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Market Segmentation

Introduction

Market segmentation is the process of dividing large and heterogeneous market into smaller and more homogeneous groups of customers, based on their needs, preferences characteristics, or behaviors. The main purpose of market segmentation is to identify and target the most profitable and attractive segments for your business, and to tailor your products, services, pricing, promotion, and distribution accordingly.

Market segmentation can offer several benefits for a business, such as increasing customer satisfaction and loyalty, enhancing competitive advantage and differentiation, improving marketing efficiency and effectiveness, expanding market opportunities and growth potential and reducing costs and risks. By segmenting the market, businesses can offer products or services that match customer needs and expectations, create a unique value proposition for each segment, allocate resources and efforts to the most profitable and responsive segments, identify new or undeserved segments, and develop new products or services for them.

Market segmentation can come with risks, such as losing market share or economies of scale by ignoring or neglecting the mass market or other segments, or increasing complexity and costs by having to manage multiple products, services, prices, promotions, and distribution channels for different segments.

There is a ten-step approach to market segmentation analysis. The basic structure is the same for both commonsense and data-driven market segmentation: an organization needs to weigh up the advantages and disadvantages of pursuing a segmentation strategy, and decide whether or not to go ahead.

Step 1
1. Deciding (not) to Segment:

1.1 Implications of committing to Market Segmentation:

Market Segmentation, with all of its pros, has some cons as well. It poses some implications that need to be addressed. Before investing in a segmentation analysis, its crucial to understand that committing to this strategy is a long term endeavor. It requires substantial changes and investments. Some changes need to be done to the internal structure of the organization such as development of new products/modification of existing products, adjusting the pricing and ways of selling the product, etc. Since its arduous and requires a great degree of decision making, Market Segmentation should be done at the highest executive level.

1.2 Implementation Barriers:

There are certain barriers that needs to be implemented for a successful market segmentation. One of the barriers refers to the senior management. Due to their lack of leadership, commitment in the process, the success of Market Segmentation is heavily compromised. The organization as a whole could be a barrier in itself. Lack of creative thinking, unwillingness to make necessary changes, short term thinking and office politics can be viewed as hurdles to overcome. If the team tasked with market segmentation has inadequate knowledge of it, the respective organization is bound to fail or at the least, unable to improve. Another barrier refers to the availability of financial resources of an organization. If such an organization is unable to pounce on the right opportunities, successful market segmentation cannot be achieved.

Step 2
2. Specifying the Ideal Target Segment:

Market segmentation analysis should be done by taking user input under consideration. At every stage, user input should be taken in order to fix all the flaws. Evaluation before implementation can eliminate most of the potential imperfections. The organization must dictate two sets of segment evaluation criteria - 1) Knock-out criteria 2) Attractiveness criteria

2.1 Knock-out Criteria:

Knock-out criteria serves to eliminate certain market segments from further investigation and shortens the list of market segments to be assessed using segment attractiveness criteria. Such a criteria should include substantiality, measureability, accessibility, homogeneity, distinction, and should be identifiable, reachable, matching the strengths of the organization, and should contain abundant consumers.

Knock-out criteria should be understood by senior management, the segmentation team and the advisory committee.

2.2 Attractiveness Criteria:

Attractiveness criteria are used to evaluate the relative attractiveness of the remaining market segments which are in compliance with the knock-out criteria. They are non binary where each market segment is rated. The attractiveness across all criteria determines whether a market segment is selected as a target segment.

2.3 Implementing a Structured Process:

A structured process in market segmentation is a necessity. For evaluating market segments in the view of selecting then as target markets, use of Segment Evaluation Plot is deemed to be the most popular structured approach. Here, segment attractiveness should be along one axis and organizational competitiveness on the other axis, the values of which are determined by the segmentation team. Segment evaluation plot cannot be completed at such an early stage since no segments are available to assess yet. But selecting the attractiveness criteria at this stage makes the task of selecting a target segment much easier because the foundation is built before the actual segments are on the table.

Step 3
3. Collecting Data

3.1 Segmentation Variables:

Empirical data is used to identify or create market segments and describe these segments in detail. It forms the basis of both commonsense and data-driven market segmentation. The difference between commonsense and data-driven market segmentation is that data-driven market segmentation is based on multiple segmentation variables. These segmentation variables serve as the starting point for identifying naturally existing or artificially creating market segments useful to the organization. The quality of data is critical for the extraction of data-driven market segments and the quality of the descriptions of the resulting segments. Same holds for commonsense segments. Good market segmentation analysis requires good empirical data.

3.2 Segmentation Criteria:

Before the segments are extracted and data is collected, the organization must choose the segmentation criteria. Segmentation criteria or criterion relates to the nature of the information used for market segmentation. Having prior knowledge about the market is the key for using the right segmentation criterion. The most common segmentation criteria are geographic, socio-demographic, psycho-graphic and behavioural.

A) Geographic Segmentation-

Geographic information is seen as the original segmentation criterion used for the purpose of market segmentation. The location of the consumer's residence serves as the only criterion to form market segments. The key benefit of geographic segmentation is that each consumer can easily be assigned to a geographic unit. While the key disadvantage is that living in the same country or area does not necessarily mean that people share other characteristics relevant to marketers.

B) Socio-Demographic Segmentation-

Typical socio-demographics segmentation criteria include age, gender, income and education. Socio-demographics segments can be very useful in industries such as luxury goods, cosmetics, baby products, retirement villages, tourism resort products, etc. Same as geographics segmentation, socio-demographic segmentation criteria have the advantage of determining the segment membership for every consumer. But in many instances, the socio-demographic criterion is not the cause for product preferences, thus not providing sufficient market insight for optimal segmentation decisions.

C) Psychographic Segmentation-

Here, people are grouped according to their psychological criteria such as their beliefs, interests, preferences, aspirations, etc. Psychographic criteria are more complex than geographic or socio-domographic criteria because it is difficult to find a single characteristic of a person that will provide an insight into their field of interest. It has the advantage of being more reflective of the underlying reasons for differences in consumer behaviour. While the disadvantage is the increased complexity of determining segment memberships for consumers.

D) Behavioural Segmentation-

Another approach for extracting segments is to search directly for similarities in behaviour. A wide range of possible behaviors can be used for this purpose, such as prior experience with the product, frequency of purchase, amount spent on purchasing the product in each occasion and information search behaviour. The key advantage of this approach is that the very behaviour of interest is used as the basis of segment extraction. But behavioural data is not readily available, which is its disadvantage.

3.3 Data from Survey Studies:

Survey data is cheap and easy to collect, but can be contaminated by a wide range of biases which can, in turn, negatively affect the quality of the solutions derived from market segmentation analysis. Below are the aspects that need to be considered while using survey data.

3.3.1 Choices of Variables -

All variables relevant to the construct captured by the segmentation criterion need to be included, while avoiding unnecessary variables. Such unnecessary variables increases the size of the segmentation without adding relevant information.

3.3.2 Response Opinions -

Answer options provided to respondents in surveys determine the scale of the data available for subsequent analysis. Options allowing respondents to answer in only one of two ways, generate binary or dichotomous data. They can answer in either 0 or 1 or choose from a specific list of options.

3.3.3 Response Styles -

There is a lot of biases in survey data. If a bias is displayed by a respondent consistently over time, it represents a response style. A wide range of response styles is seen in survey answers, such as “Strongly agree” , “Strongly disagree”, etc. This affects the segmentation results. Hence, it is critical to minimize the risk of capturing response styles when the data is collected.

