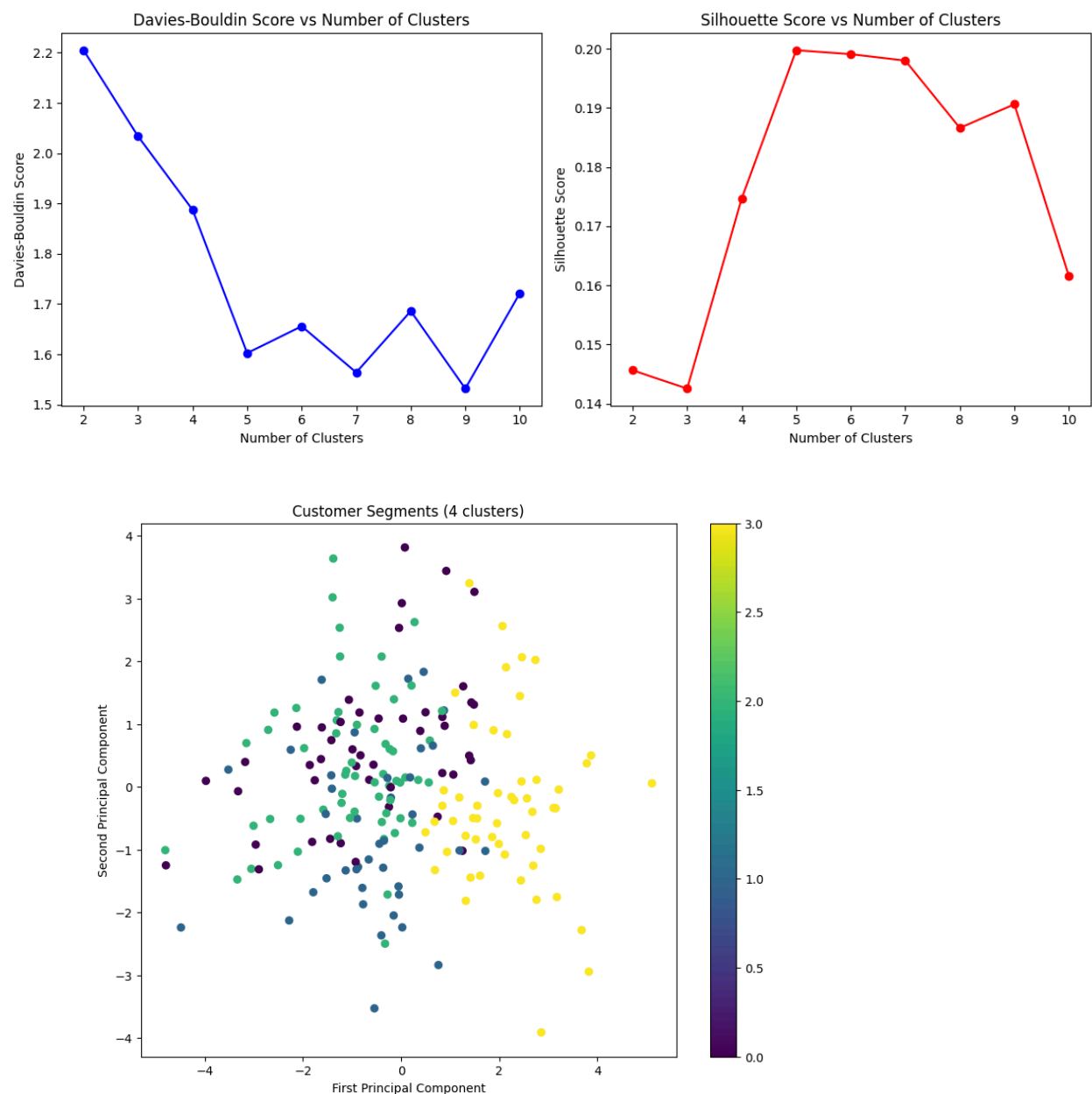


Clustering Visualizations Report

Overview

This report summarizes the clustering analysis conducted on the eCommerce Transactions dataset. The results include key visualizations highlighting customer segmentation insights and clustering performance metrics.

2. Visualizations



Clustering Metrics and Analysis

Clustering Metrics for 4 Clusters:

- Davies-Bouldin Score: 1.887 (Lower score indicates better clustering compactness and separation).
- Silhouette Score: 0.175 (Closer to 1 implies well-separated clusters; improvement can be considered).

Cluster Profiles:

The table below highlights the characteristics of each cluster based on customer transaction behavior:

Cluster	Size	Avg Total Value	Avg Quantity	Avg Order Value
0	46	2995.69	10.85	675.29
1	41	2890.35	11.29	630.51
2	60	2295.55	8.82	619.00
3	52	5691.48	20.12	822.59

Insights:

1. Cluster 3 has the highest average total value and order value, indicating high-value customers with frequent, larger purchases.
2. Cluster 2 has the lowest average total value and order value, representing lower-value customers with smaller and less frequent orders.
3. Cluster 0 and 1 display moderate values, suggesting average customer engagement and purchase behavior.