

MARKET SEGMENTATION STUDY

PROJECT-2

SR.no	Team member	Task done
1	Anish Desai https://github.com/AnishD642/FeynnLabs/blob/main/StudyTask_Market_Seg	S1, S2, S3, S4
2	Dhruv Kumar Dhandhukiya ddr4026/feynn_labs (github.com)	S1, S2, S3, S5, S10
3	Ansh Ashok Shriwas GitHub - ansh1600/Market_Segmentation	S1, S2, S3, S6
4	Adnan Habib GitHub - Adnan232/McDonalds-Market-Segmentation-Analysis	S1, S2, S3, S7, S8
5	Aniket Singh https://github.com/AniketSingh18/MCDONALDS/blob/main/FEYNN%20LABS	S1, S2, S3, S9

“Market segmentation is a marriage, not a date.”

Introduction:

Market segmentation is a marketing term that refers to aggregating prospective buyers into groups or segments with common needs and who respond similarly to a marketing action. Market segmentation enables companies to target different categories of consumers who perceive the full value of certain products and services differently from one another. Market segmentation seeks to identify targeted groups of consumers to tailor products and branding in a way that is attractive to the group. Markets can be segmented in several ways such as geographically, demographically, or behaviourally.



Need for Market Segmentation (Why Market Segmentation?)

Not all individuals have similar needs. A male and a female would have varied interests and liking towards different products. A kid would not require something which an adult need. A school kid would have a different requirement than an office goer. Market Segmentation helps the marketers to bring together individuals with similar choices and interests on a common platform.

- Market Segmentation helps the marketers to devise appropriate marketing strategies and promotional schemes according to the tastes of the individuals of a particular market segment. A male model would look out of place in an advertisement promoting female products. The marketers must be able to relate their products to the target segments.
- Market segmentation helps the marketers to understand the needs of the target audience and adopt specific marketing plans accordingly. Organizations can adopt a more focussed approach as a result of market segmentation.
- Market segmentation also gives the customers a clear view of what to buy and what not to buy. A Rado or Omega watch would have no takers amongst the lower income group as they cater to the premium segment. College students seldom go to a Zodiac or Van Heusen store as the merchandise offered by these stores are meant mostly for the professionals. Individuals from the lower income group never use a Blackberry. In simpler words, the segmentation process goes a long way in influencing the buying decision of the consumers. An individual with low income would obviously prefer a Nano or Alto instead of Mercedes or BMW.
- Market segmentation helps the organizations to target the right product to the right customers at the right time. Geographical segmentation classifies consumers according to their locations. A grocery store in colder states of the country would stock coffee all through the year as compared to places which have defined winter and summer seasons.
- Segmentation helps the organizations to know and understand their customers better. Organizations can now reach a wider audience and promote their products more effectively. It helps the organizations to concentrate their hard work on the target audience and get suitable results.

Steps involved in Market Segmentation:

Step 1: Deciding (not) to Segment

Understanding the ramifications of following a market segmentation strategy is crucial before devoting time and resources to a market segmentation analysis. It is a long-term commitment. There are costs of performing the research, fielding surveys, and focus groups, designing multiple packages, and designing multiple advertisements and communication messages. Market Segmentation Strategy scheme has to be more profitable than marketing without it. Barriers relating to Lack of leadership, pro-active involvement or undermining the process by the Senior Management, or those relating to Organisational culture have to be identified and overcome for a successful implementation of Market Segmentation Strategies.

Step 2: Specifying the Ideal Target Segment

A) Segment Evaluation Criteria:

For a market segmentation analysis to produce results that are important to organisation, user input cannot be limited to either a briefing at the start of the process, or the development of a marketing mix at the end. Rather, the user needs to be involved in most stages, literally wrapping around the technical aspects of market segmentation analysis. After committing to investigating the value of segmentation strategy in step-1, it is important for the organisation to make a major contribution to market segmentation analysis in step-2. In this step, organisation determines the 2 sets of segment evaluation criteria. One set of evaluation can be referred to as knock-out criteria. The second set of criteria can be referred to as attractiveness criteria.

1) Knock-Out Criteria:

These are used to determine if market segments resulting from the market segmentation analysis qualify to be assessed using segment attractiveness. Some of the authors have recommended additional criteria that fall into the knock-out criteria. Some of the them are as follow:

- Segment must be homogeneous
- Segment must be distinct

- Segment must be large enough; the segment must contain enough customers to make it worthwhile to spend extra money on customising the marketing mix for them
- Segment must be matching the strengths of the organisation; organisation must have the capability to satisfy segment member's needs.
- Segment must be reachable; there has to be a way to get in touch with members of the segment in order to make the customised marketing mix accessible to them.

Knock-Out Criteria must be understood by the senior management, the segmentation team, and the advisory committee.

2) Attractiveness Criteria:

