

Market Segmentation Analysis

Gangavarapu Shalini

Step 1: Deciding (not) to Segment

1.1 Implications of Committing to Market Segmentation

Before embarking on a market segmentation strategy, it is crucial to understand the implications and commitment required. Here are the key points to consider:

1. Long-term commitment: Market segmentation is a long-term strategy that requires a dedicated and sustained effort from the organization.
2. Substantial changes and investments: Implementing market segmentation involves making significant changes, such as developing new products, modifying existing ones, adjusting pricing and distribution channels, and adapting communication strategies.
3. Costs and expenses: There are costs associated with performing research, conducting surveys and focus groups, designing multiple packages and advertisements, and using the segmentation scheme itself. The expected increase in sales should justify these expenses.
4. Influence on organizational structure: Market segmentation may require adjusting the internal structure of the organization. It is recommended to organize around market segments rather than products, ensuring ongoing focus on the changing needs of different segments.
5. Decision-making at the executive level: The decision to pursue market segmentation should be made at the highest executive level, and it should be consistently communicated and reinforced across all organizational levels and units.

By considering these implications and making a well-informed decision, organizations can determine whether market segmentation is the right strategy for their business and allocate the necessary resources accordingly.

1.2 Implementation Barriers

Implementing a successful market segmentation strategy can face several barriers, as outlined below:

1. Senior management barriers: Lack of leadership, pro-active championing, commitment, and involvement by senior leadership can undermine the success of market segmentation. Insufficient allocation of resources by senior management can also hinder implementation.
2. Organizational culture barriers: Lack of market or consumer orientation, resistance to change, lack of creative thinking, poor communication, and information sharing across organizational units, short-term thinking, and office politics can impede the successful implementation of market segmentation.
3. Lack of training and expertise: Insufficient understanding and knowledge of market segmentation among senior management and the segmentation team can lead to failure in implementing the strategy effectively.
4. Lack of formal marketing function: The absence of a formal marketing function or a qualified marketing expert in the organization can hinder the implementation of market segmentation, particularly in organizations with high market diversity.
5. Objective restrictions: Limited financial resources, inability to make required structural changes, lack of clarity in objectives, inadequate planning, and time pressure can act as barriers to effective market segmentation.
6. Operational challenges: Difficulty in understanding management science techniques and lack of acceptance due to unfamiliarity. Overcoming this challenge involves presenting market segmentation analysis in an easily understandable manner, utilizing graphical visualizations.

Identifying these barriers early on allows for proactive measures to mitigate or remove them. However, if barriers persist and cannot be addressed, organizations should consider abandoning market segmentation as a potential strategy. Successful implementation requires a resolute sense of purpose, dedication, patience, and a willingness to tackle the inevitable problems that may arise.

1.3 Step 1 Checklist

The Step 1 Checklist includes a series of tasks and questions to determine an organization's readiness for implementing a market segmentation strategy. It emphasizes the importance of considering certain criteria as knock-out factors that could hinder the successful implementation of market segmentation. The checklist covers various aspects, including the organization's market orientation, willingness to change, long-term perspective, openness to new ideas, communication across units, ability to make structural changes, financial resources, commitment from senior management, understanding of market segmentation concept and implications, formation of a capable team, establishment of an advisory committee, clarification of objectives, development of a structured process, and allocation of sufficient time for the analysis. By addressing these tasks and answering the questions positively, organizations can ensure they are prepared for market segmentation and increase their chances of successful implementation.

Step 2: Specifying the Ideal Target Segment

2.1 Segment Evaluation Criteria

Step 2 of market segmentation analysis focuses on specifying the ideal target segment. This step heavily relies on user input throughout the process, rather than being limited to just the beginning or end. The organization's contribution to market segmentation analysis is crucial in determining the segment evaluation criteria. Two sets of criteria are defined: knock-out criteria and attractiveness criteria. Knock-out criteria are essential and non-negotiable features that segments must possess to be considered for targeting. Attractiveness criteria are used to evaluate the relative attractiveness of the remaining segments that meet the knock-out criteria. The literature provides a wide range of suggested segment evaluation criteria, which are categorized as knock-out or attractiveness criteria. The segmentation team selects the specific criteria to use and assesses their relative importance to the organization. Knock-out criteria automatically eliminate some segments, while attractiveness criteria are negotiated and applied to determine the overall relative attractiveness of each market segment.

