**Market Segment Analysis**

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

**1.1 Implications of Committing to Market Segmentation**

Market segmentation is a significant marketing strategy but requires a long-term commitment and substantial investments. It is essential to ensure that the benefits of segmentation outweigh the costs before implementing it.

Implementing a market segmentation strategy requires significant changes in product development, pricing, distribution, and communication. These changes can impact the internal structure of the organization, which should be organized around market segments rather than products. The decision to pursue segmentation must be made at the highest executive level and communicated throughout the organization.

**1.2 Implementation Barriers**

Books on market segmentation highlight various barriers that can hinder its successful implementation. These barriers include issues related to senior management, organizational culture, and lack of training. Effective market segmentation requires strong leadership, adequate resources, a supportive organizational culture, and proper training.

The successful implementation of market segmentation can be hindered by several barriers, including the lack of a formal marketing function, financial constraints, poor planning, and resistance to new techniques. Overcoming these barriers requires strong leadership, proper resource allocation, and making the segmentation process understandable and manageable for all involved.

1. **Senior Management Barriers**:
   * **Lack of Leadership and Commitment**: Without active involvement and support from senior leadership, market segmentation efforts are likely to fail.
   * **Resource Allocation**: Insufficient resources for both the initial analysis and long-term implementation can impede success.
2. **Organizational Culture Barriers**:
   * **Resistance to Change**: A culture that resists change and new ideas can prevent successful segmentation.
   * **Poor Communication**: Lack of information sharing and bad communication across units can hinder the process.
   * **Short-term Thinking and Office Politics**: Focusing on short-term goals and internal politics can obstruct long-term segmentation strategies.
3. **Lack of Training**:
   * **Understanding of Market Segmentation**: If senior management and the team do not understand the basics and implications of market segmentation, the strategy is likely to fail.
4. **Lack of Formal Marketing Function**:
   * Organizations without a formal marketing department or qualified marketing experts may struggle with segmentation.
   * The absence of skilled data managers and analysts can also be a major obstacle.
5. **Objective Restrictions**:
   * Financial limitations and the inability to make necessary structural changes can impede segmentation efforts.
   * Companies with limited resources should focus on the best opportunities.
6. **Process-Related Barriers**:
   * Issues like unclear objectives, poor planning, lack of structured processes, and inadequate allocation of responsibilities can hinder segmentation.
   * Time pressure can also affect the quality of the segmentation outcome.
7. **Operational Challenges**:
   * Management may resist using techniques they do not understand.
   * Making segmentation analysis easy to understand and presenting results clearly, often through graphical visualizations, can help overcome this challenge.
8. **Proactive Identification and Removal of Barriers**:
   * Identifying and addressing barriers early in the segmentation study is crucial.
   * If barriers cannot be removed, reconsidering the segmentation strategy might be necessary.
9. **Commitment and Patience**:
   * A strong sense of purpose, dedication, patience, and an understanding of potential problems are essential for successful implementation.

**Step 2: Specifying the Ideal Target Segment**

**2.1 Segment Evaluation Criteria**

The third layer of market segmentation analysis relies heavily on user input throughout the process. Organizations must be actively involved in most stages, not just at the beginning or end. Key steps include determining two sets of segment evaluation criteria: knock-out criteria (essential features) and attractiveness criteria (used to evaluate the remaining segments).

1. **User Involvement**:
   * User input is crucial at multiple stages of the segmentation process, not just at the start or end.
2. **Commitment and Contribution**:
   * After committing to segmentation, organizations must contribute conceptually, guiding steps like data collection and selecting target segments.
3. **Segment Evaluation Criteria**:
   * **Knock-out Criteria**: Essential, non-negotiable features that segments must have to be considered.
   * **Attractiveness Criteria**: Used to evaluate the relative attractiveness of segments that meet the knock-out criteria.
4. **Literature on Criteria**:
   * The literature provides various segment evaluation criteria but does not typically distinguish between knock-out and attractiveness criteria.

These criteria help organizations determine which market segments are worth targeting based on factors like size, growth potential, accessibility, profitability, and competitive advantage.

1. **Common Criteria Across Authors**:
   * **Measurable**: The segment’s size and purchasing power can be quantified.
   * **Substantial/Large Enough**: The segment is large enough to be profitable.
   * **Accessible/Targetable**: The segment can be effectively reached and served.
   * **Differentiable**: The segment is distinct and responds differently to marketing strategies.
   * **Actionable**: The organization can develop effective programs to attract and serve the segment.
   * **Profitable**: The segment offers potential for profitability.
2. **Additional Criteria by Specific Authors**:
   * **Life-cycle Stage** (Day, 1984): The segment is at a suitable stage in its life cycle.
   * **Competitive Advantage** (Croft, 1994): The segment offers a competitive edge.
   * **Compatibility with Company** (Myers, 1996): The segment aligns with the company’s capabilities.
   * **Stable** (Wedel and Kamakura, 2000): The segment is stable over time.
   * **Operational** (Perreault Jr and McCarthy, 2002): The segment is operationally feasible.
   * **Protectable** (Lilien and Rangaswamy, 2003): The segment can be protected through patents or barriers to entry.
   * **Socio-political Factors** (McDonald and Dunbar, 2004): The segment is influenced by social and political factors.
   * **Consumer Motivation and Goals** (Sternthal and Tybout, 2001): The segment’s needs align with what the company can offer.
   * **Sales Estimates** (Pride et al., 2012): Potential sales for product items, product lines, or geographical areas.
   * **Competitive Assessment** (Pride et al., 2012): Evaluating the competitive landscape.
   * **Cost Estimates** (Pride et al., 2012): Estimating costs involved.
   * **Long-term Profit Opportunities** (Pride et al., 2012): Assessing long-term profitability.
   * **Financial Resources** (Pride et al., 2012): Availability of financial resources.
   * **Managerial Skills and Employee Expertise** (Pride et al., 2012): Skills and expertise within the organization.
   * **Facilities to Compete Effectively** (Pride et al., 2012): Adequate facilities to compete.
   * **Fit with Corporate Objectives** (Pride et al., 2012): Alignment with corporate goals.
   * **Legal Issues and Stakeholder Conflicts** (Pride et al., 2012): Legal considerations and potential conflicts.
   * **Technological Advances** (Pride et al., 2012): Impact of technological changes.