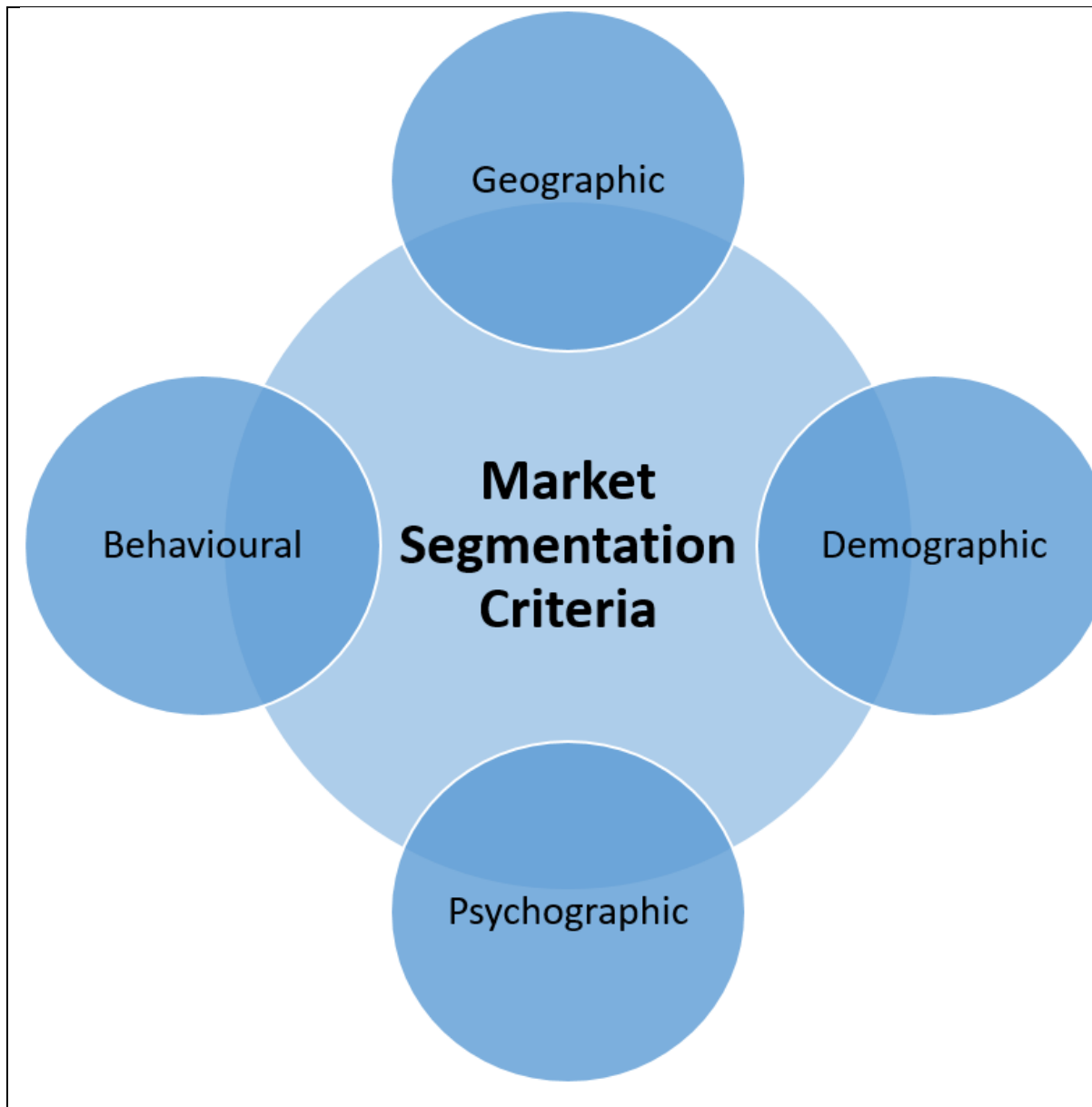
These criteria are not binary in nature. Segments are not assessed as either complying or not complying with attractiveness criteria. Rather, each market segment is rated; it can be more or less attractive with respect to specific criteria. The attractiveness across all criteria determines whether a market segment is selected as target segment in other step of market segmentation analysis.

Step 3: Collecting Data:

a) Segmentation Variable:

In common-sense segmentation, the segmentation variables are typically one single characteristic of the consumer. An entry of 1 indicates presence of characteristic of that consumer whereas 0 indicates absence of characteristic of that consumer

b) Market Segmentation Criteria:



Geographic	Socio-demographic	psychographic	behavioural
The first group of market segmentation criteria is based on geographic variables. Geographic market	Demographic market segmentation is all about people. It divides the market into segments-based market	Market segmentation criteria of psychographic nature allow to divide the market into segments based on	Behavioural market segmentation divides a market into segments on basis of consumer knowledge, attitudes, uses or

segmentation divides the market into geographical units, which can be nations, states, regions, cities or even neighbourhoods.	segmentation criteria that tell us something about the population: age, gender, family size etc.	variables such as social class, lifestyle and personality.	responses to a specific product.
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Step 4: Exploring Data:

Team member (Anish Desai)

From this segment, McDonald's Case Study has been used as our reference and python has been used for implementation.

The dataset is loaded and inspected. The perception of McDonald's with respect to consumers include *YUMMY, CONVENIENT, SPICY, FATTENING, GREASY, FAST, CHEAP, TASTY, EXPENSIVE, HEALTHY, and DISGUSTING*.

	yummy	convenient	spicy	fattening	greasy	fast	cheap	tasty	expensive	healthy	disgusting	Like	Age	VisitFrequency	Gender
0	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	-3	61	Every three months	Female
1	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	+2	51	Every three months	Female
2	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	+1	62	Every three months	Female
3	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	+4	69	Once a week	Female
4	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	No	+2	49	Once a month	Male

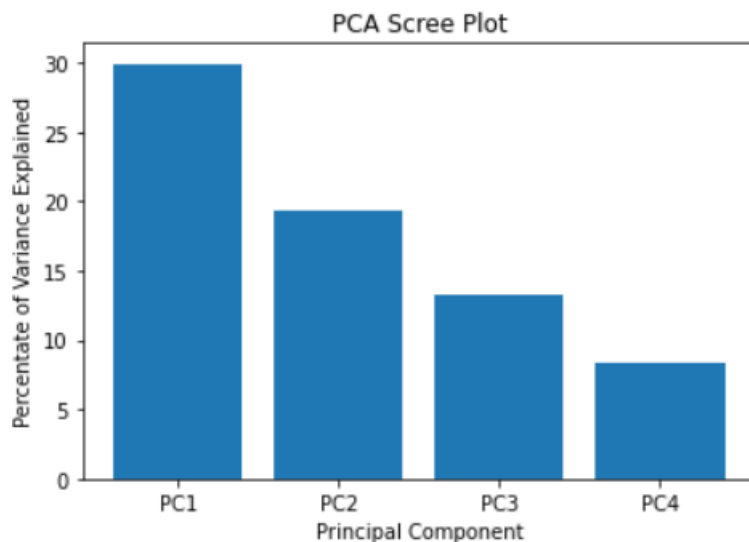
The sample size is found to be 1453×15 . Other variables include Age, Like, VisitFrequency and Gender. The segmentation variables are coded in levels and not numeric. To transform them so as to make them compatible for further analysis, we use *Label Encoder*.

Detailed description of each variable is sought. The average values of the transformed binary numeric segmentation variables indicate the percentage of customers who perceive the McDonald's as that characteristic.

yummy	convenient	spicy	fattening	greasy	fast	cheap	tasty	expensive	healthy	disgusting
0.552650	0.907777	0.093599	0.867171	0.526497	0.900206	0.598761	0.644184	0.357880	0.198899	0.242946

From this, we can infer that 55% of the respondents perceive McDonald's as *Yummy*, 91% perceive it to be *Convenient* but only 9% believe the food to be *Spicy*.

Furthermore, Principal Component Analysis is implemented not to reduce the number of variables but to understand the responses in-depth and for factor cluster analysis.



The first principal component explains about 29.94% of the variance and the second principal component explains about 19.28% of the variance, both together accounting for 50% of the variance in the information in the 11 segmentation variables.

Code implementation link:

https://github.com/AnishD642/FeynnLabs/blob/main/StudyTask_Market_Seg

Step 5: Extracting segments

Team member (Dhruv kumar Dhandhukiya)

A: Grouping customers

1) Distance-Based Methods:

The distance-based method uses a particular notion of similarity or distance between observations and tries to find groups of similar observations (market segments)

Market segmentation aims at grouping consumers into groups with similar needs or behaviour.

a) Distance measures:

The distance between the two observations is found using the concept of Euclidean distance and Manhattan distance.

