MARKET SEGMENTATION

Marketing is the matching of needs of the consumers with those offering of the suppliers that satisfy those needs. This matching facilitates mutual benefit.

Market planning is an activity which leads to the setting up of marketing objectives and formulation of those plans which can fulfill those objectives. A marketing plan has two parts:

1. **Strategic marketing:** Outlines the long-term direction of the organization. Does not provide details on the short-term plans that are required to move in the long-term direction. *This plan states where and why the organization wants to go.* In this step the following are identified:
    a. **Strengths and weakness of the organization through a SWOT analysis**
    b. **Needs and desires of the consumer through market research**
2. **Tactical marketing:** Opposite of Strategic marketing. Translated long term strategic plan into short term marketing actions. *This plan tells what needs to be done to move in the long-term direction.*

But both of these steps are not simultaneous, rather they are performed one after the other. Tactical marketing plan only begins after the SWOT analysis and Market research get completed and the following two crucial decisions have been made:

1. **Segmentation and Targeting:** Which consumers have to be focused on.
2. **Positioning:** Which image the company has to be created.

These decisions are significant because they decide the long-term direction of the company and cannot easily be reversed. Only after these decisions are made does the tactical marketing begin. It is traditionally seen to cover four areas: the development and modification of the product in view of needs and desires of the target segment (Product), the determination of the price in view of cost, competition, and the willingness to pay of the target segment (Price), the selection of the most suitable distribution channels to reach the target segment (Place), and the communication and promotion of the offer in a way that is most appealing to the target segment (Promotion). Tactical marketing completely depends on the strategic planning while the reverse is not true. The outcomes of strategic marketing are segmentation targeting and positioning. And segmentation is what we will be focusing on further.

MARKET SEGMENTATION

Segmentation or Market Segmentation is a decision-making tool which helps the marketing manager to decide which segment to target. Targeting can be performed only when the market segments have been identified through the use of market segmentation. Market segmentation means cutting markets into slices. Ideally, consumers belonging to the same market segments are very similar to one another with respect to the consumer characteristics deemed critical by management. At the same time, optimally, consumers belonging to different market segments are very different from one another with respect to those consumer characteristics. Consumer characteristics deemed critical to market segmentation by management are referred to as segmentation criteria.

BENEFITS OF MARKET SEGMENTATION

1. **Critical Insights:** Allows the company to know where it stands and where it desires to go. This forces the company to identify its strengths and understand the needs of the consumers even more.
2. **Tangible Benefits:** Understanding the needs of the market segment helps the company to differentiate between consumers and allows to match its offerings with the needs of the consumers even more. In the long run this offers the company a competitive advantage in the target market.
3. **Higher returns on investments:** Marketing mix which is customized to the needs of the target market generates a larger probability of getting higher returns on investments. The company will not waste its resources on reaching out to the customers whose needs it could not satisfy anyway.
4. **Effective sales management:** Market segmentation has also been shown to be effective in sales management because it allows direct sales efforts to be targeted at groups of consumers rather than each consumer individually.
5. **Team Building:** Since market segmentation requires the collaboration of many stakeholders of the company, more communication flows through the organization and a better team is built.

COSTS OF MARKET SEGMENTATION

1. **Substantial investment:** A lot of human and financial resources have to be used to conduct this activity.
2. **Continuous commitment of resources:** Evaluation of segmentation strategy and monitoring changing market dynamics means continuous use of resources which could have been put into a different use.
3. **Costs of failure:** If the market segmentation is not effectively implemented, the entire exercise becomes a wastage of resources without any additional return.

MARKET SEGMENTATION ANALYSIS

Market segmentation is a typically statistical procedure but the choices that the data analyst makes while conducting the extraction can greatly influence the final results. Therefore, the data analyst has to be accompanied by an expert who has a deep understanding of the long run plans of the organization. This organization is going to be the final user of the market segmentation results.

