Customer Segmentation Clustering Report

Introduction

This report presents the results of customer segmentation using K-Means clustering. The clustering aims to identify distinct customer groups based on purchasing behavior.

Optimal Cluster Selection

The Elbow Method was used to determine the optimal number of clusters. As seen in the plot, the inertia decreases significantly up to a certain point, indicating the ideal number of clusters.

Davies-Bouldin Index:

1.877

Cluster Summary

The table below summarizes the characteristics of each cluster:

Cluster 0: Customers with average total value and quantity.

Cluster 1: Customers with slightly lower-than-average spending.

Cluster 2: High-value customers who purchase frequently.

Cluster 3: Customers with low spending and purchase frequency.

Conclusion

The clustering results provide meaningful customer segmentation, which can help in targeted marketing strategies. Further refinement can be done by incorporating additional features or different clustering algorithms.