Market Segmentation Summary

- **C M RITHIKA**

McDonalds_Market_Segmentation_Analysis

GitHub Respository Link - https://github.com/rithikamanjunath/rithika-feynn_intern

Chapter 1:

Strategic and Tactical Marketing

Strategic Marketing Plan: A long-term plan outlining an organization's direction and goals.

Tactical Marketing Plan: A plan that translates the long-term strategy into detailed short-term marketing actions.

Market Segmentation: The process of dividing a heterogeneous market into smaller, more homogeneous segments based on shared characteristics.

Segmentation Criteria: Factors used to group customers, such as demographics, psychographics, behavior, and technographics.

SWOT Analysis: An analysis of an organization's strengths, weaknesses, opportunities, and threats.

Segmentation and Targeting: The decision of which consumer segments to focus on.

Positioning: Deciding how to present the organization to the target market.

Benefits of Market Segmentation:

- Improved Match: Better alignment between organizational strengths and consumer needs.
- Competitive Advantage: Leading to a competitive edge or market dominance.
- Efficient Resource Allocation: Reduced wasted resources in marketing efforts.
- Sales Management: Effective for sales efforts and targeting.
- Team Building: Promotes collaboration and communication within an organization.

Types of Market Strategies:

- Concentrated Strategy: Focusing on satisfying the needs of one specific market segment.
- Differentiated Strategy: Developing customized offerings for multiple market segments.
- Undifferentiated Strategy: Offering the same product to the entire market.

The Costs of Market Segmentation:

- Resource Investment: Market segmentation requires substantial time, effort, and financial resources.
- Risk: Failure in implementing market segmentation can lead to wasted resources and disenfranchisement of staff.
- Micro Marketing and Finer Segmentation: Strategies involving customizing products and services for very small or even individual consumer segments.
- Market Dominance: Achieved when an organization becomes the best provider in a specific niche segment.
- Market Research: The process of gathering information about consumer needs and preferences through various research methods.

Strategy:

- Concentrated Strategy: Focusing resources on satisfying the needs of one specific market segment.
- Differentiated Strategy: Developing customized offerings for multiple market segments.
- Undifferentiated Strategy: Offering the same product to the entire market.

Chapter 2

Market Segmentation Analysis

Market Segmentation Analysis: Involves the process of grouping consumers into segments based on similar product preferences or characteristics.

This process can be divided into three layers:

Core Layer: Extracting Market Segments: Statistical methods are used to extract market segments from consumer data. It's exploratory in nature and influenced by the decisions made by data analysts. Involves the grouping of consumers into segments based on data provided.

Enabling Layer: Collecting Good Data, Exploring Data, Profiling, and Describing Segments: Before extracting segments, it's crucial to collect high-quality data. Data needs to be explored to understand the nature of the market segmentation study that can be conducted. After grouping consumers into segments, each segment should be profiled and described in detail.

Implementation Layer: Making it Happen in Practice: This layer includes non-technical tasks related to organizational implementation. Organizations need to assess whether implementing a market segmentation strategy will lead to new market opportunities. Users must decide on target segments and develop customized marketing plans based on the segmentation results.

Different Approaches to Market Segmentation Analysis:

Based on Organizational Constraints:

Three approaches are identified based on how willing and able an organization is to make changes:

- Segment Revolution: Radically change the marketing approach based on new segment findings.
- Segment Evolution: Refine existing marketing efforts by sharpening segment focus.
- Segment Mutation: Discover segments unexpectedly during exploratory research or data mining.

Based on the Choice of Segmentation Variables:

Segmentation approaches can also be classified based on the number of segmentation variables used.

Unidimensional approaches: Use one segmentation variable.

Multidimensional approaches: Use multiple variables.

Data Structure and Data-Driven Market Segmentation Approaches:

Market segmentation can be based on natural segments, reproducible segments, or constructive segments.

- Natural segments: Assume distinct groups exist in the data.
- Reproducible segments: Do not assume natural segments but allow for consistent segmentation results.
- Constructive segments: Are created when no clear structure exists in the data. Data structure analysis is essential to determine the type of segmentation approach needed.

Market Segmentation Analysis Step-by-Step:

Step 1 - Deciding (not) to segment: Determine if market segmentation aligns with your organization's goals.

Step 2 - Specifying the ideal target segment: Define the characteristics of your ideal target segment.

Step 3 - Collecting data: Gather data for segmentation, including segmentation variables and descriptor variables.

Step 4 - Exploring data: Analyze and prepare collected data for segmentation.

Step 5 - Extracting segments: Use statistical methods to split consumers into segments based on the segmentation variable.

