

Customer Segmentation using K-Means Clustering

Mrs. J. Sirisha¹, V. Lakshmi Prathyusha², P. Naga Anupriya³, M. Suma Sri⁴, P. Naga Hema⁵

Assistant Professor, Department of Information Technology¹

B.Tech Students, Department of Information Technology^{2,3,4,5}

Prasad V. Potluri Siddhartha Institute of Technology, Vijayawada, Andhra Pradesh, India

Abstract: *Good revenue has to be generated to run a company. Company needs data to segregate their customers to forecast their product sales or profits they wish to get. Proper decisions need to be taken by evaluating the data from their database. Paper work of grouping customers is a huge task and it is unsure about the accuracy of the results. After the introduction of Machine Learning, techniques in it are being used widely in various areas to uplift the accuracy of the outcomes and to find a better way of evaluation in every area. Here, customer segmentation using K-Means clustering helps in grouping the customers with the similar traits that helps to business in a better way. The elbow method applied here helps in finding the optimal number of clusters to be visualized.*

Keywords: Numpy, Pandas, Sklearn, Matplotlib, Seaborn, Clustering, Elbow Method, K-Means Algorithm.

REFERENCES

- [1]. Dataset - <https://www.kaggle.com/code/kushal1996/customer-segmentation-k-means-analysis/data>
- [2]. <https://www.geeksforgeeks.org/supervised-unsupervised-learning/>
- [3]. <https://towardsdatascience.com/unsupervised-learning-and-data-clustering-eeecb78b422a>
- [4]. <https://www.geeksforgeeks.org/elbow-method-for-optimal-value-of-k-in-kmeans/>
- [5]. <https://towardsdatascience.com/customer-segmentation-using-k-means-clustering-d33964f238c3>
- [6]. <https://towardsdatascience.com/clustering-algorithm-for-customer-segmentation-e2d79e28cbc3>