

Customer Segmentation Clustering Report

1. Objective

The objective of this analysis is to segment customers into distinct groups based on their purchasing behavior and demographic characteristics using unsupervised machine learning techniques. This helps in identifying customer groups and targeting them more effectively with personalized strategies.

2. Methodology

Clustering Algorithm: KMeans clustering was used for this analysis. The number of clusters was selected based on the Davies-Bouldin Index and Silhouette Score.

3. Clustering Results

Number of Clusters Formed: 4

DB Index Value: 1.32

Silhouette Score: 0.72

4. Conclusion

Based on the clustering results, we identified distinct customer segments, which can help in targeted marketing, personalized offers, and improving customer retention strategies.