Euclidean distance is the most common distance measure used in market segmentation analysis which corresponds to the direct “straight-line” distance between two points.

Manhattan distance derives its name from the fact that it gives the distance between two points assuming that streets on a grid (like in Manhattan) need to be used to get from one point to another

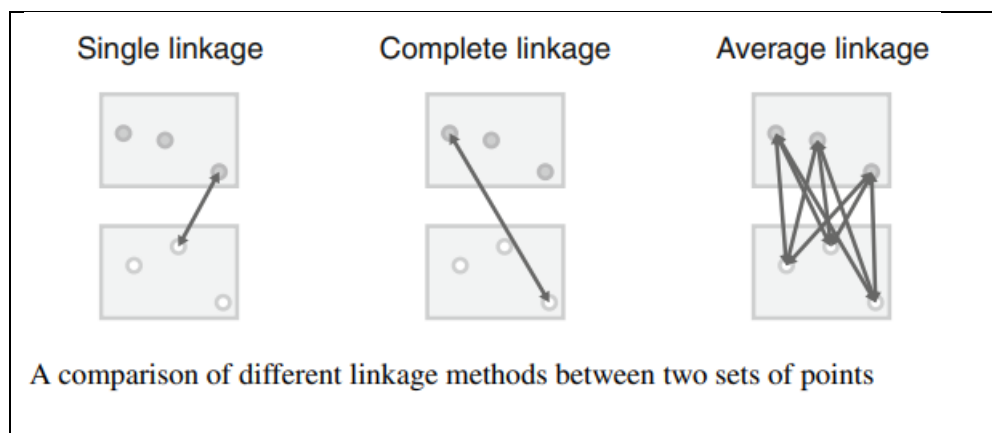
b) Hierarchical methods:

Most intuitive way of grouping data because they mimic how a human would approach the task of dividing a set of n observations (consumers) into k groups (segments). Market segmentation occurs between those two extremes

1. Divisive hierarchical clustering method starts with the complete data set X and split it into two market segments in first step. Then, each of the segment is again split into two segments. This process is continues until each consumer has its own market segment.

2. Agglomerative hierarchical clustering approaches the task from the other end. The starting point is each consumer represent their own market segment (n singleton clusters). Step-by-Step, the two market segments closest to one another are merged until the complete data set forms one large segment. Three types of agglomerative clustering are as follow:

1. Single linkage: Distance between the two closest observations of the two set
2. Complete linkage: Distance between the two set of observations that are farthest away from each other
3. Average linkage: Mean distance of observations of two set.



c) Partitioning methods:

For analysis of smaller data set, hierarchical clustering methods are well suited. But for data sets containing more than 1000 observations, hierarchical clustering is not preferable since for large data sets dendrograms are very hard to read and the matrix of pairwise distances usually does not fit into the computer memory.

1. k- Means and k-centroid clustering:

It is an unsupervised learning algorithm which groups the unlabelled dataset into different clusters. It is an iterative algorithm that divides the unlabelled dataset into k different clusters in such a way that each dataset belongs to only one group that has similar properties.

Steps of the algorithm are as follow:

- Select the number k to decide the number of clusters
- Select random k points or centroids (it can be other from the input dataset)
- Assign each data point to their closest centroid, which will form the predefined k clusters
- Calculate the distance and place a new centroid of each cluster
- Repeat the third steps, which means reassign each datapoint to the new closest centroid of each cluster
- If any reassignment occurs, then go to step-4 else go to FINISH
- The model is ready.

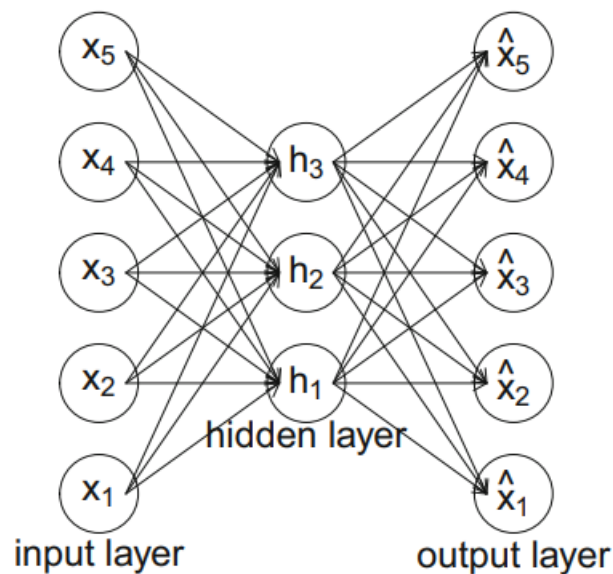
2. “Improved” k- Means:

Many attempts have been made to refine and improve the k- Means clustering algorithm. The simplest improvement is to initialise k- Means using “smart” starting values, rather than randomly drawing k consumers from the dataset and using them as starting points. Deriving randomly k consumers results in some consumers are closely present to each other which does not represent the whole data space. Using such starting points are not representative of data space increases the likelihood of the k- Means getting stuck which is referred to as local optimum. A local optimum is a good solution but not feasible. One way to avoid such problem of getting stuck in a local optimum is to initialise it by using starting points evenly spread across the entire data space.

The best approach is to randomly draw many starting points and select the best dataset. The best starting points are those that best represent the data. Good representatives are close to their segment members whereas Bad representatives are far away from their segment members.

3. Neural Networks:

Auto-encoding neural networks for cluster analysis work mathematically differently than all cluster methods presented so far. The most popular method from this family of algorithms uses a so-called single hidden layer perceptron.



The above fig represents single hidden layer perceptron. The network has three layers. The input layer takes the data as input. The outer layer gives the response of the network. In the case of clustering this is the same as the input. In between input layer and output layer is the so-called hidden layer. The input layer has one node for every segmentation variable. The values of the three nodes in the hidden layer h_1, h_2, h_3 are weighted linear combination of the inputs

$$h_j = f_j \left(\sum_{i=1}^5 \alpha_{ij} x_i \right)$$

for a non-linear function f_j .

d. Hybrid Approach:

The basic idea behind hybrid segmentation approaches is to first run a partitioning algorithm because it can handle data sets of any size. But the partitioning algorithm used initially does not generate the number of segments sought. Rather, a much larger number of segments is extracted. Then, the original data is discarded and only the centres of the resulting segments (centroids, representatives of each market segment) and segment sizes are

retained, and used as input for the hierarchical cluster analysis. At this point, the data set is small enough for hierarchical algorithms, and the dendrogram can inform the decision how many segments to extract.