3.3.4 Sample Size -

Market segmentation analysis requires samples in abundance to enable an algorithm to extract the correct segments. If the sample is not sufficient, the segmentation would fail. Atleat 100 respondents should be there for each segmentation variable in the data.

3.4 Data from Internal Sources:

Most of the organizations have access to substantial amounts of internal data which can be used for the purpose of market segmentation analysis.Such a data can be used to determine the actual behaviour of consumers, rather than their statements about their behaviour or intentions. Such data is automatically generated which is one of its advantages. The disadvantage of internal data is that there can be bias because of the repeated consumers.

3.5 Data from Experimental Studies:

Experimental data is another source of data for market segmentation analysis which can be found in field or laboratory experiments. It can also result from choice experiments or conjoint analyses. Conjoint studies and choice experiments results in information about the extent to which each attribute and attribute level affects choice. This information can also be used as a segmentation criterion.

Step 4
4. Exploring Data

4.1 A First Glimpse at the Data:

Once data collection is done, the next task is to clean and pre-process the data. This cleaning and pre-processing of data is known as exploratory data analysis. Data exploration is done to see what the data has, how it is organized, are there any inconsistencies, are there any missing values, etc. All of these are then treated and we get clean data ready for processing.

4.2 Data Cleaning:

Data cleaning is the first step before commencing data analysis. It includes checking if all values have been recorded correctly and if consistent labels for the levels of categorical variables have been used. Usually, for many metric variables, range of plausible values is known in advance. Hence, it is easy to check if there are any implausible values in the data.Similarly, levels of categorical variables can be checked to ensure they contain only permissible values.

4.3 Descriptive Analysis:

Descriptive numeric and graphic representations provide better insights into the data. It removes the complexity and makes the data easier to understand. Useful graphical methods for numeric data are histograms, box plots and scatter plots. Bar plots of frequency counts are useful for the visualization of categorical variables. Mosiac plots illustrate the association of multiple categorical variables.
Histograms shows if the distribution of a variable is unimodal and symmetric or skewed.
Box plots shows distribution of data points across a selected measure. It shows if there are any outliers in the dataset.
Scatterplots are the charts that shows the relationships between two variables. They are an incredibly powerful chart type, allowing viewers to immediately understand a relationship or trend, which would be impossible to see in almost any other form.

4.4 Pre-Processing:

4.4.1 Categorical Variables-

There are two mostly used pre-processing procedures for categorical variables. The first one is merging levels of categorical variables before further analysis and the other one is converting categorical variables into numeric ones, if that makes sense to do so. Merging levels of categorical variables is useful if the original categories are too differentiated.Ordinal data can be converted to numeric data if it can be assumed that distances between adjacent scale points on the ordinal scale are

approximately equal.Binary answer options are less prone to capturing response styles and don't now require data pre-processing.

4.4.2 Numeric Variables-

The range of values of a segmentation variable affects its relative influence in distance-based methods of segment extraction. If one variable is binary and the other one is the expenditure in dollars, which is not on the same scale and can cause inaccurate results. In order to avoid this, variables can be standardized.
Standardizing variables means transforming them in a way that puts them on a common scale.

4.5 Principal Components Analysis:

Principal component analysis (PCA) is a dimensionality reduction method that is often used to reduce the dimensionality of large data sets, by transforming a large set of variables into a smaller one that still contains most of the information in the large set. Reducing the number of variables of a data set naturally comes at the expense of accuracy, but the trick in dimensionality reduction is to trade a little accuracy for simplicity. Because smaller data sets are easier to explore and visualize and make analyzing data points much easier and faster for machine learning algorithms without extraneous variables to process. The step by step explanation of PCA is given below:

4.5.1 Standardization-

The aim of this step is to standardize the range of the continuous initial variables so that each one of them contributes equally to the analysis. More specifically, the reason why it is critical to perform standardization prior to PCA, is that the latter is quite sensitive regarding the variances of the initial variables. That is, if there are large differences between the ranges of initial variables, those variables with larger ranges will dominate over those with small ranges (for example, a variable that ranges between 0 and 100 will dominate over a variable that ranges between 0 and 1), which will lead to biased results. So, transforming the data to comparable scales can prevent this problem.

4.5.2 Covariance Matrix Computation-

The aim of this step is to understand how the variables of the input data set are varying from the mean with respect to each other, or in other words, to see if there is any relationship between them. Because sometimes, variables are highly correlated in such a way that they contain redundant information. So, in order to identify these correlations, we compute the covariance matrix. The covariance matrix is a $p \times p$ symmetric matrix (where p is the number of dimensions) that has as entries the covariances associated with all possible pairs of the initial variables.

4.5.3 Computer the Eigenvectors and Eigenvalues of Covariance Matrix-

Eigenvectors and eigenvalues are the linear algebra concepts that we need to compute from the covariance matrix in order to determine the principal

components of the data. Before getting to the explanation of these concepts, let's first understand what do we mean by principal components.
Principal components are new variables that are constructed as linear combinations or mixtures of the initial variables. These combinations are done in such a way that the new variables (i.e., principal components) are uncorrelated and most of the information within the initial variables is squeezed or compressed into the first components.

GITHUB link for McDonald's Case Study

NAME : ATIF SHAIK

TASK - STEP-05 (Segment Extraction)

Here's an inference from my study

- Key implication is that the organization needs to commit to the segmentation strategy in the long term.
- Performing segmentation comes at a cost of gathering data, research, finding surveys, designing advertisements etc.
- Some barriers are required to be fulfilled in order to begin with market segmentation for it to be feasible.
- Organization for which segmentation is being applied should be market oriented.

Qualification for a market segmentation for it to be applied

KNOCK-OUT CRITERIA

- Segment must be homogeneous
- Segment must also be distinct from one another
- Individual segment must be large incorporating various kinds of consumers in it

Present the selected segment attractiveness criteria and the proposed weights assigned to each of them to the advisory committee for discussion and (if required) adjustment.

Gathering Data

- The socio-demographic variables, gender, age, and the number of vacations undertaken per annum serve as descriptor variables.
- Geographic location can serve as the primary factor in segmentation for most of the market domains.
- Discuss which other consumer characteristics are required to develop a good understanding of market segments. These variables will later be used to describe the segments in detail.

Insights from Extracting Segments

- Single Linkage Hierarchical Structure: Identifies two spiral segments, as it constructs snake-shaped clusters.

- Single Linkage with Many Segments: Returns outliers as micro-segments.

- K-Means Clustering: Ignores the 2 spiral layer and places consumers into a segment if they are located close to each other in Euclidean space.

- Data Structure Impact: Well-structured and well-separated data leads to distinct market segments. The choice of algorithms matters less in this case. However, if data is not well-structured, the algorithm choice significantly influences the solution.

Consumer Grouping

- Distance Measure: Create a matrix from the dataset and calculate the distance between each vector. Use N x m, where N is the number of rows in the dataset, and m is the number of attributes. Distances can be measured using Euclidean, Manhattan, or Asymmetric binary distance.

- Euclidean: Calculates distance between points in a straight line.

- Manhattan: Calculates distance in a grid-like fashion, as if moving in a city or along axes.

- Asymmetric Binary: Useful for sparse data, treating 1s and 0s separately and giving more importance to 1s.

