used in segment extraction.
- Visualizations aid in studying differences between market segments and are user-friendly for interpretation.

7.2 Using Visualizations to Describe Market Segments

- Visualizations simplify interpretation of nominal and ordinal descriptor variables, integrating statistical significance information.
- Examples include cross-tabulations and mosaic plots, which efficiently visualize differences between segments and associations with descriptor variables.
- Nominal and ordinal descriptor variables provide valuable insights into segment characteristics.

7.3 Metric Descriptor Variables

- Visualizations for metric descriptor variables, such as histograms and box-and-whisker plots, aid in describing market segments.
- Statistical testing methods like ANOVA and pairwise t-tests assess variations across segments and identify specific differences.
- Regression models, including binary logistic and multinomial logistic regression, predict segment membership based on descriptor variables.

7.4 Tree-Based Methods

- Classification and Regression Trees (CARTs) predict binary or categorical outcomes, providing flexibility and interpretability.
- CARTs recursively partition data based on descriptor variables, with variations in algorithm parameters and implementation in R packages.
- CARTs are useful for predicting segment membership and assessing tree performance.

Key Takeaways:

1. Segment profiling and description are essential for understanding and tailoring marketing strategies.

2. Visualizations simplify interpretation of segment differences and associations with descriptor variables.

3. Regression models and tree-based methods predict segment membership and offer insights into segment characteristics.