Obligatory Blank Slide

Starbucks Customer Segmentation

Focused Marketing Tactics

Using Customer Behavior to Update Offer Portfolio

Transaction Data

Mining App Usage Data

- Customer Profiles

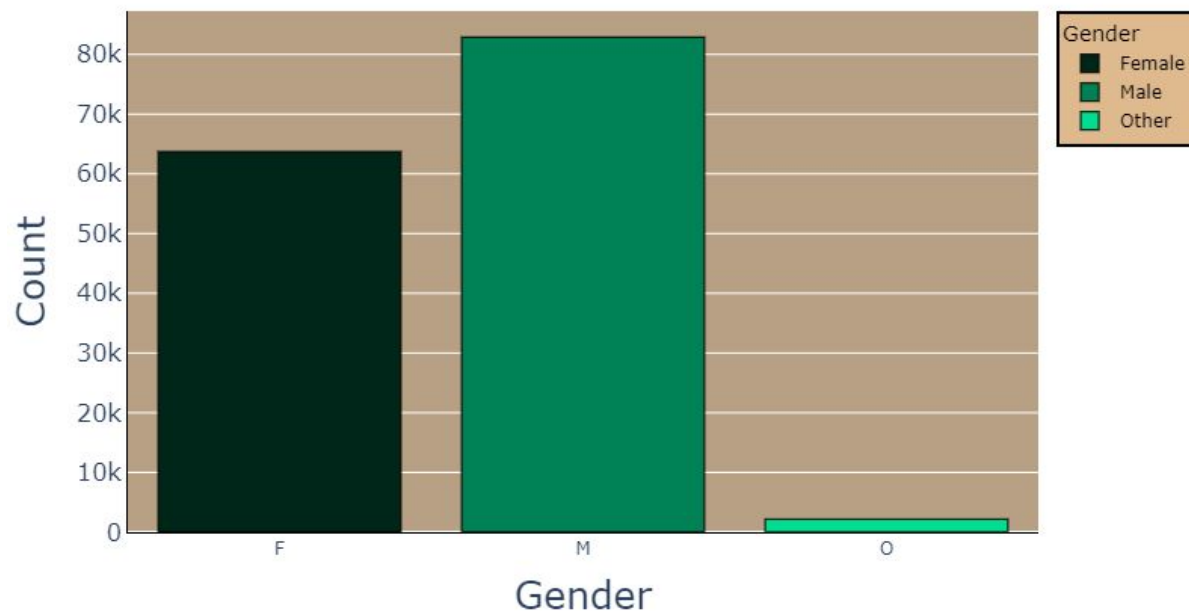- Offer Portfolio

- Transaction Details
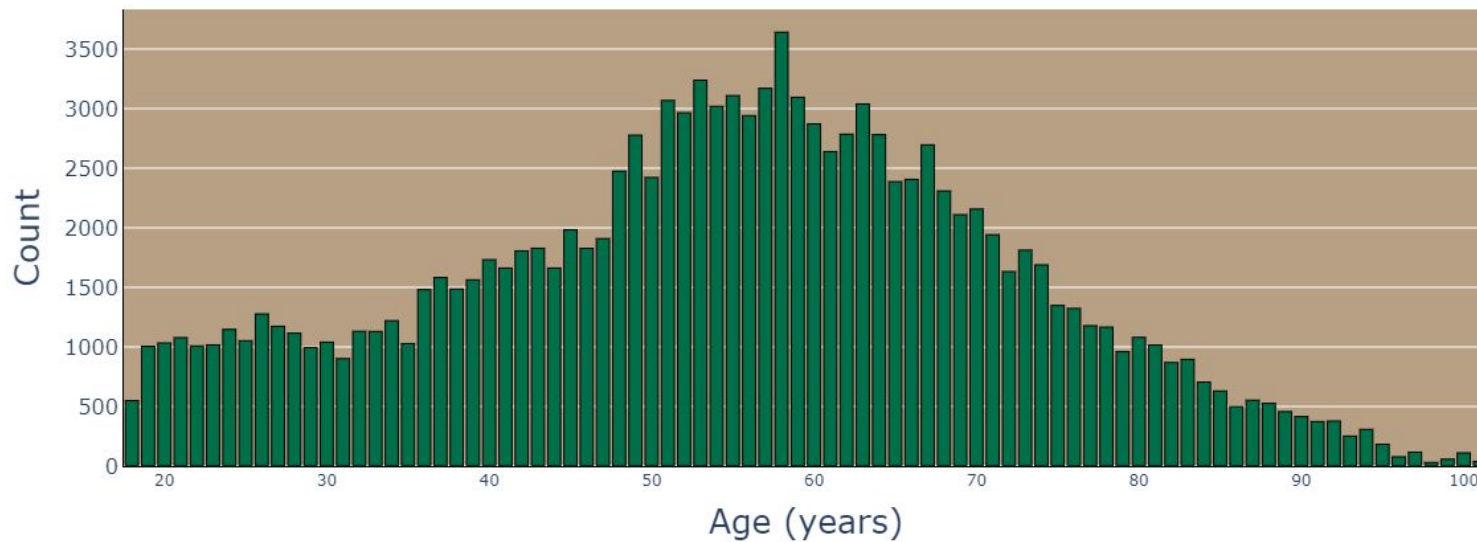
Demographics

Distributions of Customer Data

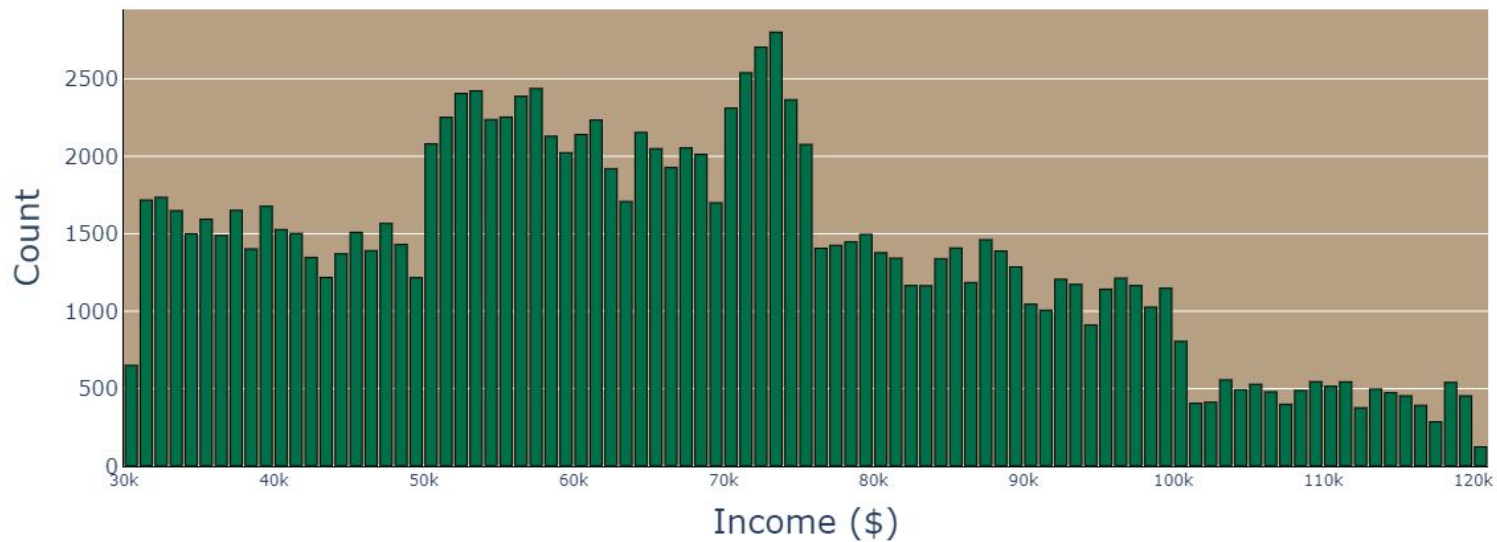# Gender

Overall Gender Distribution
