Customer Segmentation Insights

USING K-MEANS CLUSTERING

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Business Objective

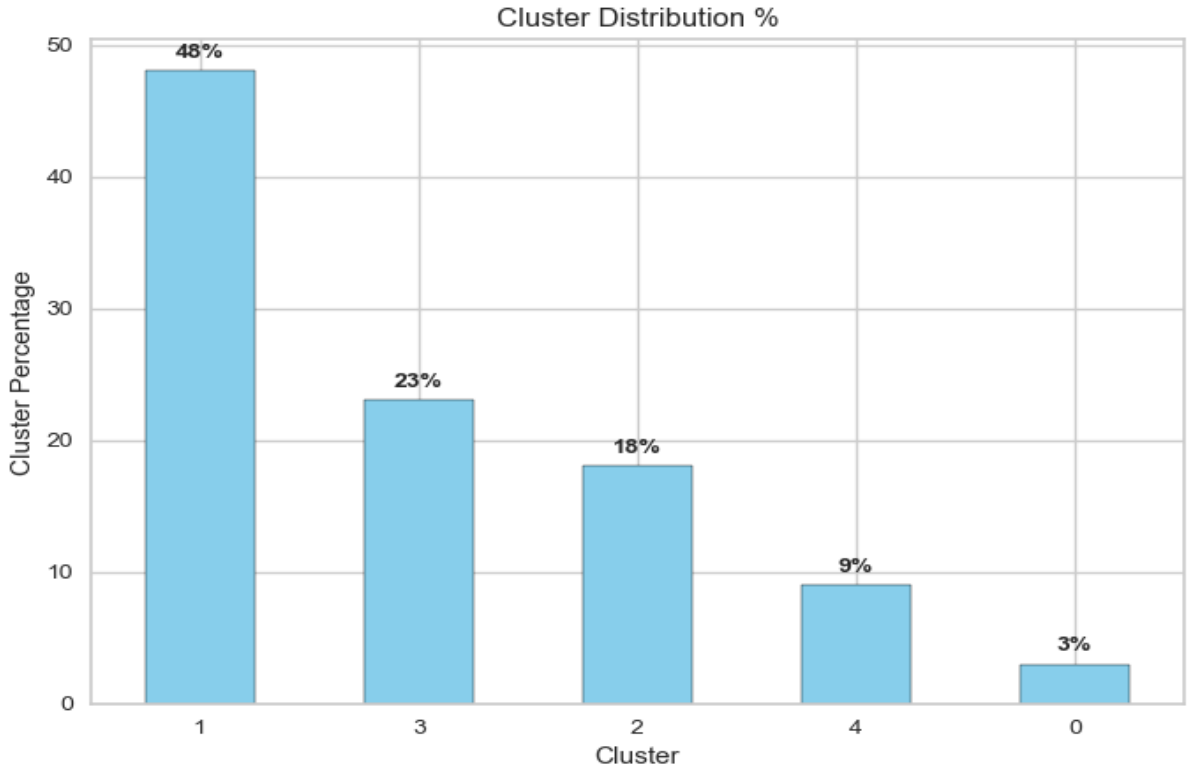
- Understand different types of customers
- Optimizing marketing strategy
- Improving retention and revenue

