

CUSTOMER SEGMENTATION

MINOR PROJECT SYNOPSIS

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1 Introduction

In the Retail sector, the various chain of hypermarkets generating an exceptionally large amount of data. This data is generated on a daily basis across the stores. This extensive database of customers transactions needs to analyse for designing profitable strategies.

All customers have different-different kind of needs. With the increase in customer base and transaction, it is not easy to understand the requirement of each customer. Identifying potential customers can improve the marketing campaign, which ultimately increases the sales. Segmentation can play a better role in grouping those customers into various segments.

2 Objectives

1. **Determine the Pricing** - A key objective for market segmentation is determining what price different groups of consumers are willing to pay for your product.
2. **Improvisation of product** - Market segmentation in terms of promotion lets you target members of each group in terms of what is important to them.
3. **Offering a product/service for maximum convenience** - Market segmentation lets you decide, so you can tailor your sales channels to the preferences of the members of each market segment .
4. **Giving promotional initiatives** - Your product could be improved in various ways, but you don't want to spend money on extra features if they don't result in additional sales.

3 Feasibility Study

Feasibility of the project -

The project needs to implement only the analysis of how the behaviour of customer is done on the basis of price fixed thus , this project implements the feasibility by determining the price by customers and then clustering to other personal to see the stock market profit.

Need of the project -

- It will help in identifying the most potential customers.
- It will help managers to easily communicate with a targeted group of the audience.
- Also, help in selecting the best medium for communicating with the targeted segment.
- It improves the quality of service, loyalty, and retention.
- Improve customer relationship via better understanding needs of segments.
- It provides opportunities for upselling and cross-selling.
- It will help managers to design special offers for targetted customers, to encourage them to buy more products.
- It helps companies to stay a step ahead of competitors.
- It also helps in identifying new products that customers could be interested in.

Significance of the project -

When marketers use market segmentation it makes planning campaigns easier, as it helps to focus the company on certain customer groups instead of targeting the mass market. Segmentation helps marketers to be more efficient in terms of time, money and other resources. Market segmentation allows companies to learn about their customers. They gain a better understanding of customer's needs and wants and therefore can tailor campaigns to customer segments most likely to purchase products.

4 Methodology/ *Planning* of work

In the first step of this data science project, we will perform data exploration. We will import the essential packages required for this role and then read our data. Finally, we will go through the input data to gain necessary insights about it.

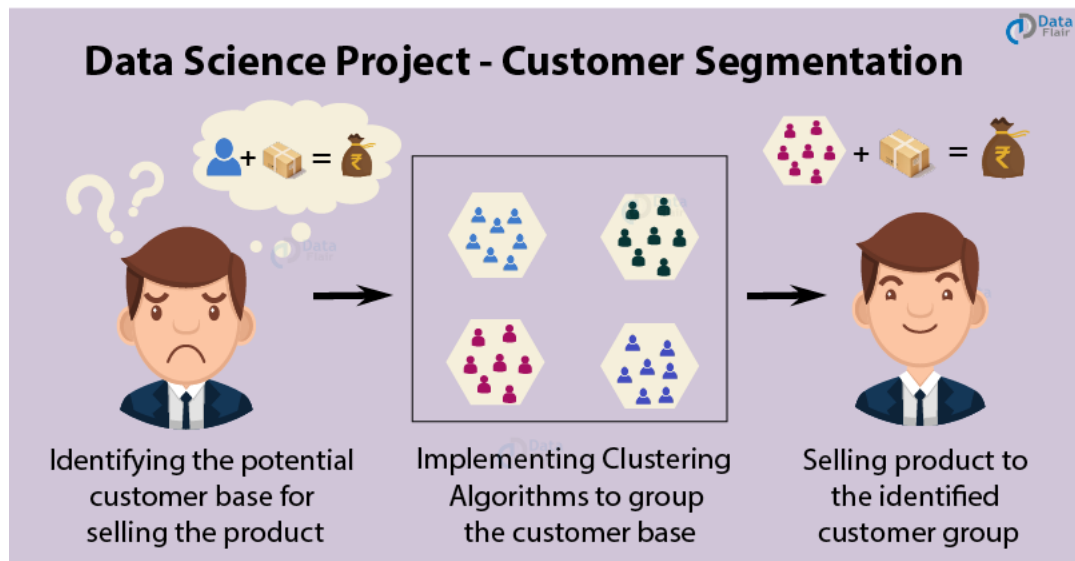


Figure 1: Example of Customer Segmentation

Step 1: Setting Up Your Customer Segmentation Project.

Step 2: Analysing Customer Data.

Step 3: Data Collection.

Step 4: Analysis and Prioritization.

Step 5: Presenting and Incorporating Feedback.

5 Facilities required for proposed work

1. Pycharm -

- It is used for training and testing of datasets.
- For giving graphics library to support graphics for this project .

2. TensorFlow -

- TensorFlow is an open-source library developed by Google primarily for deep learning applications. It also supports traditional machine learning.
- It is a foundation library that can be used to create Deep Learning models directly or by using wrapper libraries that simplify the process built on top of TensorFlow.

3. React for rstudio -

- Programming environment - since this project uses react programming for coding for this project of using ml.
- R software - this to be installed as without this rstudio will not be operatable.

6 References

- [1] <https://www.intercom.com/blog/customer-segmentation/>
- [2] <https://www.datacamp.com/community/tutorials/introduction-customer-segmentation-python>
- [3] <https://data-flair.training/blogs/r-data-science-project-customer-segmentation/>