The criteria for market segmentation are divided into two categories: knock-out criteria and attractiveness criteria. Knock-out criteria are essential and non-negotiable, automatically eliminating some market segments. Attractiveness criteria are more diverse and negotiable, used to evaluate the relative attractiveness of the remaining segments. The segmentation team

1. **Knock-out Criteria**:

* + Essential and non-negotiable.
  + Automatically eliminate some market segments.
  + Not subject to negotiation by the segmentation team.

1. **Attractiveness Criteria**:
   * Diverse and negotiable.
   * Used to evaluate the relative attractiveness of potential target segments.
   * The segmentation team selects and prioritizes these criteria based on their importance to the organization.
2. **Segmentation Team’s Role**:
   * Select which attractiveness criteria to use.
   * Assess the relative importance of each attractiveness criterion.
   * Apply these criteria in Step 8 to determine the overall attractiveness of each market segment.

**2.2 Knock-Out Criteria**

Knock-out criteria are essential for determining if market segments qualify for further evaluation using attractiveness criteria. These criteria ensure that segments are suitable for targeting based on factors like size, homogeneity, distinctiveness, and alignment with the organization’s strengths. Senior management, the segmentation team, and the advisory

1. **Purpose of Knock-out Criteria**:
   * Used to determine if market segments qualify for further evaluation.
   * Ensure segments are suitable for targeting.
2. **Initial Criteria by Kotler (1994)**:
   * **Substantiality**: The segment must be large enough.
   * **Measurability**: The segment’s size and characteristics can be measured.
   * **Accessibility**: The segment can be effectively reached.
3. **Additional Criteria**:
   * **Homogeneity**: Members of the segment must be similar to one another.
   * **Distinctiveness**: The segment must be distinctly different from other segments.
   * **Size**: The segment must contain enough consumers to justify the investment.
   * **Organizational Fit**: The organization must have the capability to satisfy the segment’s needs.
   * **Identifiability**: Members of the segment must be identifiable in the marketplace.
   * **Reachability**: There must be a way to communicate with the segment effectively.
4. **Understanding and Specification**:
   * These criteria must be understood by senior management, the segmentation team, and the advisory committee.
   * Some criteria, like size, may need further specification (e.g., defining the minimum viable target segment size).

**2.3 Attractiveness Criteria**

In addition to knock-out criteria, there are various segment attractiveness criteria that the segmentation team can use to evaluate potential target segments. These criteria are not binary; instead, each segment is rated on how attractive it is based on each criterion. The overall attractiveness across all criteria determines if a segment is selected as a target in the final step of the market segmentation analysis.

1. **Range of Attractiveness Criteria**:
   * There are many criteria available for evaluating the attractiveness of market segments.
2. **Non-Binary Nature**:
   * Attractiveness criteria are not binary; segments are not simply compliant or non-compliant.
   * Each segment is rated on a scale of attractiveness for each criterion.
3. **Overall Attractiveness**:
   * The combined attractiveness ratings across all criteria determine whether a segment is chosen as a target segment in Step 8 of the analysis.

**2.4 Implementing a Structured Process**

Following a structured process for assessing market segments is widely recommended. The most popular method involves using a segment evaluation plot, which maps segment attractiveness against organizational competitiveness. The criteria for these evaluations need to be negotiated and agreed upon by the segmentation team, with a recommendation to use no more than six factors.

Market segmentation analysis should ideally be conducted by a team, with input from an advisory committee representing various organizational units. This ensures diverse perspectives and stakeholder involvement. Selecting segment attractiveness criteria early in the process is beneficial for data collection and later decision-making. The criteria should be weighted based on their importance to the organization, with input from all team members and approval from the advisory committee.

1. **Structured Process**:
   * A structured approach is beneficial for assessing market segments.
2. **Segment Evaluation Plot**:
   * This plot shows segment attractiveness on one axis and organizational competitiveness on the other.
   * It helps in selecting target markets.
3. **Custom Criteria**:
   * There is no standard set of criteria; each organization must determine its own.
   * The segmentation team must negotiate and agree on the criteria.
4. **Recommended Number of Factors**:
   * Use no more than six factors to evaluate segment attractiveness and organizational competitiveness.
5. **Team Involvement:**

* A core team should lead the analysis, proposing initial solutions for discussion and modification by an advisory committee.
* Including representatives from various organizational units ensures diverse perspectives and stakeholder involvement.

1. **Importance of Early Criteria Selection**:

* Selecting attractiveness criteria early helps capture relevant data and simplifies later decision-making.
* Knowing what matters to the organization ensures comprehensive data collection.

1. **Weighting Criteria:**

* The segmentation team should identify around six attractiveness criteria.
* Each criterion should be weighted to reflect its importance to the organization.
* Team members distribute 100 points across the criteria, negotiating until agreement is reached.

