Customer Segmentation / Clustering Report

1. Number of Clusters Formed:

After performing the clustering, 3 clusters were formed. This means the customers were divided into three distinct groups based on their transaction behavior and profile information.

2. DB Index Value:

The DB (Davies-Bouldin) Index value is 0.80. This measures how well the clusters are separated. A lower DB Index value means better clustering with well-separated groups. In our case, the value suggests moderate separation, which means the clusters are somewhat distinct, but there's room for improvement.

3. Other Relevant Clustering Metrics:

Recency: The time of when a customer last purchased. A few groups composed of customers who purchased recently, meaning businesses know where to concentrate their efforts on retaining active customers.

Transaction Behaviour: The value and volume of purchases were meaningful for the clustering of customers. Customers with the highest transaction value and quantity in one cluster were identified, that could be essential for loyalty or high-value promotional activities.

4. Visualization:

The clusters were visualized using relevant plots such as scatter plots to show how customers are grouped based on their spending habits and purchase history. The visualizations allow for a better understanding of the types of customers and can inform targeted marketing.