1. Two-Step Clustering:

The Two-Step Cluster Analysis procedure is an exploratory tool designed to reveal natural groupings (or clusters) within a data set that would otherwise not be apparent. The algorithm employed by this procedure has several desirable features that differentiate it from traditional clustering techniques:

- The ability to create clusters based on both categorical and continuous variables.
- Automatic selection of the number of clusters.
- The ability to analyze large data files efficiently.

2. Bagged Clustering:

In bagged clustering, we first cluster the bootstrapped data sets using a partitioning algorithm. The advantage of starting with a partitioning algorithm is that there are no restrictions on the sample size of the data. Next, we discard the original data set and all bootstrapped data sets. We only save the cluster centroids (segment representatives) resulting from the repeated partitioning cluster analyses. These cluster centroids serve as our data set for the second step: hierarchical clustering. The advantage of using hierarchical clustering in the second step is that the resulting dendrogram may provide clues about the best number of market segments to extract.

Algorithm with integrated variable selection:

1. Biclustering Algorithm:

Biclustering simultaneously clusters both consumers and variables. Biclustering algorithms exist for any kind of data, including metric and binary. This section focuses on the binary case where these algorithms aim at extracting market segments containing consumers who all have a value of 1 for a group of variables. These groups of consumers and variables together then form the bicluster

The biclustering algorithm which extracts these biclusters follows a sequence of steps. The starting point is a data matrix where each row represents one consumer and each column represents a binary segmentation variable:

Step 1 First, rearrange rows (consumers) and columns (segmentation variables) of the data matrix in a way to create a rectangle with identical entries of 1s at the top left of the data matrix. The aim is for this rectangle to be as large as possible.

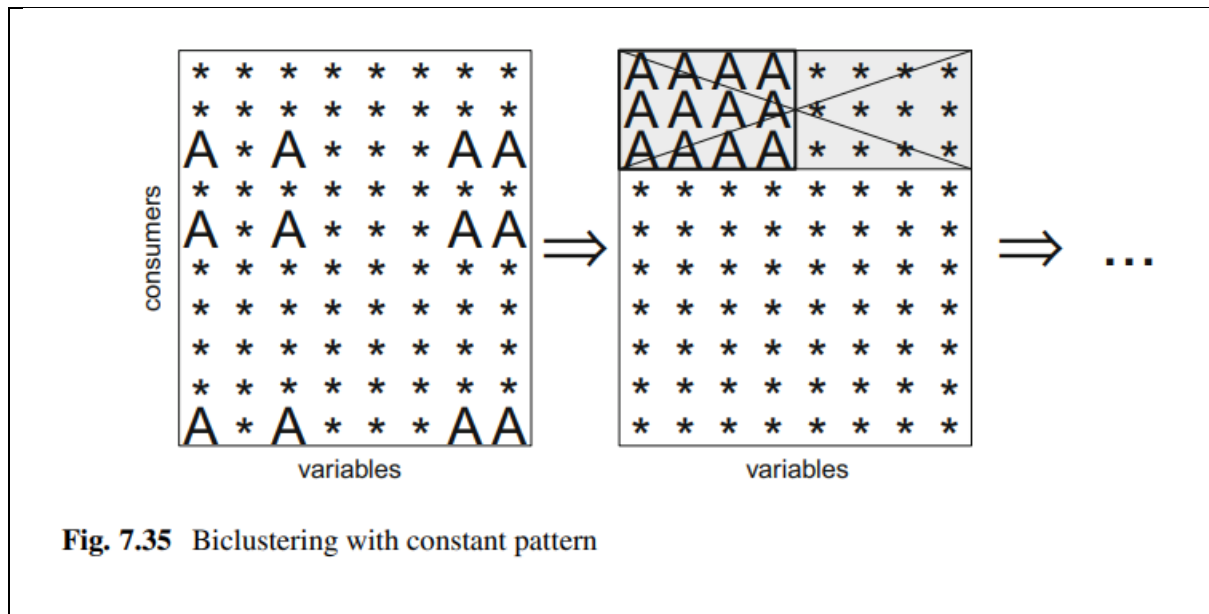


Fig. 7.35 Biclustering with constant pattern

Step 2 Second, assign the observations (consumers) falling into this rectangle to one bicluster, as illustrated by the grey shading in Fig. 7.35. The segmentation variables defining the rectangle are active variables (A) for this bicluster.

Step 3 Remove from the data matrix the rows containing the consumers who have been assigned to the first bicluster. Once removed, repeat the procedure from step 1 until no more biclusters of sufficient size can be located.

2. Variable Selection Procedure for Clustering Binary Data (VSBD):

VSBD method is based on the k-means algorithm as clustering method, and assumes that not all variables available are relevant to obtain a good clustering solution. In particular, the method assumes the presence of masking variables. They need to be identified and removed from the set of segmentation variables. Removing irrelevant variables helps to identify the correct segment structure, and eases interpretation. The procedure first identifies the best small subset of variables to extract segments. Because the procedure is based on the k-means algorithm, the performance criterion used to assess a specific subset of variables

is the within-cluster sum-of squares (the sum of squared Euclidean distances between each observation and their segment representative)

The algorithm proceeds as follow:

Step 1:

Select only a subset of observations with size $\phi \in (0, 1]$ times the size of the original data set. Brusco (2004) suggests to use $\phi = 1$ if the original data set contains less than 500 observations, $0.2 \leq \phi \leq 0.3$ if the number of observations is between 500 and 2000 and $\phi = 0.1$ if the number of observations is at least 2000.

Step 2:

For a given number of variables V , perform an exhaustive search for the set of V variables that leads to the smallest within-cluster sum-of-squares criterion. The value for V needs to be selected small for the exhaustive search to be computationally feasible. Brusco (2004) suggests using $V = 4$, but smaller or larger values may be required depending on the number of clusters k , and the number of variables p . The higher the number of clusters, the larger V should be to capture the more complex clustering structure. The higher p , the smaller V needs to be to make the exhaustive search computationally feasible.

Step 3:

Among the remaining variables, determine the variable leading to the smallest increase in the within-cluster sum-of-squares value if added to the set of segmentation variables. Step 4 Add this variable if the increase in within-cluster sum-of-squares is smaller than the threshold. The threshold is δ times the number of observations in the subset divided by 4. δ needs to be in $[0, 1]$. Brusco (2004) suggests a default δ value of 0.5.