1. **Advisory Committee Approval:**

* The advisory committee, with representatives from multiple units, should approve the criteria and their weights to ensure alignment with organizational goals.

**Step 3: Collecting Data**

**3.1 Segmentation Variables**

Empirical data is crucial for both commonsense and data-driven market segmentation. Commonsense segmentation uses a single characteristic (segmentation variable) to split the sample into segments, while data-driven segmentation uses multiple variables. Descriptor variables are used to describe segments in detail, which is essential for developing an effective marketing mix.

1. **Empirical Data**:
   * Used to identify or create market segments and describe them in detail.
2. **Segmentation Variable**:
   * In commonsense segmentation, a single characteristic (e.g., gender) is used to split the sample into segments.
   * Each consumer is represented by rows, and characteristics by columns in the data set.
3. **Descriptor Variables**:
   * Additional characteristics (e.g., age, number of vacations, benefits sought) used to describe segments in detail.
   * Important for developing an effective marketing mix targeting the segment.
4. **Commonsense vs. Data-Driven Segmentation**:
   * **Commonsense Segmentation**: Based on one segmentation variable.
   * **Data-Driven Segmentation**: Uses multiple segmentation variables to identify or create useful market segments.

**Table 3.1** illustrates how gender can be used as a segmentation variable in commonsense market segmentation. Each row represents a consumer, and each column represents a characteristic of that consumer. The table uses gender to split the sample into segments of women and men, with other characteristics (age, number of vacations, and benefits sought) serving as descriptor variables to describe these segments in detail.

1. **Segmentation Variable**:
   * **Gender**: Used to split the sample into segments of women and men.
2. **Descriptor Variables**:
   * **Age**: The age of each consumer.
   * **Number of Vacations**: The number of vacations taken by each consumer.
   * **Benefits Sought**: Characteristics such as relaxation, action, culture, and exploration, indicating what consumers seek in vacations.
3. **Data Representation**:
   * Each row represents one consumer.
   * An entry of 1 indicates the consumer has that characteristic, while 0 indicates they do not.

**Table 3.2** illustrates how multiple segmentation variables can be used in data-driven market segmentation. Unlike commonsense segmentation, which uses a single variable, data-driven segmentation employs multiple variables to identify or create market segments. This approach allows for a more nuanced and detailed understanding of the market.

1. **Segmentation Variables**:
   * **Gender**: Used as one of the segmentation variables.
   * **Age**: Another segmentation variable to differentiate consumers.
   * **Number of Vacations**: Indicates how many vacations each consumer takes.
2. **Descriptor Variables**:
   * **Relaxation**: Whether the consumer seeks relaxation on vacations.
   * **Action**: Whether the consumer seeks action-oriented activities.
   * **Culture**: Whether the consumer is interested in cultural experiences.
   * **Explore**: Whether the consumer likes to explore new places.
3. **Data Representation**:
   * Each row represents one consumer.
   * Each column represents a characteristic of the consumer.
   * An entry of 1 indicates the consumer has that characteristic, while 0 indicates they do not.

**Comparison with Commonsense Segmentation:**

* **Commonsense Segmentation**: Uses a single segmentation variable (e.g., gender) to split the sample.
* **Data-Driven Segmentation**: Uses multiple segmentation variables (e.g., gender, age, number of vacations) to create more detailed and useful market segments.

In data-driven market segmentation, segments are identified based on shared benefits sought by consumers, rather than a single characteristic like gender. The quality of empirical data is crucial for accurate segmentation and effective marketing strategies. Data can come from various sources, but it should ideally reflect actual consumer behavior.

1. **Data-Driven Segmentation**:
   * Segments are based on multiple variables, such as benefits sought by consumers (e.g., relaxation, culture).
   * Socio-demographic variables (e.g., gender, age, number of vacations) serve as descriptor variables.
2. **Importance of Data Quality**:
   * High-quality data is essential for accurately assigning consumers to segments and describing these segments.
   * Accurate descriptions enable the development of customized products, pricing strategies, distribution channels, and communication methods.
3. **Sources of Empirical Data**:
   * Data can come from surveys, observations (e.g., scanner data linked to loyalty programs), and experimental studies.
   * Data should ideally reflect actual consumer behavior, as survey data can sometimes be unreliable, especially for socially desirable behaviors.
4. **Optimal Data Sources**:
   * A range of data sources should be explored to find the one that best reflects actual consumer behavior.

**3.2 Segmentation Criteria**

Before extracting market segments, an organization must decide on the segmentation criterion, which is broader than a segmentation variable. This decision requires market knowledge and cannot be easily outsourced. Common segmentation criteria include geographic, socio-demographic, psychographic, and behavioral factors. The simplest approach that works for the product or service at the least cost is recommended.

1. **Segmentation Criterion vs. Segmentation Variable**:
   * **Segmentation Criterion**: Refers to the nature of the information used for segmentation (e.g., benefits sought).
   * **Segmentation Variable**: Refers to one measured value (e.g., one survey item).
2. **Decision-Making**:
   * Choosing the segmentation criterion requires prior market knowledge and cannot be easily outsourced.
3. **Common Segmentation Criteria**:
   * **Geographic**: Based on location.
   * **Socio-demographic**: Based on age, gender, income, etc.
   * **Psychographic**: Based on lifestyle, values, etc.
   * **Behavioral**: Based on purchasing behavior, brand loyalty, etc.
4. **Relevant Consumer Differences** (Bock and Uncles, 2002):
   * Profitability, bargaining power, preferences, barriers to choice, and consumer interaction effects.
5. **Guidelines for Choosing Criteria**:
   * Use the simplest approach that works for the product or service at the least possible cost (Cahill, 2006).