Hierarchical Methods

- Agglomerative Hierarchical Clustering: It initially assigns n market segments to n customers and then merges them iteratively until forming one large market segment. It relies on distance between groups and observations and a linkage method.
- Single Linkage: Captures non-linear patterns as it uses a next-neighbors approach. Consumers closest to each other get classified in the same segment.

K-Means Clustering

- Distance Measures: Uses squared Euclidean distance measures. The centroid consists of column-wise mean values across all members of the market segment.

- Centroid Calculation: Closer clusters are better for segmentation. Real-time market segments are often similar.

- To Use Hierarchical or Partitioning Clustering Method

- It depends on trial and error. Improvised K-means can be used for segmentation. Initialize it using starting points evenly spread across the entire data space to avoid getting stuck in local optima.

Hard Competitive Learning (Neural Gas, Self-Organizing Maps)

Self-Organizing Maps (SOMs):

- Grid-Based Representation: SOMs position centroids on a regular grid.
- Similar to Hard Competitive Learning: SOMs adjust centroids in the direction of selected data points.
- Neighboring Representatives: Neighboring centroids also move, promoting a smoother arrangement.
- Grid-Based Numbering: The numbering of market segments aligns with the grid.

Neural Networks

- Single Hidden Layer Perceptron: Suitable for clustering analysis.
- Fewer Hidden Layers: Use fewer hidden layers than the input layer to capture data semantics.
- Multiple Segments: Unlike K-means and hard competitive learning, it may provide multiple segments for a consumer.

Hybrid Algorithms

- Combines partitioning and hierarchical algorithms.
- Apply partitioning with large market segments, then input the output (only centroids) to hierarchical algorithms.

Model-Based Methods for Clustering

- Based on assumptions: Each market segment has a certain size, and consumers within a segment share specific characteristics.
- Methods: MLE, EM algorithm, Bayesian approach.
- Selecting the number of market segments: Use information criteria.
- Final mixtures of distributions: Normal, binary, multinomial, multinomial logit models, and more.
- Flexible approach compared to distance-based methods.

Bi-Clustering Analysis

- Identifies segments of consumers sharing a value of 1 for a group of variables.
- Segments are called bi-clusters.
- It focuses on consumers with active participation in a particular task.

Cluster Indices

- Two types: Internal and External indices.
- Internal Indices: Internal indices are used to assess the quality of a single clustering solution. They provide information about the goodness of fit within a single cluster structure. Examples of internal indices include Silhouette Score, Dunn Index, Davies-Bouldin Index, and Inertia (within-cluster sum of squares).
- External Indices: External indices, on the other hand, measure the similarity or agreement between two or more clustering solutions. They help evaluate the stability and consistency of different clustering results. Common external indices include Adjusted Rand Index (ARI), Normalized Mutual Information (NMI), and Fowlkes-Mallows Index (FMI).
- Some indices may be sensitive to the shape or size of clusters, and their effectiveness may vary with different types of data and clustering algorithms. It's important to use them judiciously in the context of the problem at hand.

BASIC STEPS FOR MARKET SEGMENTATION :

- Analyze the market for segmentation.
- Try with different clustering methods along with their constraints.
- Get the best cluster, and perform a stability-based plot on it.
- Analyze how many segments are prone to noise and what kind of consumers are stable.
- Try stabilizing as many clusters as possible
- Use various visualization techniques as mentioned in the book.
- After getting all clusters, visualize them for inference.
- Use them accordingly for business needs.

GITHUB Link for McDonald's Case Study

NAME - IRFAN WAHID

MARKET SEGMENT ANALYSIS

STEP-1

DECIDING(N0T) TO SEGMENT

IMPLICATION OF COMMITING TO MARKET SEGEMENTATION

Market segmentation requires a significant and long-term dedication from the organization. In essence, committing to market segmentation is a strategic choice that involves long-term dedication, financial considerations, organizational adjustments, and the involvement of top leadership to maximize it as a significant one for organizations benefits the decision to pursue a market segmentation strategy

1**. Resource Investment**: Significant resources, both financial and human, are required for market research, surveys, product development, and tailored marketing efforts.

2**. Substantial Changes and Investments**: Pursuing market segmentation often entails making substantial changes in various aspects of the business, such as product development, pricing, distribution, and communication. These changes come with associated costs.

3. **Structural Adjustments**: The internal structure of the organization may need to shift towards organizing around market segments rather than traditional product-centric approaches. Organizational Adjustments The adoption of market segmentation may lead to modifications in the internal structure of the organization. It may require organizing around market segments rather than products, with strategic business units dedicated to specific segments.

4. **Cost Considerations**: Market segmentation research, surveys, focus groups, package design, and communication efforts all incur expenses. The expected increase in sales must justify these costs to make the strategy worthwhile.

5.**Strategic Focus**: Market segmentation demands ongoing focus on changing market segment needs, which may require strategic business units dedicated to specific segments.

6**. Executive-Level Decision**: The decision to pursue market segmentation should be made at the highest executive level to ensure commitment and alignment throughout the organization. It must be systematically communicated and reinforced across all levels and units within the organization

6. **Continuous Communication**: Effective communication and reinforcement of the segmentation strategy are crucial at all organizational levels and across various units to maintain focus and success.

THE IMPLEMENTATION BARIERS:

Market segmentation is a powerful tool when used effectively. However, it can also be challenging to implement. Some of the most common implementation barriers include:

1. **Lack of resources**: Market segmentation can be a resource-intensive process, requiring businesses to collect data, analyse data, and develop marketing strategies for each segment. Businesses with limited resources may find it difficult to implement market segmentation effectively.
2. **Lack of expertise**: Market segmentation requires a deep understanding of customers and the market. Businesses that lack the expertise in market segmentation may find it difficult to implement it effectively.
3**.Resistance to change**: Market segmentation can require businesses to change their marketing strategies and operations. This can be a challenge for businesses that are resistant to change.
4**.Lack of coordination**: Market segmentation requires coordination across different departments within a business. Businesses that lack coordination between departments may find it difficult to implement market segmentation effectively
5.**External factors**: Market segmentation can be affected by external factors such as changes in the economy, technology, and customer behaviour. Businesses need to be able to adapt their market segmentation strategies in response to these changes.
6.Complexity and Lack of Understanding: Market segmentation analysis should be presented in an easily understandable way for managers. Failure to do so can prevent acceptance and utilization of segmentation insights.
7.Data and Analytical Capabilities: Insufficient data management and analytical capabilities within the organization can hinder the ability to conduct effective market segmentation research.
Limited Market Diversity In some cases, organizations with limited resources may struggle to identify viable market segments and prioritize the most lucrative opportunities.

STEP-2

SPECFYING THE IDEAL TARGET SEGMENT

SEGMENT EVALUATION CRITERIA

There are a number of criteria that can be used to evaluate market segments. Some of the most common criteria include:

1. **Measurability:** The segment must be measurable in terms of size, growth potential, and profitability.
2. **Accessibility:** The segment must be accessible to the business in terms of distribution channels and marketing reach.

3. **Differentiability:** The segment must be differentiable from other segments in terms of customer needs, wants, and behavior.
4. **Substantiality:** The segment must be large enough to be profitable for the business to target.
5. **Actionability:** The segment must be actionable in terms of developing marketing strategies that can reach and appeal to the target customers.

The best segment evaluation criteria for a particular business will depend on the specific goals and objectives of the business. For example, a business that is focused on growth may be more interested in segments that have a large growth potential. A business that is focused on profitability may be more interested in segments that are already profitable or have the potential to be profitable.