There are three layers of a beneficial market segmentation:

1. **Layer one:** An organisation needs to assess whether, in their particular case, implementing a market segmentation strategy will lead to market opportunities otherwise unavailable to them. If the market segmentation analysis points to such opportunities, the organisation must be willing to commit to this long-term strategy. All of these decisions have to be made by the organization itself.
2. **Layer two:** To ensure that the grouping of consumers is of the highest quality, a number of additional tasks are required. This includes collecting good data because segmentation analysis cannot compensate for bad data. Another crucial step is to explore the data before the actual segmentation is performed. Once the segmentation is completed, the analyst needs to profile the segments and describe them in detail.
3. **Layer three:** This is the non-technical layer. If the first two layers were performed well, the result is high quality market segmentation analysis. The user now needs to choose which segment to target and then develop the marketing mix.

APPROACHES TO MARKET SEGMENTATION ANALYSIS

There are broadly two approaches to market segmentation:

1. **Based on organizational constraints:** This approach uses as its basis the extent to which the company is ready to change its current marketing approach. There are three types:
    a. **Segment revolution:** This is the typical market segmentation analysis. It assumes that the company is ready to start from absolute scratch and completely throw away its current marketing strategy. The company has to be open minded to explore all the segments and then decide which market to target. If this strategy is used the organization has to adopt a completely new marketing strategy. But this approach is often not viable.
    b. **Segment evolution:** A less radical approach is segment evolution which is based on focusing and refining the existing market segments
    c. **Segment Mutation:** In this approach, market segments are discovered through exploratory research, possibly unrelated to the initial purpose. In the era of big data, segment changes can result from mining data streams rather than qualitative research. Continuous monitoring of market segments through data streams helps adapt segmentation strategies to ensure organizational survival and prosperity as market structures evolve.
2. **Based on choice of variables:** This approach uses as its basis the nature of the segmentation variable. On the basis of the nature of the variable there are two types of approaches:

a. **Commonsense segmentation:** This approach uses only a single segmentation variable such as age or country of origin. This is a unidimensional statistical problem because a variable such as 'age' has no sub determinants. This approach to market segmentation is created without the use of primary surveys or market research, rather managerial intuition, analysis of secondary data, internal consumer database and analysis of existing surveys are used to divide the consumers into different segments. When this approach is used, the aim of the segmentation is not to identify key identifying characteristics of the segments (because they have been chosen a priori), rather the aim is to get deeper insights into the nature of each segment.
b. **Data driven segmentation:** This approach uses multiple segmentation variables such as consumer expenditure pattern. This is a multidimensional statistical problem because consumer expenditure has multiple determinants. The term data driven implies that the segmentation solution is determined through data analysis. This approach uses primary research into the market. In this approach the company has certain assumptions that are critical to identifying the target market but does not know the exact profiles of suitable target segments. The aim of this approach is therefore two-fold: Explore different segments using segmentation variables chosen and to then develop a profile of the segments selected for targeting

In reality commonsense and data driven segmentation are two extreme approaches of segmenting. Rather a combination of both is used to segment data. We can therefore have commonsense segmenting to begin with and then use data driven segmentation to segment the data further or vice versa. We can in fact have four different combinations:
- Commonsense/Commonsense
- Commonsense/Data driven
- Data Driven/Common sense
- Data Driven/Data Driven

DATA STRUCTURE AND DATA DRIVEN MARKET SEGMENTATION APPROACHES

When conducting data-driven market segmentation, data analysts and users of market segmentation solutions often assume that market segments naturally exist in the data. Such naturally occurring segments, it is assumed, need to merely be revealed and described. But there is a debate whether such structures actually exist or not. If such structures do not exist in the real world, then there is no point in imposing clusters. Many have argued that natural clusters do exist which only need to be revealed through data, while others argue that no such clusters exist, but artificially imposed clusters can be beneficial for marketing. So there can be three different approaches to data driven market segmentation:

A. **Natural segmentation** reflects the traditional view that distinct market segments exist in the data, and that the aim of market segmentation analysis is to find them. This traditional view is reflected well in the statement that the initial premise in segmenting a market is that segments actually do exist.
B. **Reproducible segmentation** refers to the case where natural market segments do not exist in the data. But the data are not entirely unstructured either. Rather, the data contain some structure – other than cluster structure – making it possible to generate the same segmentation solution repeatedly. The ability to repeatedly reveal the same

or very similar market segments, makes results of data-driven segmentation studies less random and more reliable.