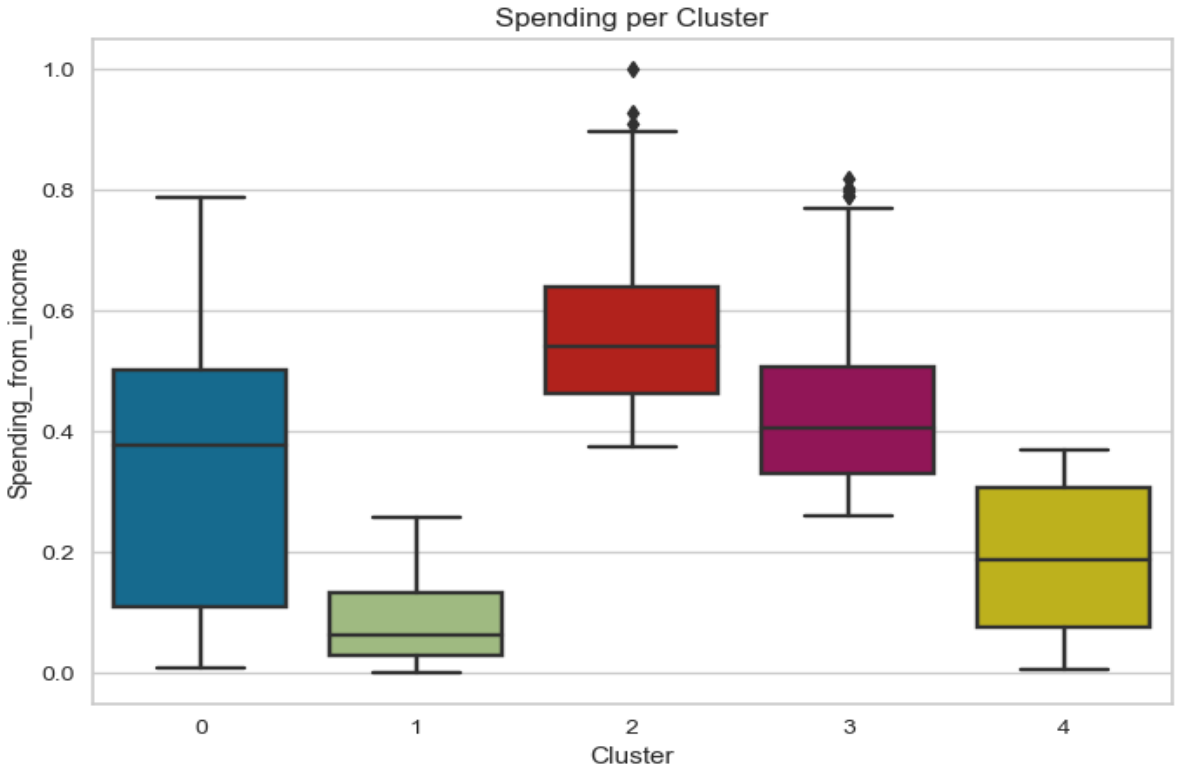
Approach

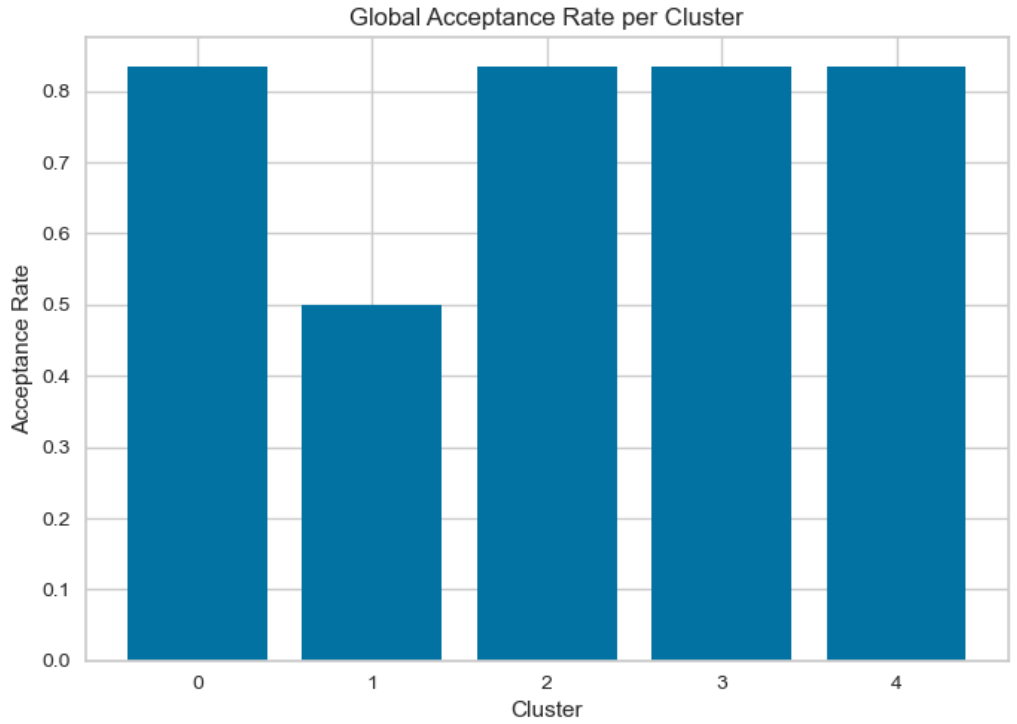
- Data used (demographics, spending behavior, engagement)
- KMeans algorithm used to group customers into **X segments**

