FAST FOOD ANALYSIS: DESCRIBING MARKET SEGMENTS - (OJASRI KONDA)

Introduction:

The process of breaking down a large target market into smaller groups of customers with similar requirements and goals is known as market segmentation. This procedure aids companies in targeting particular audiences with their goods, services, and marketing initiatives, improving client happiness and operational effectiveness. Using a dataset of consumer input from McDonald's, the following study describes the essential procedures and factors involved in market segmentation.

Step1: Implications and Barriers of Market Segmentation

When one commits to market segmentation, a substantial number of resources must be allocated to comprehend various client segments and create strategies that are tailored to meet their unique requirements. Aside, there exist other obstacles to the successful execution of market segmentation, such as high expenses and in-time demands, challenges in procuring precise data, and reluctance inside the corporation to modify extant tactics. Therefore, before adopting this strategy, it is imperative to determine the necessity of segmentation, identify the resources that are accessible, and evaluate the potential advantages and difficulties.

Step2: Specifying the Ideal Target Segments

Businesses should first set segment evaluation criteria, such as psychographics (lifestyle, values, personality), behavioral characteristics (purchasing behaviors, brand loyalty, usage rate), and demographics (age, gender, income, etc.), to determine the best target segment. To eliminate non-viable sectors that don't support company objectives, they must next determine what the knock-out criteria are. The evaluation of attractiveness parameters, such as market size, growth potential, profitability, and competition intensity, should come next. It is essential to put in place an organized procedure for methodically assessing and choosing target markets. To make sure the most promising segments are chosen, this entails developing segment evaluation criteria, putting knock-out criteria to use, and evaluating attractiveness criteria.

Step3: Collecting Data for Market Segmentation

Survey studies can be used to gather data; but, to obtain trustworthy results, it is important to carefully identify the pertinent factors, answer choices, address potential response biases, and

guarantee a sufficient sample size. Additionally, survey results can be supplemented with already existing internal data.

For example, the McDonald's Customer Feedback Dataset has input from customers regarding a range of factors, including flavor, convenience, healthfulness, and frequency of visits. Aspects like "yummy," "convenient," "spicy," "fattening," "greasy," "fast," "cheap," "tasty," "expensive," "healthy," and "disgusting," as well as customer opinion on a like scale, age, gender, and frequency of visits, are among the key variables in this dataset. This data analysis offers insightful information about client demographics and attribute preferences, which serves as the foundation for efficient market segmentation. (Total Records:1453)

Step7: Describing Market Segments

Combining behavioral, psychographic, and demographic data to create an integrated view of each market segment is necessary to develop a complete picture of those segments. An essential part of this approach is the use of visualizations:

- Nominal and Ordinal Descriptor Variables: To show categorical variables (like gender), use bar charts and count plots.
- Metric Descriptor Variables: For continuous variables (such as age and feedback qualities), visualize distributions using boxplots and histograms.

On descriptor variables, statistical tests like Chi-square tests are used to find significant variations between segments. Several techniques are used to predict segments from these descriptor variables:

- descriptor variables: Predict binary outcomes using binary logistic regression by using descriptor variables.
- Predict multi-class outcomes using multinomial logistic regression by using descriptor variables.
- Furthermore, tree-based techniques such as decision tree classifiers are applied to forecast segments according to descriptor variables, offering a strong method for comprehending and focusing on market segments.

Visualization

The Tableau-created graphics that describe market segments are shown below:

FAST FOOD_ANALYSIS
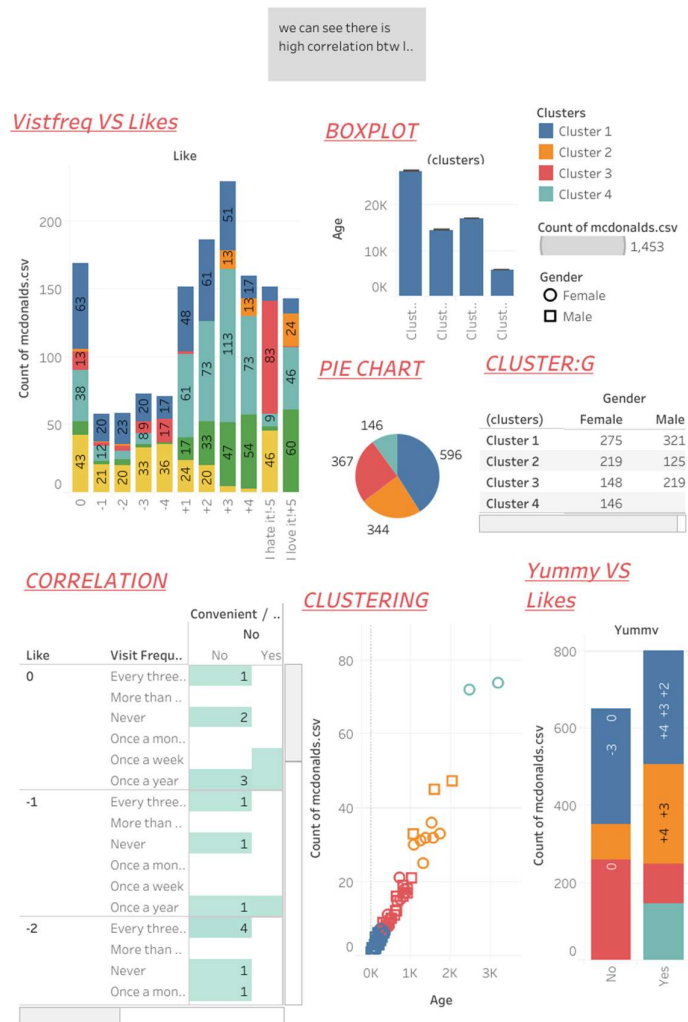
Important correlations, segment distributions, and dataset insights are shown in this.

Summary

To customize marketing techniques to particular consumer needs, market segmentation is essential. Businesses can discover unique segments and design tailored techniques to improve customer happiness and business success by evaluating consumer input.

My Contribution:

1. **Data Analysis and Visualization**

   Cleaned up the dataset by removing duplicates and analyzing its gender, age, and feedback attribute distributions using count plots, histograms, and boxplots, among other visualization techniques.

2. **Created Dashboard on Tableau**

3. **Performed Statistical Analysis and Modelling**

   Chi-square tests were used to investigate the relationships between customer preferences ('Like') and categorical variables (e.g., gender). Binary and multinomial logistic regression and decision tree classifiers were utilized to predict factors influencing preferences based on cost, demographics, and taste.

GIT HUB LINK: https://github.com/ojasri/FastFood_Analysis

References Used:

1. https://drive.google.com/file/d/1SIEt4Bp_4R9dcs4saU1DIui1IKWQIW38/view
2. Block, J. P., Scribner, R. A., & DeSalvo, K. B. (2004). Fast food, race/ethnicity, and income: a geographic analysis. American journal of preventive medicine, 27(3), 211-217.
3. Beane, T. P., & Ennis, D. M. (1987). Market segmentation: a review. European journal of marketing, 21(5), 20-42.

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