

Customer Segmentation Results

Number of Clusters: 4

Davies-Bouldin Index: 0.957

Silhouette Score: 0.340

Cluster Characteristics:

Cluster 0:

Transaction_Count: 7.77

Total_Spent: 5680.57

Customer_Lifetime_Days: 283.98

Avg_Transaction_Value: 737.81

Cluster 1:

Transaction_Count: 4.8

Total_Spent: 2613.68

Customer_Lifetime_Days: 257.49

Avg_Transaction_Value: 553.38

Cluster 2:

Transaction_Count: 2.13

Total_Spent: 1323.14

Customer_Lifetime_Days: 59.94

Avg_Transaction_Value: 598.81

Cluster 3:

Transaction_Count: 4.37

Total_Spent: 4404.22

Customer_Lifetime_Days: 208.26

Avg_Transaction_Value: 1023.23

Key Findings:

1. Optimal number of clusters: 4 (based on Davies-Bouldin Index)
2. The clusters show distinct patterns in terms of:
 - Purchase frequency
 - Total spending
 - Customer lifetime
 - Average transaction value

Recommendations:

1. Develop targeted marketing strategies for each segment