

## Summary Task – Internship Feynn Labs

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

#### 1. Implications of Committing to Market Segmentation-

Although market segmentation has developed to be a key marketing strategy applied in many organisations, it is not always the best decision to pursue such a strategy. There are costs of performing the research, fielding surveys, and focus groups, designing multiple packages, and designing multiple advertisements and communication messages. Segmentation strategy should be built such that using the scheme has to be more profitable than marketing without it, net of the expense of developing and using the scheme itself.

#### 2. Implementation Barriers-

Following are the barriers to implementation of a Market Segmentation Strategy-

- a) **Senior management-** Lack of leadership, pro-active championing, commitment and involvement in the market segmentation process by senior leadership
- b) **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
- c) **Lack of Training** of senior management and the team tasked with segmentation of the very foundations of market segmentation or if their unawareness of the consequences of pursuing such a strategy.

- d) **Lack of a formal marketing** function or at least a qualified marketing expert in the organisation.
- e) **Objective restrictions** faced by the organisation – Lack of financial resources or the inability to make the structural changes
- f) **Inability of the management** to use techniques it does not understand.

## Step 2: Specifying the ideal Target Segment

1. **Segmentation Evaluation Criteria**-The organisation must determine two sets of segment evaluation criteria-
  - a) **Knock-out criteria**- These are essential, non-negotiable features of segments. Some of them are -
    - Homogeneous- Members must be similar to one another.
    - Distinct- Members 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- It 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
  - b) **Attractiveness criteria**-They are used to evaluate the relative attractiveness of the remaining market segments. 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.

## **2. Implementing a Structured process-**

Factors which constitute both segment attractiveness and organisational competitiveness need to be negotiated and agreed upon. To achieve this, a large number of possible criteria has to be investigated before agreement is reached on which criteria are most important for the organisation.

A core team of two to three people is to be set primarily in charge of market segmentation analysis, this team could propose an initial solution and report their choices to the advisory committee – which consists of representatives of all organisational units – for discussion and possible modification. The team should have a list of approximately six segment attractiveness criteria. Each of these criteria should have a weight attached to it to indicate how important it is to the organisation compared to the other criteria.

## **Step 3: Data Collection**

### **1. Two Types of Variables and their significance**

**a) Segmentation Variables** -These variables serve as the starting point for identifying naturally existing, or artificially creating market segments useful to the organisation.

**b) Descriptor variables**- They are used to describe the segments in detail. Typical descriptor variables include socio-demographics, but also information about media behaviour, allowing marketers to reach their target segment with communication messages.

The quality of empirical data is critical for developing a valid segmentation solution. When segments are extracted, data quality is critical to both (1) assigning each person in the

sample to the correct market segment (2) being able to correctly describe the segments. The correct description makes it possible to develop a customised product, determine the most appropriate pricing strategy, select the best distribution channel, and the most effective communication channel for advertising and promotion.

**2. Segmentation criteria** -Segmentation criterion relates to the nature of the information used for market segmentation. There are various criteria but none of them is the best. Better is what works for your product or service at the least possible cost. Some of them are –

- a) Geographic Segmentation**-The consumer's location of residence serves as the only criterion.
- b) Socio-Demographic Segmentation**-These include age, gender, income and education.
- c) Physiographic Segmentation**- These include People's beliefs, interests, preferences, aspirations or benefits sought when purchasing a product.
- d) Behavioural Segmentation**- These include prior experience with the product like frequency of purchase, amount spent on purchasing the product on each occasion (or across multiple purchase occasions) and information search behaviour.

**3. There are various sources to collect data –**

**a) Data From Survey Studies** -Survey data is cheap and easy to collect, making it a feasible approach for any organisation. Following aspects need to be considered when using this –

- I. Choice of Variables**-All variables relevant to the construct captured by the segmentation criterion need to be included and unnecessary variables must be avoided (noisy variables). A two-stage process

involving both qualitative, exploratory and quantitative survey research ensures that no critically important variables are omitted.

**II. Response Options-** Options allowing respondents to answer in only one of two ways, generate binary or dichotomous data while allowing respondents to select from a range of unordered categories correspond to nominal variables, allowing to indicate a number generates metric data, allowing to select from five or seven response options generates ordinal data which is ordered, allowing respondents to indicate a position along a continuous line between two end-points is called visual analogue scale.

**III. Response Styles** - A response bias is a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content. It is critical to minimise the risk of capturing response styles when data is collected for the purpose of market segmentation.

**IV. Sample Size** - Larger sample sizes always improve an algorithm's ability to identify the correct market segmentation solution. The extent to which it varies substantially across market and data characteristics. A sample size should be sufficiently large enough to enable an algorithm to extract the correct segments.

**b) Data From Internal sources** -Increasingly organisations have access to substantial amounts of internal data that can be harvested for the purpose of market segmentation analysis. They represent actual behaviour of consumers, is 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.

- c) **Data from Experimental Studies**- It can result from field or laboratory experiments.

## Step 4: Exploring Data

Exploration of data includes –identify the measurement levels of the variables, investigate the univariate distributions of each of the variables, assess dependency structures between variable and Pre-processing of data.

1. **Data Cleaning**- Check if all values have been recorded correctly, consistent labels for the levels of categorical variables have been used

2. **Descriptive Analysis**- Descriptive numeric and graphic representations provide insights into the data. Helpful graphical methods for numeric data are histograms, boxplots and scatter plots. Bar plots of frequency counts are useful for the visualisation of categorical variables. Mosaic plots illustrate the association of multiple categorical variables.

Histograms reveal if the distribution of a variable is unimodal and symmetric or skewed. To obtain a histogram, we first need to create categories of values. We call this binning. The bins must cover the entire range of observations, and must be adjacent to one another.

The boxplot is the most common graphical visualisation of unimodal distributions in statistics. The simplest version of a boxplot compresses a data set into minimum, first quartile, median, third quartile and maximum. These five numbers are referred to as the five number summary.

3. **Pre-Processing**

a) **Categorical Variables** -Two procedures –

- I. Merging levels of categorical variables before further analysis
- II. Converting categorical variables to numeric ones

### **b) Numeric variables**

The range of values of a segmentation variable affects its relative influence in distance-based methods of segment extraction. To balance the influence of segmentation variables on segmentation results, variables can be standardised. Standardising variables means transforming them in a way that puts them on a common scale. The default standardisation method in statistics subtracts the empirical mean  $\bar{x}$  and divides by the empirical standard deviation  $s$ . Alternative standardisation methods may be required if the data contains observations located very far away from most of the data (outliers).

## **4. Principal Component Analysis**

Principal components analysis (PCA) transforms a multivariate data set containing metric variables to a new data set with variables – referred to as principal components – which are uncorrelated and ordered by importance. The PCAs are ordered by their variability. Principal components analysis basically keeps the data space unchanged, but looks at it from a different angle.

Principal components analysis works off the covariance or correlation matrix of several numeric variables. If all variables are measured on the same scale, and have similar data ranges, it is not important which one to use. If the data ranges are different, the correlation matrix should be used.

If the first few principal components do not explain much of the variance indicates that all the original items are needed as segmentation variables. They are not redundant. They all contribute valuable information.

Disadvantage: this procedure replaces original variables with a subset of factors or principal components. If all principal components would be used, the same data would be used; it would merely be looked at from a

different angle. But because typically only a small subset of resulting components is used, a different space effectively serves as the basis for extracting market segments.

## **GitHub Link to McDonald's case Study Repository-**

<https://github.com/Aditi-Verma-1709/Feynn-Labs-Internship>