

Business Requirements Document

Business Problem :

The store lacks understanding of its customer base which in result leads to untargeted marketing strategies. This leads to poor customer satisfaction, inefficient resource utilisation as well as missed opportunities for sales growth.

Impact :

Low customer retention

Missed revenue opportunities from high value customers

Business Objectives :

To improve customer satisfaction thereby boost sale by gaining understanding of different customer segments.

Increase marketing efficiency and customer retention.

Functional Requirements :

- Data Cleaning :

Preprocess the customer's history data to prove useful for analysis

- Data Analysis:

Analyse trends in data to develop understanding of the customer base.

- Clustering :

Divide the customers into certain segments i.e. clusters by applying K-Means clustering.

Determine optimal number of clusters using elbow method and silhouette scores

- Visualization :

Create and present visuals of features and customer segments using matplotlib, seaborn and customer segmentation dashboard

Present detailed report of findings, including insights, conclusions and recommendable actions

Non-functional Requirements :

- Performance :

Ensure that the algorithm runs smoothly within a reasonable time frame and can handle the size of customer dataset

- Scalability:

Design the solution to accommodate future growth in data volume

- Usability :

Create easy to understand visualizations ensuring that it can be interpreted easily.