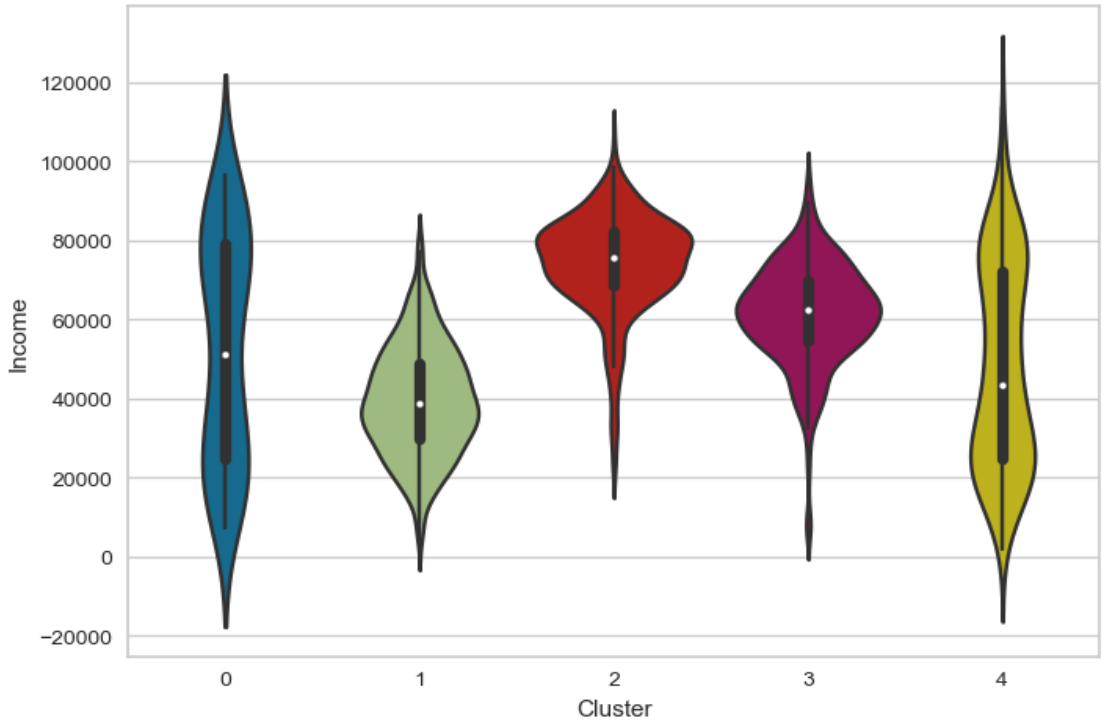
Results

Cluster 0	Cluster1	Cluster2	Cluster3	Cluster4
Mostly young non-parents with moderate spending (~35% of income).	Exclusively **adult parents with very low spending** (~9% of income).	**Adult non-parents with high spending** (~56% of income).	**Adult parents with moderate-to-high spending** (~43% of income).	**Adult non-parents with low spending** (~19% of income).



