Market Segmentation Case Study: McDonald's Replication in Python

Report Submitted By :

Suraj Giramkar [MLI BATCH-SB-24-5-5]

This report provides an overview of the market segmentation case study conducted by me. The study involved replicating the McDonald's case study using Python, covering various aspects of market segmentation fundamentals.

Summary of Fundamentals of Market Segmentation

During the 10-day study period, I covered the following key topics and concepts related to market segmentation:

1. Introduction to Market Segmentation: Understanding the importance and benefits of market segmentation in strategic marketing.
2. Types of Market Segmentation: Exploring different approaches to segmenting markets, including demographic, psychographic, behavioural, and geographic segmentation.
3. Data Preparation and Exploration: Learning how to preprocess and explore data to gain insights into customer segments.
4. Principal Component Analysis (PCA): Applying PCA for dimensionality reduction and visualization of customer data.
5. K-means Clustering: Implementing K-means clustering algorithm to identify distinct customer segments.
6. Evaluation and Analysis: Assessing the identified segments based on various variables and metrics.

Replication of McDonald's Case Study in Python

As part of the individual task, I had replicated different parts of the McDonald's case study using Python. The code snippets provided in this goggle collab showcase the replication efforts and demonstrate the application of market segmentation techniques to the **McDonald's dataset**.

Dataset Description used for this Case Study:

- The dataset used in this market segmentation case study is based on fast food customer data, specifically focusing on the McDonald's chain.

- The dataset contains various attributes related to customer behaviour and preferences, allowing us to analyze and segment the customer base.
- The dataset includes information such as visit frequency, customer likes, gender, and other relevant variables.
- These variables provide insights into customer engagement, preferences, and demographic characteristics, enabling us to identify distinct customer segments based on their behaviours and characteristics.
- By analyzing this dataset, we aim to gain a better understanding of McDonald's customer base and uncover meaningful patterns and insights that can inform marketing strategies and decision-making. The dataset serves as a representative sample of fast-food customers and provides a valuable resource for studying market segmentation in the context of the fast-food industry.
- Throughout the case study, we preprocess, explore, and analyze the dataset using various techniques such as data encoding, principal component analysis (PCA), and K-means clustering.
- These techniques help us identify and evaluate different customer segments, allowing us to tailor marketing efforts and strategies to specific groups of customers based on their unique characteristics and preferences.
- It is important to note that the dataset used in this case study is for educational and practice purposes only and may not reflect real-world data from McDonald's or other fast-food chains. The focus is on demonstrating the application of market segmentation techniques using a representative dataset in the fast-food industry.

Below is an overview of the code files included in this goggle collab link :

https://colab.research.google.com/drive/1yHIz2uNCHP5zlia1R0sivSfKTTOcVnZz?usp=sharing

Usage :

To run the code and replicate the analyses, follow these steps:

1. Clone this collab file to your local machine.
2. Open each code file in a Python IDE or Jupyter Notebook environment.
3. Ensure that the necessary dependencies (e.g., scikit-learn, pandas, seaborn) are installed.
4. Execute the code cells in sequential order, following any instructions or comments provided within the files.