Step 6 - Profiling segments: Identify key features and characteristics of each segment.

Step 7 - Describing segments: Create comprehensive descriptions of each segment.

Step 8 - Selecting (the) target segment(s): Evaluate and choose which segment(s) to target.

Step 9 - Customizing the marketing mix: Develop customized marketing strategies, product offerings, pricing, distribution, and promotional activities for the selected segment(s).

Step 10 - Evaluation and monitoring: Continuously evaluate the success of your marketing strategy and make adjustments as needed.

Each step is critical for successful market segmentation, helping you better understand your customers and create strategies that meet their specific needs.

Chapter 3

Step 1: Deciding (not) to Segment

Here in this chapter we discusses the first step in the process of market segmentation, which is "Deciding (not) to Segment." This chapter provides insights into the implications of committing to market segmentation and identifies potential implementation barriers. Below is a summary of the key points and a checklist for Step 1:

Implications of Committing to Market Segmentation: Market segmentation is a significant marketing strategy, but it may not always be the best decision for every organization.Before investing resources in market segmentation analysis, it's essential to understand the long-term commitment required.Commitment to market segmentation involves making substantial changes and investments.There are costs associated with market segmentation, such as research, surveys, design, and communication expenses.The decision to segment should be justified by the expected increase in sales.Required changes may include developing new products, modifying existing products, changing pricing and distribution, and adjusting communication strategies.Organizational structure may need to align with market segments rather than products.

Implementation Barriers: Senior management plays a crucial role in successful market segmentation. Lack of leadership and commitment from senior leadership can hinder the process.Resources must be made available for both initial market segmentation analysis and long-term implementation.Organizational culture factors like resistance to change, lack of creativity, and poor communication can be barriers.Lack of training and understanding of market segmentation concepts can lead to failure.The absence of a formal marketing function or qualified marketing experts can be a challenge.Objective restrictions, including financial limitations and structural changes, can hinder implementation.Process-related barriers may include unclear objectives, inadequate planning, and time pressure.

Step 1 Checklist: The checklist below helps organizations assess their readiness for market segmentation:

Assess the organization's market orientation, willingness to change, long-term perspective, openness to new ideas, and communication effectiveness.Evaluate the organization's ability to make significant structural changes and financial commitment.Secure visible commitment and active involvement from senior management.Ensure understanding of the market segmentation concept and its implications through training.Assemble a dedicated segmentation team with marketing, data, and data analysis expertise.Create an advisory committee representing affected organizational units.Define clear objectives for the market segmentation analysis.Develop a structured process and assign responsibilities within the segmentation team.Ensure that there is enough time to conduct the analysis without time pressure.

This checklist serves as a guide for organizations to determine whether they are ready to embark on a market segmentation strategy and highlights potential areas that need attention before proceeding.

Chapter 4

Step 2: Specifying the Ideal Target Segment

Here in this chapter it focuses on Step 2 of the market segmentation process, which is "Specifying the Ideal Target Segment." In this step, organizations determine the criteria they will use to evaluate market segments and select their ideal target segment. Here are the key points from this chapter:

Segment Evaluation Criteria: User input is crucial throughout the market segmentation analysis process.The organization must contribute significantly to market segmentation analysis by defining two sets of segment evaluation criteria: knock-out criteria and attractiveness criteria.Knock-out criteria are essential, non-negotiable features of segments that the organization would consider targeting.Attractiveness criteria are used to evaluate the relative attractiveness of the remaining market segments compliant with knock-out criteria.

Knock-Out Criteria: Knock-out criteria are used to determine if market segments qualify for assessment using attractiveness criteria.Key knock-out criteria include substantiality, measurability, accessibility, homogeneity, distinctness, size, matching organizational strengths, and identifiability.Size is a non-negotiable criterion, but the minimum viable target segment size should be specified.

Attractiveness Criteria: Attractiveness criteria are used to rate each market segment's attractiveness.These criteria are not binary; segments are assessed as more or less attractive based on various criteria.The overall relative attractiveness of each market segment determines whether it is selected as a target segment in Step 8.

Implementing a Structured Process:Using a structured approach, such as a segment evaluation plot, helps assess market segments' attractiveness and organizational competitiveness.The segment evaluation plot shows segment attractiveness along one axis and organizational competitiveness on the other.The criteria used for assessment should be negotiated and agreed upon by the segmentation team.Weightings for criteria should be assigned based on their relative importance to the organization.

