

MARKET SEGMENTATION ANALYSIS

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Step1: Deciding (not) to segment

Implication of committing to Market Segmentation:

- Market segmentation requires a substantial long-term commitment from the organization. It is emphasized that segmentation is a commitment similar to a marriage, not a casual date. This commitment involves significant changes and investments, such as new product development, modifications, pricing adjustments, and organizational restructuring.
- Costs include research, surveys, focus groups, product modifications, pricing adjustments, and changes in communication.
- Organizational structure may need adjustment, focusing on market segments rather than products.
- Strategic business units dedicated to segments facilitate ongoing focus on changing market needs.
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Implementation Barriers:

- Barriers to successful implementation include lack of senior management leadership, insufficient resources, resistance to change, organizational culture issues (e.g., lack of market orientation), and the absence of a formal marketing function or qualified experts.
- Lack of leadership, pro-active championing, commitment, and involvement hinder success.
- Lack of market or consumer orientation, resistance to change, lack of creative thinking, poor communication, and information-sharing hindrance.
- Lack of market orientation in the organizational culture can be assessed using a questionnaire.

- Lack of understanding among senior management and the segmentation team can lead to failure. Absence of a qualified marketing expert, data manager, and analyst can be significant obstacles.
- Lack of clarified objectives, bad planning, and a lack of structured processes hinder progress. Allocation of responsibilities and time pressure can impede the segmentation process.

Step2: Specifying the Ideal Target Segment

Segment Evaluation Criteria:

- User input is crucial throughout the market segmentation analysis.
- User involvement should extend beyond the initial briefing and marketing mix development. Two sets of segment evaluation criteria: knock-out criteria and attractiveness criteria.
- Knock-out criteria are essential, non-negotiable features that determine if a segment qualifies for assessment.
- Attractiveness criteria assess the relative appeal of compliant segments.

Knock-Out Criteria:

- Homogeneous segment members.
- Distinctiveness from other segments.
- Large enough size for cost-effective marketing.
- Matching strengths of the organization.
- Identifiable members.
- Reachable members for custom marketing access.

Attractiveness Criteria:

- Segments rated on each criterion, not binary compliance.
- Criteria include differentiability, measurability, substantiality, accessibility, and actionability.
- Overall attractiveness across criteria determines target segment selection.

Implementing a Structured Process:

- Agreement on structured process benefits in market segment evaluation.
- Popular approach: Segment evaluation plot, assessing attractiveness against organizational competitiveness.
- Criteria determination involves negotiation among the segmentation team and advisory committee.

- Representatives from various organizational units ensure diverse perspectives.

Step 3: Collecting Data

Segmentation Variables:

- In data-driven market segmentation, multiple segmentation variables are employed to identify or create market segments. Unlike commonsense segmentation, which typically relies on a single characteristic, data-driven segmentation involves using various segmentation variables simultaneously.
- The goal is to extract meaningful market segments that align with the organization's objectives.
- The segmentation variables serve as the foundation for both identifying existing segments and constructing artificial segments that are beneficial to the organization.

Segmentation Criteria:

- **Geographic Segmentation:**
Geographic segmentation involves using consumers' location of residence as the primary criterion to form market segments. While simplistic, it is effective for targeting communication messages and selecting appropriate channels based on geographical units.
- **Socio-Demographic Segmentation:**
Socio-demographic segmentation employs criteria such as age, gender, income, and education to categorize consumers. While useful in certain industries, socio-demographic criteria may not always explain product preferences adequately.
- **Psychographic Segmentation:**
Psychographic segmentation involves grouping individuals based on psychological criteria such as beliefs, interests, preferences, aspirations, or sought benefits. This approach often utilizes multiple segmentation variables to capture the complexity of individuals' psychological dimensions. Benefit segmentation and lifestyle segmentation are popular psychographic segmentation techniques.
- **Behavioral Segmentation:**
Behavioral segmentation focuses on similarities in actual or reported behavior. Variables such as prior experience, purchase frequency, amount spent, and information search behavior can be used to categorize consumers based on their behavior. The advantage of this approach is that it directly uses the behavior of interest as the basis for segment extraction.

Data from Survey Studies:

Choice of Variables:

- Data-driven Segmentation: Include all variables relevant to the construct captured by the segmentation criterion while avoiding unnecessary ones. Noisy variables, which do not contribute relevant information, should be omitted.

Response Options:

- Binary or Metric Options: Preferably, provide binary or metric response options as they are suitable for various statistical procedures and segmentation analyses.
- Ordinal Data: If ordinal scales are used, complications may arise in applying standard distance measures. Consider using binary or metric response options instead, when meaningful.

Data Quality:

- Ensure high-quality empirical data, as it forms the foundation for developing valid segmentation solutions. Explore various sources, including survey studies, observations, and experimental studies.

Segmentation Criteria:

- Decide on segmentation criteria early in the process, considering geographic, socio-demographic, psychographic, or behavioral criteria based on the nature of the market and organizational goals.

Response Style:

- Response bias is a systematic tendency to respond to survey questions in ways unrelated to the content.
- Response style is a consistent bias displayed by a respondent over time, independent of specific survey questions.
- Sample size should be at least $2p$ (better five times $2p$), p being the number of segmentation variables.
- Unequal segment sizes, segment overlap, correlation between variables, survey data characteristics.
- Larger sample sizes generally improve algorithmic segment recovery.

Data from Internal Sources:

- Advantages: Represents actual consumer behavior, automatically generated.
- Caution: May be biased towards existing customers, lacks information on potential future customers.