**3.2.1 Geographic Segmentation**

Geographic segmentation uses consumers’ locations to form market segments. While simple and often appropriate, it has limitations as people in the same area may not share other relevant characteristics. Despite these limitations, geographic segmentation remains useful, especially in international contexts where language and cultural differences are significant.

1. **Geographic Segmentation**:
   * Uses location of residence as the criterion to form market segments.
   * Commonly used by organizations like national tourism boards and global companies (e.g., Amazon, IKEA).
2. **Advantages**:
   * Easy to assign consumers to geographic units.
   * Facilitates targeted communication through local media channels.
3. **Disadvantages**:
   * People in the same area may not share other relevant characteristics (e.g., benefits sought, product preferences).
   * Socio-demographic factors often play a more significant role in product preferences.
4. **Revival in International Studies**:
   * Geographic segmentation is experiencing a revival in international market segmentation studies.
   * Challenges include ensuring segmentation variables are meaningful across regions and addressing cultural biases in survey responses.

**3.2.2 Socio-Demographic Segmentation**

Socio-demographic segmentation uses criteria like age, gender, income, and education to form market segments. While useful in some industries, socio-demographics often do not provide enough insight into consumer behavior. Values, tastes, and preferences are suggested as more influential factors for market segmentation.

1. **Common Socio-Demographic Criteria**:
   * Age, gender, income, and education.
2. **Industry Examples**:
   * **Luxury Goods**: High income.
   * **Cosmetics**: Gender-specific targeting.
   * **Baby Products**: Gender.
   * **Retirement Villages**: Age.
   * **Tourism Resorts**: Presence of small children.
3. **Advantages**:
   * Easy to determine segment membership for every consumer.
   * Sometimes explains product preferences (e.g., families choosing family vacation villages).
4. **Limitations**:
   * Often not the cause of product preferences.
   * Provides limited market insight for optimal segmentation decisions.
5. **Research Insights**:
   * **Haley (1985)**: Demographics explain about 5% of the variance in consumer behavior.
   * **Yankelovich and Meer (2006)**: Values, tastes, and preferences are more useful for segmentation as they influence buying decisions more strongly.

**3.2.3 Psychographic Segmentation**

Psychographic segmentation groups people based on psychological criteria such as beliefs, interests, preferences, aspirations, or benefits sought. This approach is more complex than geographic or socio-demographic segmentation but provides deeper insights into consumer behavior. It is commonly used in tourism to understand travel motives. However, it requires reliable and valid empirical measures to be effective.

1. **Psychographic Segmentation**:
   * Groups people based on psychological criteria like beliefs, interests, preferences, and benefits sought.
   * Includes benefit segmentation and lifestyle segmentation.
2. **Complexity**:
   * More complex than geographic or socio-demographic segmentation.
   * Difficult to find a single characteristic that provides insight into the psychographic dimension of interest.
   * Often uses multiple segmentation variables (e.g., travel motives, perceived risks).
3. **Advantages**:
   * Reflects underlying reasons for differences in consumer behavior.
   * Provides deeper insights, such as tourists motivated by cultural experiences likely choosing cultural holidays.
4. **Disadvantages**:
   * Increased complexity in determining segment memberships.
   * Depends heavily on the reliability and validity of empirical measures.
5. **Common Use in Tourism**:
   * Frequently used to understand travel motives and segment tourists based on their motivations.

**3.2.4 Behavioural Segmentation**

Behavioral segmentation focuses on grouping consumers based on their actual or reported behaviors, such as purchase frequency, amount spent, and information search behavior. This approach is advantageous because it directly uses the behavior of interest for segment extraction, avoiding the need for developing psychological measures. However, behavioral data may not always be available, especially for potential customers who have not yet purchased the product.

1. **Behavioral Segmentation**:
   * Groups consumers based on behaviors like prior experience, purchase frequency, amount spent, and information search behavior.
2. **Advantages**:
   * Uses actual behavior, which is directly relevant for segment extraction.
   * Avoids the need for developing valid measures for psychological constructs.
3. **Examples**:
   * **Tsai and Chiu (2004)**: Used actual consumer expenses as segmentation variables.
   * **Heilman and Bowman (2002)**: Used actual purchase data across product categories.
   * **Brand Choice Behavior**: Used by several authors to segment consumers based on brand preferences over time.
4. **Limitations**:
   * Behavioral data may not be readily available, especially for potential customers who have not previously purchased the product.
   * Often limited to existing customers of the organization.

**3.3 Data from Survey Studies**

Market segmentation analyses often rely on survey data due to its cost-effectiveness and ease of collection. However, survey data can be biased, which may negatively impact the quality of segmentation results. It is important to consider these biases when using survey data for market segmentation.

1. **Prevalence of Survey Data**:
   * Commonly used for market segmentation because it is cheap and easy to collect.
2. **Potential Biases**:
   * Survey data can be contaminated by various biases, unlike data obtained from observing actual behavior.
   * These biases can affect the quality of the segmentation analysis.
3. **Considerations**:
   * It is crucial to be aware of and address potential biases when using survey data to ensure the reliability of segmentation results.

**3.3.1 Choice of Variables**

Carefully selecting segmentation variables is crucial for the quality of market segmentation solutions. In data-driven segmentation, all relevant variables should be included while avoiding unnecessary ones to prevent respondent fatigue and ensure the effectiveness of segment extraction algorithms. Noisy or redundant variables can negatively impact the segmentation process. Developing a good questionnaire often requires both exploratory and quantitative research to ensure all important variables are captured.

