Customer Segmentation Using K-Means Clustering

We have 4 clusters: 0, 1, 2, and 3

The values are in standardized form (mean = 0):

- Positive value → Above average

- Negative value → Below average

## Cluster 0

* Traits:
* Low Income (-0.77)
* More kids/teens at home
* Low product spend across all categories
* Very low total spend (-3.63)
* Very low campaign response (-0.42)
* Low web/store purchases

Insight: Likely price-sensitive families who don’t spend much or respond to marketing.

Action: Offer loyalty discounts, simple product bundles.

## Cluster 1

* Traits:
* Highest Income (+1.10)
* Very high spend on all products
* Highest total spend (+6.38)
* Positive response to campaigns (+0.41)
* Active both in-store and online

Insight: High-value premium buyers — engaged and responsive.

Action: Target with luxury or personalized campaigns. Promote premium loyalty programs.

## Cluster 2

* Traits:
* Above average income
* Doesn’t respond to campaigns (-0.28)
* Shops online a lot (+0.75)
* Some product spend, total spend slightly above average (+0.29)

Insight: Digital buyers with moderate engagement but not interested in campaigns.

Action: Target via personalized email or app-based offers. Push subscription or convenience services.

## Cluster 3

* Traits:
* Low income
* Lowest Recency (-0.71) → Not recent buyers
* Low spend, low store activity
* Highest response rate (+2.31)

Insight: Campaign-only customers — don’t buy often, but respond well to marketing.

Action: Trigger-based campaigns. Keep them engaged through aggressive promotions.

# Executive Summary

|  |  |  |  |
| --- | --- | --- | --- |
| Cluster | Type of Customers | Key Traits | Strategy |
| 0 | Low-income families | Low spend, kids at home, low campaign response | Loyalty deals or awareness campaigns |
| 1 | High-value premium shoppers | High spend, responsive, all channels active | Personalized offers, premium tier |
| 2 | Online mid-income customers | Active online, moderate spend, ignore campaigns | Digital convenience and retargeting |
| 3 | Price-sensitive responders | Low spend, low recency, high campaign reaction | Flash deals, promotional targeting |