C. **Constructive segmentation** refers to the case where neither cluster structure nor any other data structure exists, which would enable the data analyst to reproduce similar segmentation solutions repeatedly across replications.

TEN STEPS FOR MARKET SEGMENTATION

The recommended ten-step approach to market segmentation analysis involves:

1. Evaluating the decision to pursue segmentation.
2. Specifying characteristics of the ideal market segment.
3. Collecting empirical data after conceptual groundwork.
4. Exploring the collected data.
5. Extracting market segments.
6. Profiling the resulting segments.
7. Describing the segments in detail.
8. Selecting specific segments to target.
9. Developing a customized marketing mix based on the chosen segments.
10. Evaluating the success and continuously monitoring segments for potential changes, which may necessitate adjustments to the segmentation strategy.

STEP 1: DECIDING TO SEGMENT OR NOT TO SEGMENT

Before deciding to implement a market segmentation strategy, the organization needs to be aware of the implications of the activity and the barriers that come in the way of implementation. The organization should proceed with the market segmentation process only after it has realized the effects of its decision and it has found ways to overcome the barriers to implementation. Some of the implications and implementation barriers are as follow:

IMPLICATIONS OF MARKET SEGMENTATION

1. **Commitment:** The organization needs to commit to the segmentation strategy in the long run. It should be performed only if the expected increase in sales is greater than the cost of conducting the segmentation because segmentation is a costly research affair.
2. **Potential Changes:** Potentially required changes include the development of new products, the modification of existing products, changes in pricing and distribution channels used to sell the product, as well as all communications with the market. These changes, in turn, are likely to influence the internal structure of the organisation, which may need to be adjusted in view of targeting a handful of different market segments.

IMPLEMENTATION BARRIERS

1. **Senior Management:** Lack of leadership, pro-active championing, commitment and involvement in the market segmentation process by senior leadership undermines the success of market segmentation. Senior management can also prevent market segmentation to be successfully implemented by not making enough resources available, either for the initial market segmentation analysis itself, or for the long-term implementation of a market segmentation strategy.
2. **Organizational Culture:** Lack of market or consumer orientation, resistance to change and new ideas, lack of creative thinking, bad communication and lack of sharing of information and insights across organisational units, short-term thinking, unwillingness to make changes and office politics have been identified as preventing the successful implementation of market segmentation.
3. **Lack of training:** If senior management and the team tasked with segmentation do not understand the very foundations of market segmentation, or if they are unaware of the consequences of pursuing such a strategy, the attempt of introducing market segmentation is likely to fail.
4. **Lack of resources:** A company with limited resources needs to pick only the best opportunities to pursue. Process-related barriers include not having clarified the objectives of the market segmentation exercise, lack of planning or bad planning, a lack of structured processes to guide the team through all steps of the market segmentation process, a lack of allocation of responsibilities, and time pressure that stands in the way of trying to find the best possible segmentation outcome.

STEP 2: SPECIFYING THE IDEAL TARGET SEGMENT

After having committed to the market segmentation, the organisation must now determine two sets of segment evaluation criteria:

- **Knock-out criteria:** These criteria are the essential, non-negotiable features of segments that the organisation would consider targeting.
- **Attractiveness criteria:** These criteria are used to evaluate the relative attractiveness of the remaining market segments – those in compliance with the knock-out criteria.

Where knock-out criteria automatically eliminate some of the available market segments, attractiveness criteria are first negotiated by the segmentation team, and then applied to determine the overall relative attractiveness of each market segment.

KNOCK OUT CRITERIA

Knock-out criteria are used to determine if market segments resulting from the market segmentation analysis qualify to be assessed using segment attractiveness criteria. Knock out criteria can be as follows:

- **Homogeneous**: Members of the segment must be similar to one another.
- **Distinct**: Members of the segment must be distinctly different from members of other segments.
- **Large enough**: The segment must contain enough consumers to make it worthwhile to spend extra money on customising the marketing mix for them.
- **Matching:** The organisation must have the capability to satisfy segment members' needs.
- **Identifiable**: The segment must be possible to spot them in the marketplace.
- **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.

ATTRACTIVENESS CRITERIA

Attractiveness 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 a specific criterion. Some attractiveness criteria include: Sales estimates, Cost estimates, Long-term profit opportunities, financial resources, Managerial skills, Employee expertise, Facilities to compete effectively, Fit with corporate objectives, Legal issues, Conflicts with stakeholders, Technological advances etc.

IMPLEMENTING A STRUCTURED PROCESS

In market segmentation, a structured approach is widely acknowledged as beneficial. A prevalent method for evaluating market segments involves using a segment evaluation plot, where segment attractiveness and organizational competitiveness serve as axes. The values for these criteria are determined by the segmentation team, given the absence of a universal set of criteria applicable to all organizations. Negotiation and agreement are crucial in defining factors for both segment attractiveness and organizational competitiveness, necessitating exploration of numerous criteria. It is recommended to limit the calculation basis to no more than six factors. Team collaboration is key in this process, with representatives from various organizational units contributing diverse perspectives. Inclusion of these units is vital, as the segmentation strategy impacts every organizational facet. The early selection of attractiveness criteria, even before actual segments are available, proves advantageous for data collection and facilitates the subsequent choice of a target segment. By the end of this step, the market segmentation team should have a list of approximately six attractiveness criteria, each assigned a weight reflecting its importance in comparison to others. The weighting process typically involves team members distributing 100 points across criteria, with negotiations until consensus, ideally seeking approval from the advisory committee for their diverse perspectives.

STEP 3: COLLECTING THE DATA

Long before segments are extracted, and long before data for segment extraction is collected, the organisation must make an important decision: it must choose which segmentation criterion to use. There is a difference between *segmentation criterion* and the term segmentation variable. The term segmentation variable refers to one measured value, for example, one item in a survey, or one observed expenditure category. The term segmentation criterion relates to the nature of the information used for market segmentation. It can also relate to one specific construct, such as benefits sought. Segmentation criteria can be of the following kind:

1. **Geographical segmentation:** When geographic segmentation is used, the consumer's location of residence serves as the only criterion to form market segments. The key advantage of geographic segmentation is that each consumer can easily be assigned to a geographic unit. As a consequence, it is easy to target communication messages, and select communication channels (such as local newspapers, local radio and TV stations) to reach the selected geographic segments. The key disadvantage is that living in the same country or area does not necessarily mean that people share other characteristics relevant to marketers, such as benefits they seek when purchasing a product.
2. **Socio-Demographic segmentation:** Typical socio-demographic segmentation criteria include age, gender, income and education. Socio-demographic segmentation criteria have the advantage that segment membership can easily be determined for every consumer. In some instances, the socio-demographic criterion may also offer an explanation for specific product preferences. But in many instances, the socio-demographic criterion is not the *cause* for product preferences, thus not providing sufficient market insight for optimal segmentation decisions.
3. **Psychographic segmentation:** When people are grouped according to psychological criteria, such as their beliefs, interests, preferences, aspirations, or benefits sought when purchasing a product, the term psychographic segmentation is used. Psychographic criteria are more complex than geographic or sociodemographic criteria because it is difficult to find a single characteristic of a person that will provide insight into the psychographic dimension of interest. As a consequence, most psychographic segmentation studies use a number of segmentation variables. The psychographic approach has the advantage that it is generally more reflective of the underlying reasons for differences in consumer behaviour. The disadvantage of the psychographic approach is the increased complexity of determining segment memberships for consumers. Also, the power of the psychographic approach depends heavily on the reliability and validity of the empirical measures used to capture the psychographic dimensions of interest.
4. **Behavioural segmentation:** Another approach to segment extraction is to search directly for similarities in behaviour or reported behaviour. A wide range of possible behaviours can be used for this purpose, including prior experience with the product, frequency of purchase, amount spent on purchasing the product on each occasion, and information search behaviour. The key advantage of behavioural approaches is that – if based on actual behaviour rather than stated behaviour or stated intended behaviour – the very behaviour of interest is used as the basis of segment extraction. But behavioural data is not always readily available, especially if the aim is to include in

the segmentation analysis potential customers who have not previously purchased the product, rather than limiting oneself to the study of existing customers of the organisation.

Once the segmentation criteria have been specified, the segmentation team can now start collecting the data. Data can be collected from three sources:

1. **Data from survey studies:** A common method for market segmentation analyses is the use of survey data due to its cost-effectiveness and ease of collection, rendering it practical for any organization. However, in contrast to data obtained through the observation of actual behaviour, survey data is vulnerable to various biases. Several crucial aspects should be taken into account when utilizing survey data:
    a. **Choice of variables:** Selecting variables is crucial in both commonsense and data-driven market segmentation, particularly in the latter where all relevant variables must be included while avoiding unnecessary ones to prevent respondent fatigue and algorithmic difficulties. Noisy variables, arising from poorly developed survey questions, can hinder correct segmentation solutions. It is recommended to ask necessary, unique questions, avoiding redundancy, and conduct exploratory research to develop a comprehensive questionnaire, ensuring all critical variables are considered in a two-stage process involving both qualitative and quantitative research.
    b. **Response options:** Survey response options play a crucial role in subsequent analyses, because not all survey responses are suitable for data analysis. Binary or dichotomous responses, represented as 0s and 1s, are straightforward for segmentation analysis due to the clear distance definition. Nominal variables, representing responses from unordered categories, can be converted into binary data. Metrics, such as age or nights stayed, are well-suited for statistical procedures. Ordinal data, commonly used in surveys with ordered response options, pose challenges as the distance between adjacent options is not clearly defined. Preferably, providing meaningful binary or metric response options avoids complications related to distance measures in data-driven segmentation analysis. Despite the dominance of ordinal scales, opting for binary or metric options is not necessarily a compromise.
    c. **Response styles:** Survey data is susceptible to biases, and one significant issue is response bias, a systematic tendency to respond based on factors unrelated to the item content. Persistent biases over time, independent of specific survey questions, indicate a response style. Various response styles, like favouring extreme or midpoint options, can impact segmentation results as common algorithms cannot distinguish between genuine beliefs and response styles. To minimize such risks in market segmentation data, it is crucial to conduct additional analyses or remove respondents affected by response styles, ensuring accurate interpretation and targeting of market segments.
    d. **Sample size:** In market segmentation analysis, sample size is a critical factor often overlooked in statistical analyses. Few studies have explored this issue, with Formann (1984) recommending a sample size of at least 2p (preferably five times 2p) for latent class analysis with binary variables. Qiu and Joe (2015) suggested a sample size of at least ten times the number of segmentation variables times the number of segments. Dolnicar et al. (2014) conducted simulations, recommending a sample size of at least $60 \cdot p$ for accurate segmentation. Here p is the number of segmentation variables.

2. **Data from internal sources:** Internal data can be harvested for the purpose of market segmentation analysis. For example, scanner data available to grocery stores, booking data available through airline loyalty programs, and online purchase data. Such data represents *actual* behaviour of consumers, rather than statements of consumers about their behaviour or intentions, known to be affected by imperfect memory. Another advantage is that such data are usually automatically generated and – if organisations are capable of storing data in a format that makes them easy to access– no extra effort is required to collect data. The danger of using internal data is that it may be systematically biased by over-representing existing customers. What is missing is information about other consumers the organisation may want to win as customers in future, which may differ systematically from current customers in their consumption patterns.
3. **Data from experiments:** Experimental data serves as another valuable source for market segmentation analysis, originating from either field or laboratory experiments. These experiments may involve testing people's responses to various advertisements, with the advertisement response becoming a potential segmentation criterion. Additionally, experimental data can arise from choice experiments or conjoint analyses, where consumers are presented with carefully designed stimuli featuring specific levels of product attributes. In such studies, consumers express their preferences among products characterized by different attribute combinations. Conjoint studies and choice experiments provide insights into how each attribute and its level influence consumer choice, offering valuable information that can be utilized as a segmentation criterion in market analysis.

STEP 8: SELECTING THE TARGET SEGMENT(S)

Step 8 in the market segmentation process is really significant for the organization, since it is in this step that the organization has to select a segment and commit to it in the long run. Subsequentially, this will have important effects on the long-term performance of the organization. The first task in Step 8 is to ensure that all the market segments that are under consideration to be selected as target markets have well and truly passed the knock-out criteria that were specified in Step 2. Once this is done, the attractiveness of the remaining segments and the relative organisational competitiveness for these segments needs to be evaluated. The segmentation team has to ask the following questions:

1. Which of the market segments would the organisation most like to target?
2. How likely is it that each segment would commit to us (i.e., the competitiveness of the segment)?

MARKET SEGMENTATION EVALUATION

A decision matrix is used to visualize relative segment attractiveness and organization competitiveness. The aim of a decision matrix is to make it easier for the organisation to evaluate alternative market segments, and select one or a small number for targeting. Such a matrix will have two axes: The X-Axis will have segment attractiveness, while the Y-Axis will have relative organisational competitiveness. But we will have to make segment attractiveness and organizational competitiveness measurable before we plot them onto the axes.

1. To be able to quantify the attractiveness of each segment, the segmentation needs two things:
    a. Criteria for determining an ideal market segment and the corresponding weights to indicate the importance of each criterion. *These were decided in step 2.*
    b. The values of each of these criteria for every segment. *This would have been measured in step 6 and 7.*

   This would allow us to quantify the attractiveness of each of these segments.

2. To be able to quantify the competitiveness of each segment, we need to know which criteria do consumers use to select between alternative offers in the market. Possible criteria may include attractiveness of the product to the segment in view of the benefits segment members seek; suitability of the current price to segment willingness or ability to pay; availability of distribution channels to get the product to the segment; segment awareness of the existence of the organisation or brand image of the organisation held by segment members. After the criteria are decided upon, weights have to be assigned to each criterion, corresponding values have to be calculated for each segment and then the competitiveness of each segment is computed.

Once we have both of these values, we can plot them onto a decision matrix. One additional variable that we can add is the profitability of each segment. Depending upon the profitability we can assign a ‘bubble’ to each segment. Larger bubble indicates more profitability and vice-versa. Now the plot is complete and serves as a useful basis for discussions in the segmentation team. The segmentation team can choose a market segment to target.

STEP 9: CUSTOMISING THE MARKETING MIX

Marketing was originally seen as a toolbox to assist in selling products, with marketers mixing the ingredients of the toolbox to achieve the best possible sales results. Most commonly the marketing mix is understood as consisting of the *4Ps*: Product, Price, Promotion and Place.
It should be noted that market segmentation does not stand independently as a marketing strategy. The segmentation process is frequently seen as part of what is referred to as the *segmentation-targeting-positioning* (STP) approach. The process starts with *market segmentation* (the extraction, profiling and description of segments), followed by *targeting* (the assessment of segments and selection of a target segment), and finally *positioning* (the measures an organisation can take to ensure that their product is perceived as distinctly different from competing products, and in line with segment needs). To best ensure maximising on the benefits of a market segmentation strategy, it is important to customise the marketing mix to the target segment. The selection of one or more specific target segments may require the design of new, or the modification or re-branding of existing products (Product), changes to prices or discount structures (Price), the selection of suitable distribution channels (Place), and the development of new communication messages and promotion strategies that are attractive to the target segment (Promotion). We can discuss these dimensions of the product mix one by one:

1. **Product:** The organization has to specify the product in view of the customers of the selected market segment. The organization has to modifying the existing product. 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.
2. **Price:** Typical decisions an organisation 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.
3. **Place:** The key decision relating to the place dimension 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.
4. **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. Other tools in the promotion category of the marketing mix include public relations, personal selling, and sponsorship.