1. **Importance of Variable Selection**:
   * Critical for the quality of market segmentation solutions.
   * Relevant variables should be included; unnecessary ones should be avoided.
2. **Impact of Unnecessary Variables**:
   * Can cause respondent fatigue and lower response quality.
   * Increase the complexity of the segmentation problem without adding value.
   * Divert the attention of segment extraction algorithms, making it harder to identify correct segments.
3. **Noisy Variables**:
   * Do not contribute necessary information for identifying correct market segments.
   * Can result from poorly developed survey questions or poor selection of segmentation variables.
   * Negatively affect the segmentation solution.
4. **Recommendations**:
   * Ask necessary and unique questions, avoiding unnecessary or redundant ones.
   * Redundant questions can interfere with segment extraction algorithms.
5. **Developing a Good Questionnaire**:
   * Requires exploratory or qualitative research to gain insights into people’s beliefs.
   * These insights can be categorized and included in a questionnaire as answer options.
   * A two-stage process involving both qualitative and quantitative research ensures no important variables are omitted.

**3.3.2 Response Options**

The choice of answer options in surveys affects the type of data available for analysis. Binary and metric response options are generally preferred for segmentation analysis because they simplify the measurement of distances between responses. Ordinal data, while common, can complicate analysis due to undefined distances between options. Visual analogue scales are a useful alternative for capturing fine nuances in responses.

1. **Types of Data**:
   * **Binary Data**: Responses are 0s and 1s, with clearly defined distances.
   * **Nominal Data**: Unordered categories that can be transformed into binary data.
   * **Metric Data**: Numerical responses that allow for any statistical procedure.
   * **Ordinal Data**: Ordered categories with undefined distances between options.
2. **Preferred Response Options**:
   * **Binary and Metric**: Simplify segmentation analysis by providing clear distance measures.
   * **Visual Analogue Scales**: Capture fine nuances and are treated as metric data.
3. **Challenges with Ordinal Data**:
   * Dominates market and academic survey research.
   * Requires strong assumptions for distance measurement.
4. **Advantages of Binary and Metric Options**:
   * Prevent complications in data-driven segmentation analysis.
   * Often outperform ordinal options, especially when formulated in a level-free way.

**3.3.3 Response Styles**

Survey data is susceptible to response biases, which can affect the quality of market segmentation. Response styles, such as tendencies to use extreme options or agree with all statements, can distort segmentation results. It is crucial to minimize these biases during data collection and conduct additional analyses to ensure the validity of the segments.

1. **Response Bias**:
   * A systematic tendency to respond based on factors other than the specific item content.
   * If consistent over time, it represents a response style.
2. **Common Response Styles**:
   * Using extreme options (e.g., STRONGLY AGREE, STRONGLY DISAGREE).
   * Using the midpoint (e.g., NEITHER AGREE NOR DISAGREE).
   * Agreeing with all statements (acquiescence bias).
3. **Impact on Segmentation**:
   * Response styles can distort segmentation results.
   * Algorithms may misinterpret segments influenced by response styles as genuinely distinct segments.
4. **Example**:
   * A segment showing high agreement with all vacation spending items might appear attractive but could be due to acquiescence bias.
5. **Mitigation Strategies**:
   * Minimize the risk of capturing response styles during data collection.
   * Conduct additional analyses to exclude the possibility of response style influence.
   * Remove respondents affected by response styles before targeting a segment.

**3.3.4 Sample Size**

Market segmentation analysis lacks specific sample size recommendations, unlike other statistical analyses. Insufficient sample sizes make it difficult for segmentation algorithms to determine the correct number of market segments. Various studies have proposed guidelines for sample sizes based on the number of segmentation variables and segments.

1. **Sample Size Importance**:
   * Insufficient sample sizes hinder the ability to determine the correct number of market segments.
   * Sufficient sample sizes make it easier to identify the number and nature of segments.
2. **Formann’s Recommendation (1984)**:
   * Sample size should be at least (2^p) (better five times (2^p)), where (p) is the number of segmentation variables.
   * Specific to goodness-of-fit testing in latent class analysis with binary variables.
3. **Qiu and Joe’s Recommendation (2015)**:
   * For equal cluster sizes: sample size should be at least (10 \cdot p \cdot k), where (p) is the number of segmentation variables and (k) is the number of segments.
   * For unequal cluster sizes: the smallest segment should have a sample size of at least (10 \cdot p).
4. **Dolnicar et al.'s Study (2014)**:
   * Conducted simulation studies to test sample size requirements for correctly identifying true segments.
   * Used the adjusted Rand index to measure the correctness of segment recovery.
   * Found that increasing sample size improves the algorithm’s ability to identify the correct segmentation solution.

Increasing the sample size improves the accuracy of extracted segments in market segmentation. The most significant improvements are seen with very small samples, and the marginal benefit decreases as the sample size increases. For typical survey data, a sample size of at least 60 times the number of segmentation variables ((60 \cdot p)) is recommended, while more challenging scenarios may require at least 70 times the number of variables ((70 \cdot p)). Market and data characteristics, such as the number of segments, segment size equality, and segment overlap, affect the sample size requirements. High-quality, unbiased data is crucial for effective market segmentation.