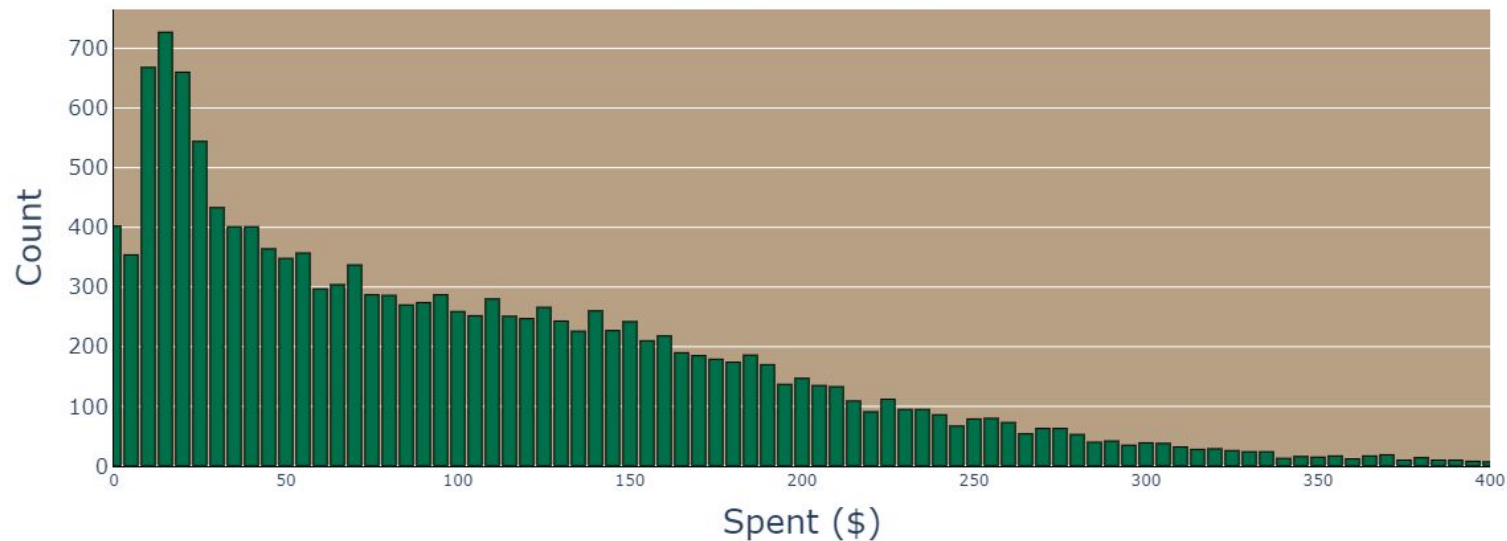
Age

Overall Age Distribution

Income

Overall Income Distribution

Spending

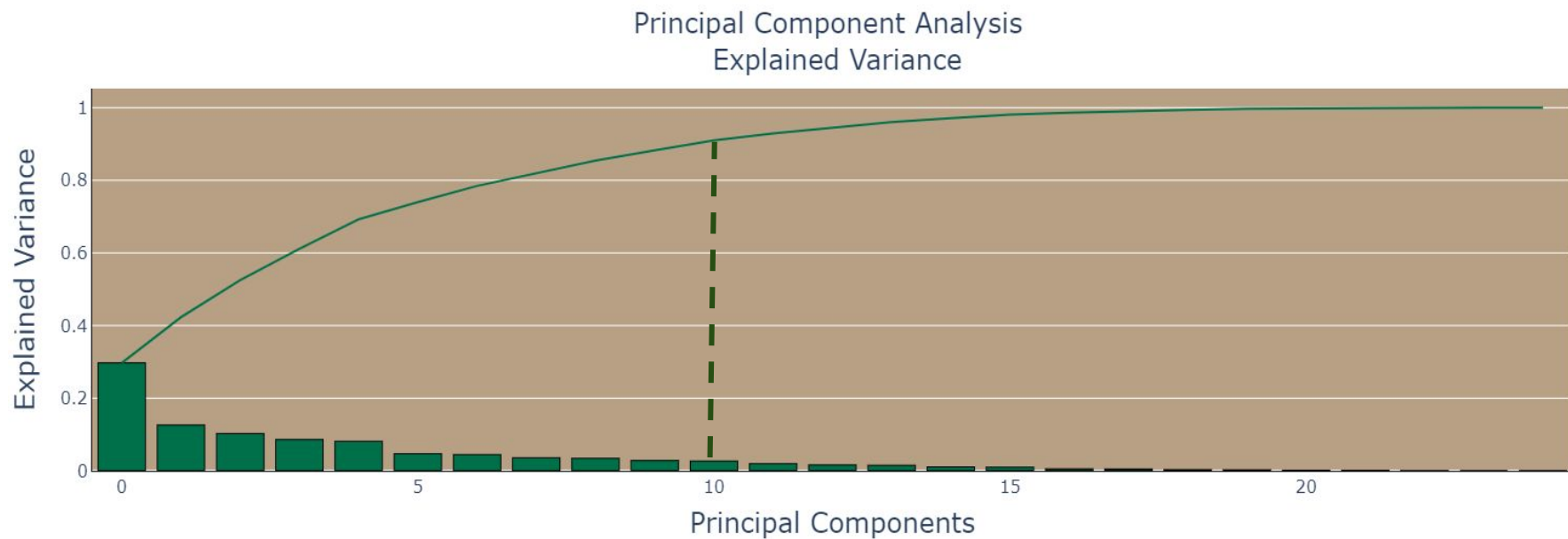Total Spent for Each Customer
Over One Month