KNOCK OUT CRITERIA-

Knock-out criteria are an essential part of market segmentation analysis. They help determine whether potential market segments should be further evaluated for their attractiveness and suitability. These criteria are designed to filter out segments that do not meet certain fundamental requirements, ensuring that resources are allocated efficiently.

1.Measurability: Measurability involves the ability to quantify and assess the characteristics of a segment. It's important that the segment's key attributes, such as demographics, behaviour, or preferences, can be reliably measured and analysed.

2.Accessibility: Accessibility focuses on whether the segment can be reached and engaged effectively through marketing efforts. It considers whether there are practical means to connect with the members of the segment through various marketing channels.

3.**Homogeneity**: This criterion emphasizes that the members within a segment should share similar characteristics, needs, and preferences. A homogeneous segment is easier to target effectively because it allows for a more focused marketing approach.

4**.Distinctiveness**: Distinctiveness refers to the degree of difference between one segment and other segments. A distinct segment is one that is clearly separate from other potential segments, making it easier to tailor marketing strategies uniquely to that group.

5**.Reachability**: Reachability considers whether there are practical means to communicate with and make the customized marketing mix accessible to the members of the segment. It's about the feasibility of delivering marketing messages and products to the target audience.

The best knock-out criteria for a particular business will depend on the specific goals and objectives of the business.

For example, a business that is focused on growth may be more interested in segments that have a large growth potential. A business that is focused on profitability may be more interested in segments that are already profitable or have the potential to be profitable. It is important to note that knock-out criteria should be used judiciously. If too many knock-out criteria are used, it may be difficult to find any market segments that meet all of the criteria.

ATTRACTIVENESS CRITERIA-

Attractiveness criteria typically consider various aspects such as market potential, profitability, competition, and alignment with the company's goals. By evaluating market segments against these criteria, organizations can make informed decisions about where to focus their marketing efforts.

1. **Market size:** The size of the market segment in terms of the number of potential customers.
2. **Market growth:** The rate at which the market segment is growing.
3. **Profitability:** The potential profitability of the market segment.
4. **Competition:** The level of competition in the market segment.
5. **Accessibility:** The ease with which the business can reach and serve the market segment.
6. **Fit with business goals**: The extent to which the market segment aligns with the business's overall goals and objectives.
7. **Relevancy:** The extent to which the business's products or services are relevant to the needs of the market segment.
8. **Sustainability:** The extent to which the market segment is likely to remain viable in the long term.

For example, a business that is focused on growth may be more interested in market segments that have a large growth potential. A business that is focused on profitability may be more interested in market segments that are already profitable or have the potential to be profitable. It is important to note that no single attractiveness criteria is perfect. Businesses should use a combination of criteria to evaluate market segments in order to make the best possible decisions about which segments to target.

IMPLEMETING A STRUCTURED PROCESS

The structured process for market segmentation described here involves several key steps:

1. Identify the Need for Segmentation: Recognize the importance of market segmentation in your organization's strategy.

2. Selecting Segment Evaluation Criteria: Determine the factors that constitute segment attractiveness and organizational competitiveness. These criteria should be negotiated and agreed upon by a team.

3. Team Collaboration: Ideally, involve a team of people in this process, as they can bring diverse perspectives to the criteria selection.

4. Advisory Committee Involvement: Propose the initial criteria choices to an advisory committee composed of representatives from various organizational units.

5. Importance Weighting: Assign weights to each of the selected criteria to indicate their relative importance. Typically, team members distribute 100 points across the criteria and negotiate until agreement is reached.

6. Approval Process: Seek approval from the advisory committee, which represents different perspectives within the organization.

7. Data Collection: Use the agreed-upon criteria to guide the collection of relevant data about potential market segments.

8. Segment Evaluation Plot: Create a segment evaluation plot with segment attractiveness along one axis and organizational competitiveness on the other axis. This plot will be used in later stages to assess and select target market segments.
This structured approach helps ensure that market segmentation is carried out systematically and that the criteria for segment evaluation are well-defined and aligned with the organization's goals and priorities.

STEP-3

COLLECTING DATA

SEGEMENTATION VARIABLES-

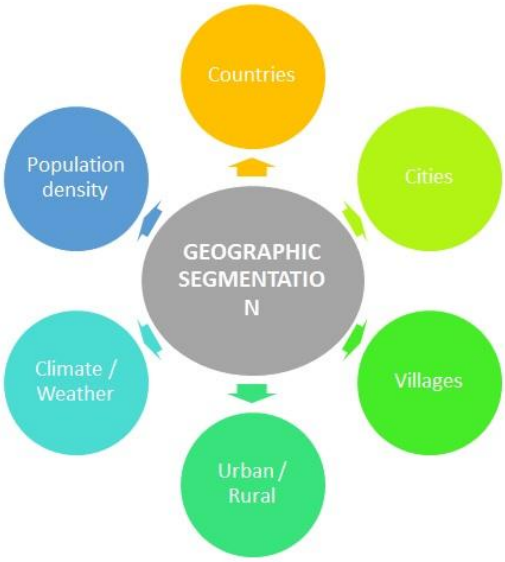
Segmentation variables are the characteristics that are used to divide a market into segments. There are many different segmentation variables that can be used, but some of the most common include:

1. Demographic segmentation
2. Psychographic segmentation.
3. Behavioural segmentation.
4. Benefit segmentation.
5. Occupational
6. Geographic segmentation.
7. Technological segmentation

The best segmentation variables for a particular business will depend on the specific goals and objectives of the business. For example, a business that is focused on growth may be more interested in segmentation variables that are related to purchase behaviour. A business that is focused on profitability may be more interested in segmentation variables that are related to income and education. It is important to note that no single segmentation variable is perfect.

Geographic SEGEMENTATION:

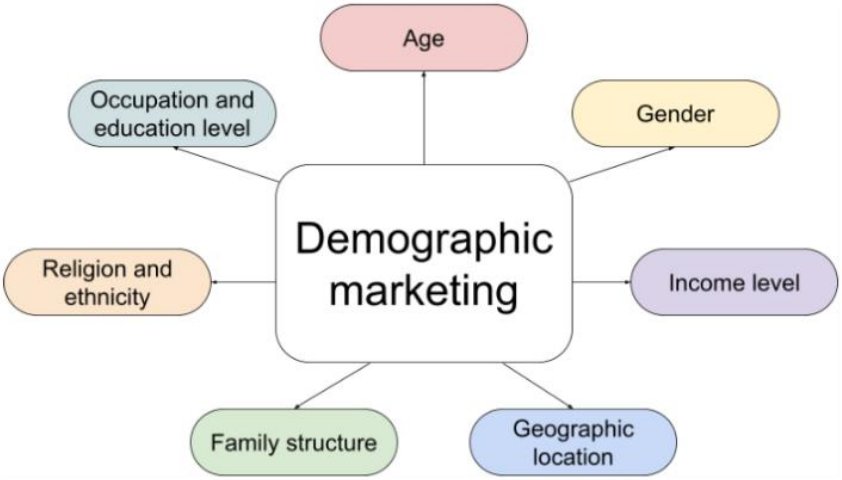
Geographic Segmentation splits up your target segment based on locations such as country, state etc. Geographic segmentation is a type of market segmentation that divides the market based on factors such as country, region, city, and neighbourhood.



the primary advantage of geographic segmentation is its ease of implementation, enabling precise targeting of communication messages and channels.
its key drawback is that people in the same geographic area may have diverse preferences and characteristics, making it less effective in capturing deeper consumer insights.