**Important Points:**

1. **Sample Size Recommendations**:
   * For typical data: At least (60 \cdot p) (where (p) is the number of segmentation variables).
   * For difficult scenarios: At least (70 \cdot p).
2. **Market Characteristics**:
   * Number of market segments.
   * Equality of segment sizes.
   * Degree of segment overlap.
3. **Data Characteristics**:
   * Sampling error, response biases, and response styles.
   * Data quality and response options.
   * Inclusion of irrelevant items and correlation between items.
4. **Impact of Sample Size**:
   * Larger sample sizes generally improve the algorithm’s ability to identify correct segments.
   * The benefit varies based on market and data characteristics.
   * Some challenges, like highly correlated variables, cannot be fully compensated by increasing sample size.
5. **Recommendations**:
   * Ensure at least 100 respondents per segmentation variable.
   * Collect high-quality, unbiased data for effective segmentation.

The quality of survey data significantly impacts the quality of market segmentation results. Optimal data for market segmentation should be comprehensive, relevant, high-quality, and appropriately formatted. It should also be free from biases and response styles, and the sample size should be sufficient relative to the number of segmentation variables.

**Important Points:**

1. **Necessary Items**: Include all items essential for the analysis.
2. **Unnecessary Items**: Exclude any items that are not relevant.
3. **Correlation**: Ensure items are not correlated.
4. **Response Quality**: Collect high-quality responses.
5. **Data Format**: Use binary or metric data.
6. **Response Styles**: Avoid response biases and styles.
7. **Sample Suitability**: Ensure the sample is appropriate for the study’s aim.
8. **Sample Size**: Have a sample size of at least 100 times the number of segmentation variables.

**3.4 Data from Internal Sources**

Organizations increasingly use substantial internal data for market segmentation, such as scanner data, booking data, and online purchase data. This data reflects actual consumer behavior, avoiding biases associated with self-reported data. However, internal data may over-represent existing customers, missing insights about potential future customers.

1. **Types of Internal Data**:
   * Scanner data from grocery stores.
   * Booking data from airline loyalty programs.
   * Online purchase data.
2. **Advantages of Internal Data**:
   * Reflects actual consumer behavior.
   * Avoids biases like social desirability and response styles.
   * Automatically generated, requiring no extra collection effort.
3. **Challenges with Internal Data**:
   * Potential bias from over-representing existing customers.
   * Lack of information about potential future customers with different consumption patterns.

**3.5 Data from Experimental Studies**

Experimental data, derived from field or laboratory experiments, can be a valuable source for market segmentation analysis. This data can come from tests on how people respond to advertisements or from choice experiments and conjoint analyses. These studies provide insights into consumer preferences and the impact of different product attributes on their choices, which can be used as segmentation criteria.

1. **Sources of Experimental Data**:
   * Field or laboratory experiments.
   * Tests on responses to advertisements.
   * Choice experiments and conjoint analyses.
2. **Applications in Market Segmentation**:
   * **Advertisement Response**: Using consumer responses to ads as segmentation criteria.
   * **Choice Experiments**: Presenting consumers with products characterized by different attribute levels to determine preferences.
   * **Conjoint Analyses**: Understanding the impact of specific product attributes and their levels on consumer choices.
3. **Benefits**:
   * Provides detailed insights into consumer preferences.
   * Helps identify which product attributes are most influential in consumer decision-making.

**Step 8: Selecting the Target Segment(s)**

**8.1 The Targeting Decision**

Step 8 in the market segmentation process is crucial as it involves selecting the target market segments. This decision is strategic and long-term, significantly impacting the organization’s future performance. After identifying and profiling potential segments in previous steps, the organization must now choose which segments to target based on predefined criteria.

1. Strategic Importance:

Selecting target segments is a critical decision that has long-term implications for an organization’s performance. This decision shapes the direction of marketing efforts, resource allocation, and overall strategic planning. By targeting the right segments, organizations can maximize their market potential and achieve sustainable growth.

2. Process Overview:

* Step 5: Global Market Segmentation Solution Chosen:
  + At this stage, a comprehensive segmentation strategy is developed, identifying potential market segments on a global scale.
* Step 6: Segments Profiled Based on Key Characteristics:
  + Each identified segment is analyzed based on key characteristics such as demographics, psychographics, geographic location, and behavior. This profiling helps in understanding the unique needs and preferences of each segment.
* Step 7: Detailed Segment Descriptions Using Descriptor Variables:
  + Detailed descriptions of each segment are created using descriptor variables. These variables provide deeper insights into the segments, including lifestyle, purchasing behavior, and specific needs.

3. Criteria for Selection:

* Knock-out Criteria:
  + These criteria are used to eliminate segments that do not meet basic requirements. For example, segments that are too small, not accessible, or not profitable are excluded early in the process.
* Segment Attractiveness Criteria:
  + These criteria are selected and weighed to reflect their importance to the organization. Factors such as market size, growth potential, competitive intensity, and alignment with organizational goals are considered.

4. Evaluation of Segments:

* Step 6: Identifies if Segments are Large, Homogeneous, and Distinct:
  + During profiling, segments are evaluated to ensure they are large enough to be profitable, homogeneous in terms of needs and behavior, and distinct from other segments.
* Step 7: Checks if Segments are Identifiable, Reachable, and if Their Needs Can Be Satisfied by the Organization:
  + Detailed descriptions help in assessing whether segments can be easily identified and reached through marketing efforts. Additionally, it is evaluated if the organization can effectively meet the needs of these segments.

5. Example:

* Nature-based Destination vs. BIG SPENDING CITY TOURIST:
  + This example illustrates the importance of aligning segment needs with organizational capabilities. A nature-based destination in outback Australia may find it challenging to meet the needs of a segment identified as “BIG SPENDING CITY TOURIST,” despite the segment’s attractiveness. This highlights the need for realistic assessment of both segment attractiveness and organizational competitiveness.