3. variable reduction: Factor-Cluster Analysis

The term factor-cluster analysis refers to a two-step procedure of data-driven market segmentation analysis. In the first step, segmentation variables are factor analysed. The raw data, the original segmentation variables, are then discarded. In the second step, the factor scores resulting from the factor analysis are used to extract market segments. Sometimes this approach is conceptually legitimate. For example, if the empirical data results from a validated psychological test battery designed specifically to contain a number of variables which load onto factors, like IQ tests. In IQ tests, a number of items assess the general

knowledge of a person. In this case a conceptual argument can be put forward that it is indeed legitimate to replace the original variables with the factor score for general knowledge. However, the factor scores should either be determined simultaneously when extracting the groups (for example using a model-based approach based on factor analyzers

Code Implementation:

[ddr4026/feynn_labs \(github.com\)](https://github.com/ddr4026/feynn_labs)

Step 6: Profiling segments

Team Member (Ansh Ashok shriwas)

Profiling step is used to know about the market segments resulting from the previous step of extraction. Profiling is done only where data driven segmentation is used. Profiling is not necessary when common sense segmentation is conducted as profiles of such segments are predefined. Identifying the defining characteristics of market segments with respect to the segmentation variables is the aim of profiling. Profiling is characterising the market segments individually at the same time comparing it to the other market segments, we inspect a number of alternative market segmentation solutions.

Good profiling is the basis for correct interpretation of segments. Traditional approaches to profiling market segments includes large tables that provide, for each segment, exact percentages for each segmentation variable or high-level summaries simplifying segment characteristics. However, these approaches can be either misleading or hard to interpret. To overcome these problems, visualisation techniques can be used. A good way to understand the defining characteristics of each segment is to produce a segment profile plot. The segment profile plot shows for all segmentation variables, how each market segment differs from the overall sample.

Each segment can be plotted and characteristics relevant (known as marker variables) for each segment can be shown in colour and non-relevant characteristics can be greyed out. Good visualisations facilitate interpretation by

managers who make long-term strategic decisions based on segmentation results. Such long-term strategic decisions imply substantial financial commitments to the implementation of a segmentation strategy. Good visualisations, therefore, offer an excellent return on investment. Segment separation can be visualised in a segment separation plot.

The segment separation plot depicts the overlap of segments. Segment separation plots are very simple if the number of segmentation variables is low, but become complex as the number of segmentation variables increases. The segment separation plot consists of (1) a scatter plot of the (projected) observations coloured by segment membership and the (projected) cluster hulls, and (2) a neighbourhood graph. Neighbourhood graphs (black lines with numbered nodes) indicate similarity between segments. The width of the black line is thicker if more observations have these two segment centres as their two closest segment centres.

Code implementation:

[GitHub - anshl600/Market_Segmentation](https://github.com/anshl600/Market_Segmentation)

Step 7: Describing Segments

Team Member (Adnan Habib)

USING VISUALISATIONS TO DESCRIBE MARKET SEGMENTS

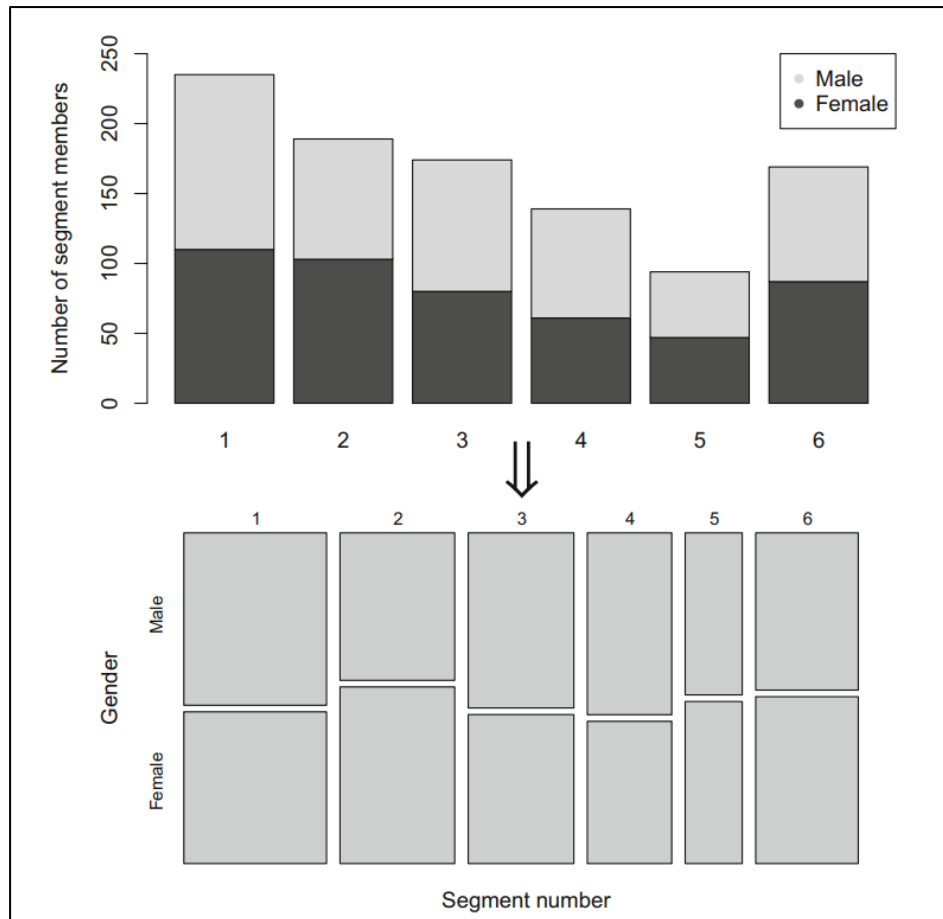
Using graphical statistics to describe market segments has two key advantages: it simplifies the interpretation of results for both the data analyst and the user, and integrates information on the statistical significance of differences, thus avoiding the over-interpretation of insignificant differences.

	Like	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
cluster_num												
0	5	3	7	6	7	36	42	60	66	47	44	
1	4	4	2	6	13	43	65	90	143	111	99	
2	54	36	34	28	25	51	31	31	12	2	0	
3	89	28	30	19	13	39	14	6	8	0	0	

When describing differences between market segments in one single nominal or ordinal descriptor variable, the basis for all visualisations and statistical tests is a cross-tabulation of segment membership with the descriptor variable.

