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MARKET SEGMENTATION ANALYSIS

STEP 1:Deciding (not) to segment

3.1. Implications of Committing to Market Segmentation:

Implementing market segmentation is a strategic decision with significant long-term implications, not a fleeting endeavor. Committing to this approach necessitates sustained investment and organizational adaptations, including product development, pricing modifications, distribution channel adjustments, and potential internal restructuring. Unlike a casual encounter, segmentation demands a marriage-level commitment. Consequently, the decision to pursue this strategy should be rigorously evaluated and endorsed at the highest executive level, followed by consistent communication and reinforcement across all organizational units. Carefully weighing the anticipated sales improvements against the required resources and modifications is crucial to ensure a justifiable and successful segmentation initiative. Remember, market segmentation is an ongoing journey, not a temporary measure, and requires dedicated focus to reap its full potential rewards.

3.2. Implementation Barriers:

Successful market segmentation hinges on overcoming several obstacles. Senior management must be actively involved, providing leadership, resources, and long-term commitment. Organizational culture can hinder progress, often due to resistance to change, market orientation deficiencies, and poor communication. Finally, a lack of understanding about market segmentation among key personnel can cripple the entire initiative. Addressing these barriers is crucial for a successful segmentation implementation.

STEP 2:Specifying the Ideal Target Segment

4.1. Segment Evaluation Criteria:

Users must be engaged throughout to ensure useful results. After committing to segmentation, organizations actively guide the analysis in Step 2 by defining two sets of criteria: knock-out criteria—indispensable features for target segments, and attractiveness criteria—factors used to rank remaining segments' appeal. Knock-out criteria are essential and non-negotiable, while attractiveness criteria offer the segmentation team flexibility in choosing and prioritizing factors to assess potential target segments. This two-pronged approach helps ensure relevant and actionable segmentation results.

4.2. Knockout Criteria:

Knock-out criteria are essential filters for viable target segments. Marketers must consider six key factors:

1. **Homogeneity:** Segment members should be similar in relevant characteristics.
2. **Distinctiveness:** Segments should be clearly differentiated from each other.
3. **Size:** Segments should be large enough to justify customized marketing efforts.
4. **Organizational fit:** The organization's capabilities must align with segment needs.
5. **Identifiability:** Segment members should be easily recognized within the market.
6. **Reachability:** Effective communication channels must exist to reach the segment.

Understanding and agreeing upon these criteria, especially minimum size requirements, is crucial for all stakeholders involved in segmentation decisions. They act as initial hurdles, ensuring only potential segments that meet these essential criteria move forward for further evaluation.

4.3. Attractiveness Criteria:

Attractiveness criteria, unlike knock-out criteria, provide a nuanced approach to evaluating potential target segments. Segments aren't simply in or out; they're rated based on how well they meet various factors like size, accessibility, growth potential, and profitability. This allows the segmentation team to choose the most appealing targets based on their specific needs and priorities. It's a flexible way to identify the best fits for their marketing efforts.

4.4. Implementing a Structured Process:

Choosing target segments isn't a haphazard process. A structured approach is key, often involving a segment evaluation plot that maps attractiveness against organizational competitiveness. These factors are determined by the segmentation team after carefully considering and prioritizing from a list of potential criteria. Collaboration across various organizational units through an advisory committee is crucial to ensure comprehensive insights and buy-in from stakeholders. Ultimately, by defining attractiveness criteria early on, the team focuses data collection and eases target segment selection later.

STEP 3:Collecting Data

5.1. Segmentation Variables:

Within the realm of market segmentation, the term "segmentation variable" refers to the specific characteristic utilized in empirical data, often during commonsense segmentation, to partition the sample into distinct market segments. Additional personal characteristics

available within the data, such as age, vacation frequency, and desired vacation benefits, serve as supporting "descriptor variables" that further illustrate the distinct features of each segment. Data-driven segmentation distinguishes itself from its commonsense counterpart by relying on not just one, but multiple, segmentation variables for a more nuanced understanding of the market.

5.2. Segmentation Criteria:

The selection of an appropriate segmentation criterion demands not only data analysis expertise but also prior knowledge of the specific market under consideration. Commonly employed criteria include geographic (location-based), sociodemographic (age, income, etc.), psychographic (personality, values), and behavioral (purchasing habits) segmentation. Outsourcing this critical decision solely to consultants or data analysts without market-specific insights is inadvisable.

5.3.Data from Survey Studies:

Surveys often present a cost-effective and readily deployable means of gathering data for market segmentation analysis. However, it is crucial to recognize that survey data, unlike data derived from observed behavior, can be susceptible to various biases that may compromise its accuracy. To mitigate these potential biases, careful consideration should be given to:

- **Choice of Variables:** Selecting variables that are directly relevant to the segmentation objectives and accurately reflect the market characteristics under investigation.
- **Response Options:** Providing diverse and unbiased response options that encompass the full spectrum of potential answers without leading respondents towards specific choices.
- **Response Styles:** Employing survey design techniques that minimize the influence of individual response styles and social desirability bias, ensuring respondents express their genuine preferences and behaviors.
- **Sample Size:** Achieving a sufficiently large sample size to ensure the representativeness of the data and the generalizability of the findings to the broader market population.