Knock-Out Criteria: Knock-out criteria are used to determine if market segments qualify for assessment using segment attractiveness criteria. These criteria include homogeneity, distinctiveness, size, matching the organization's strengths, identifiability, and reachability. Senior management, the segmentation team, and the advisory committee need to understand these criteria, and some criteria may require further specification, such as determining the minimum viable target segment size.

Attractiveness Criteria: In addition to knock-out criteria, a wide range of attractiveness criteria is available to the segmentation team. These criteria are used to

assess the relative attractiveness of market segments. Attractiveness criteria are not binary, but rather each market segment is rated on how well it complies with a specific criterion. The overall attractiveness across all criteria determines which market segment is selected as the target segment in Step 8 of market segmentation analysis.

2.2 Implementing a Structured Process:

It is widely recognized in the segmentation literature that following a structured process is beneficial for evaluating market segments. The use of a segment evaluation plot is a popular approach, with segment attractiveness and organizational competitiveness plotted on two axes. The values for these factors are determined by the segmentation team through negotiation and agreement. Representatives from various organizational units should be included in the process to ensure diverse perspectives and stakeholder involvement. Although the segment evaluation plot cannot be completed in Step 2 when no segments are available, selecting the attractiveness criteria for market segments at this stage helps in data collection (Step 3) and makes target segment selection (Step 8) easier. The market segmentation team should have approximately six segment attractiveness criteria with assigned weights to indicate their importance. These weights are determined through negotiation and approval by the advisory committee, considering different perspectives from multiple organizational units.

Step 3: Collecting Data

3.1 Segmentation Variables

In Step 3 of market segmentation, data collection plays a crucial role. Empirical data is used to identify or create market segments and provide detailed descriptions of these segments. The term "segmentation variables" refers to the variables in the empirical data that are used to split the sample into market segments. In commonsense segmentation, typically one characteristic of the consumers, such as gender, is used as the segmentation variable. This variable is used to create segments, such as a segment of women and a segment of men.

In data-driven market segmentation, multiple segmentation variables are used to identify naturally existing or artificially created market segments. Descriptor variables, which include personal characteristics like age, number of vacations taken, and preferences related to benefits sought during vacations, are used to describe the

segments in detail. Descriptor variables are important for developing an effective marketing mix to target specific segments. They can include socio-demographic information and details about media behaviour, enabling marketers to reach their target segments with relevant communication messages.

Overall, Step 3 involves collecting empirical data and utilizing segmentation variables to identify or create market segments, while descriptor variables are used to describe the segments in more detail.

3.2 Segmentation Criteria

In market segmentation, organizations must decide on the segmentation criterion, which is the nature of the information used to create segments. The most common segmentation criteria are geographic, socio-demographic, psychographic, and behavioral.

Geographic segmentation uses the consumer's location of residence as the criterion for forming market segments. It is often appropriate when targeting specific regions or countries. However, living in the same area does not necessarily mean people share other relevant characteristics for marketers.

Socio-demographic segmentation criteria include age, gender, income, and education. While easily determinable and sometimes explanatory of specific preferences, socio-demographic criteria alone may not provide sufficient market insights for optimal segmentation decisions.

Psychographic segmentation groups people based on psychological criteria such as beliefs, interests, preferences, aspirations, or benefits sought when purchasing a product. It reflects underlying reasons for consumer behavior but requires multiple segmentation variables to capture the complexity of individuals' psychographic dimensions.

Behavioral segmentation focuses on similarities in behavior or reported behavior, such as prior experience, purchase frequency, amount spent, or information search behavior. It uses actual behavior as the basis for segment extraction and can be highly relevant. However, obtaining behavioral data from potential customers who have not previously purchased the product can be challenging.