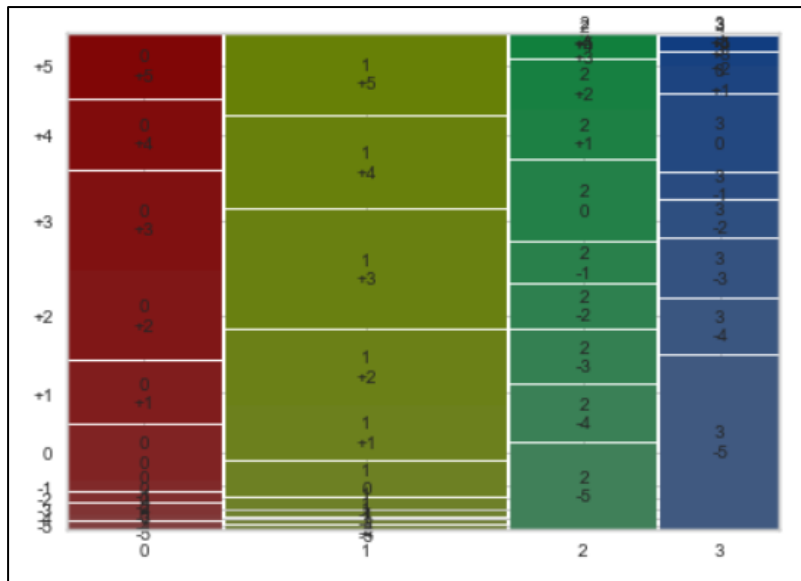
	Gender	Female	Male
cluster_num			
0		154	169
1		349	231
2		179	125
3		106	140

A visual inspection of this cross-tabulation suggests that there are no huge gender differences across segments. In the above fig, visualises this cross tabulation using a stacked bar chart. The y-axis shows segment sizes. Within each bar, we can easily how many are male and how many are female. We cannot, however, compare the proportions of men and women easily across segments. Comparing proportions is complicated if the segment sizes are unequal. A solution is to draw the bars for women and men next to one another rather than stacking them. The disadvantage of this approach is that the absolute sizes of the market segments can no longer be directly seen on the y-axis. The mosaic plot offers a solution to this problem.

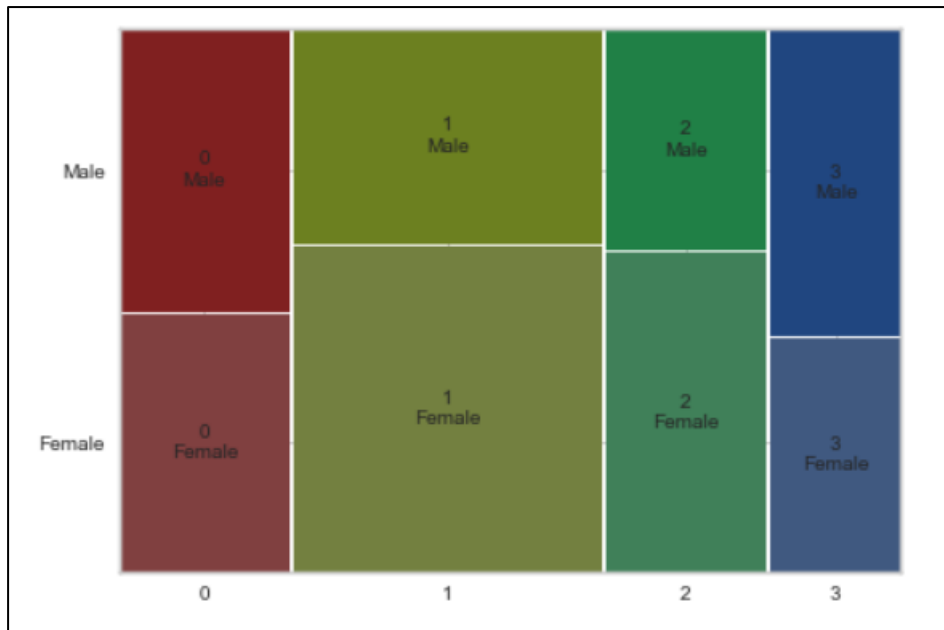


Now, taking an example of case study on McDonalds data.

The fast-food data set is not typical for data collected for market segmentation analysis because it contains very few descriptor variables. Descriptor variables - additional pieces of information about consumers - are critically important to gaining a good understanding of market segments. One descriptor variable available in the fast-food data set is the extent to which consumers love or hate McDonald's. Using a simple mosaic plot, we can visualise the association between segment membership and loving or hating McDonald's.



The mosaic plot plots segment number along the x-axis, and loving or hating McDonald's along the y-axis. The mosaic plot reveals a strong and significant association between those two variables. Members of segment 1 (depicted in the first column) rarely express love for McDonald's, as indicated by the top left boxes being coloured in red. In stark contrast, members of segment 4 are significantly more likely to love McDonald's (as indicated by the dark blue boxes in the top right of the mosaic plot). At the same time, these consumers are less likely to hate McDonald's (as indicated by the very small red boxes at the bottom right of the plot). Members of segment 2 appear to have the strongest negative feelings towards McDonald's; their likelihood of hating McDonald's is extremely high blue boxes at the bottom of the second column), and nearly none of the consumers in this segment love McDonald's.



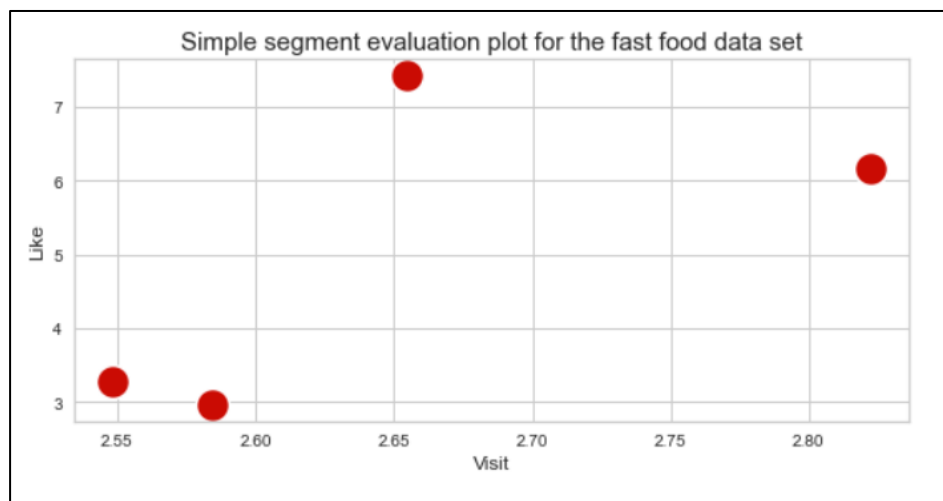
Optimally, additional descriptor variables would be available. Of particular interest would be information about product preferences, frequency of eating at a fast-food restaurant, frequency of dining out in general, hobbies and frequently used information sources (such as TV, radio, newspapers, social media). The availability of such information allows the data analyst to develop a detailed description of each market segment. A detailed description, in turn, serves as the basis for tasks conducted in Step 9 where the perfect marketing mix for the selected target segment is designed.