SOCIO DEMOGRAPHIC segmentation:

This type of segmentation technique splits the target audience based on people-based differences. These factors include things like age, sex, marital status, family size, occupation, education level, income, race, nationality and religion.



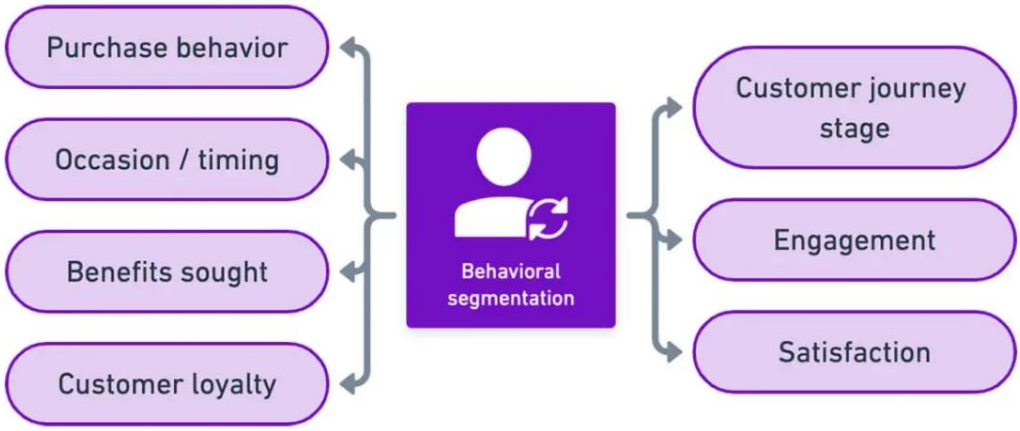
It can help businesses to target their marketing efforts more effectively. By targeting customers based on their socio-demographic characteristics, businesses can ensure that their marketing messages are seen by the people who are most likely to be interested in their products or services.
It can help businesses to better understand the needs of their customers. By understanding the socio-demographic characteristics of their customers, businesses can develop products and services that meet the specific needs of those customers.

Psychometric Segmentation -

Psychographic Segmentation splits the target market based on characteristics that are mental and emotional. Some examples of psychographic characteristics include personality traits, interests, beliefs, values, attitudes and lifestyles. It's more complex than demographics, using multiple factors like travel motives. This approach reveals consumer behaviour reasons but is complex and relies on reliable data.

Behavioural segmentation:

Behavioural segmentation is a form of marketing segmentation that divides the target market based on behavioural patterns exhibited. It's advantageous as it captures real behaviours, but may lack availability for non-customers. Comparatively, tourist behaviours proved better than geographic factors. This approach avoids the need for measuring psychological traits."



DATA FROM SURVY STUDIES

CHOICE OF VARIABLES

The choice of variables refers to the process of selecting and determining which specific characteristics, attributes, or factors will be used in a research study, analysis, or model. This decision is crucial in various fields, including statistics, data analysis, market research, and scientific experiments. Selecting appropriate segmentation variables is crucial for accurate solutions. Include all relevant variables for data-driven segmentation while avoiding unnecessary ones. Avoid noisy or masking variables as they hinder optimal segmentation.

RESPONSE OPTIONS

Survey response options play a crucial role in subsequent data analysis. Binary responses (yes/no) and metric data (e.g., age) are straightforward for segmentation analysis, while nominal variables (unordered categories) can be transformed into binary format. However, ordinal data (e.g., agree/disagree scales) pose challenges due to undefined distances between options. To simplify data-driven segmentation, it's recommended to use binary or metric response options whenever possible nuances are vital binary options have shown advantages, especially when designed in a level-free manner.

Response style

1.Survey responses can exhibit biases (response styles) unrelated to item content.
2.Response bias and response styles in survey data can significantly impact market segmentation results.
3.Response bias occurs when respondents consistently answer survey questions based on factors unrelated to the actual content. Response styles, a form of bias,

involve consistent tendencies such as agreeing with all statements or choosing extreme options.

SAMPLE SIZE

The sample size is the number of people that you are surveying. The sample size that you need will depend on the type of variables that you are collecting and the statistical analysis that you plan to perform. There are a number of factors that you need to consider when determining the sample size for your survey:

1. **The level of confidence**: The level of confidence refers to the level of certainty that you want to have in your results. A higher level of confidence will require a larger sample size.
2. **The margin of error**: The margin of error refers to the amount of error that you are willing to accept in your results. A smaller margin of error will require a larger sample size.
3. **The variability of the population**: The variability of the population refers to the extent to which the members of the population differ from each other. A more variable population will require a larger sample size.
4. **The type of variables that you are collecting:** The type of variables that you are collecting will affect the sample size that you need. For example, you will need a larger sample size to collect data on a variable that is measured on an interval or ratio scale than you would need to collect data on a variable that is measured on a nominal or ordinal scale.

DATA FROM INTERNAL RESOURCE

Internal data is data that is collected within an organization. This data can be collected from a variety of sources, such as:

1. Sales data: Sales data can provide information about the products or services that are being sold, the customers who are buying them, and the sales channels that are being used.

2. Customer data: Customer data can provide information about the customers of an organization, such as their demographics, their buying habits, and their satisfaction with the organization's products or services.

3. Financial data: Financial data can provide information about the financial performance of an organization, such as its revenue, expenses, and profits.

4. Operational data: Operational data can provide information about the operations of an organization, such as its production, inventory, and shipping data.

Internal data can be a valuable source of information for organizations. This data can be used to make decisions about a variety of matters, such as:

5. Product development: Internal data can be used to identify new product opportunities, to test new products, and to measure the performance of existing products.

6. Pricing: Internal data can be used to set prices for products or services, to identify price elasticity, and to measure the impact of price changes on demand.

7. Marketing: Internal data can be used to develop marketing campaigns, to measure the effectiveness of marketing campaigns, and to identify target markets.

8. Operations: Internal data can be used to improve operations, to identify areas for improvement, and to measure the performance of operations.
9. Human resources: Internal data can be used to recruit and hire employees, to train employees, and to measure the performance of employees.

STEP-6
PROFILING SEGMENTS

Identifying Key Characteristics of Market Segments

The term 'profiling' refers to analysis of market segments. This step involves regarding data-driven market segmentation. In case of data-driven market segmentation, after extraction step, profiling is required. On the other hand, this step is not necessary for common-sense segmentation because in this case profiles are predefined. When data-driven market segmentation is conducted, profiling helps to interpret the solution of the market segmentation. Consumer may want to extract the solution of the data-driven market segmentation based on their requirements. In this situation, this step is required.

1. **Detailed Description**: Profiling involves creating a comprehensive profile for each segment, including demographic information, psychographic traits, buying behaviours, lifestyle choices, and other relevant attributes.
2. **Segment Size and Value:** Profiling segments should include an assessment of the size and economic value of each segment. This helps prioritize which segments are most strategically important to the business.
3. **Needs and Preferences:** Understanding the unique needs, preferences, and pain points of each segment is crucial as this knowledge allows businesses to customize their products, services, and marketing messages to better resonate with each group.
4. **Communication Channels:** Profiling should include insights into how each segment prefers to communicate and receive information. This can influence the choice of marketing channels and messaging strategies.
5. **Behavioural Insights**: Profiling segments often involves analysing the past behaviour and interaction patterns of individuals within each group. This information can guide the design of targeted marketing campaigns and promotions
6. **Competitive Landscape:** Profiling should also consider how each segment perceives and interacts with competitors' products or services. This can uncover opportunities to differentiate offerings.

