

Customer Segmentation Clustering Results

Number of Clusters Formed

- **8 Clusters** were formed based on the analysis.

Davies-Bouldin Index

- **Final DB Index:** 0.8916
(Lower values indicate better clustering quality.)

Silhouette Score

- **Final Silhouette Score:** 0.4013
(Ranges from -1 to 1, with higher values indicating well-separated clusters.)

Cluster Insights

1. **Cluster Size Distribution:**
 - Visualized using a bar chart, showing the number of customers per cluster.
2. **Cluster Visualization:**
 - **2D PCA Plot:** Displays clusters reduced to two dimensions using PCA for interpretability.
 - **3D PCA Plot:** Provides an additional perspective on the cluster separation in three dimensions.

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Final DB Index: 0.8916423498121121
Final Silhouette Score: 0.4012627899999537
Number of Clusters Formed: 8
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