Project-1 (Case study)

Market segmentation analysis

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Step-1 Deciding(not) to segment:

- Market segmentation demands long-term commitment, requiring substantial organizational changes and investments. Senior management must champion the process, allocating resources and fostering a culture conducive to change.
- Lack of leadership, resources, market orientation, training, and formal marketing expertise are common barriers.
- Objective restrictions and process-related issues can hinder implementation. Overcoming these barriers necessitates proactive identification and removal or consideration of abandonment.
- McDonald and Dunbar emphasize resolute dedication, patience, and readiness to address inevitable challenges for successful implementation.

Step-2 Specifying the ideal target segment:

- Knock-out criteria, including homogeneity, distinctiveness, size, alignment with organizational strengths, identifiability, and reachability, help determine which market segments to assess.
- Attractiveness criteria, such as segment size, growth potential, profitability, and compatibility with organizational capabilities, aid in selecting target segments.
- A structured process, often employing a segment evaluation plot, involves negotiating and agreeing upon key criteria with input from a diverse team and advisory committee.
- Defining attractiveness criteria early streamlines data collection and simplifies target segment selection.
- Weights are assigned to each criterion based on team consensus, ensuring alignment with organizational priorities. Advisory committee approval enhances stakeholder involvement and perspective diversity.

Step-3 Collecting data:

- Market segmentation relies on both common-sense and data-driven approaches, where the latter demands high-quality empirical data.
- Such data, often sourced from surveys, observations, or experiments, should ideally reflect consumer behaviour.

- Segmentation criteria, such as geographic, socio-demographic, psychographic, and behavioural factors, guide the selection of variables for segmentation. While geographic and socio-demographic criteria offer simplicity, psychographic and behavioural criteria delve deeper into consumer motivations.
- The choice of criterion depends on the marketing context, with a preference for simplicity where applicable.
- Geographic segmentation facilitates targeted communication but may overlook underlying consumer motivations. Socio-demographic criteria, although easy to determine, often inadequately explain consumer behaviour. Psychographic segmentation explores beliefs and motivations, offering deeper insights but requiring complex measures.
- Behavioural segmentation, based on actual behaviour, aligns segments with relevant similarities but may lack data for potential customers. Each criterion offers advantages and challenges, influencing segmentation strategy.

Step-4 Exploring data:

- After data collection, exploratory data analysis (EDA) is essential for cleaning and preprocessing the data before segmentation analysis. This stage aids in identifying measurement levels, investigating variable distributions, and assessing inter-variable dependencies. In the case of market segmentation, EDA helps determine the most suitable algorithm for segment extraction based on the data's characteristics.
- Data cleaning involves verifying the correctness and consistency of recorded values, especially for categorical variables. For instance, implausible values or inconsistent labels must be addressed. Descriptive analysis provides numeric summaries and graphical representations, aiding in understanding the data's distribution and identifying any missing values.
- Graphical methods such as histograms, box plots, bar plots, and mosaic plots are commonly used for visualization. Histograms reveal the distribution of numeric variables, while bar plots display frequency counts for categorical variables. Mosaic plots illustrate associations between multiple categorical variables.
- Pre-processing may involve merging levels of categorical variables or converting them to numeric ones. Standardization of numeric variables ensures that variables are on a common scale, balancing their influence on segmentation results.
- Principal Components Analysis (PCA) is employed to transform multivariate data into uncorrelated variables, ordered by importance. PCA aids in dimensionality reduction and visualization of high-dimensional data.

Step-5 Extracting segments:

- Market segmentation analysis involves exploring consumer data to group them based on similarities.
- Various clustering methods are employed, each shaping segmentation differently.
- Distance-based methods like hierarchical clustering are intuitive, but computationally intensive.
- Partitioning methods like k-means are efficient but require pre-specification of segment numbers.
- Hybrid approaches combine the strengths of both. Model-based methods, like finite mixture models, assume segments have specific characteristics and sizes, refining these assumptions using data.
- No single method is superior; the choice depends on data characteristics and research goals. Exploring multiple methods is crucial for arriving at robust segmentation solutions.