Data from Experimental Studies:

- Examples: Tests on responses to advertisements, choice experiments, conjoint analyses.
- Aim: Identify segmentation criteria based on consumer responses to experimental stimuli.

Step 4: Exploring Data

A First Glimpse at the Data:

- Post data collection, exploratory analysis is crucial.
- Identifying measurement levels, exploring univariate distributions, and assessing variable dependencies provide foundational insights.

Data Cleaning:

- Essential step before analysis, involves checking for accurate recording and consistent labels.
- Demonstrated using the Australian travel motives data set, emphasizing the significance of meticulous data cleaning.

Descriptive Analysis:

- Numeric and graphic representations offer insights and prevent misinterpretation.
- Statistical tools such as histograms, boxplots, and summary in R aid in understanding data distributions.
- Graphical methods illustrate the percentage agreement with travel motives, showcasing the heterogeneity in responses.

Pre-Processing:

Categorical Variables:

Merging Levels:

- Merging levels of categorical variables is a strategy employed when original categories are overly differentiated, leading to imbalanced frequencies.
- In scenarios with limited representation in certain categories, merging them with adjacent categories can create a new variable with more balanced frequencies.
- This enhances the robustness of subsequent analyses, ensuring that each category has a more substantial representation.

Conversion to Numeric:

- Categorical variables are often transformed into numeric ones if it is reasonable to assume that distances between categories are approximately equal.
- Ordinal data, like income categories, can be converted to numeric variables if there is an underlying assumption of equal distances between income ranges.
- Binary answer options, such as YES/NO responses, are particularly amenable to conversion to numeric variables (0/1), providing a straightforward representation without introducing response style complexities.

Consideration of Multi-Category Scales:

- Multi-category scales, like Likert scales, are common in consumer surveys but may pose challenges in assuming equal distances between scale points.
- The choice between binary and multi-category scales should be made considering potential response style influences and the nature of the data.

Numeric Variables:

Standardization:

- The range of values in numeric segmentation variables influences their impact in distance-based segmentation methods.
- Standardizing variables involves transforming them to a common scale, preventing one variable from dominating results due to its scale.
- The default method involves subtracting the mean and dividing by the standard deviation, ensuring a mean of 0 and standard deviation of 1.

Handling Outliers:

- Outliers can significantly impact segmentation results.
- Robust estimates for location and spread, such as the median and interquartile range, are preferred in the presence of outliers.
- These methods are less sensitive to extreme values and provide a more accurate representation of central tendency and variability.

Balancing Influence in Segmentation:

- Balancing the influence of segmentation variables is crucial for fair representation in analyses.
- Standardization helps achieve this balance, particularly when dealing with variables of different scales.
- Alternative standardization methods are considered when outliers are present to ensure robustness in the face of extreme observations.

Principal Components Analysis (PCA):

- PCA transforms multivariate data with metric variables into uncorrelated variables called principal components.
- Principal components are ordered by importance, with the first containing the most variability.
- Explanation of how the rotation matrix in PCA indicates the composition of each principal component.
- Understanding the significance of standard deviations in the rotation matrix.
- Explanation of the print output, detailing standard deviations, proportion of explained variance, and cumulative proportion for each principal component.
- Interpretation of the cumulative proportion to assess the importance of the first few principal components.
- Discussion on the use of PCA to reduce the number of segmentation variables.
- Caution against the problematic approach of using a limited number of principal components for segmentation.
- Explanation of how PCA aids in visualizing high-dimensional data in lower dimensions.

Step 9: Customizing the Marketing Mix - Comprehensive Study Report

Implications for Marketing Mix Decisions:

- Marketing Mix, historically a toolbox for selling products, involves blending various elements for optimal sales outcomes.
- Originally 12Ps, now commonly recognized as 4Ps: Product, Price, Promotion, and Place.
- Market segmentation, an integral part of strategic marketing, aligns with Positioning and Competition in the Segmentation-Targeting-Positioning (STP) approach.
- The STP approach emphasizes the sequential process of segmentation, targeting, and positioning in strategic decision-making.

Product:

- Central to marketing mix decisions is the customization of products based on customer needs within the selected target segment.
- The choice of product design or modification is driven by a detailed understanding of the target segment's preferences and behaviors.
- For instance, using the Australian vacation activities data set, targeting a segment highly interested in cultural experiences might lead to developing a specialized product like "MUSEUMS, MONUMENTS & MUCH, MUCH MORE."

Price:

- Pricing decisions involve setting the price for a product and determining applicable discounts.
- The example of a destination targeting Segment 3 from the Australian vacation activities data set is explored.
- Visualizing expenditures through a boxplot indicates that Segment 3 members exhibit higher per-person per-day expenditures, suggesting potential for premium pricing.
- Implications for product pricing, discount structures, and understanding willingness to pay within the target segment are essential considerations.

Place:

- The place dimension in the marketing mix revolves around crucial decisions concerning product distribution.
- Key considerations involve determining whether the product should be made available online, offline, or both.
- Deciding whether to sell directly to customers or involve intermediaries like wholesalers or retailers is a significant aspect.
- Analysis of booking preferences and channels, irrespective of specific segments, is essential for effective distribution strategies.
- For instance, understanding how consumers book accommodations can inform decisions on online and offline availability options.

Promotion:

- Promotion decisions entail crafting an advertising message tailored to the target market and selecting effective communication channels.
- Other tools in the promotion category include public relations, personal selling, and sponsorship.
- Analyzing general information sources and media preferences aids in developing effective promotional strategies.
- Understanding consumer reliance on specific sources, such as tourist centers, guides decisions on the placement of promotional materials.
- Insights into preferred TV channels, like Channel 7, can be utilized to develop media plans for optimal exposure.