Choosing the most appropriate segmentation criterion depends on the marketing context. Generally, the recommendation is to use the simplest approach that works for the product or service. Geographic and socio-demographic segmentation criteria offer simplicity and ease of targeting, while psychographic and behavioral criteria provide deeper insights into consumer behavior.

Overall, the selection of a segmentation criterion requires prior knowledge about the market, and the quality of the data used plays a critical role in developing valid segmentation solutions.

3.3 Data from Survey Studies

There are several key aspects that need to be considered when using survey data for market segmentation analysis. Here are the main points:

1. **Choice of Variables:** Carefully selecting the variables that are included as segmentation variables is critical to the quality of the market segmentation solution. Including unnecessary variables can make questionnaires long and tedious, leading to respondent fatigue and lower-quality responses. Unnecessary variables also increase the dimensionality of the segmentation problem without adding relevant information, making it more difficult to extract optimal market segments.
2. **Response Options:** The answer options provided to respondents in surveys determine the scale of the data available for analysis. Binary or metric response options are preferred for segmentation analysis, as they are suitable for distance measures and statistical procedures. Ordinal data, where the distance between adjacent answer options is not clearly defined, can pose challenges for segmentation analysis unless strong assumptions are made.
3. **Response Styles:** Survey data is prone to capturing biases, including response styles. Response styles are systematic tendencies of respondents to answer questions based on factors other than the specific item content. Response styles can affect segmentation results, as algorithms may not be able to differentiate between a respondent's belief and their response style. It is important to minimize the capture of response styles to ensure accurate segmentation.
4. **Sample Size:** The sample size plays a crucial role in segmentation analysis. Insufficient sample size makes it difficult to determine the correct number and nature of market segments. Studies have recommended sample sizes based on the number of segmentation variables and segments present in the data. Increasing the sample size improves the correctness of the extracted segments, with the biggest improvement seen in very small samples.

There are two sources of data for market segmentation analysis: internal data and data from experimental studies.

3.4 Data from Internal Sources

Internal data refers to the substantial amount of data that organizations have access to from their own operations, such as scanner data, booking data, and online purchase data. This data represents actual consumer behavior and is automatically generated, making it convenient for analysis. However, a potential drawback is that internal data may be biased by over-representing existing customers, lacking information about potential future customers with different consumption patterns.

3.5 Data from Experimental Studies

Experimental data, on the other hand, can be obtained from field or laboratory experiments. For example, testing how people respond to advertisements can provide data for segmentation analysis. Additionally, choice experiments and conjoint analyses present consumers with carefully designed product stimuli, allowing them to indicate their preferences. This information reveals the impact of different attributes and attribute levels on consumer choice, which can be used as segmentation criteria.

Overall, both internal data and data from experimental studies offer valuable insights for market segmentation analysis.

Step 9: Customising the Marketing Mix

9.1 Implications for Marketing Mix Decisions

The marketing mix, originally seen as a toolbox for selling products, consists of various elements such as product planning, pricing, promotion, and place. Market segmentation is closely linked to strategic marketing, particularly positioning and competition. It is part of the segmentation-targeting-positioning (STP) approach, which involves segmenting the market, targeting specific segments, and positioning products to meet segment needs. While the STP approach suggests a sequential process, it is important to be flexible and iterate between segmentation and targeting. The target segment decision influences the development of the marketing mix, including product, price, place, and promotion. Customizing the marketing mix to the target segment is crucial for maximizing the benefits of market segmentation. The selection of target segments may require designing new products, adjusting prices, selecting appropriate distribution channels, and developing communication and promotion strategies that resonate with the target segment. The choice of segmentation variables depends on the specific marketing objective, such as pricing, advertising, or distribution. Ultimately, market segmentation analysis guides the organization in adapting the marketing mix to effectively serve the chosen target segment.

