

# Market Segmentation Summary

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07/10/2023

GitHub Repository Link: <https://github.com/Fayouzz/Market-Segmentation>

## **Market Segmentation:**

Marketing aims to match consumers with suitable offers. Marketing planning consists of a strategic and tactical plan. The strategic plan outlines the long-term direction of an organization, while the tactical plan provides instructions for short-term marketing action. Market research is used to investigate consumer needs and desires. Two key decisions are made during the strategic marketing planning process: which consumers to focus on and which image the organization to create in the market.

Market segmentation analysis involves grouping consumers into naturally existing or artificially created segments based on similar product preferences or characteristics. It is a statistical process that requires both a competent data analyst and a user who understands the broader mission of the organization. To ensure high-quality grouping of consumers, additional tasks are required, including collecting good data, exploring data, profiling segments, and describing segments. A theoretically excellent market segmentation solution is meaningless unless users can convert the solution into strategic marketing decisions and tactical marketing action. A third layer of non-technical tasks, such as assessing effectiveness and monitoring marketing changes, are also necessary for implementing a long-term strategy. All decisions have to be made by users, and they are entirely independent of the technical task of extracting market segments from consumer data. The statistical segment extraction process cannot compensate for bad data. To develop a customised marketing mix, one or more target segments need to be chosen, and a single approach is needed to design a marketing plan.

## **Steps of Market Segmentation Analysis:**

### **Step 1: Deciding (not) to Segment:**

Market segmentation is a key marketing strategy, but it is not always the best decision to pursue it. Before investing time and resources in a market segmentation analysis, it is

important to understand the implications of pursuing it. The organization needs to commit to the segmentation strategy on the long term and be willing to make substantial changes and investments. Segmenting a market is not free, and it is recommended not to segment unless the expected increase in sales is sufficient. Senior management, lack of leadership and involvement in the process, and lack of resources can impede successful implementation. Organizations need to organize around the market segments rather than products to maximize the benefits of segmentation. Lack of market or consumer orientation, resistance to change and new ideas, and unwillingness to share information and insights across organizational units can also impede the successful roll-out of the strategy. To ensure ongoing focus on the changing needs of market segments, strategic business units in charge of segments offer a suitable organizational structure. The decision to investigate the potential of a market segments strategy must be made at the highest executive level and must be systematically communicated and reinforced at all organizational levels and across all units. Short-term thinking, bad communication, unwillingness to make changes, and a lack of formal training in marketing are barriers to successful segmentation implementation. If an organization lacks expertise in segmentation, they may not be able to assess the potential impact of their marketing strategy.

### **Step 2: Specifying the Ideal Target Segment:**

In the second step of market segmentation analysis, an organization plays a crucial role by defining two types of criteria. First, there are the "knock-out criteria," which are like the must-haves for a segment to even be considered. These are the essential features or characteristics a segment must possess for the organization to think about targeting it. The second set of criteria is the "attractiveness criteria." These help the organization evaluate which of the remaining segments are most appealing. So, once segments meet the knock-out criteria, the attractiveness criteria help determine which ones are the best fit for the organization's goals. The literature does not generally distinguish between these two kinds of criteria. The shorter set of knock-out criteria is essential. In choosing which customer groups to focus on, it's not up to the segmentation team to decide how important they are. Instead, there's a long list of factors to consider. The team has to pick which of these factors matter the most for their company and discuss them. Some criteria might automatically rule out certain customer groups, while others are decided upon by the team to figure out which customer groups are most appealing overall. This helps the team choose the best target groups at the end.

### **Step 3: Collecting Data:**

Empirical data is used to identify market segments and describe them in detail. The term segmentation variable refers to the variable in the empirical data used in commonsense segmentation to split the sample into market segments. In data-driven market

segmentation, multiple segmentation variables serve as the starting point for identifying naturally existing or artificially created market segments useful to the organization. Describing segments is critical to developing an effective marketing mix targeting the segment.

