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## **Summary of Market Segmentation Analysis**

### **Step.1: Deciding (not) to Segment:**

#### **1. Implications of committing to Market Segmentation:**

- Market segmentation is a crucial marketing strategy for many organizations, but it is not always the best decision to pursue it. It requires a long-term commitment from the organization, which includes substantial changes and investments.
- Segmenting a market is not free, and there are costs associated with research, surveys, focus groups, packaging design, and advertising.
- Suggestion is that not to segment unless the expected increase in sales is sufficient to justify implementing a segmentation strategy.
- Potential changes include developing new products, modifying existing products, changing pricing and distribution channels, and improving communication with the market. These changes may influence the internal structure of the organization, which may need to be adjusted to target a handful of different market segments.
- The decision to investigate the potential of a market segmentation strategy must be made at the highest executive level and systematically communicated and reinforced at all organizational levels and units.

#### **2. Implementation Barriers:**

- Senior management, such as lack of leadership, commitment, and involvement, can hinder the success of market segmentation.
- Additionally, senior management may not have enough resources for the initial market segmentation analysis or long-term implementation of a market segmentation strategy.
- Organizational culture also plays a role in preventing the successful implementation of market segmentation.
- Lack of market orientation, resistance to change, creative thinking, communication, sharing of information, short-term thinking, unwillingness

to make changes, and office politics can also hinder market segmentation implementation.

- Lack of training is another potential problem.
- The lack of a formal marketing function or qualified marketing expert in the organization can also hinder market segmentation implementation.
- Other obstacles may include objective restrictions faced by the organization, such as financial resources or inability to make structural changes required.
- Process-related barriers include unclear objectives, poor planning, structured processes, responsibilities allocation, and time pressure that hinder the best possible segmentation outcome.
- To counteract this challenge, it is essential to make market segmentation analysis easy to understand and present results in a way that facilitates interpretation by managers.
- This can be achieved by using graphical visualizations to facilitate interpretation and make market segmentation analysis more accessible.
- A market segmentation study should identify and remove barriers proactively. If they cannot be removed, abandoning the study as a strategy should be considered.

## Step.2: Specifying the Ideal Target Segment:

### 1. Segment Evaluation Criteria:

- The third layer of market segmentation analysis relies on user input, which is crucial for producing useful results for an organization.
- User input should be involved in most stages, covering the technical aspects of market segmentation analysis. After investigating the value of a segmentation strategy in Step 1, the organization must make a significant contribution to market segmentation analysis in Step 2.
- This contribution guides many steps, including data collection and selecting target segments.
- In Step 2, the organization must determine two sets of segment evaluation criteria:
  - **Knock-out criteria**, which are essential, non-negotiable features of segments the organization would consider targeting.

- **Attractiveness criteria**, which evaluate the relative attractiveness of remaining market segments.

## **1.2) Knockout Criteria:**

- Knock-out criteria are used to assess market segments based on market segmentation analysis.
- This criteria includes substantiality, measurability, and accessibility.
- Additional criteria have been suggested, including homogeneity, distinctness, size, matching organizational strengths, identifying members, and reachability.
- These criteria must be understood by senior management, the segmentation team, and the advisory committee.
- While most criteria do not require further specification, some do, such as specifying the exact minimum viable target segment size.
- Understanding these criteria is crucial for successful market segmentation and marketing strategies.

## **1.3) Attractiveness Criteria:**

- This criteria is for the segmentation team to consider when deciding which ones are most useful for their specific situation.
- Attractiveness criteria are not binary, as each market segment is rated based on a specific criterion.
- Attractiveness criteria are first negotiated by the team and applied to determine the overall relative attractiveness of each market segment in Step 8.
- Members of the segmentation team must select which criteria they want to use to determine the attractiveness of potential target segments and assess the relative importance of each attractiveness criterion to the organization.

## **1.4) Implementing a Structured Process:**

- A structured process is beneficial for assessing market segments. The most popular structured approach is the use of a segment evaluation plot, which shows segment attractiveness and organizational competitiveness.
- The segmentation team determines these values, as there is no standard set of criteria for all organizations.

- The task should be completed by a team of people, with a core team of two to three people primarily in charge of market segmentation analysis. This team can propose an initial solution and report their choices to the advisory committee, which consists of representatives from all organizational units.
- Selecting attractiveness criteria for market segments at this early stage ensures that all relevant information is captured when collecting data and makes selecting a target segment easier.
- The market segmentation team should have a list of approximately six segment attractiveness criteria, each with a weight attached to indicate their importance to the organization.
- Ideally, approval from the advisory committee is sought, as it contains representatives from multiple organizational units with a range of different perspectives on specifying segment attractiveness criteria.

