CLUSTERING BASED CUSTOMER SEGMENTATION

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Abstract

Customer satisfaction is the most important part of any successful business, however traditional business methods fail to do achieve this since the modern customer pool has become more demanding and aware. Also, the increasing competition has added to this , so knowing about your customers is important in today's time . Customer segmentation is the art to split the user-base into smaller relevant groups that can be targeted with specialized services. To achieve the customer satisfaction most business, segregate the customers on various grounds like Demographic information ,Geographical information , Psychographic information and behavioural information.This paper presents the segmentation techniques via k- means clustering algorithm. In this paper , K-means has been implemented to segment the customers on the basis of behavioural information (recency, frequency and monetary) to categorized the customers in 3 categories (loyal and best ,not interested in retail store, needs targeted marketing) and identify their needs. A program using k means clustering , has been implemented and trained for approximately 5 lakh samples taken from UCI machine repository. Standard scaler has been used to scale the inconsistency of data values. Features like recency, frequency and monetary etc are derived to understand customer analytics. Recency feature is calculated by invoice date, frequency by number of counts of no. of visits per customer and monetary is calculated by amount spend by customer. We have been able to find five clusters and categorize them in above mentioned categories. Results prove that k-means clustering is efficient to handle customer segmentation problem.

Keywords: *Recency, Monetary, K-means Clustering*