Several approaches for profiling market segments:

1.Traditional Approach:

Data-driven segmentation solutions are often presented to users in two problematic ways: overly simplified summaries or complex tables with exact percentages. Both approaches hinder quick insights. For example, some data in this book illustrates this challenge by displaying mean values of variables for different segments. To understand segments, you must compare their percentages for each variable against other segments or the total. For instance, Segment 2 is defined by valuing rest, staying within budget, and a change of surroundings, but not caring much about cultural offers or nature. Segment 1 seems to be a response style segment, with low interest in all travel motives. Analysing all six segments would require comparing numerous pairs of percentages. If considering multiple segmentation solutions, the task becomes overwhelmingly complex. Although statistical significance might be provided, it's flawed due to segment creation methods. Segment differences arise from variables, preventing standard tests.

The traditional approach to market segmentation is well-established and relatively straightforward. It provides a framework for businesses to understand and target different customer groups based on easily measurable criteria. However, it has limitations in capturing the nuances and complexities of consumer behaviour, especially in today's data-rich and dynamic marketing environment. As a result, many companies now complement the traditional approach with data-driven and more advanced segmentation techniques to achieve greater precision and effectiveness in their marketing strategies.

Graphic statistics approaches:

Both overly simplified and overly complex tabular presentations of market segmentation solutions tend to neglect the potential of graphics. However, data visualization through graphics is essential in statistical data analysis. Graphics shed light on complex variable relationships, aiding exploratory analysis and providing insights into evolving trends, especially in the era of big data. Experts recommend visualizations to enhance the interpretation of segmentation analysis results, emphasizing that graphical representations offer more insight than tables. Previous studies also advocate for graphical techniques, favouring intuitive two-dimensional formats over intricate ones. Visualizations have been used in prior research to interpret segmentation solutions effectively. They play a vital role in the data-driven segmentation process by allowing in-depth examination of segments, aiding in profile interpretation and solution evaluation. Visualizations assist both data analysts and users in selecting the most suitable segmentation solution from a plethora of alternatives.

Segment Profiling with Visualizations:

This highlights the underutilization of data visualization in presenting market segmentation solutions. It stresses that graphics are crucial for exploring complex relationships between variables, especially in the era of big data. Experts recommend using visualizations to enhance the interpretation of segmentation results, and simpler graphical formats are often preferred. Visualizations are valuable for inspecting segment profiles, assessing the usefulness of segmentation

solutions, and aiding in the critical decision of selecting the most appropriate solution from multiple alternatives.

Identifying defining Characteristics of Market Segments:

This discusses the concept of creating segment profile plots to understand the defining characteristics of market segments visually. These plots provide insights into how each segment differs from the overall sample across various segmentation variables. Hierarchical clustering techniques are introduced to determine the order of variables based on similarity in answer patterns. The paragraph emphasizes the use of color-coded "marker variables" in segment profile plots, which significantly deviate from the overall mean, making them characteristic of a segment.

As an example, the paragraph highlights the travel motive of "HEALTH AND BEAUTY," illustrating that it is not a mainstream motive, with only 12% of survey participants indicating it. Variables falling outside a specific interval relative to their sample mean are considered marker variables.

To understand defining characteristics of market segments, we can use segment profile plots which offer a valuable visual representation. These plots demonstrate how each segment differs from the overall sample across various variables. By rearranging variables, you can enhance visualization. Hierarchical clustering of variables helps group similar patterns. We will get a resulting profile plot after using segment profile plot. It showcases each segment's attributes. It's divided into panels, with centroid representing segment characteristics. Dots serve as reference points for comparison. Marker variables, those significantly different from the overall mean, are highlighted in colour. This approach helps analyse binary variables effectively. The default definition of marker variables in these plots considers both absolute and relative differences from the total mean.

ASSESING Segment separation:

The concept of segment separation plots as a visual tool to assess the overlap between market segments in data space. These plots provide a quick overview of segment relationships and similarities. The complexity of segment separation plots can increase with a higher number of segmentation variables. It explains the key elements of segment separation plots, including numbered nodes representing segment centres, black lines connecting segments to indicate their similarity, and the line thickness indicating the level of similarity based on observations. It also mentions that for high-dimensional data, projection techniques like principal components analysis may be used to create segment separation plots

A practical example using the Australian travel motives data set is provided, demonstrating how principal components analysis can be applied to project a 20-dimensional space onto a smaller number of dimensions for visualization. It mentions the enhancements that can be made to improve the clarity of these plots, such as modifying colours omitting observations, and highlighting segment areas

Segment separation can be easily visualized with segment separation plots, which show how segments overlap across different data dimensions. These plots offer a quick way to understand segmentation solutions, even though they can become complex with more variables. In the plots, observations are scattered based on segment membership and cluster shapes, with a neighbourhood graph showing

segment similarities. The colour-coded observations and dashed/solid cluster hulls indicate true segments' spread. Neighbourhood graphs highlight segment similarities, and thicker lines denote more shared observations. These plots are valuable for assessing separation but may require projection for high-dimensional data. Overall, segment separation plots provide a concise overview of segment distinctions even in complex scenarios.

STEP-7

Developing a Complete Picture of Market Segments

In the process of market segmentation, understanding and describing market segments are crucial steps. Segment profiling involves analysing differences in segmentation variables among various market segments. These segmentation variables are chosen early in the process and are used to extract market segments from empirical data.

In this section of the market segment understanding variations in segmentation variables among different market segments. These variables are selected in early segmentation steps for data collection and segment extraction. Profiling examines segment differences, while segment description adds extra information about members to enhance insight. Such descriptions are vital for tailored marketing strategies, as they offer detailed segment understanding. This process uses descriptive statistics and visuals or inferential statistics for examining differences, contributing to a comprehensive marketing mix development.

Now Using some Visualization technique to Describe Market Segment. Visualizations are powerful tools for conveying information about market segments. This subsection explores the use of visual representations, such as charts and graphs, to effectively communicate the characteristics and differences between various segments.

Using Visualizations to Describe Market Segments :

NORMINAL AND ORDINAL DESCRIPTOR VARIABLES

This subsection analyses differences in market segments using nominal and ordinal descriptor variables involves cross-tabulation of segment membership and the descriptor variable. In this context, visualizations like stacked bar charts or mosaic plots are used to represent such cross-tabulations. Mosaic plots display segment sizes using the width of bars and proportions of descriptor variables using the height of rectangles. These plots can indicate deviations from expected frequencies using colour coding, highlighting differences between observed and expected outcomes analysis When working with nominal variables, you can use descriptive statistics like counts and proportions. Common visualizations include bar charts, pie charts, and stacked bar charts. variables are often used in market segmentation to categorize customers into different groups based on characteristics like gender, nationality, or product preferences. This approach is particularly useful when examining multiple descriptor variables and can integrate aspects of inferential statistics for interpretation.

Metric Descriptor Variables

These variables are quantitative and can be measured on a continuous scale. Visualizations are utilized to showcase relationships, trends, and differences among market segments based on these metric variables. In this section some approach involves like modified plots, like the segment level stability across solutions (SLSA) plot, which use colours to represent additional data. These visualizations aid in tracing metric variables across different segmentation solutions and identifying consistent trends in market segments.