Step 2 Checklist:Convene a segmentation team meeting.Discuss and agree on the knock-out criteria.Present the knock-out criteria to the advisory committee for discussion.Study available criteria for segment attractiveness.Discuss and agree on a subset of no more than six attractiveness criteria.Distribute 100 points across the segment attractiveness criteria.Discuss weightings with other segmentation team members.Present the selected segment attractiveness criteria and their weights to the advisory committee for discussion.

This chapter emphasizes the importance of carefully defining evaluation criteria for market segments, both in terms of essential knock-out criteria and relative attractiveness criteria, to guide the market segmentation analysis process effectively.

Chapter 5

Step 3: Collecting Data

In market segmentation, empirical data is used to identify and create market segments. The key terms and concepts related to segmentation variables and criteria include:

Segmentation Variables: In commonsense segmentation, the segmentation variable is typically one single characteristic of the consumers in the sample, such as gender.Descriptor variables are other personal characteristics available in the data that are used to describe the segments in detail. These can include socio-demographics, media behavior, and more.

- Data-Driven Segmentation:Data-driven market segmentation is based on multiple segmentation variables, not just one.These segmentation variables serve as the starting point for identifying market segments useful to the organization.
- Importance of Data Quality:Data quality is critical for both commonsense and data-driven segmentation as it affects the accuracy of segment assignment and the ability to describe the segments effectively.
- Sources of Empirical Data:Empirical data for segmentation studies can come from various sources, including surveys, observations (e.g., scanner data), or experimental studies.The source of data should ideally reflect consumer behavior.

Segmentation Criteria:

- Segmentation criteria are the basis for segmenting the market and can include various types:
- Geographic: Based on the consumer's location of residence. Useful for targeting specific regions.
- Socio-Demographic: Includes criteria like age, gender, income, and education.
- Psychographic: Based on psychological factors like beliefs, interests, preferences, and benefits sought.
- Behavioral: Focuses on actual behaviors, such as purchase frequency, spending habits, and brand choices.

Choosing Segmentation Criteria: The choice of segmentation criteria should be based on prior knowledge of the market and the specific goals of the segmentation analysis.The recommendation is to use the simplest possible approach that works for the product or service.

Advantages and Disadvantages: Geographic segmentation is simple and useful for targeting specific regions but may not explain product preferences.Socio-demographic segmentation is straightforward and can explain some product preferences.Psychographic segmentation delves into underlying reasons for behavior but is more complex.Behavioral segmentation uses actual behavior as a basis and can be highly relevant.

Data Reliability and Validity: The quality of data used for segmentation, especially in psychographic approaches, is crucial to the effectiveness of the segmentation analysis.Behavioral Data:Behavioral data, based on actual behavior, is often valuable for segmentation as it directly reflects the behavior of interest.Avoiding Limitations:It's essential to consider various criteria and choose the one that best fits the product or service while avoiding unnecessary complexity.

Choice of Variables

Careful selection of segmentation variables is crucial for the quality of the segmentation solution.In data-driven segmentation, include all variables relevant to the segmentation criteria and avoid unnecessary variables to prevent respondent fatigue and maintain data quality.Unnecessary variables can make the segmentation problem more complex without adding relevant information, leading to noisy or masking variables.

- Response Options:The answer options provided to respondents in surveys determine the scale of the data available for analysis.Binary or metric response options are suitable for segmentation analysis because they allow for the measurement of distance.Ordinal response options are less suitable because the distance between adjacent options is not clearly defined.
- Response Styles:Survey data is susceptible to biases, including response styles, where respondents consistently answer in a particular way unrelated to the item content.Response styles can impact segmentation results, as they can be confused with true beliefs or behaviors. Minimizing the capture of response styles is essential during data collection to ensure accurate segmentation.
- Sample Size:Sample size is critical for segmentation analysis, and insufficient sample sizes can lead to incorrect segment identification.The recommended sample size depends on factors such as the number of segmentation variables, market characteristics, and data quality.A general recommendation is to have at least 100 respondents for each segmentation variable to ensure robust results.

Data from Internal Sources: Organizations can utilize internal data sources like scanner data, booking data, or online purchase data for segmentation analysis. Internal data provide valuable insights as they represent actual consumer behavior. However, internal data may be biased towards existing customers and may not capture potential future customers.

Data from Experimental Studies: Experimental data can be used for segmentation analysis and may result from tests on consumer responses to various stimuli, advertisements, or choice experiments. Such data can provide valuable information about consumer preferences and behavior and can be used as segmentation criteria.

This checklist summarizes the key steps and considerations for collecting data for market segmentation analysis. It's essential to carefully plan data collection to ensure the validity and quality of the data used in segmentation efforts.

