FeyNN Labs

Machine Learning Internship

Market Segmentation Study Task

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What is Market Segmentation?

The main purpose of marketing is to match the real needs and wants of the buyers and the offers of the suppliers that are suitable to meet those needs and wants. This planning process benefits both buyers and suppliers and plays an important role in planning an organization's marketing strategy. Market segmentation is a very important tool for marketers in the important task of identifying the target market for a particular product and creating an appropriate marketing mix. It is an important pillar of marketing strategy, and market segmentation is essential for marketing success. Successful companies are known for building their strategy and market segmentation.

Different market segments include consumers with distinct differences in their core characteristics. Management refers to important customer characteristics as segmentation criteria. Segmentation techniques can include specific customer characteristics, such as age, gender, country, or status in the family life cycle. On the other hand, it can include different types of customer characteristics, such as different types of benefits sought when buying products, different holiday programs, environmental values, or spending habits.

To illustrate, consider the existence of three different market segments. The first segment includes those who are looking for mobile phones with advanced features and are willing to pay more to get them. The second segment represents consumers who want a simple and affordable mobile phone. The third segment consists of those looking for mobile phones at moderate prices. This example illustrates Smith's concept of market segmentation, where each segment represents a joint entry into a larger market situation.

What is Market Segmentation Analysis?

Market segmentation analysis is fundamentally the process of categorizing consumers into naturally occurring or artificially created segments based on their shared product preferences or characteristics. This procedure is typically statistical in nature but inherently exploratory. Many pivotal decisions within the process of deriving market segments from consumer data significantly influence the ultimate market segmentation solution. Before engaging in any technical tasks, an organization must evaluate whether implementing a market segmentation strategy would unveil previously inaccessible market opportunities for them in their specific case. Should the market segmentation analysis reveal such opportunities, the organization must be prepared to commit to this long-term strategic approach. All these decisions rest with the users and are wholly distinct from the technical task of extracting market segments from data.

User input also plays a critical role during the data collection phase to ensure the capture of relevant consumer information, and this decision cannot be made by a data analyst. Upon the completion of the segment extraction task, users must evaluate the resultant market segments or market segmentation solutions and choose one or more target segments. This selection is influenced, in part, by the organization's strengths and its alignment with the primary needs of these market segments.

Lastly, once one or more target segments have been chosen, users must formulate a marketing plan for these market segments and create a customized marketing mix.

How to perform Market Segmentation Analysis?

The proposed solution to market segmentation analysis is that it should be a result of ten steps. These steps are:

1. Deciding (Not) to Segment
2. Specifying the ideal target segment
3. Collecting Data
4. Exploring Data
5. Extracting Segments
6. Profiling Segments
7. Describing Segments
8. Selecting (the) Target Segment(s)
9. Customising the market mix
10. Evaluation and monitoring.

Market segmentation is an effective marketing strategy used by many companies. However, this is not always the best choice and it is important to understand what it means before doing it. The key implication is that an organization must be willing to commit long-term to this plan. This commitment is closely related to the organization's willingness and ability to make significant changes in investment. Additional costs include expenses for surveys, research and focus groups. In addition, resources are needed to create multiple product packages and design various advertising and communication messages. Changes can include creating new products, changing existing products, changing prices and changing distribution channels for selling the product. In addition, any communication with the market can be modified. These changes can also affect the internal structure of the organization, which may require changes, especially when focusing on different market segments. Through strategic planning, strategic business units that are responsible for specific market segments provide the appropriate framework to remain focused on their changing needs. In the diversity of markets and large companies, a high level of organization is becoming more important. Challenges can also arise from the lack of qualified data managers and analysts within the organization. Objective limitations, such as financial constraints or the inability to make necessary organizational changes, can pose significant obstacles. Organizations with limited resources must be selective and pursue promising opportunities. Process barriers may include unclear division goals, inadequate planning, lack of a structured process to guide the team through the division process, unclear roles, and time constraints that prevent optimal division results. Many of these barriers can be identified during the study of the marketing department and addressed effectively. However, if these obstacles cannot be overcome, it should be carefully considered to stop the analysis of the market sector as a possible strategy in the future. Finally, strong commitment, dedication, patience and understanding of the inevitable challenges of implementing the division findings are essential.

In this report we will discuss the first three steps of Market Segmentation Analysis:

1. Deciding (Not) to Segment:

While market segmentation is a widely utilized marketing strategy, it may not always be the optimal choice. Before committing time and resources to a market segmentation analysis, it's crucial to grasp the implications of pursuing this strategy. The primary implication is that an organization must be prepared for a long-term commitment to segmentation. This commitment aligns with the organization's willingness and capability to make substantial changes and investments. These necessary changes encompass the development of new products, modification of existing ones, adjustments in pricing and alterations to distribution channels used for product sales, and refinement of all communications with the market. These changes, in turn, may affect the internal structure of the organization, necessitating adjustments, particularly when targeting various market segments. Establishing strategic business units responsible for these segments can provide an effective organizational structure to maintain a continuous focus on the evolving needs of market segments.

The importance of a high degree of formalization increases with greater market diversity and larger organizations. Challenges can also arise from the absence of qualified data managers and analysts within the organization. Objective limitations, such as financial constraints or an inability to implement necessary structural changes, can be significant barriers. Organizations with limited resources must be discerning and focus on pursuing the most promising opportunities. Process-related barriers may include unclear segmentation objectives, inadequate planning, a lack of structured processes to guide the team through all stages of the segmentation process, the absence of clearly defined responsibilities, and time constraints that hinder the pursuit of the best segmentation outcomes. Most of these barriers can be identified at the beginning of a market segmentation study and proactively addressed. However, if these barriers persist, seriously considering the option of discontinuing the exploration of market segmentation as a potential future strategy is advisable. Above all, a resolute sense of purpose and dedication, coupled with patience and an understanding of the inevitable challenges in implementing segmentation conclusions, is essential.

