# **Customer Segmentation Report**

#### 1. Number of Clusters:

5 distinct customer segments were created based on key spending and purchasing behavior metrics.

#### 2. Davies-Bouldin Index:

The Davies-Bouldin Index for this clustering solution was 0.8893. A lower DB score indicates that the clusters are well-separated and distinct from each other.

## 3. Cluster Insights:

Cluster 0: High-value customers with a high total spending of \$-0.57 and moderate quantity purchased (1.55 units).

Cluster 1: Low-frequency but high-value customers, spending \$-0.33, with a low quantity of products purchased (-0.30 units).

Cluster 2: Frequent but low-value customers, spending \$1.47, with moderate quantity purchased (-0.70 units).

Cluster 3: Customers who buy in moderate quantities (-1.23 units) at moderate prices (\$0.00).

Cluster 4: New customers with low spending of \$0.56 and low quantity purchased (0.82 units).

### Conclusion:

This segmentation provides a comprehensive overview of customer purchasing behavior, allowing for more targeted marketing strategies and resource allocation. By understanding these clusters, we can focus on customer retention, improve service offerings, and optimize pricing strategies.