Clustering

Grouping Like Customers for Targeted Marketing

Dimensionality Reduction

Principal Component Analysis
Explained Variance

Clustering Heuristics

Inertia and Silhouette Scores K-Means Fit
on Transformed PCA Data
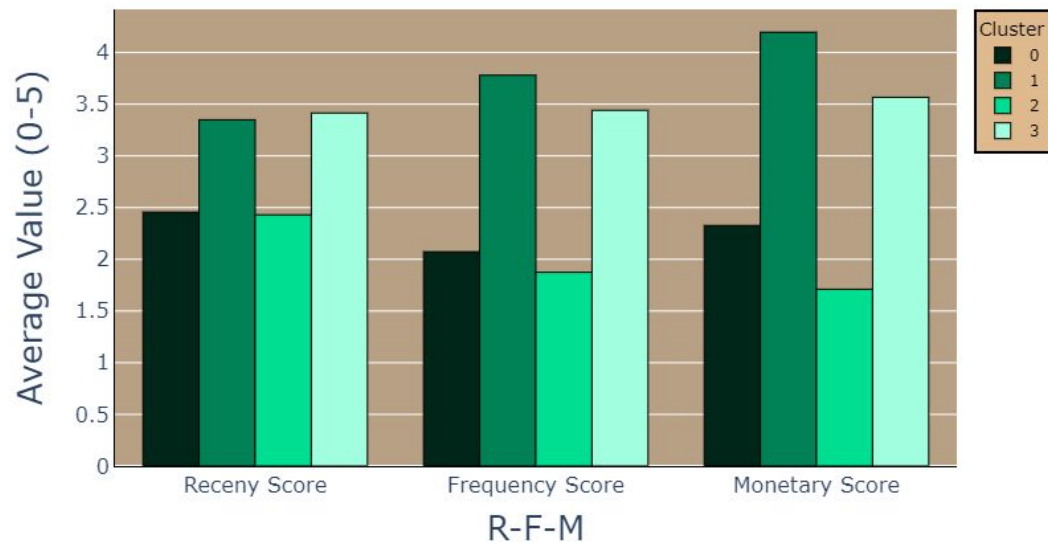
Understanding Our Groups