In Step 8 of the market segmentation process, it’s essential to ensure that all market segments under consideration have passed the knock-out criteria. After this verification, the attractiveness of the remaining segments and the organization’s competitiveness for these segments need to be evaluated. This involves answering two key questions about the organization’s preferences and the segments’ likelihood of choosing the organization.

The process of verifying knock-out criteria, evaluating segment attractiveness and competitiveness, and answering key questions ensures a thorough and strategic approach to market segmentation and targeting. By systematically assessing these factors, organizations can make informed decisions about which market segments to target, leading to more effective marketing strategies and better overall performance.

**8.2 Market Segment Evaluation**

Books on target market selection often recommend using decision matrices to visualize the relative attractiveness of market segments and the organization’s competitiveness within those segments. Various versions of these matrices exist, each with different names, such as the Boston Matrix, General Electric/McKinsey Matrix, Directional Policy Matrix, McDonald Four-Box Directional Policy Matrix, and Market Attractiveness-Business Strength Matrix. These matrices aim to simplify the evaluation process, helping organizations decide which market segments to target.

The primary purpose of these decision matrices is to provide a visual framework that assists organizations in evaluating and selecting market segments. They plot two key dimensions: segment attractiveness and relative organizational competitiveness. Segment attractiveness assesses how appealing a market segment is, while relative organizational competitiveness evaluates how well the organization can compete in that segment.

An analogy used to explain these concepts compares segment attractiveness to asking, “Would you like to marry this person?” considering all potential partners. Relative organizational competitiveness is likened to asking, “Would this person marry you?” considering all their potential partners. By using these matrices, organizations can make more informed decisions about which market segments to focus on, ultimately aiding in effective market segmentation and targeting.

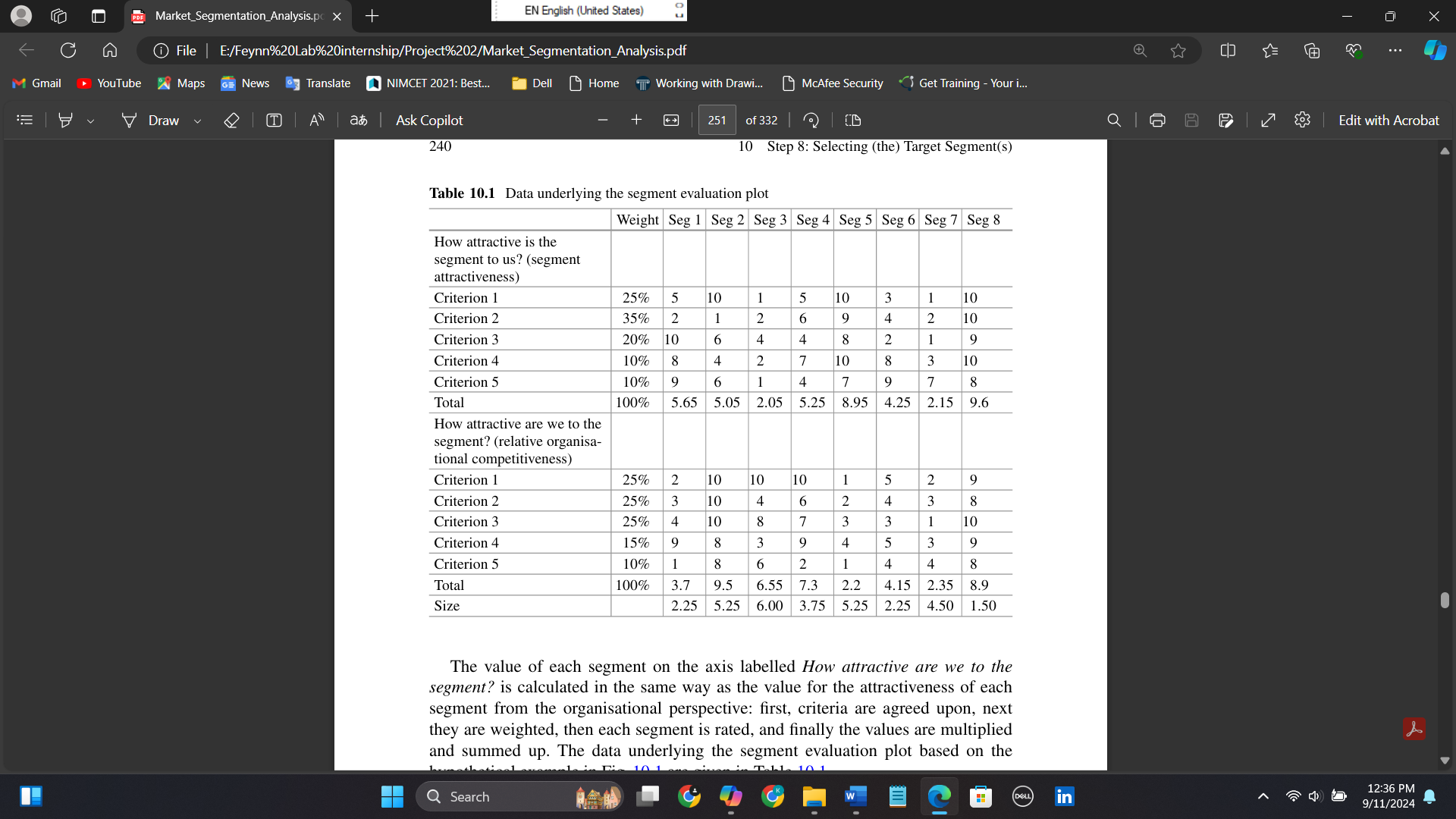
A generic segment evaluation plot is created using R to visualize market segments. The x-axis represents “How attractive is the segment to us?” and the y-axis represents “How attractive are we to the segment?” Segments are depicted as circles, with the size of each circle reflecting an additional criterion relevant to segment selection, such as contribution to turnover or loyalty.