Chapter 6

Step 4: Data Exploration and Pre-Processing

Data Exploration Purpose:

After data collection, explore and clean the data to ensure quality.Identify measurement levels, assess variable distributions, and relationships.Guide selection of suitable segmentation algorithms.

Data Cleaning:

Check for errors, inconsistencies, and missing values.Ensure correct labels and order for categorical variables.

Descriptive Analysis:

Use tools like histograms, boxplots, and bar plots to understand data.Identify outliers and visualize categorical data.Gain insights into data characteristics and diversity.

Pre-Processing:

- Categorical Variables: Merge rare categories to simplify.
- Converting Categorical Variables to Numeric: Assess if it's appropriate.
- Binary Variables: Use binary 0/1 format for dichotomous variables.
- Numeric Variables: Standardize to balance variable influence.

Principal Components Analysis (PCA):

Reduce dimensionality while retaining variance.Transform data into uncorrelated variables (principal components).Visualize data in lower dimensions.Identify highly correlated variables and potential redundancy. Do not use a subset of principal components as segmentation variables; use original variables for segmentation.

Step 4 Checklist:

1. Explore and clean data.
2. Assess segmentation variables and consider reducing if too many.
3. Check for correlations among segmentation variables.
4. Hand over cleaned and pre-processed data to Step 5 for segmentation analysis.

Chapter 7

Step 5: Extracting Segments

Grouping Consumers: Market segmentation analysis is a dynamic and exploratory process, often working with complex and unstructured consumer data. The method chosen for segmentation can significantly influence the results, and there is no one-size-fits-all approach. Key considerations include data exploration, cleaning, and pre-processing, as well as assessing the suitability of segmentation variables. Researchers must be vigilant about the assumptions underlying their chosen methods and the impact these methods have on the resulting segmentation solution. The interaction between data characteristics and algorithm tendencies plays a critical role in shaping the segmentation outcomes. Therefore, a thorough understanding of the data and careful selection of appropriate algorithms are essential for a successful market segmentation analysis.

In Step 5 of the market segmentation process, the following tasks are crucial:

Firstly, you need to carefully choose extraction methods that align with the specific characteristics and properties of your dataset. These methods should be well-suited to the nature of your data.Next, apply these selected extraction methods to group consumers based on shared behavior, preferences, or other relevant attributes. This step lays the foundation for creating meaningful market segments.Perform comprehensive stability analyses at both the global level (evaluating the overall segmentation solution) and the segment-level (assessing individual segments). This helps identify potential segmentation solutions and segments that show promise in terms of stability and meaningful differentiation.From the pool of available segmentation solutions, select a subset of market segments that exhibit high levels of segment-level stability and hold the potential for valuable insights and targeting.Evaluate these remaining segments against your predetermined knock-out criteria, established in Step 2. This evaluation process refines the selection further by ensuring that only the most relevant and viable segments move forward.

Finally, pass the refined set of market segments to Step 6, where you will conduct in-depth profiling and analysis to better understand the characteristics, needs, and behaviors of each segment. This information is crucial for tailoring marketing strategies and services to effectively reach and engage each identified segment.

Chapter 8

Step 6: Profiling Segments:

Profiling segments in machine learning is a critical process for understanding and characterizing distinct groups of data points within a dataset. This involves utilizing machine learning and clustering techniques to group similar data points into segments based on shared characteristics or behaviors. Once these segments are identified, the next steps involve creating detailed profiles for each segment. To profile segments effectively, you start by calculating a representative point, often referred to as a centroid, for each segment. This centroid summarizes the central tendencies of feature values within the segment. Feature analysis helps identify the key attributes that contribute most to the differences between segments, offering insights into what makes each group unique.

Visualization plays a crucial role in conveying these insights, with graphs, charts, and heatmaps helping to illustrate variations in feature values. Statistical tests are employed to determine the statistical significance of differences between segments. Interpreting the segment profiles involves understanding the practical implications of these differences, which can inform marketing strategies, product development, or other business decisions. Thorough documentation of the segment profiles is essential to provide a reference point for stakeholders. Validation ensures that the segment profiles are stable and reliable over time or in different datasets, enhancing their utility. Ultimately, these profiles find practical application in areas like targeted marketing, personalized recommendations, anomaly detection, and other business scenarios.

Profiling segments in machine learning is a powerful tool for data-driven decision-making, enabling organizations to tailor their strategies and offerings to different customer or data groups effectively.

Step 6 Checklist Task

Use the selected segments from Step 5.Visualise segment profiles to learn about what makes each segment

distinct.Use knock-out criteria to check if any of the segments currently underconsideration should already be eliminated because they do not comply with the knock-out criteria. Pass on the remaining segments to Step 7 for describing.