Testing for Segment Differences in Descriptor Variables

It outlines the use of statistical tests to assess differences in market segments based on various descriptor variables. It discusses the use of chi-squared tests for nominal variables, ANOVA for metric variables, and pairwise t-tests for identifying specific differences between segments. Additionally, it emphasizes the importance of adjusting p-values for multiple testing to control the overall error rate when assessing hypotheses across multiple segments and variables. This systematic approach helps researchers gain insights into segment characteristics and their statistical significance A common approach is independent tests for each variable. Segment membership, representing nominal summarization, allows association tests with other variables.

1. Predicting segments from descriptor variables:

This section focuses on Understanding market segments and predicting segment membership using descriptor variables. Regression models with segment membership as the dependent variable and descriptors as independent variables are used for this purpose. These models simultaneously assess differences across all descriptors. Prediction performance gauges how well descriptors identify segment membership and reveals critical variables. Regression analysis forms the basis of these prediction models, accommodating categorical variables through formula interfaces. Regression coefficients indicate mean differences in the dependent variable across segments. Generalized linear models extend this to handle a wider range of dependent variable distributions, which is crucial for categorical data.

BIANRYLOGISTIC REGRESSION

It discusses the application of binary logistic regression in R to model and predict the likelihood of individuals belonging to a specific segment based on their demographic and behavioural characteristics. The logistic regression model is built using the "glm" function with the Bernoulli distribution and the logit link function. The output includes regression coefficients and model fit statistics such as deviance and AIC. The interpretation of coefficients reveals insights into the effects of independent variables on the log-odds of belonging to the target segment. Binary logistic regression is a statistical technique used to predict the probability of an event occurring. In the context of market segmentation, it can be used to predict which segment an individual is likely to belong to base on specific descriptor variable.

Logistic regression interprets coefficients as changes in log odds of success. Odds represent success-to-failure ratios, and coefficients indicate how odds change with unit changes in independent variables. Categorical variables can also be incorporated, showing changes in log odds relative to a reference category. The “effects” package in R aids interpretation by calculating predicted values for various independent variable levels and facilitating visualization of changes in predicted probabilities.

MULTINOMIAL LOGISTIC REGRESSION

The text introduces multinomial logistic regression, a statistical method for modelling categorical outcomes with more than two categories. It highlights the use of the "multinorm" function in R's "nnet" package to fit such models, providing regression coefficients for each category compared to a baseline. Multinomial logistic regression is a valuable tool for analysing and predicting outcomes across multiple categories or segments

Multinomial logistic regression extends binary logistic regression to predict outcomes with more than two categories. This subsection explains how multinomial logistic regression can be used to predict market segments using multiple descriptor variable this process handles categorical dependent variables, like those resulting from multiple market segments. Coefficients represent segment differences relative to a baseline category. The "Anova()" function helps assess the significance of variable drops, evaluating if omitting any variables reduces model fit significantly. The output structure is similar to binary logistic regression models.

TREE BASED METHOD

The text discusses the application of Classification and Regression Trees (CARTs) as a supervised learning technique for predicting binary or categorical dependent variables based on a set of independent variables. CARTs offer advantages such as variable selection, interpretability through visualizations, and the ability to capture interaction effects, making them suitable for handling a large number of independent variables. However, CARTs can be sensitive to small changes in data, leading to unstable results. The text explains the stepwise procedure of tree construction and how it aims to create pure groups of data based on the dependent variable. It also mentions the use of different R packages like "partykit" for constructing and visualizing classification trees, highlighting the flexibility of CARTs for various types of dependent variables and criteria.

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NAME - ANIKET BABURAO MANKAR

MARKET SEGMENTATION

STEP 1:

The passage delves into the concept of market segmentation as a pivotal marketing strategy in organizations while cautioning against its indiscriminate application. It underscores the crucial need to thoroughly grasp the implications of embarking on a market segmentation strategy before committing valuable time and resources to it. Chief among these implications is the insistence on a long-term commitment from the organization, akin to a lasting marriage, necessitating substantial changes in various aspects. These changes encompass developing new products, modifying existing ones, adapting pricing and distribution channels, and restructuring internal operations to align with market segments instead of product lines. The decision to explore market segmentation must originate at the highest executive level and be consistently communicated throughout all organizational tiers and units.

Additionally, the passage outlines potential barriers that can hinder the effective implementation of a market segmentation strategy. These barriers encompass senior management-related issues, such as a lack of leadership, commitment, and resource allocation. Organizational culture also plays a crucial role, with resistance to change, insufficient market orientation, and poor communication being identified as hindrances. Insufficient training and understanding, the absence of a formal marketing function, data management challenges, objective limitations like financial constraints, and process-related issues further impede progress. The passage emphasizes the importance of identifying and proactively addressing these barriers or considering the abandonment of market segmentation if insurmountable obstacles persist. Ultimately, it underscores the need for unwavering dedication, patience, and a resolute sense of purpose when implementing market segmentation successfully.

STEP 2:

The passage discusses the importance of user input in the third layer of market segmentation analysis, focusing on the development of segment evaluation criteria. It emphasizes that user involvement should extend throughout the segmentation process and not be limited to the initial briefing or final marketing mix development. After committing to exploring segmentation as a strategy, the organization must contribute conceptually to the analysis, guiding subsequent steps, especially data collection and target segment selection.

In Step 2, the organization is tasked with establishing two sets of segment evaluation criteria: knock-out criteria and attractiveness criteria. Knock-out criteria are non-negotiable features that determine whether a segment is worth targeting, while attractiveness criteria are used to assess the relative appeal of remaining segments.

The passage lists various criteria proposed in the literature, including criteria related to size, growth, competitiveness, profitability, and compatibility with the organization's strengths.
Knock-out criteria, including homogeneity, distinctiveness, size, suitability, identifiability, and reachability, must be clearly understood, and agreed upon by senior management, the segmentation team, and the advisory committee. Attractiveness criteria are more diverse and involve rating segments based on their attractiveness across various criteria.
The passage underscores the importance of following a structured process for segment evaluation and highlights the use of segment evaluation plots as a popular approach. It stresses the need for organizations to identify the criteria that matter most to them early in the process to guide data collection and simplify target segment selection. The passage also discusses the importance of involving representatives from various organizational units in this process due to their differing perspectives and the potential impact of segmentation on all units. Finally, it mentions the process of weighing criteria based on their importance, typically involving team members' allocations and negotiations to reach a consensus, with the possibility of seeking approval from the advisory committee.

STEP 3:

In commonsense segmentation, a single characteristic, such as gender, is used as the segmentation variable to split the sample into market segments. For example, in Table 5.1, the authors illustrate how gender is used to create two segments: one for women and one for men. Other personal characteristics, like age and vacation preferences, serve as descriptor variables to provide more details about the segments.
Data-driven market segmentation, on the other hand, involves using multiple segmentation variables to identify naturally existing or artificially created market segments. These variables help identify segments that share common characteristics or preferences, such as seeking specific benefits when going on vacation.
The quality of empirical data is crucial for developing valid segmentation solutions in both commonsense and data-driven approaches. Good data enables marketers to assign individuals to the correct segment and accurately describe those segments. This description is essential for tailoring products, pricing, distribution channels, and communication strategies to effectively target each segment.
The source of empirical data for segmentation studies can vary, including surveys, observations, and experiments. The authors highlight that survey data, while common, may not always accurately reflect behavior, especially when the behavior of interest is socially desirable. Hence, it's essential to explore various data sources to ensure they reflect actual consumer behavior.

