

Clustering Results Report

This report summarizes the results of the customer segmentation analysis conducted using K-Means clustering on eCommerce transactions dataset. The analysis aimed to identify distinct customer segments based on their purchasing behavior.

Number of clusters formed:

Total cluster are 5, the K-Means algorithm was configured to create 5 clusters based on the aggregated features of customers, which include TotalValue, Quantity, and Price_x.

Davies-Bouldin Index:

DB_index value = 0.9467058109377833

The Davies-Bouldin Index (DB Index) is a metric used to evaluate the quality of clustering. A lower DB Index value indicates better clustering performance, as it suggests that clusters are well-separated and compact.

The value of 0.9467 indicates a reasonable separation between the clusters.

Visualization

A scatter plot was generated to visualize the clusters based on **TotalValue** and **Quantity**. Each point represents a customer, colored by their assigned cluster. This visualization helps in understanding the distribution of customers across different segments.