Chapter 9

Step 7: Describing Segments

In Step 7 of market segmentation, known as "Describing Segments," businesses thoroughly analyze their market segments by examining various characteristics and preferences. This involves:

- Segment Profiling: Understanding what sets each segment apart based on primary segmentation variables.
- Descriptor Variables: Using additional data variables to gain a more comprehensive view of each segment's members.
- Customized Marketing: Tailoring marketing strategies and product offerings to match each segment's unique traits.
- Data Analysis: Using statistical techniques to identify significant differences between segments.
- Visualization: Creating visual representations to simplify the communication of segment differences.
- Actionable Insights: Extracting insights to effectively engage with and target each segment.
- Continuous Refinement: Recognizing that segments evolve and regularly updating segment descriptions.

In essence, Step 7 provides businesses with a detailed understanding of their market segments, allowing for more effective and targeted marketing efforts.

Replication of McDonalds Case Study in Python

This case study explores market segmentation using data collected for brand image research. In this scenario, McDonald's wants to identify consumer segments with different perceptions of its brand. This understanding will guide marketing strategies.

Step 1: Decide Whether to Segment

McDonald's can choose to serve the entire market or explore differences among consumers through segmentation.

Step 2: Specify the Ideal Target Segment

McDonald's must define attractive segment characteristics, such as homogeneity, distinctiveness, size, alignment with strengths, identifiability, and reachability. In this case, liking McDonald's and frequent dining at McDonald's are key criteria due to data limitations. These criteria inform target segment selection in Step 8.

Step 3: Data Collection

1453 adult Australian consumers responded about their perceptions of McDonald's across 11 attributes (e.g., YUMMY, CONVENIENT). They answered with YES or NO. Demographic data, like AGE and GENDER, were collected. For a full market segmentation study, more information about dining behavior and information sources would be included.

Step 4: Exploring Data

First we explore the key characteristics of the data set by loading the data set and inspecting basic features such as the variable names, the sample size, and the first three rows of the data:

Exploring Data

In [5]:
```
print(mcdonalds.columns)
```

```
Index(['yummy', 'convenient', 'spicy', 'fattening', 'greasy', 'fast', 'cheap',
       'tasty', 'expensive', 'healthy', 'disgusting', 'Like', 'Age',
       'VisitFrequency', 'Gender'],
      dtype='object')
```

In [6]:
```
# Get the dimensions
num_rows, num_columns = mcdonalds.shape

print(f'Number of rows: {num_rows}')
print(f'Number of columns: {num_columns}')
```

```
Number of rows: 1453
Number of columns: 15
```

In [7]:
```
# Display the first 3 rows
print(mcdonalds.head(3))
```

```
  yummy convenient spicy fattening greasy fast cheap tasty expensive healthy  \
0    No        Yes    No       Yes     No  Yes   Yes    No       Yes      No
1   Yes        Yes    No       Yes    Yes  Yes   Yes   Yes       Yes      No
2    No        Yes   Yes       Yes    Yes  Yes    No   Yes       Yes     Yes

  disgusting Like  Age      VisitFrequency  Gender
```

Principal Component Analysis:

Principal Component Analysis, is a data reduction method that simplifies complex datasets by creating new variables called principal components. These components capture the most important information while reducing data dimensionality.