Segmentation Criteria
Before extracting segments, organizations must decide on the segmentation criterion, which broadly relates to the type of information used for segmentation. Common segmentation criteria include geographic, socio-demographic, psychographic, and behavioral factors.

Geographic segmentation uses location of residence to form market segments. While simple, it may not always capture relevant consumer characteristics.
Socio-demographic segmentation considers factors like age, gender, income, and education. It can be valuable in specific industries but may not fully explain product preferences.
Psychographic segmentation groups consumers based on psychological criteria, such as beliefs, interests, and benefits sought. This approach is more complex but reflects underlying reasons for consumer behavior.
Behavioral segmentation directly looks at consumer behavior or reported behavior, such as purchase frequency, spending, or brand choices. It can be powerful when based on actual behavior, avoiding the need for measuring psychological constructs.

Data from Survey Studies
The choice of segmentation criterion depends on the specific market and product. The authors stress that simplicity and cost-effectiveness should guide the selection of the most appropriate criterion. Ultimately, the quality of data and the relevance of the segmentation criterion are crucial factors in successful market segmentation.
Most market segmentation analyses rely on survey data due to its affordability and ease of collection. However, survey data can be susceptible to various biases that can undermine the quality of segmentation results. The authors discuss several critical aspects related to survey data:
Choice of Variables: Careful selection of variables used as segmentation criteria is essential for the quality of segmentation. Including unnecessary or redundant variables can lead to respondent fatigue and make it harder for data analytic techniques to extract accurate segments.
Response Options: The response options provided to respondents in surveys impact the type of data generated. Binary and metric response options are suitable for segmentation analysis, while ordinal data can be challenging due to undefined distances between response categories.
Response Styles: Response biases, such as extreme or agreeable response styles, can affect segmentation results. Identifying and addressing response styles is crucial to prevent misinterpretation of segments.
Sample Size: Sample size is a critical factor in segmentation analysis. The authors recommend sample sizes that are sufficient for accurate segment extraction, considering the number of segmentation variables and characteristics of the data.

Data from Internal Sources
Organizations increasingly have access to internal data sources, such as scanner data and online purchase data, which provide valuable insights into consumer behavior. These data sources offer advantages like representing actual behavior and requiring no extra effort for data collection. However, they may be biased toward existing customers and may not capture the behavior of potential future customers.

Data from Experimental Studies
Experimental data, resulting from field or laboratory experiments, can also serve as a basis for market segmentation analysis. For example, consumer responses to advertisements or choice experiments can be used as segmentation criteria. Such

data provide insights into how specific attributes affect consumer choices. However, experimental studies may be limited in their representativeness of real-world behavior.

In summary, the choice of data source for market segmentation analysis should align with the specific research objectives and the nature of the target market. Each data source has its strengths and weaknesses, and careful consideration of data quality, sample size, and the relevance of variables is essential to ensure the accuracy and validity of segmentation results.

STEP 8:

In Step 8 of market segmentation analysis, the critical decision of selecting one or more target market segments is made. This decision is pivotal as it significantly impacts on an organization's future performance. Once a global market segmentation solution has been identified and segments have been profiled and described the focus shifts to choosing the segments for targeting.

The process begins with a review of previously established knock-out criteria and segment attractiveness criteria. Ideally, all remaining segments under consideration should have already passed the knock-out criteria. However, it is essential to double-check that the selected segments meet these criteria.

Next, the evaluation of segment attractiveness and organizational competitiveness for each remaining segment takes place. This involves answering two key questions:

Which segments does the organization most desire to target and commit to?

Which organizations offering similar products or services are preferred by each segment, and how likely is it that the organization would be chosen?

To facilitate this decision-making process, decision matrices are often used to visualize relative segment attractiveness and organizational competitiveness. These matrices help evaluate alternative market segments and select the most suitable ones for targeting.

The segment evaluation plot typically consists of two axes: "How attractive is the segment to us?" and "How attractive are we to the segment?" Segments appear as circles, with the size of each circle reflecting additional criteria like contribution to turnover or loyalty.

To determine the attractiveness value for each segment, the segmentation team assigns values to each attractiveness criterion, which were established in Step 2. The segment's overall attractiveness is computed by multiplying the weight of each criterion by its assigned value for each segment.

Similarly, the evaluation of organizational competitiveness is conducted by following a similar procedure. The combination of these evaluations forms the basis for selecting the target segments.

In summary, Step 8 involves making the critical decision of selecting target market segments for a long-term commitment. Decision matrices are valuable tools for visualizing segment attractiveness and competitiveness, helping organizations make informed choices about which segments to target. The specific criteria and weights used in this evaluation should align with the organization's ideal target segment specifications, which were determined in Step 2 of the market segmentation analysis.

STEP 9:

This section discusses the implications of market segmentation for marketing mix decisions, focusing on the four key components: Product, Price, Place, and Promotion.

1. **Historical Perspective on Marketing Mix**: Marketing was initially viewed as a toolbox to enhance product sales, with marketers blending various elements to achieve optimal sales results. Early marketing concepts, such as Borden's 12 ingredients, have evolved into the widely accepted 4Ps model: Product, Price, Promotion, and Place.
2. **Integration with Strategic Marketing**: Market segmentation does not exist in isolation but is closely intertwined with other strategic marketing elements, particularly positioning and competition. The segmentation process often aligns with the Segmentation-Targeting-Positioning (STP) approach, where segmentation precedes targeting and positioning.
3. **Sequential but Flexible Process**: While STP suggests a sequential process, it's essential to recognize that segmentation, targeting, and positioning decisions can be iterative. Moving back and forth between these steps may be necessary before committing to a target segment.
4. **Customizing the Marketing Mix**: Successful market segmentation strategies require customization of the marketing mix to suit the chosen target segment. This may involve designing new products, adjusting prices, selecting suitable distribution channels, and developing tailored promotion strategies.
5. **Using the 4Ps for Segmentation Analysis**: Depending on the focus of segmentation analysis, different sets of segmentation variables can be applied. For example, pricing decisions might consider price sensitivity and deal proneness, while advertising decisions may involve benefits sought and psychographic variables.
6. **Product Dimension**: In product decisions, organizations must align their products with customer needs. This could involve modifying existing products or creating new ones. Decisions related to product naming, packaging, warranties, and after-sales support also fall within this dimension.
7. **Price Dimension**: Setting the right price for a product is crucial. Understanding segment-specific price elasticity and willingness to pay can guide pricing decisions. Segments with higher spending capacity may even support premium pricing.
8. **Place Dimension**: Distributing the product efficiently to customers is vital. Decisions about online or offline sales, direct selling, or involving intermediaries like wholesalers or retailers depend on segment preferences. For instance, if a segment prefers online booking, offering this option is essential.
9. **Promotion Dimension**: Effective promotion strategies require tailoring messages and selecting the most suitable communication channels. Understanding segment-specific information sources, media preferences, and communication styles is critical for successful promotion.
10. **Real-world Application**: The examples provided illustrate how market segmentation insights can inform marketing mix decisions. For instance,

knowing that a segment prefers tourist centers as an information source can guide the development of information packs available in both physical and digital formats. Similarly, understanding TV channel preferences can help optimize media planning for targeted communication.

In conclusion, market segmentation is a crucial step in strategic marketing that must align with other elements of the marketing mix. Customizing the product, price, place, and promotion strategies to meet the specific needs and preferences of target segments is essential for successful market segmentation outcomes.

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