

Capstone Project Submission

Customer Segmentation of Online Retail

Introduction:

Customer segmentation is the process of separating customers into groups on the basis of their shared behavior or other attributes. The groups should be homogeneous within themselves and should also be heterogeneous to each other. The overall aim of this process is to identify high-value customer base i.e. customers that have the highest growth potential or are the most profitable. Insights from customer segmentation are used to develop tailor-made marketing campaigns and for designing overall marketing strategy and planning. A key consideration for a company would be whether or not to segment its customers and how to do the process of segmentation. This would depend upon the company philosophy and the type of product or services it offers. The type of segmentation criterion followed would create a big difference in the way the business operates and formulates its strategy.

Problem Statement:

Customer segmentation can also help a company to understand how its customers are alike, what is important to them, and what is not. Often such information can be used to develop personalized relevant content for different customer bases. Many studies have found that customers appreciate such individual attention and are more likely to respond and buy the product. They also come to respect the brand and feel connected with it. This is likely to give the company a big advantage over its competitors. In a world where everyone has hundreds of emails, push notifications, messages, and ads dropping into their content stream, no one has time for irrelevant content.

Finally, this technique can also be used by companies to test the pricing of their different products, improve customer service, and upsell and cross-sell other products or services.

Conclusion:

Customer segmentation is highly effective strategy for organizations because it allows them to know which customers care about them and understand their needs enough to send a message that ensures brand success.

We used RFM Modeling to see the relation between Recency, Frequency and Monetary. After RFM model we used this data to perform clustering with the help of k mean clustering Algorithm.

- Retention rate for all users is monotonically decreasing over time, while the retention rate for cohort dates from December 2010 to September 2011 is not monotonic in nature.
- Using a recency, frequency and monetary (RFM) analysis, the customers have been segmented into various clusters and got a silhouette score of 0.39 for two clusters
- By applying different clustering algorithms to our dataset, we get the optimal number of clusters is equal to 2.
- Since this is an unsupervised learning approach, there is no 100% correct answer, the number of clusters will vary depending on the company's requirement

- The business can focus on these different clusters and provide customers with services of each sector in a different way, which would not only benefit the customers but also the business at large.

Contributor

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Please paste the GitHub Repo link.
GitHub Link : https://github.com/Gaurav2912/Customer-Segmentation-.git