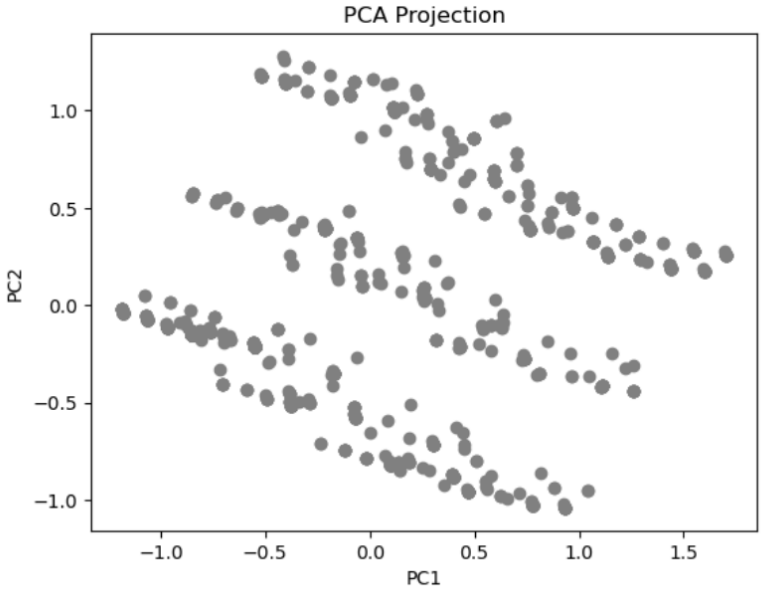
In [10]:
```
from sklearn.decomposition import PCA
# Perform PCA
pca = PCA()
MD_pca = pca.fit_transform(MD_x)
# Print summary
explained_variance = pca.explained_variance_ratio_
print("Summary:")
print(f"Standard Deviation: {pca.singular_values_}")
print(f"Proportion of Variance Explained: {explained_variance}")
print(f"Cumulative Proportion: {explained_variance.cumsum()}")
```

```
Summary:
Standard Deviation: [28.84746118 23.14716582 19.22858381 15.19626736 12.85685762 11.82305052
 11.03895052 10.48355462 10.10742431  9.48214684  9.02721076]
Proportion of Variance Explained: [0.29944723 0.19279721 0.13304535 0.08309578 0.05948052 0.05029956
 0.0438491  0.03954779 0.0367609  0.03235329 0.02932326]
Cumulative Proportion: [0.29944723 0.49224445 0.6252898  0.70838558 0.7678661  0.81816566
 0.86201476 0.90156255 0.93832345 0.97067674 1.        ]
```

In [12]:
```
import numpy as np
# Print PCA results with a specific number of digits
np.set_printoptions(precision=1)
print(MD_pca)
```

```
[[ 0.4 -0.2  0.7 ...  0.2  0.5 -0.6]
 [-0.2  0.4 -0.7 ...  0.1  0.5 -0.5]
 [ 0.4  0.7 -0.1 ... -0.3  0.1  0.2]
```

Visualization: The distribution of data points along the first two principal components (PC1 and PC2) derived from a PCA analysis. Matplotlib, a data visualization library, is imported to create the plot. After extracting PC1 and PC2 values from the PCA results, a scatter plot is generated.



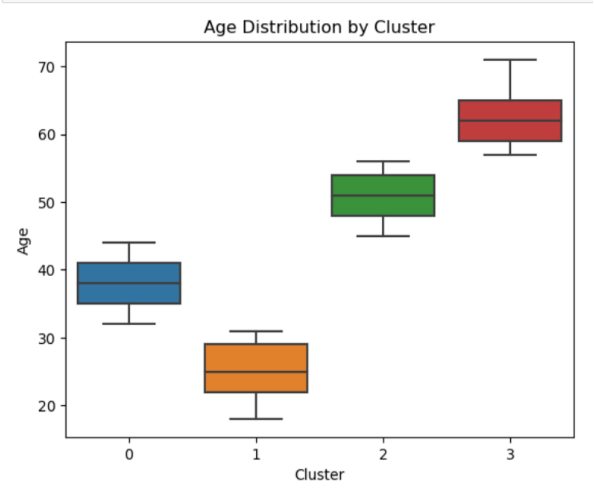
Step 5: Extracting Segments

Step 5 in market segmentation involves extracting segments using various techniques. This step is subdivided into three sections:

- Standard k-means analysis: This technique uses k-means clustering to group data points into segments.
- Finite mixtures of binary distributions: It involves using finite mixtures to model binary data distributions.
- Finite mixtures of regressions: This technique employs finite mixtures to model regressions for segment extraction.

These methods help identify distinct market segments based on data characteristics.