#### **Step 4: Exploring Data:**

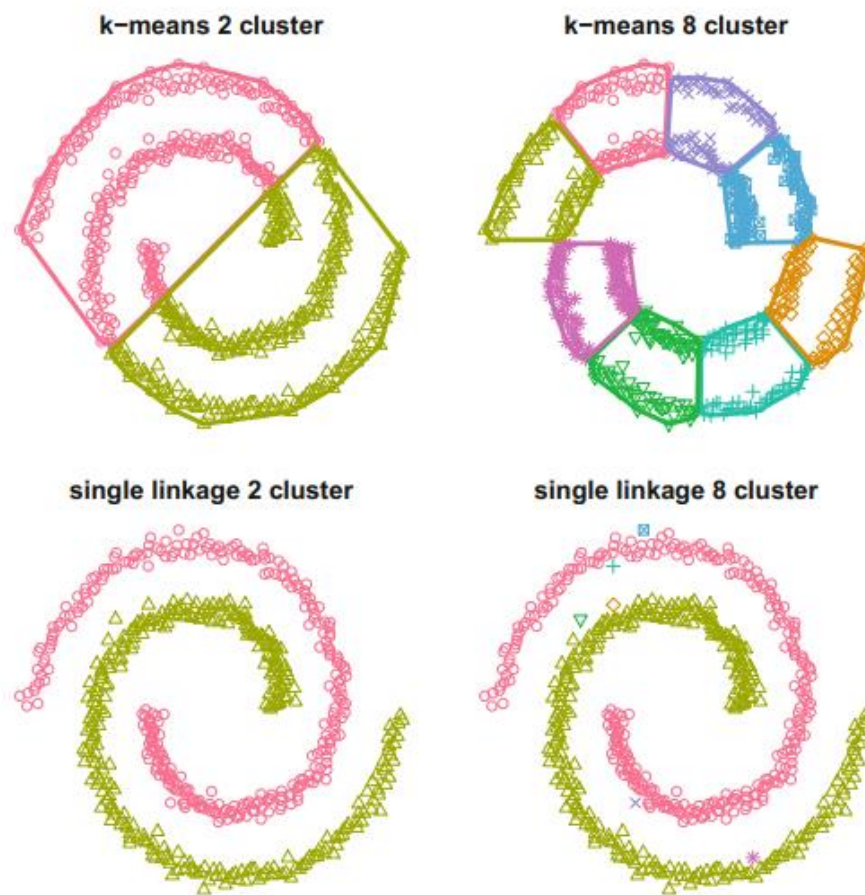
The article discusses the exploration stage of data analysis. This stage involves identifying the measurement levels, univariate distributions, and dependency structures between variables. The article provides examples of travel motives reported by 1000 Australian residents in relation to their last vacation. The CSV file of the data is contained in the R package MSA and can be explored with a spreadsheet program.

Before starting data analysis, clean the data by verifying correct values and consistent labels for categorical variables. Check for implausible values in metric variables, like age (0-110 years), which could indicate data errors during collection or entry. Check categorical variable levels for permissible values. For instance, gender in surveys usually has two options: female and male. Remove any other values during data cleaning.

It also involves Descriptive analysis and Pre-Processing.

#### **Step 5: Extracting Segments:**

Market segmentation analysis is based on exploratory methods and unstructured consumer data. The results depend on the assumptions made on the structure of the segments. There is no single best algorithm for all data sets. It is important to explore market segmentation solutions derived from a range of different clustering methods. Different algorithms impose structure on the extracted segments. One example is the k-means cluster analysis, which fails to identify the spiral-shaped segments in the data. Single linkage clustering correctly identifies the existing two spiralling segments, even if the incorrect number of segments is specified up front.



