

## Customer Segmentation

Using clustering techniques (KMeans), customers were segmented into 5 distinct clusters based on spending habits, transaction counts, and average purchase price.

- **Cluster Insights:**
  - Cluster 0: High spenders with frequent purchases.
  - Cluster 1: Low spenders with occasional transactions.
  - Cluster 2: Moderate spenders, high average transaction value.
  - Cluster 3: Seasonal customers with high transaction variability.
  - Cluster 4: New customers with limited transaction history.
- **Clustering Metric:**

Davies-Bouldin Index: 0.971000365773975

**Recommendation:** Develop tailored marketing strategies for each cluster to maximize sale