Step 8: Selecting the targets segments

Team member (Adnan Habib)

Step 8 is where the rubber hits the road. Now the big decision is made: which of the many possible market segments will be selected for targeting? Market segmentation is a strategic marketing tool. The selection of one or more target segments is a longterm decision significantly affecting the future performance of an organisation. This is when the flirting and dating is over; it's time to buy a ring, pop the question, and commit.

Using the knock-out criteria and segment attractiveness criteria specified in Step 2, users of the market segmentation can now proceed to develop a segment evaluation plot. The segment evaluation plot is extremely simplified because only a small number of descriptor variables are available for the fast-food data set. In the plot the frequency of visiting McDonald's is plotted along the x-axis. The extent of liking or hating McDonald's is plotted along the y-axis. The bubble size represents the percentage of female consumers. We can obtain the values required to construct the segment evaluation plot using the following commands. First, we compute the mean value of the visiting frequency of McDonald's for each segment.



Market segments 3 and 4 are located in the attractive quadrant of the segment evaluation plot. Members of these two segments like McDonald's and visit it frequently. These segments need to be retained, and their needs must be satisfied in the future. Market segment 2 is located in the least attractive position. Members of this segment hate McDonald's, and rarely eat there, making them unattractive as a potential market segment. Market segment 1 does not currently perceive McDonald's in a positive way, and feels that it is expensive. But in terms of loving McDonald's and visitation frequency, members of market segment 1 present as a viable target segment. Marketing action could attempt to address the negative perceptions of this segment, and re-

enforce positive perceptions. As a result, McDonald's may be able to broaden its customer base. The segment evaluation plot serves as a useful decision support tool for McDonalds' management to discuss which of the four market segments should be targeted and, as such, become the focus of attention in Step 9.

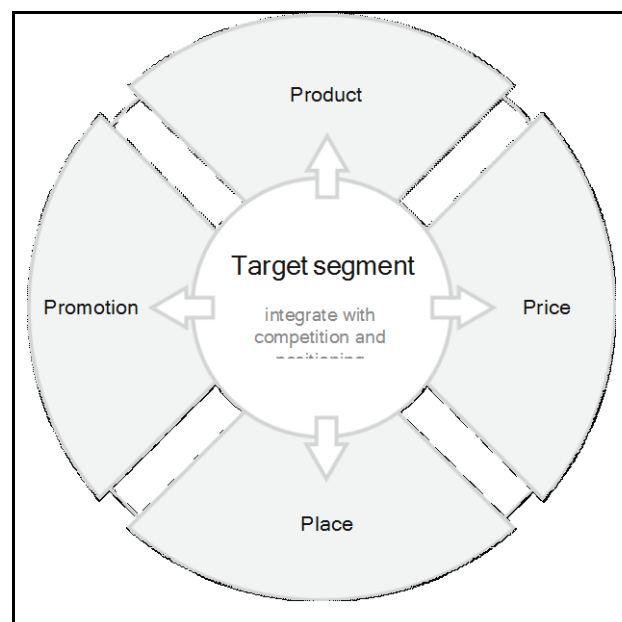
Code implementation:

[GitHub - Adnan232/McDonalds-Market-Segmentation-Analysis](https://github.com/Adnan232/McDonalds-Market-Segmentation-Analysis)

Step 9: Customising the Marketing Mix

Team Member (Aniket singh)

The marketing mix is designed in Step 9. McDonald's management might choose to offer an MCSUPERBUDGET line to expressly cater to the price expectations of segment 3 (young customers who enjoy McDonald's, think their meal is delicious and flavorful, but consider it to be somewhat pricey) (4Ps: Price). The benefit of such a strategy may be that segment 3 members grow to be devoted patrons who, when they begin earning more money, will no longer be concerned about the price and switch to the usual McDonald's variety of products. The product features of the MCSUPERBUDGET range would need to be distinctly different from the main range in order to avoid cannibalizing it (4Ps: Product)



Product:

One of the key decisions an organization needs to make when developing the product dimension of the marketing mix, is to specify the product in view of customer needs.

Other marketing mix decisions that fall under the product dimension are: naming the product, packaging it, offering or not offering warranties, and after sales support services.

In terms of the product targeted at this market segment, possible product measures may include developing a new product.

Another opportunity for targeting this segment is that of proactively making gardens at the destination an attraction in their own right

Price:

Typical decisions an organization needs to make when developing the price dimension of the marketing mix include setting the price for a product, and deciding on discounts to be offered.

Price of a product or products determines the profitability of a firm, in the final analysis by influencing the sales revenue. In the firm, price is the basis for generating profits.

Price is often used to off-set the weaknesses in other elements of the marketing-mix.

Normally, profit or contribution is taken as a base for pay-off conditions. Price can be a better criterion for arriving at cut-off point because; price is the determinant of profit or contribution.

Place:

The key decision relating to the place dimension of the marketing mix is how to distribute the product to the customers.

This includes answering questions such as: should the product be made available for purchase online or offline only or both; should the manufacturer sell directly to customers; or should a wholesaler or a retailer or both be used.

We can use propBarchart from package flexclust to visualise stated booking behaviour.

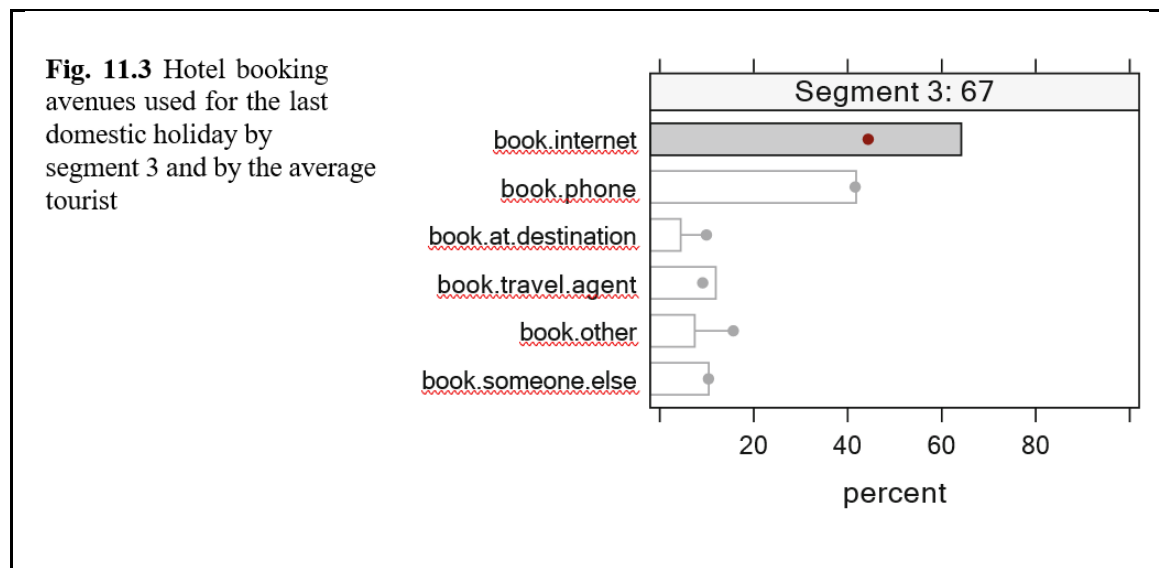


Figure 11.3 indicates that members of segment 3 differ from other tourists in terms of how they booked their hotel on their last domestic vacation: they book their hotel online much more frequently than the average tourist.