## Step.3: Collecting Data:

### 1. Segmentation Variables:

- Empirical data for segmentation studies can come from various sources, including survey studies, observations, scanner data, and experimental studies.
- Empirical data is the foundation of both commonsense and data-driven market segmentation.
- **In commonsense segmentation:**
  - the segmentation variable is a single characteristic of the consumer, such as gender, which is used to split the sample into two groups: women and men.
  - Descriptor variables, such as age, vacation duration, and benefits sought, are used to describe the segments in detail.
  - These descriptor variables are crucial for developing effective marketing mixes targeting the segment.
- **Data-driven market segmentation:**
  - it is based on multiple segmentation variables, which serve as the starting point for identifying naturally existing or artificially creating market segments useful to the organization.
  - For example, extracting market segments of tourists who share common benefits, such as relaxation, culture, and meeting people, is

essential for developing customized products, pricing strategies, distribution channels, and effective communication channels.

## **2. Segmentation Criteria:**

- Before extracting segments and collecting data, organizations must decide on which segmentation criterion to use.
- The most common segmentation criteria include geographic, sociodemographic, psychographic, and behavioral.
- Factors such as profitability, bargaining power, preferences, barriers to choice, and consumer interaction effects are crucial in market segmentation.
- Choosing the best segmentation criterion requires prior market knowledge and requires a simplest approach.

### **2.1) Geographic Segmentation:**

- Geographic information is the primary segmentation criterion used in market segmentation, often focusing on a consumer's location of residence.
- This approach is often the most appropriate for targeting tourists from neighboring countries, as language differences across countries can be pragmatic reasons for treating them as different segments.
- The advantage of geographic segmentation is that each consumer can be easily assigned to a geographic unit, allowing for targeted communication messages and communication channels.
- However, this approach is challenging due to the need for meaningful segmentation variables across all regions and potential biases from respondents from different cultural backgrounds.

### **2.2) Socio-Demographic Segmentation:**

- Socio-demographic segmentation criteria, such as age, gender, income, and education, can be useful in certain industries like luxury goods, cosmetics, baby products, retirement villages, and tourism resort products.
- These criteria can provide market insight but may not explain product preferences.
- Values, tastes, and preferences are more influential in consumers' buying decisions, and socio-demographics may not be the strongest base for market segmentation.

### **2.3) Psychographic Segmentation:**

- Psychographic segmentation involves grouping people based on psychological criteria, such as beliefs, interests, preferences, aspirations, or benefits sought when purchasing a product.
- Benefit segmentation is the most popular type, while lifestyle segmentation is based on people's activities, opinions, and interests.
- This method is more complex than geographic or sociodemographic criteria, making it useful for understanding consumer behavior.
- However, it has its disadvantages, such as increased complexity in determining segment memberships and the dependence on empirical measures to capture psychographic dimensions of interest.

### **2.4) Behavioral Segmentation:**

- Behavioral approaches group people by the most relevant similarity, avoiding the need for psychological constructs.
- Examples include actual expenses of consumers, purchase data across product categories, and brand choice behaviour over time.
- However, behavioural data may not always be readily available, especially for incorporating potential customers who have not previously purchased the product.

## **3. Data from Survey Studies:**

### **3.1) Choice of Variables:**

- Selecting the right variables for segmentation in commonsense and data-driven segmentation is crucial for the quality of the market segmentation solution.
- In data-driven segmentation, all relevant variables must be included, while avoiding unnecessary variables.
- These variables can cause increase in the dimensionality of the segmentation problem, making it difficult to extract market segments.
- Noisy variables, or masking variables, divert attention from information critical to the extraction of optimal market segments and hinder the algorithm's ability to identify the correct solution.
- To avoid these problems, it is recommended to ask all necessary and unique questions while resisting the temptation to include unnecessary or redundant questions.

### **3.2) Response Options:**

- Survey response options determine the data available for analysis, and not all options are equally suitable for segmentation analysis.
- Binary or dichotomous data is generated by options allowing respondents to answer in only one of two ways, while nominal variables are generated by options allowing respondents to select an answer from a range of unordered categories.
- Metric data, such as numbers, is well-suited for segmentation analysis.
- Ordinal data generates ordered options, but the distance between adjacent answer options is not clearly defined, making it difficult to apply standard distance measures.
- Ideally, either metric or binary response options should be provided to respondents if they are meaningful with respect to the question asked.
- Using binary or metric response options prevents complications related to distance measures in data-driven segmentation analysis.

### **3.3) Response Styles:**

- Response styles, such as extreme answer options, midpoints, and agreeing with all statements, can affect segmentation results.
- Common segment extraction algorithms cannot differentiate between data entries reflecting the respondent's belief and a response style.
- For example, an acquiescence bias could result in a market segment with higher than average agreement with all answers, potentially misinterpreting the segment.
- To minimize the risk of capturing response styles, additional analyses are required or respondents affected by such response styles must be removed before targeting such market segments.