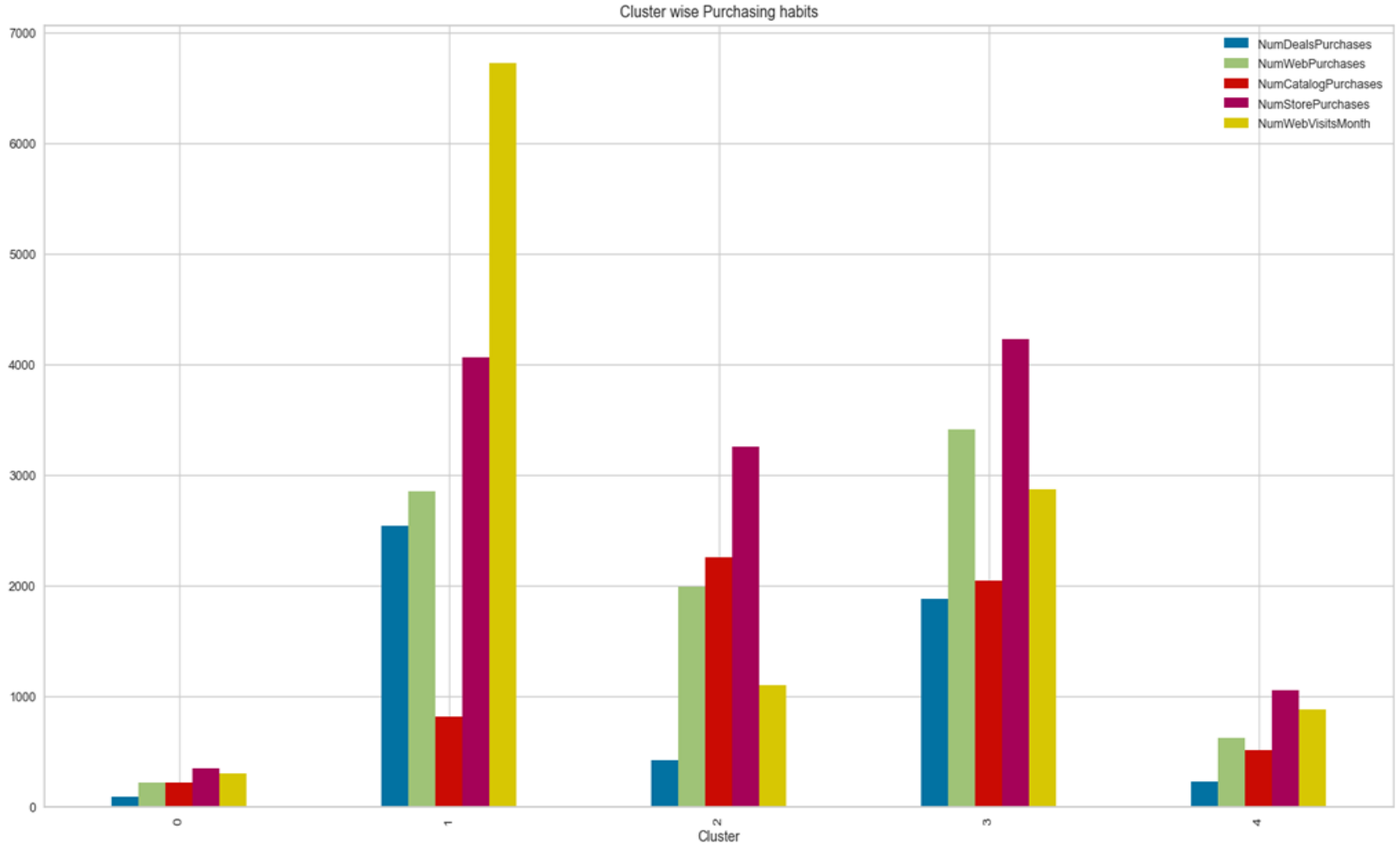


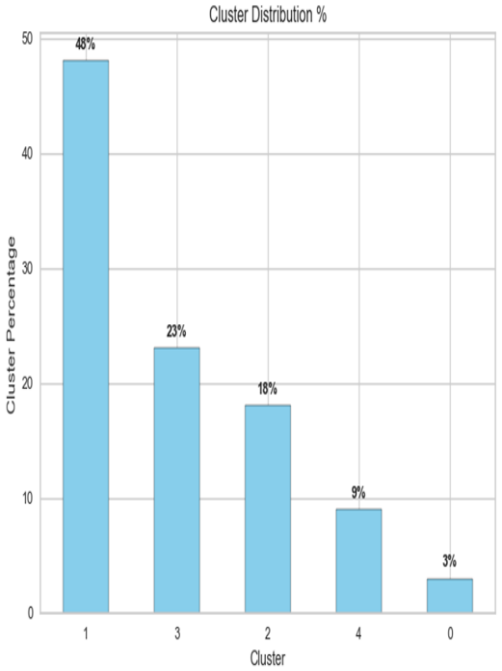


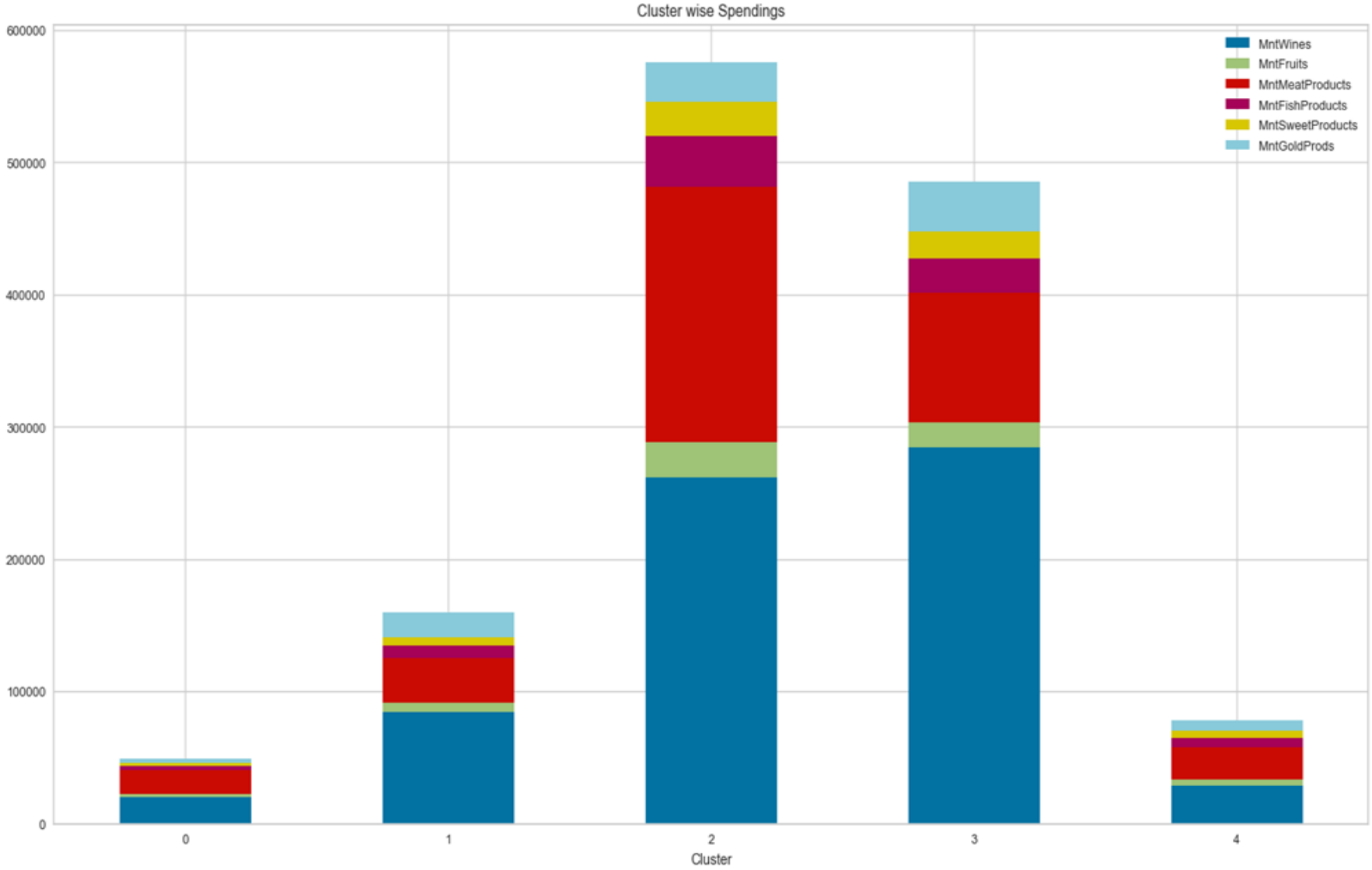


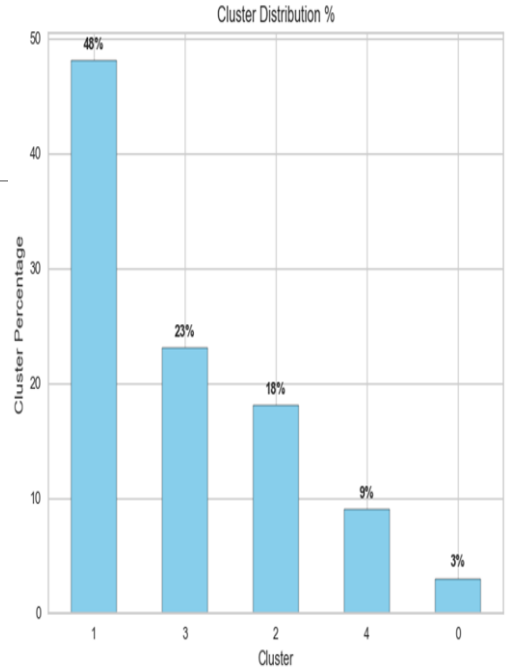
- Cluster 0 has the **widest spread**, including some very low and very high incomes.
- Cluster 1 is centered around **lower incomes (~30K–50K)**.
- Clusters 2 and 3 concentrate around **higher mid-level incomes (~60K–80K)**.
- Cluster 4 is diverse, spanning from low to high incomes, but with a concentration near **70K**.

👉 **Key takeaway:** Cluster 1 represents a **low-income, low-acceptance group**, while the other clusters generally show **higher incomes and higher acceptance rates**.


Cluster wise Purchasing habits
NumDealsPurchases
NumWebPurchases
NumCatalogPurchases
NumStorePurchases
NumWebVisitsMonth
7000
6000
5000
4000
3000
2000
1000
0
0
1
2
3
4
Cluster


Cluster Distribution %
Cluster Percentage