This information has clear implications for the place dimension of the marketing mix. There must be an online booking option available for the hotel.

It would be of great value to also collect information about the booking of other products, services and activities by members of segment 3 to see if most of their booking activity occurs online, or if their online booking behavior is limited to the accommodation.

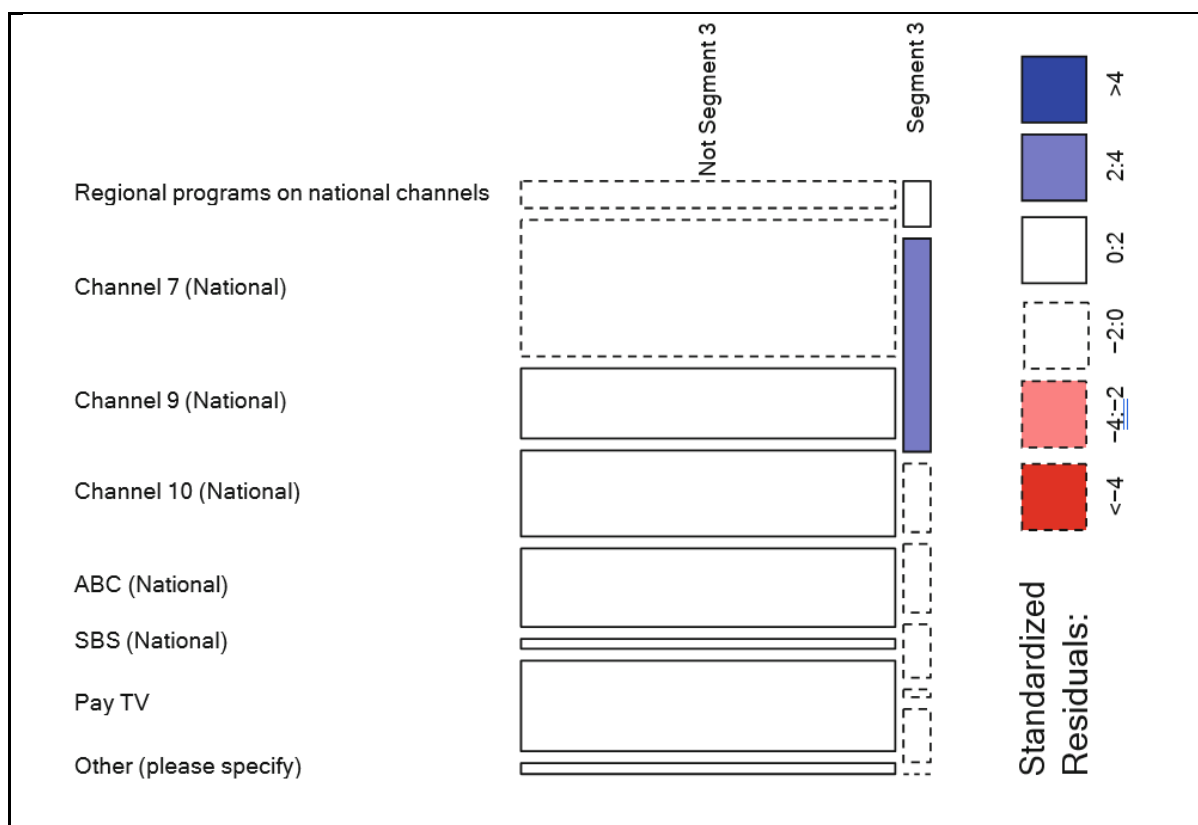
Promotion:

Typical promotion decisions that need to be made when designing a marketing mix include: developing an advertising message that will resonate with the target market, and identifying the most effective way of communicating this message.

The importance of promotion in marketing mix is such that it builds awareness about your brand and the product in the market by targeting the right set of consumers. Thus, leading to the creation of demand in the market and finally, an increase in sales for your company.

The Vodafone ZooZoos ad campaign was such a hit during the IPL season 2 that it brought about 305,900 followers to Vodafone on Facebook.

Also, the Happydent White Palace ad received various awards for the best ad and was said to be among 20 best ads in the century. It brought about an increase in the market share of more than 25% to the brand.



This figure points to another interesting piece of information about segment 3. Its members have a TV channel preference for Channel 7, differentiating them from other tourists. Again, it is this kind of information that enables the destination to develop a media plan ensuring maximum exposure of members of segment 3 to the targeted communication of, for example, a MUSEUMS, MONUMENTS & MUCH, MUCH MORE product.

One of the key decisions an organization needs to make when developing the product dimension of the marketing mix, is to specify the product in view of customer needs.

Other marketing mix decisions that fall under the product dimension are: naming the product, packaging it, offering or not offering warranties, and after sales support services.

In terms of the product targeted at this market segment, possible product measures may include developing a new product.

Another opportunity for targeting this segment is that of proactively making gardens at the destination an attraction in their own right

Code implementation:

<https://github.com/AniketSingh18/MCDONALDS/blob/main/FEYNN%20LABS>

Step 10: Evaluation and Monitoring:

Team Member (Dhruv Kumar Dhandhukiya)

Segmentation must be viewed as an ongoing strategic decision process. Two additional tasks need to be performed on an ongoing basis:

- The effectiveness of the segmentation strategy needs to be evaluated.
- The market is not static. Consumers change, the environment, and actions of competitors change. As a consequence, a process of ongoing monitoring of the market segmentation strategy must be devised. The aim of evaluating the effectiveness of the market segmentation strategy is to determine whether developing a customised marketing mix for one or more segments did achieve the expected benefits for the organisation.

References:

[Need for Market Segmentation - Why Market Segmentation ?
\(managementstudyguide.com\)](https://www.managementstudyguide.com/Need-for-Market-Segmentation-Why-Market-Segmentation-?)