### **3.4) Sample Size:**

- Market segmentation analysis is a complex statistical process that requires a large sample size to accurately identify the correct number of market segments. The adjusted Rand index, which assesses the congruence between two segmentation solutions, shows that increasing the sample size improves the correctness of extracted segments.
- Sample size requirements vary significantly across market and data characteristics.
- Some challenging market and data characteristics can be compensated by increasing sample size, while others cannot.

- For example, using uncorrelated segmentation variables leads to very good segment recovery. However, correlation cannot be well compensated for by increasing sample size.
- In conclusion, market segmentation analysis requires a large sample size, high-quality unbiased data, and a sufficient sample size.

#### **4. Data from Internal Sources:**

- Organizations increasingly have access to internal data for market segmentation analysis, such as scanner data, booking data, and online purchase data.
- However, internal data can be systematically biased, over-representing existing customers and missing information about future customers who may differ from current customers in consumption patterns.

#### **5. Data from Experimental Studies:**

- Experimental data can be used for market segmentation analysis, derived from field or laboratory experiments, choice experiments, or conjoint analyses.
- These studies present consumers with good interest with specific product attributes, allowing them to indicate their preferred products.
- The extent to which each attribute affects choice can also be used as a segmentation criterion.



## Step.6 Profiling Segments

### 1. Identifying Key Characteristics Of Market Segments:

There are 2 main types of market segmentation

#### a. Commonsense Segmentation:

- The profiles of the segments are predefined for commonsense segmentation
- For example - age is a segmentation variable for the commonsense segmentation and the resulting segments will be age group.
- Profiling segment is not necessary for commonsense segmentation

#### b. Data-Driven Segmentation:

- Profiling means in simple words get the knowledge of market segments from the resultant data from the extraction step.
- This step is important because if no natural segments exist in the data, then either a reproducible or a constructive market segmentation approach has to be taken into consideration.
- Data-driven market segmentation is not easy to interpret. Even experts and managers find many difficulties in interpreting segment results correctly.

### 2. Traditional Approaches To Profiling Market Segments:

- The Australian vacation motives data set was used to extract segments using the neural gas clustering algorithm, with varying numbers of segments and 20 random restarts.
- Data-driven segmentation solutions are often presented as high-level summaries or large tables with exact percentages for each segmentation variable.
- However, these tables can be difficult to interpret and provide a quick overview of key insights.
- To identify the defining characteristics of market segments, the percentage value of each segment for each segmentation variable must be compared with the values of other segments.
- Sometimes, information is provided about the statistical significance of the difference between segments for each of the segmentation variables, but this approach is not statistically correct.

### **3. Profile Segmentation Using Visualization:**

- Graphics are essential in statistical data analysis, particularly in exploratory statistical analysis like cluster analysis, as they provide insights into complex relationships between variables.
- Visualization offers a simple way to monitor developments over time and makes the results of a market segmentation analysis easier to interpret.
- A single two-dimensional graphical format is preferable to more complex representations that lack intuitive interpretations.
- Visualizations are useful in the data-driven market segmentation process to inspect one or more segments in detail, facilitate the interpretation of segment profiles, and make it easier to assess the usefulness of a market segmentation solution.
- The process of segmenting data often leads to a large number of alternative solutions, and visualizations of solutions assist the data analyst and user in this critical decision-making process.

#### **3.1) Identifying defining characteristics of Market Segments:**

- A segment profile plot is a useful tool for understanding the defining characteristics of each market segment. It visually represents the differences between each market segment and the overall sample.
- Another option is to order segmentation variables by similarity of answer patterns, which can be achieved by clustering the columns of the data matrix using Ward's method.
- The segment profile plot is a panel plot, with each of the six panels representing one segment.
- It is worth investing extra time in presenting market segmentation analysis results as a well-designed graph.
- Good visualizations facilitate interpretation by managers who make long-term strategic decisions based on segmentation results, which require substantial financial commitments to the implementation of a segmentation strategy.

### **3.2) Assessing Segment Separation:**

- Segment separation plots are a useful tool for visualizing the overlap of segments in data spaces.
- They provide a quick overview of the data situation and segmentation solution.
- Examples of segment separation plots are provided in figure, based on two artificial data sets:
  - A data set with three distinct, well-separated segments and an elliptic data structure. And
  - The artificial data is two-dimensional, so no projection is required.
- For 20-dimensional data, a segment separation plot is created by projecting the 20-dimensional space onto a small number of dimensions. Different projection techniques, such as principal components analysis, can be used to maximize separation.
- The consumer data used for the plot shows a market segment that values unspoiled surroundings and nature.

### **4) Step 6 Checklists:**

- Use the selected segments from Step 5.
- Visualize segment profiles to learn about what makes each segment distinct.
- Use knock-out criteria to check if any of the segments currently under consideration should already be eliminated because they do not comply with the knock-out criteria.
- Pass on the remaining segments to Step 7 for describing