9.2 Product

In the context of the product dimension of the marketing mix, organizations need to consider customer needs and make decisions regarding product design and modification. This may involve naming the product, packaging it, offering warranties, and providing after-sales support services. The selection of target segments plays a crucial role in driving product design or modification.

For instance, using the Australian vacation activities data set, segment 3 stands out as a target segment with a strong inclination towards visiting museums, monuments, gardens, scenic walks, and markets. They also share other common interests with different segments, such as relaxation, dining out, shopping, and sightseeing. To cater to this specific segment, organizations may consider developing a new product like "MUSEUMS, MONUMENTS & MUCH, MUCH MORE," accompanied by activities pass, to assist segment members in locating and accessing activities of interest during their vacation planning. Another approach could involve proactively promoting the destination's gardens as a unique attraction for this segment.

By customizing the product to align with the preferences and needs of the target segment, organizations can enhance their marketing efforts and better cater to the specific demands of their chosen audience.

9.3 Price

This refers to the price dimension of the marketing mix and the decisions involved in setting product prices and offering discounts. Taking an example using the biclustering analysis of the Australian vacation activities data set.

The segment membership vector is created to identify consumers belonging to segment 3. The frequency table shows the number of consumers assigned to each segment, including those not assigned (NA). A binary variable is then created to indicate whether a consumer is assigned to segment 3 or not.

The expenditures of segment 3 members and other consumers are compared using a boxplot of the variable "SPEND PER PERSON PER DAY." The boxplot illustrates the differences in expenditures, with segment 3 members showing higher vacation expenditures per person per day. This suggests that there may be potential to set a premium price for the targeted product rather than offering discounts.

In summary, the analysis highlights the importance of understanding segment preferences and behaviors when determining pricing strategies. The findings suggest that segment 3 members are willing to spend more on their vacations, indicating an opportunity to price the product accordingly.

9.4 Place

This refers to the place dimension of the marketing mix, which involves determining how to distribute the product to customers. It explores various questions such as whether the product should be available for purchase online, offline, or both, whether direct sales to customers or involvement of wholesalers or retailers should be considered.

In the context of segment 3 and a destination with a rich cultural heritage, the analysis considers the booking preferences of segment 3 members. The survey data used for market segmentation analysis includes information on how respondents booked their accommodation during their last domestic holiday. By understanding the booking preferences of segment 3 members, the destination can ensure that the product is available for booking through the appropriate distribution channels.

The `propBarchart` function from the `flexclust` package is used to visualize the stated booking behavior. The function takes arguments such as the data frame (`ausActivDesc`), the segment membership, and the specific columns related to booking behavior.

It was evident that segment 3 members have a higher propensity to book their hotels online compared to the average tourist. This finding has important implications for the place dimension of the marketing mix. It suggests that an online booking option must be made available for the hotel, and it raises the possibility of exploring online booking options for other products, services, and activities that may be of interest to segment 3 members.

In summary, understanding the booking behavior of the target segment helps guide decisions regarding the distribution channels and options that should be provided to cater to their preferences.

9.5 Promotion

This refers to the promotion dimension of the marketing mix, which involves making decisions on how to effectively communicate the advertising message to the target market. It highlights the importance of developing an advertising message that resonates with the target market and identifying the most effective communication channels. Other tools in the promotion category include public relations, personal selling, and sponsorship.

Referring to segment 3, the analysis aims to determine the best information sources for reaching these individuals and informing them about the product. To achieve this, the information sources used by segment 3 members for their last domestic holiday are compared, along with their preferred TV stations.

The `propBarchart` function is utilized to generate a plot comparing the use of different information sources to choose a destination for their last domestic holiday. The

variables starting with "info" are selected for this analysis. The resulting plot shows that segment 3 members rely more frequently on information provided by tourist centers compared to other tourists. This preference for tourist centers as an information source can guide the design of the promotion component of the marketing mix. It suggests having specific information packs on the product available both in hard copy at local tourist information centers and online on the tourist information center's website.

At last, understanding the information sources and media preferences of the target segment enables the development of effective promotional strategies that effectively communicate the product message to the intended audience.