2. Specifying the Ideal Target Segment

The third layer of market segmentation analysis heavily relies on user input. It's essential to recognize that, for a market segmentation analysis to yield results beneficial to an organization, user input should not be confined to an initial briefing or the final development of a marketing mix. Instead, user involvement should span across most stages, intricately woven into the technical aspects of market segmentation analysis. Knock-out criteria are employed to determine whether market segments resulting from the analysis meet the requirements for evaluation using segment attractiveness criteria. These criteria entail the following:

1. Homogeneity: The segment must exhibit a high degree of similarity among its members.
2. Distinctiveness: Members of the segment should be notably different from those in other segments.
3. Size: The segment must be of sufficient size to warrant attention.
4. Reachability: The organization should have the means to effectively reach and engage the segment.

It's imperative for senior management, the segmentation team, and the advisory committee to comprehend these knock-out criteria. While most of them do not necessitate further specification, some do. For instance, while the size criterion is non-negotiable, it is important to define the exact minimum viable target segment size. Determining the values for segment attractiveness and organizational competitiveness is the responsibility of the segmentation team. This is necessary because there is no universally applicable set of criteria that can be adopted by all organizations. The factors contributing to both segment attractiveness and organizational competitiveness need to undergo a process of negotiation and consensus. To achieve this, a wide array of potential criteria must be explored before agreement is reached on which criteria are most significant for the organization.

In the event that a core team of two to three individuals is primarily responsible for market segmentation analysis, this team can propose an initial solution and present their choices to the advisory committee. The advisory committee comprises representatives from all organizational units and serves as a forum for discussion and potential adjustments to the proposed criteria.

3. Collecting Data

Empirical data forms the basis for both common-sense and data-driven market segmentation. It plays a pivotal role in identifying or creating market segments and, subsequently, providing detailed segment descriptions. Irrespective of whether we are dealing with common-sense or data-driven segmentation, the quality of data is of paramount importance for two primary reasons: firstly, correctly assigning individuals to their respective market segments within the sample; and secondly, accurately describing these segments. These precise descriptions are essential as they enable the development of tailored products, the determination of suitable pricing strategies, the selection of optimal distribution and communication channels for advertising and promotion. This need for high-quality data also extends to data-driven market segmentation. The quality of the resulting data-driven market segments and their descriptions hinges on the quality of the underlying data. For effective market segmentation analysis, good empirical data is imperative.

Empirical data for segmentation studies can be sourced from various places, including survey studies, observations such as scanner data linked to individual customer purchase histories via loyalty programs, or experimental studies. Ideally, the data used for segmentation should reflect actual consumer behaviour. Therefore, surveys should not automatically be the default data source for market segmentation studies; a range of potential sources should be explored, with preference given to the source that best mirrors consumer behaviour.

Before extracting segments and collecting data for segmentation, organizations must make a critical decision: selecting the segmentation criterion. The segmentation criterion determines the nature of the information used for market segmentation. Common segmentation criteria include geographic, socio-demographic, psychographic, and behavioral factors, and the choice must align with prior market knowledge. For example, the location aspect is making a resurgence in international market segmentation, but it presents challenges in terms of being meaningful across different cultural backgrounds. Socio-demographic criteria like age, gender, income, and education can be useful, particularly in industries like luxury goods. However, they may not always provide sufficient market insight as these criteria don't necessarily explain product preferences. Instead, values, tastes, and preferences may be more influential in consumer buying decisions.

Psychographic segmentation categorizes individuals based on psychological criteria such as beliefs, interests, preferences, aspirations, or sought benefits when purchasing a product. However, behavioural data isn't always readily available, especially when targeting potential customers who haven't previously purchased the product. In data-driven segmentation, all relevant variables related to the segmentation criterion need to be included, but unnecessary variables should be avoided to prevent lengthy questionnaires that lead to respondent fatigue and unnecessarily complicate the segmentation task. Noisy or masking variables, which don't contribute to the identification of correct market segments but make it harder to extract the right solution, should be avoided during data collection and variable selection. Redundant items can also hinder segmentation algorithms. Careful development of survey questions and variable selection is essential to avoid these issues.

In addition, the choice of scale in surveys and potential response biases need to be addressed. Response biases, such as response styles, can impact data quality and must be minimized during data collection. For attractive market segments showing response patterns possibly influenced by a response style, additional analyses may be needed to address this issue. Furthermore, the adequacy of the sample size is crucial for effective segmentation. A larger sample size typically improves the ability to identify the correct market segmentation solution, but this improvement varies based on market and data characteristics.

In conclusion, the quality of data used in market segmentation analyses should ideally meet various criteria, including containing all necessary items, excluding unnecessary ones, lacking correlations, having high-quality responses, being binary or metric, free from response styles, reflecting the target sample, and having a sufficient sample size. Internal data can be a valuable resource, but organizations should be cautious of biases arising from overrepresentation of existing customers. Experimental data, derived from field or laboratory experiments, can also serve as a valuable source for market segmentation analysis, providing insights into consumer preferences and behaviors based on specific stimuli and attribute levels.