50
40
30
20
10
0
48%
23%
18%
9%
3%
1
3
2
4
0
Cluster


Cluster wise Spendings
600000
500000
400000
300000
200000
100000
0
0
1
2
3
4
Cluster
MntWines
MntFruits
MntMeatProducts
MntFishProducts
MntSweetProducts
MntGoldProds


Cluster Distribution %
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50
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23%
18%
9%
3%
1
3
2
4
0
Cluster

Recommendations

Cluster 0

👉 Offer lower-cost but stylish, attractive products (like entry-level or lifestyle-focused items) to appeal to diverse income levels. Highlight **wines and meat**, which align with their spending habits, using trendy bundles or promotions. Use digital channels (social media, influencers) to connect with the younger segment.

Cluster 1

👉 Provide value-oriented promotions, discounts, and **family bundles featuring meat and wine**, as this group is highly budget-conscious yet spends more in these categories. De-emphasize premium items like gold, fish, or fruits.

Cluster 2

👉 Target with **premium wine and meat packages**, subscriptions, and loyalty programs. Emphasize exclusivity, quality, and convenience, while avoiding less popular categories (gold, fish, fruits). Personalized recommendations will resonate strongly here.

Cluster 3

👉 Promote **mid-to-premium family-oriented products** such as meat packs and wine bundles for home dining. Campaigns around family wellness or celebrations will fit well, while minimizing focus on gold, fish, and fruits.

Cluster 4

👉 Encourage engagement through affordable luxury, add-on services, or loyalty points. Position **wine and meat as accessible lifestyle luxuries** at reasonable costs. Downplay categories with low spending (gold, fish, fruits) to keep offers relevant.