

Capstone Project Submission

Instructions:

- i) Please fill in all the required information.
- ii) Avoid grammatical errors.

Team Member's Name, Email and Contribution:

Name :- Zuber Ahmad

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Project :- Online Retails Customer Segmentation

Please paste the GitHub Repo link.

Github Link:- <https://github.com/Ahmad-Zuber/Online-Retail-Customer-Segmentation>

Drive Link:-

https://drive.google.com/drive/folders/1ADy18zLOXsrsfpYk_yQy_Lq6j3pVSkPu?usp=sharing

Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)

Customer segmentation is the practice of dividing a customer base into groups of individuals that are similar in specific ways relevant to marketing, such as age, gender, interests and spending habits. Key differentials in segmentation include age, gender, education, location, spending patterns and socio economic group. Customer segmentation is the process by which you divide your customers into segments up based on common characteristics such as demographics or behaviors, so you can market to those customers more effectively These customer segmentation groups can also be used to begin discussions of building a marketing persona.

Problem Statement: In this project, our task is to identify major customer segments on a transnational data set which contains all the transactions occurring between 01/12/2010 and 09/12/2011 for a UK-based and registered non-store online retail. The company mainly sells unique all-occasion gifts. Many customers of the company are wholesalers. With the increase in customer base and transactions, it is not easy to understand the requirement of each customer. Segmentation can play a better role in grouping those customers into various segments.

Objectives:

The main goal is to identify customers that are most profitable and the ones who churned out to prevent further loss of customer by redefining company policies.

Benefits:

By enabling companies to target specific groups of customers, a customer segmentation model

allows for the effective allocation of marketing resources and the maximization of cross- and up-selling opportunities. Customer segmentation can also improve customer service and assist in customer loyalty and retention. As a by-product of its personalized nature, marketing materials sent out using customer segmentation tend to be more valued and appreciated by the customer who receives them as opposed to impersonal brand messaging that doesn't acknowledge purchase history or any kind of customer relationship.

Steps Involved:

- ❖ DATA PREPROCESSING & CLEANING
 - ✓ Missing Value Treatment
 - ✓ Duplicate Value Treatment
- ❖ EXPLODATORY DATA ANALYSIS
 - ✓ Data Exploration
 - ✓ Data Analysis
 - ✓ Feature Engineering
- ❖ Modelling
 - ✓ RFM Modelling
 - ✓ Binning and Quantile
 - ✓ K means Clustering
 - ✓ Hierarchical Clustering
 - ✓ DBSCAN Cluster
- ❖ Conclusion