There is no single best measure for segment attractiveness or organizational competitiveness. Therefore, it is essential for users to refer back to their specifications of an ideal target segment, which were defined in Step 2 of the market segmentation analysis. This step resulted in several criteria for segment attractiveness and weights indicating their importance.

In Step 8, the target segment selection step, the actual values for each market segment based on the specified criteria are needed. These values come from the grouping, profiling, and description of each market segment. To determine the attractiveness value for each segment, the segmentation team assigns a value to each criterion. The location of each segment in the plot is calculated by multiplying the weight of each criterion (from Step 2) by its value for each segment. These weighted values are summed to represent the segment’s overall attractiveness, which is plotted on the x-axis.

For example, if an organization has five segment attractiveness criteria with assigned weights, each segment is rated from 1 to 10 for each criterion. These ratings are multiplied by the weights, and the resulting values are summed. For segment 1, the calculation might be: (0.25 \times 5 + 0.35 \times 2 + 0.20 \times 10 + 0.10 \times 8 + 0.10 \times 9 = 5.65). This value of 5.65 is the x-axis location of segment 1 in the segment evaluation plot.

The same procedure used for evaluating segment attractiveness is applied to assess relative organizational competitiveness. The key question here is: Which criteria do consumers use to choose between different market offers? Possible criteria include the product’s attractiveness to the segment based on the benefits sought, the suitability of the current price to the segment’s willingness or ability to pay, the availability of distribution channels to deliver the product to the segment, and the segment’s awareness of the organization or its brand image. These criteria help determine how competitive the organization is within each market segment.

**Table: Data underlying the segment evaluation plot**

This table is used to evaluate different market segments based on two main criteria: **segment attractiveness** and **relative organizational competitiveness**. Each criterion is weighted and scored to help determine which segments are most viable for targeting. Here’s a detailed breakdown:

**Segment Attractiveness**

This part of the table evaluates how attractive each segment is to the organization based on five criteria, each with a different weight:

1. **Criterion 1 (25%)**: Scores range from 1 to 10, with Segment 2 and Segment 5 scoring the highest (10).
2. **Criterion 2 (35%)**: Segment 5 and Segment 8 score the highest (10).
3. **Criterion 3 (20%)**: Segment 1 scores the highest (10).
4. **Criterion 4 (10%)**: Segment 5 and Segment 8 score the highest (10).
5. **Criterion 5 (10%)**: Segment 5 scores the highest (9).

The total score for each segment is calculated by multiplying the score for each criterion by its weight and summing these products. For example, Segment 1’s total score is calculated as follows:

(5 \times 0.25) + (2 \times 0.35) + (10 \times 0.20) + (8 \times 0.10) + (9 \times 0.10) = 5.65(5×0.25)+(2×0.35)+(10×0.20)+(8×0.10)+(9×0.10)=5.65

**Relative Organizational Competitiveness**

This part evaluates how attractive the organization is to each segment, again based on five criteria:

1. **Criterion 1 (25%)**: Segment 2, Segment 3, and Segment 4 score the highest (10).
2. **Criterion 2 (25%)**: Segment 2 scores the highest (10).
3. **Criterion 3 (25%)**: Segment 2 scores the highest (10).
4. **Criterion 4 (15%)**: Segment 1 and Segment 4 score the highest (9).
5. **Criterion 5 (10%)**: Segment 2 scores the highest (8).

The total score for each segment is calculated similarly to the segment attractiveness score. For example, Segment 1’s total score is:

(2 \times 0.25) + (3 \times 0.25) + (4 \times 0.25) + (9 \times 0.15) + (1 \times 0.10) = 3.7(2×0.25)+(3×0.25)+(4×0.25)+(9×0.15)+(1×0.10)=3.7

**Size**

The size of each segment is also considered, which can represent the potential market size or profit potential. For example, Segment 3 has the largest size (6.00), while Segment 8 has the smallest (1.50).

**Interpretation**

* **Segment 8** is the most attractive overall with a score of 9.6 in segment attractiveness and 8.9 in organizational competitiveness, despite its small size (1.50).
* **Segment 5** is also highly attractive with scores of 8.95 and 2.2, and a moderate size (5.25).
* **Segment 2** has high organizational competitiveness (9.5) but moderate attractiveness (5.05).

**8.3 Checklist**

The checklist for evaluating and selecting target market segments involves a systematic approach to ensure informed decision-making. First, the segmentation team convenes to review and discuss the market segments identified in previous steps. Each segment is then verified against essential criteria such as homogeneity, distinctness, size, match, identifiability, and reachability, eliminating any that do not comply. The team assigns and agrees on values for each segment based on attractiveness and organizational competitiveness criteria. These values are then multiplied by their respective weights and summed to calculate the overall attractiveness and competitiveness scores for each segment. These scores are plotted onto a segment evaluation plot, providing a visual representation of the data. The team makes a preliminary selection of the most promising segments, ensuring compatibility if targeting multiple segments. Finally, the selected segments are presented to the advisory committee for discussion and potential reconsideration, ensuring a thorough and collaborative decision-making process.

Code: