

Project 2 - Market Segmentation Study

What is Marketing -

Marketing is the significant part of any business. Its purpose is to efficiently match the needs of the desired customers and the suppliers that supply that demands.

Strategic and Tactical Marketing:

There are mainly two types of Marketing plans:

- i. Strategic marketing plan: It describes the long-term plan of the business.
- ii. Tactical marketing plan: It describes the multiple short-term plans under single long-term plan.

The above plans help achieve organizational goals and finds the solution for following questions:

- i. Where are we?
- ii. Where do we want to go?
- iii. How do we get there?

Market Segmentation:

Definition - Smith defines market segmentation as viewing a heterogeneous market as a number of smaller homogeneous markets.

Market Segment Analysis:

The process of grouping consumers into naturally existing or artificially created segments of consumers who share similar product preferences or characteristics.

Approaches to market segmentation analysis-

1. Based on Organizational Constraints
2. Based on the Choice of the Segmentation Variable(s): - based on nature of consumer characteristics used to extract market segments.
3. Data Structure and Data-Driven Market Segmentation Approaches

Steps of Market Segmentation Analysis:

Step 1: - Deciding (not) to Segment

- Implications(results) of committing market segmentation must be considered by an organization before investing time and resources into it.
- The key implication of market segmentation is that it is a long-term strategy.
- Recommendations are not to segment unless the expected increase in sales is sufficient to justify implementing a segmentation strategy.

Implementation Barriers of Market Segmentation:

- The initial barrier is related to the **senior level management** team. They are the ones who either achieve or undermines the success of market segmentation. This barrier might be due to lack of resources provided either at the start of segmentation or for the long-term implementation.

- A second group of barriers relates to **organisational 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.
- Another potential problem is **lack of training**. The team assigned for the purpose of market segmentation task lacks with skills and strategy required, which might lead to failure.
- Another obstacle may be **objective restrictions** faced by the organization. It includes lack of financial resources, or the inability to make the structural changes or do not having clarification of the objectives. A company with limited resources needs to pick only the best opportunities to pursue.

All the above Barriers must be proactively removed before deciding to work on the market segmentation analysis tasks in an organization. If not removed, it will have a significant impact to the organization.

Step 2: - Specifying the Ideal Target Segment

After deciding to carry out the Market Segmentation, it's time to specify the target segment.

Segment Evaluation Criteria:

1. **Knock-out criteria:** This evaluation criteria are the set of essential and non-negotiable features which are used to determine whether the market segments qualify for the further assessment of attractiveness criteria. It includes following criteria:

- Members of the segments must be **Homogenous**.
- Members in different segments must be **distinct**.
- The segments must be **large enough**, i.e. it must contain enough consumers so that it would be worthful to spend extra money on customizing marketing.
- The segments should be **matching** the strengths of organization, i.e. the organization must have the capability to satisfy segment members' needs.
- The segment members must be **Identifiable** and **Reachable** in order to easily spot and access them in the marketplace.

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

2. **Attractiveness criteria:**

- Like Knock-out criteria, Attractiveness criteria are not binary in nature.
- Segments are not assessed as either to agree or not agree with attractiveness criteria.
- Instead, it follows the rating criteria to decide attractiveness of the market segment based on certain criteria.

Step 3: - Collecting Data

For creating meaningful Market segments, we need proper relevant data. This data contains different types of variables:

- **Segmentation Variables-** It refers to the variable in the data used in commonsense segmentation to split the sample into market segments.
- **Descriptor Variables-** It refers to all the other variables remaining other than segmentation variable.

Segmentation Criteria:

- An organization must choose the segmentation criteria long before the data is collected or the segments are to be extracted.
- The term segmentation criteria are used in broader sense than the term segmentation variable. Variable refers to any single value whereas the term segmentation criterion relates to the nature of the information used for market segmentation.

Types of Segmentation Criteria:

1. Geographic Segmentation:

- Geographic information is seen as the original segmentation criterion used for the purpose of market segmentation.
- In this criterion, the geographic location of the consumers is considered for segmentation.
- The key advantage of geographic segmentation is that it is easy to assign a consumer into segment based on their geographic location.
- For example, Amazon services ask user for his country before starting to their website. This helps them to recommend relevant products based on the consumer preference in that country.

2. Socio-Demographic Segmentation:

- Typical socio-demographic segmentation criteria include age, gender, income and education. In some industries, this criterion might be very useful for segmentation.
- For Example, people with higher income would purchase luxury products, baby products are preferred for smaller age groups, cosmetic products differ with different gender, etc.

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.

4. Behavioural Segmentation:

- The behaviours of consumers include prior experience with the product, frequency of purchase, amount spent on purchasing the product on occasion and information search behaviour.
- In a comparison of different segmentation criteria used as segmentation variables, behaviours reported by tourists emerged as superior to geographic variables.
- The problem with this approach is that the behavioural data is not always readily available, it needs to be captured when then use any service.

Data From Survey Studies:

Most market segmentation analyses are based on survey data and it is cheap and easy to collect. Few Aspects need to be considered about survey data are:

1. **Choice of Variables:** The choice of information to collect is important factor during survey. Asking only the relevant questions to the consumer should be done. Unnecessary questions impact negatively to the organization as it is a tedious task for the consumers to invest their time answering bunch of questions and also making the task of extracting market segments unnecessarily difficult for the analysts.
2. **Response Options:** The response options provided to the consumers should be in selective format. Example, Binary option, ordinal or nominal data format, response as a numerical quantity, etc.
3. **Response Styles:** The response includes tendencies to choose extreme options, use the midpoint, or agree with all statements. Response styles can distort market segmentation results, as algorithms can't distinguish between genuine beliefs and biased responses.
4. **Sample Size:** The large sample size of data is necessary for the market segmentation task. It is not feasible to work with insufficient data or the sample size.

Data from Internal Sources:

- Organizations now have access to vast amounts of internal data, such as grocery store scanner data, airline booking data, and online purchase data, which can be used for market segmentation analysis.
- This data reflects actual consumer behaviour, avoiding the inaccuracies and biases of self-reported data.
- Additionally, such data is typically automatically generated, simplifying collection. However, a potential issue with using internal data is that it may over-represent current customers.

Data from Experimental Studies:

Another possible source of data that can form the basis of market segmentation analysis is experimental data. Experimental data can result from field or laboratory experiments.

Step 4: - Exploring Data

A First Glimpse at the Data:

Exploring the data is the phase after collecting the required data. Data exploration stage is carried out to analyse and investigate the collected data. At more technical level, data exploration helps to:

- identify the measurement levels of the variables
- investigate the univariate distributions of each of the variables
- assess dependency structures between variables.

Also, the data is needed to be properly pre-processed in order to feed it to the Market Segmentation Algorithms.

Data Cleaning:

Data cleaning is an essential process required to convert the raw data into the proper format. It is performed with help of various methods. They are as follows:

- Handling missing values
- Checking for duplicates
- Removing inconsistencies from data
- Assessing the Data types of the variables
- Handling the outliers

Descriptive Analysis:

Being familiar with the data avoids misinterpretation of results from complex analyses. Descriptive numeric and graphic representations provide insights into the data.

There are different types of graphical methods for analysing numeric as well as categorical data.

- Histogram – For frequency distribution within some interval.
- Boxplots – For detecting outliers using quartiles.
- Scatter plots – Bivariate Analysis
- Bar plots – For frequency counts of categorical variables.

Pre-Processing:

- **Categorical Variable:** The categorical can be pre-processed using two methods:
 - **Merging levels** - If there are too many unique values present in particular, we just merge certain values with its adjacent values to minimize the count of unique values in that variable.
E.g.- If we have a 'Income' variable with salary too many salary ranges. Consider salary ranges \$2000 - \$5000 and \$5000 - \$10000, merging them together as \$2000 - \$10000 to minimize the unique values.
 - **Transforming into Numeric:** The categorical values need to be transformed into numeric using some encoding technique so that it will be useful for making the segments out of it.
- **Numeric Variable:** Scaling or Normalizing is an important preprocessing step carried out for the numerical variables.

Principal Component Analysis:

- Principal components analysis (PCA) transforms a multivariate data set containing metric variables to a new data set with variables.
- The first variable (principal component) contains most of the variability, the second principal component contains the second most variability, and so on.
- The transformation obtained from principal components analysis is used to project high-dimensional data into lower dimensions for plotting purposes.

[Link](#) to the example for the Step-4.

Step 8: - Selecting the Target Segment(s)

The Targeting Decision:

- This is the phase where decision is to be made that which target segments to select for Market Segmentation. This decision of selecting the target segments is a very crucial decision as it will affect the future performance of the organization for long-term.
- The first task in this step, is to ensure that all the market segments that are still under consideration to be selected as target markets have well and truly passed the knock-out criteria test.
- Once this is done, the attractiveness of the remaining segments and the relative organisational competitiveness for these segments needs to be evaluated.

Market Segment Evaluation:

For the Segment Evaluation to be more intuitive, it can be viewed as plot between two axes.

1. x-axis - How attractive is the segment to us?
 2. y-axis - How attractive are we to the segment?
- The plot serves as a useful basis for discussions in the segmentation team.
 - The plot contains different bubble-shaped clusters of segments that provide an intuition to the selectors whether how attractive the segment is to the organization against how attractive the organization is to the segment.
 - The size of the bubble indicates the high profit potential of that particular segment.
 - Despite the size of the segment bubble, the primary concern of ideal segment is to fit into both the criterion depicted on the axes of the plot.

Step 8: - Customizing the Marketing Mix

Marketing mix refers to customizing the strategies to meet the specific needs and preferences of different customer segments. Effective customization requires deep understanding of your customers.

Most commonly the marketing mix is understood as consisting of the 4Ps: **Product**, **Price**, **Promotion** and **Place**.

1. Product:

- One of the key decisions an organisation needs to make when developing the product dimension of the marketing mix, is to specify the product in view of customer needs.
- Often this does not imply designing an entirely new product, but rather modifying an existing one.
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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 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. These questions are included in the place dimension.

4. Product:

- 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.