

Clustering Report

1. Number of Clusters Formed:

The K-Means clustering algorithm was applied with 5 clusters. This number was selected based on a preliminary evaluation of the data. Each cluster represents a group of customers with similar purchasing behaviour.

2. DB Index (Davies-Bouldin Index):

The DB Index value is 0.9467.

A lower DB Index indicates better separation between clusters. In this case, a value of 0.9467 suggests that the clusters are fairly distinct from each other.

3. Silhouette Score:

The Silhouette Score is 0.3089.

The Silhouette Score ranges from -1 to 1, where values closer to 1 indicate that the clusters are well-separated, and values close to 0 suggest overlapping clusters.

4. Inertia:

The Inertia value is 163.9227.

Inertia measures the sum of squared distances of samples to their assigned cluster centre. A lower value indicates that the points are closer to their cluster centroids. In this case, 163.9227 is the total distance.