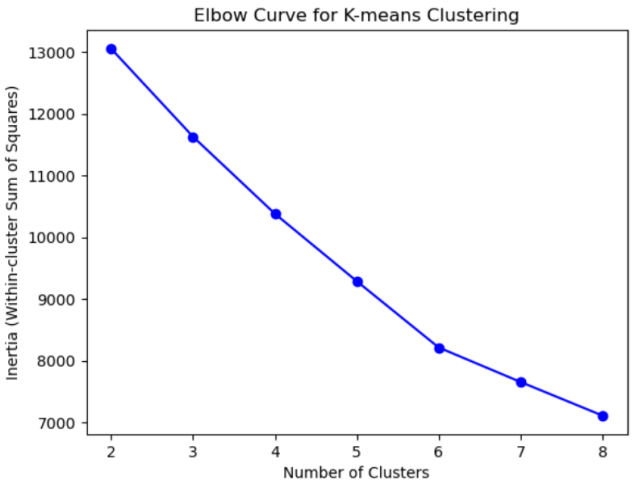
- **Using k-Means**



Boxplot to visualize 'Age' distribution within each cluster

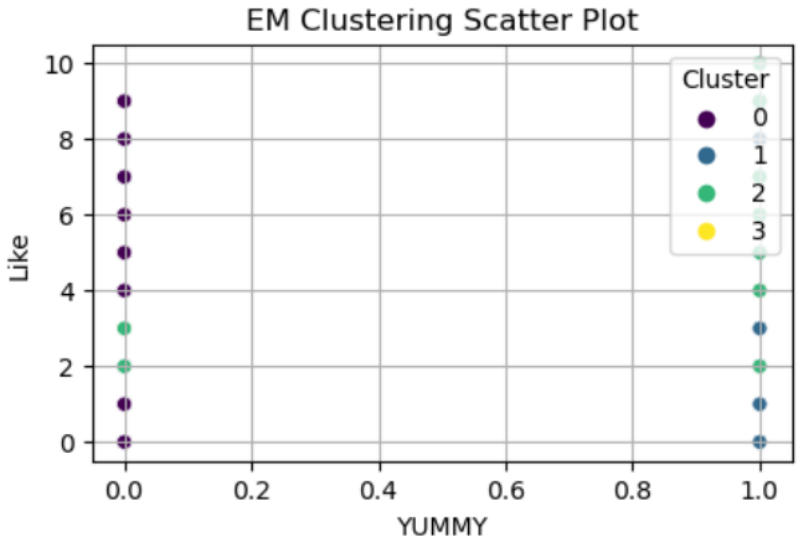
- **Using Mixtures of Distributions**

The code uses the GaussianMixture class from scikit-learn to perform finite mixture modeling for binary data distributions.



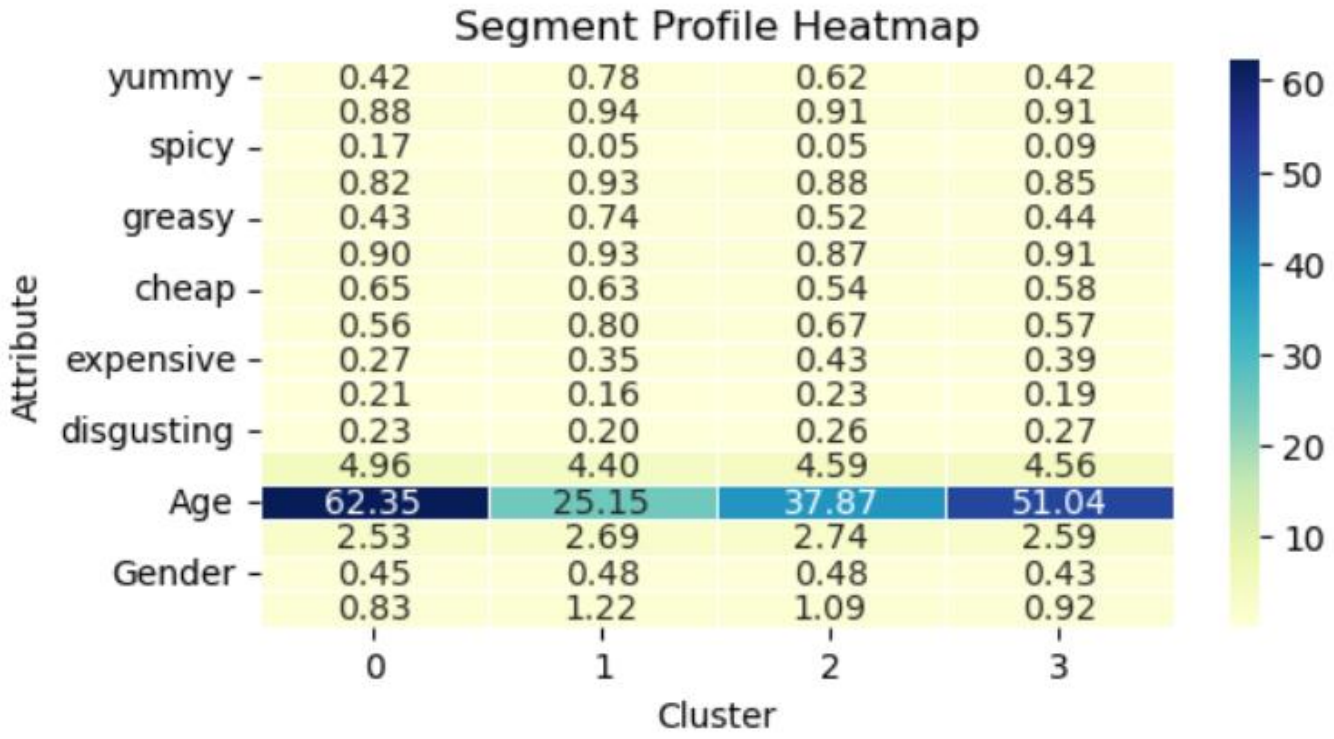
Elbow curve to determine the optimal number of clusters