STEP 4:Exploring Data

6.1. A First Glimpse at Data:

This section dives into the crucial step of data exploration after collecting market segmentation data. It emphasizes the importance of cleansing and pre-processing data to extract meaningful insights. Three key aspects are highlighted:

1. **Variable Measurement:** Identifying the measurement level (nominal, ordinal, etc.) of each variable helps choose appropriate analysis techniques.
2. **Univariate Distributions:** Examining the individual distributions of each variable (frequency charts, histograms) reveals patterns and potential outliers.
3. **Dependency Structures:** Evaluating relationships between variables (correlation analysis) uncovers potential clusters or segments hidden within the data.

Using a travel motives dataset as an example, the text details its characteristics:

- 1000 Australian respondents, half aged 32-57, with varying travel motivations.
- Income data with missing values (66 respondents) requiring careful handling.

This thorough exploration lays the foundation for selecting the most suitable segmentation algorithm and ultimately extracting accurate, actionable market segments.

6.2. Data Cleaning:

Data cleaning is a crucial first step in ensuring data quality and accuracy before analysis. This involves:

- **Checking Value Ranges:** Verifying that metric variables fall within plausible ranges (e.g., age between 0 and 110).
- **Validating Categorical Levels:** Ensuring categorical variables contain only permissible values (e.g., only "female" or "male" for gender).
- **Correcting Errors:** Identifying and rectifying any implausible or inconsistent values.
- **Re-ordering Factors:** In R, ensuring categorical variables' levels are logically ordered, as alphabetical sorting might not be appropriate.
- **Documenting and Saving:** Employing code to meticulously track and reproduce data cleaning steps, and saving the cleaned dataset for future use.

6.3.Descriptive Analysis:

Descriptive Analysis include interpreting data using various visualization techniques. Techniques including histograms, bar plots, box and whisker plots, For the Australian travel motives data set, the boxplot shows that the data is right skewed with respect to age because the median is not in the middle of the box but located more to the left. A symmetric distribution would have the median located in the middle of the inner box. With the help of these visualization techniques, various insights can be found out.

6.4.Preprocessing:

Pre-processing categorical variables is crucial for compatibility with certain analysis methods.

6.4.1.Categorical Variables:

- **Merging Levels:** Combine categories with low frequencies to create more balanced distributions, as demonstrated with income levels.
- **Converting to Numeric:** Transform ordinal variables into numeric ones if distances between scale points can be assumed equal, but be cautious with Likert-type scales due to potential response biases.
- **Preferring Binary:** Binary variables are less susceptible to response biases and can be directly converted to 0/1 numeric values, making them preferable when feasible.
- **Demonstration:** The travel motives dataset illustrates the conversion of dichotomous ordinal variables (NO/YES) into a numeric matrix for segmentation analysis.

6.4.2.Numerical Variables:

Standardizing variables ensures their equal influence in segment extraction, particularly with distance-based methods. This involves adjusting values based on mean and standard deviation to have a common scale (average 0, variance 1). This helps avoid situations where variables with large ranges like expenditure dominate analysis compared to binary factors like dining preferences. R function `scale()` achieves standardization and alternative methods exist for data with outliers.

6.5.Principal Component Analysis:

Principal Components Analysis (PCA) is a method for transforming a dataset containing multiple metric variables into a new dataset with uncorrelated variables called principal components, ordered by importance in terms of captured variance.

Key takeaways from its application to the Australian travel motives dataset:

- **Limited Variance Explained by Early Components:** The first few principal components explained only a small portion of the total variance, suggesting that all original survey questions contribute valuable information and are not redundant.
- **Visualizing Data with Components 2 and 3:** The first principal component wasn't informative for differentiation, so components 2 and 3 were used to create a perceptual map. This revealed contrasts between nature-oriented motives and those related to luxury, excitement, and price insensitivity.
- **Caution in Segment Extraction:** While PCA is valuable for data exploration, using a subset of principal components as segmentation variables is discouraged as it can distort the original data space. However, PCA can help identify highly correlated variables for potential removal, effectively reducing dimensionality without altering the original data.

STEP 9:Customising the Market Mix

11.5.Promotion:

Developing an effective marketing mix for a specific market segment requires understanding their preferred channels for information and engagement. This holds true for Segment 3, whose distinct preferences regarding travel planning and media consumption offer valuable insights for crafting targeted promotional strategies.

Leveraging Information Preferences:

- Tourist Information Centers: Segment 3 demonstrates a marked preference for utilizing tourist information centers when choosing travel destinations. This presents a clear opportunity to make readily available, both physically and electronically, brochures, pamphlets, and online content specifically showcasing the "Museums, Monuments & Much, Much More" product within local tourist information centers.

Optimizing Media Channels:

- Channel 7 Preference: Segment 3's distinct television channel preference for Channel 7 indicates a unique avenue for targeted advertising campaigns. By focusing advertising efforts on this channel, the destination can ensure maximum exposure of the "Museums, Monuments & Much, Much More" product to this specific market segment.

Formal Tone and Specificity:

- Emphasize the strategic alignment between identified preferences and proposed promotional tactics.
- Use descriptive language to detail the specific actions recommended for each channel (e.g., providing information packs at tourist centers, tailoring advertising campaigns for Channel 7).
- Avoid informal expressions and contractions to maintain a professional tone.

By strategically utilizing these insights, the destination can effectively craft a targeted and impactful marketing mix for Segment 3, maximizing the reach and resonance of the "Museums, Monuments & Much, Much More" product within this distinct market segment.

Github Link: https://github.com/ShreyasG482/Feynn_Labs_Projects.git

