

# Insights report on customer behavior by cluster

The dataset contains information on 200 customers, with the following columns:

1. **CustomerID** – Unique identifier for each customer
2. **Gender** – Male or Female
3. **Age** – Age of the customer
4. **Annual Income (k\$)** – Annual income in thousands
5. **Spending Score (1-100)** – A score assigned by the mall based on customer spending behavior

Here's the **Insights Report on Customer Behavior by Cluster** (based on Annual Income and Spending Score):

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## Cluster 0 – *Mid-income, Moderate Spenders*

- **Average Annual Income:** \$55.3k
- **Average Spending Score:** 49.5
- **Customer Count:** 81
- **Insight:** This is the largest group. They earn moderately and exhibit average spending habits. They might be loyal customers who respond well to general promotions.

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## Cluster 1 – *High-income, Low Spenders*

- **Average Annual Income:** \$88.2k
- **Average Spending Score:** 17.1
- **Customer Count:** 35
- **Insight:** These customers have high earning power but spend very little. They may be savings-oriented or not well-targeted by current offerings. Upselling or re-targeting strategies could help here.

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## Cluster 2 – *Low-income, Low Spenders*

- **Average Annual Income:** \$26.3k
- **Average Spending Score:** 20.9
- **Customer Count:** 23
- **Insight:** This group may be budget-conscious or price-sensitive. Offers and discounts could encourage more spending.

## **Cluster 3 – Low-income, High Spenders**

- **Average Annual Income:** \$25.7k
- **Average Spending Score:** 79.4
- **Customer Count:** 22
- **Insight:** Despite lower income, these customers spend heavily. They might be highly brand-loyal or impulse buyers. VIP programs or retention plans could be valuable here.

## **Cluster 4 – High-income, High Spenders**

- **Average Annual Income:** \$86.5k
- **Average Spending Score:** 82.1
- **Customer Count:** 39
- **Insight:** These are ideal customers—high earners and high spenders. Premium services, exclusive products, and loyalty perks should be focused on this segment.