- **Using Mixtures of Regression Models**



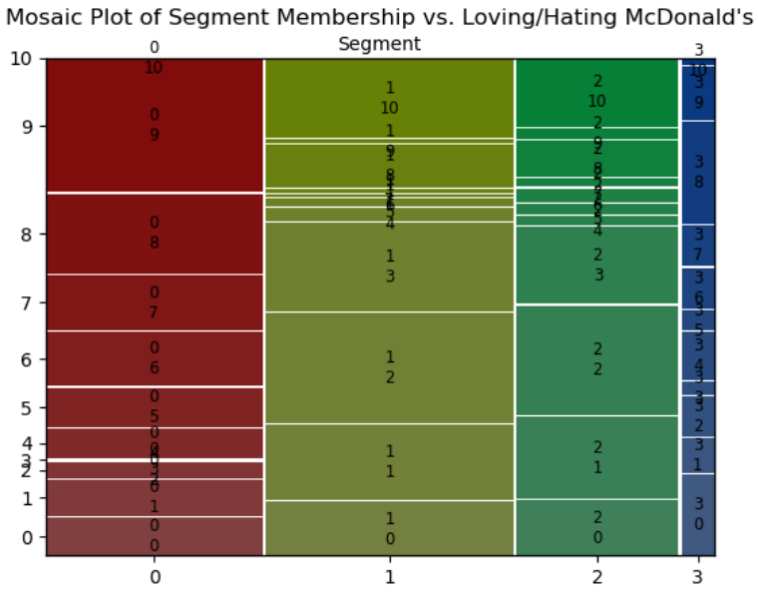
Step 6: Profiling Segments

The next step after segment extraction in the segmentation analysis is to create a segment profile plot. This plot helps in understanding the key characteristics of each market segment and highlights differences between segments.



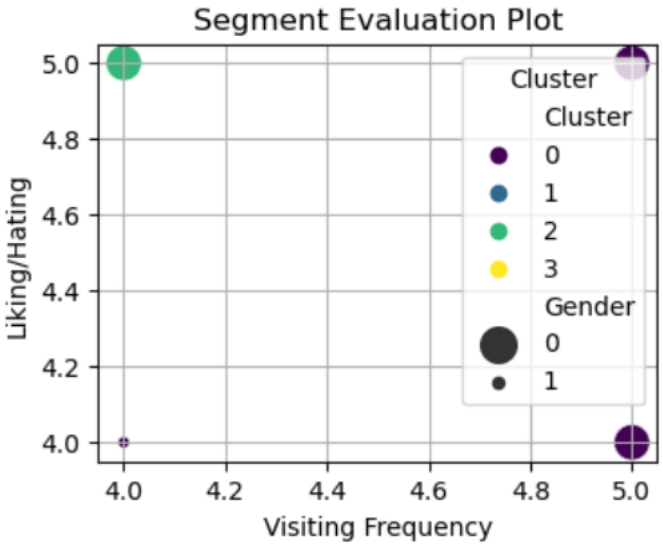
Step 7: Describing Segments

The fast food dataset lacks essential descriptor variables needed for market segmentation analysis. One available descriptor variable measures consumers' feelings towards McDonald's. A mosaic plot can illustrate the relationship between segment membership and these feelings.



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

Using the knock-out criteria and segment attractiveness criteria specified ,users of the market segmentation (McDonald’s managers) can now proceed to develop a segment evaluation plot. generate code



Step 9: Customising the Marketing Mix

Here it involves designing a marketing mix tailored to a specific market segment's preferences. For example, McDonald's could target Segment 3 with a budget-friendly "MCSUPERBUDGET" product line, adjusting product features, pricing, promotion, and possibly queue management to cater to this segment's needs and gradually transition them to the regular menu as they become more financially stable.

```
Designed Product: MCSUPERBUDGET Deluxe Burger
Adjusted Price: $ 4.792000000000001
```

Step 10: Evaluation and Monitoring

After market segmentation analysis, continuous monitoring and evaluation are crucial. Changes can happen within segments and in the broader market due to factors like income growth or new competitors. McDonald's must adapt its marketing strategies as needed to respond to changing market conditions.