**Fig. 7.1** *k*-means and single linkage hierarchical clustering of two spirals

The text discusses various approaches to measure distance between two vectors, including Euclidean distance and absolute distance, commonly used in market segmentation analysis. Table 7.2 is a data matrix with rows representing observations and columns representing variables, representing the number of observations and variables in a vacation activity profile. The vector corresponding to the  $i$ -th row of matrix  $X$  is denoted as  $x_i$ , such that  $X = \{x_1, x_2, \dots, x_p\}$  is the set of all observations. A distance measure is a function  $d(\cdot, \cdot)$  with two arguments: the two vectors  $x$  and  $y$  between which the distance is being calculated, and the result is a nonnegative value. Distance measures comply with criteria such as symmetry and the distance of a vector to itself and only to itself is 0. Most distance measures fulfil the triangle inequality, which says that if one goes from  $x$  to  $z$  with an intermediate stop in  $y$ , the combined distance is at least as long. The most common distance measures used in the context of geographical distance are also valid, such as the distance a car has to drive on roads from one city to another.

Hierarchical clustering methods are the most intuitive way of grouping data and mimic how a human would approach the task of dividing a set of  $n$  observations into  $k$  groups. Divisive hierarchical clustering splits the complete data set into two market segments and splits them

into two segments until each consumer has their own market segment. Agglomerative clustering approaches the task from the other end. Both approaches result in a sequence of nested partitions. The measure of distance between groups of observations (segments) is determined by specifying a distance measure  $d(x, y)$  between observations (consumers)  $x$  and  $y$ , and a linkage method. There is no correct combination of distance and linkage method, and different combinations can reveal different features of the data. The linkage methods are available in the standard R function `hclust()` and can be combined with any distance measure.

### **Step 6: Profiling Segments:**

The profiling step is necessary when data-driven market segmentation is used. Identifying defining characteristics of market segments with respect to the segmentation variables is the aim of profiling. Good profiling is the basis for correct interpretation of the resulting segments. Traditional approaches to profiling market segments include using the Australian vacation motives data set. Graphical statistics approaches make profiling less tedious and thus less prone to misinterpretation.

### **Step 7: Describing Segments:**

Segment profiling involves understanding differences in segmentation variables across market segments, which form the basis for extracting market segments from empirical data. In Step 7, segment segments are described using additional information about segment members, such as age, gender, past travel behaviour, and preferred vacation activities. Good descriptions of market segments are critical for gaining detailed insight into their nature. This knowledge is important for the development of a customised marketing mix to target segment 4. Visualizations and statistical testing are two ways to study differences between market segments with respect to descriptor variables. The marketing literature traditionally relies on statistical testing and tabular presentations of differences in descriptor variables, but visualizations make segment description more user-friendly. The article discusses two basic approaches suitable for nominal and ordinal descriptors: descriptive statistics and inferential statistics. It simplifies the process of identifying market segments by using statistical statistics and visualizations. The authors recommend using graphical visualization tools for higher efficiency in marketing research.

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

Market segmentation is a strategic marketing tool that significantly affects the future performance of an organization. After a global market segmentation solution has been

chosen, one or more market segments need to be selected for targeting. The segmentation team has to ask a number of questions to evaluate the attractiveness and organizational competitiveness of the remaining segments. Most books that discuss target market selection recommend the use of a decision matrix to visualize relative segment attractiveness.

#### **Step 9: Customising the Marketing Mix:**

Marketing was originally seen as a toolbox to achieve the best possible sales results. The marketing mix is commonly understood as consisting of the 4Ps: Product, Price, Promotion and Place. Market segmentation goes hand in hand with the other areas of strategic marketing, most importantly: positioning and competition. The segmentation-targeting-positioning approach postulates a sequential process. To maximize the benefits of a market segmentation strategy, it is important to customise the marketing mix to the target segment.

#### **Step 10: Evaluation and Monitoring:**

Market segmentation is an ongoing strategic decision process that requires constant monitoring. The effectiveness of the segmentation strategy needs to be evaluated to determine if it has achieved the expected benefits for the organization. The market is not static, and changes in segment membership are problematic. Studies have shown low stability of segment membership over time. The primary desired outcome for most organizations is increased profit.