What makes our clusters unique

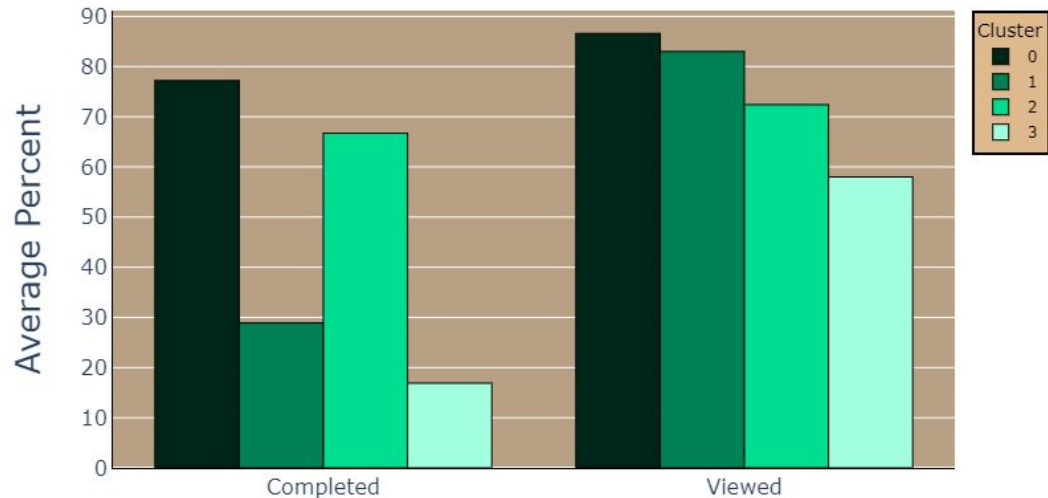# Recency - Frequency - Monetary

Average RFM Score

- Cluster 1 and 3 represent our best customers.

- Cluster 0 and 2 also show similarity

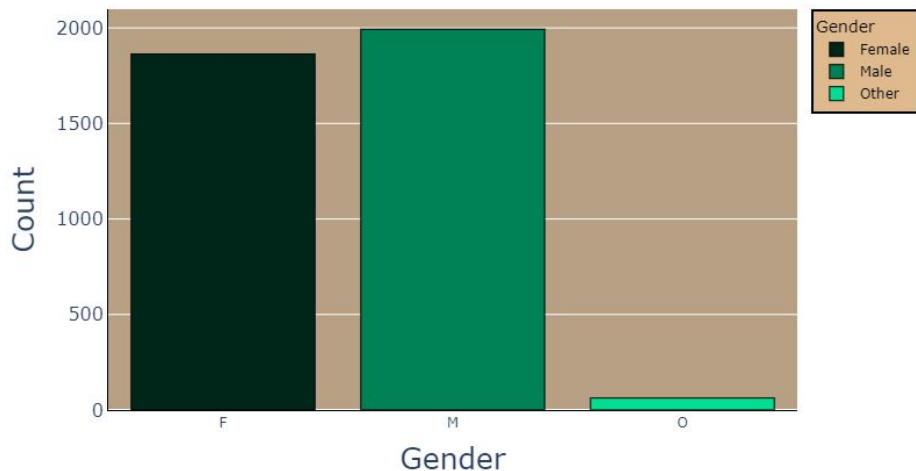# Engagement

Overall Offer Engagement

- Cluster 0 and 1 represent our most engaged customers

- Cluster 1 views most offers but hardly complete any

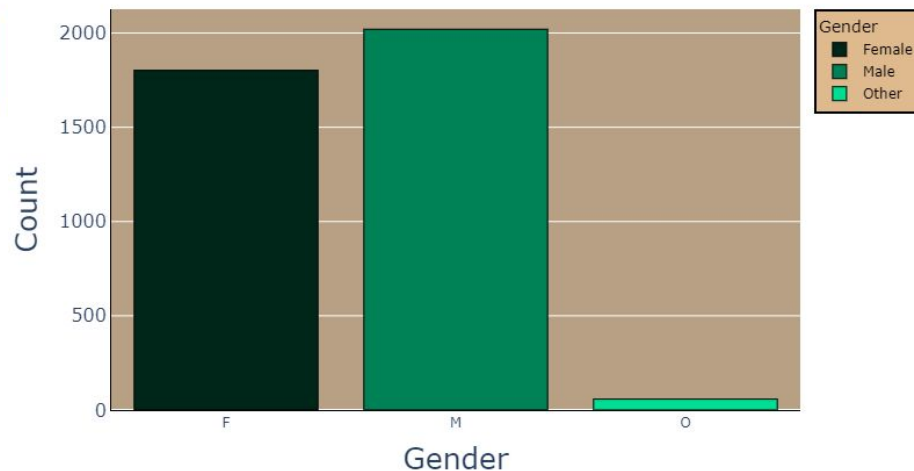- Cluster 3 views more than half of offers and completes only 18%

Similarities of Clusters 0 and 2 (Gender)

Differences of Clusters 0 and 2 (Income)

Distribution Income by Cluster

Differences of Clusters 0 and 2 (Age)

Distribution Age by Cluster

Differences of Clusters 0 and 2 (Revenue)

Distribution Total Spent by Cluster Over One Month

Transaction Frequency

Cluster 0 Hours Between Transactions

Cluster 2 Hours Between Transactions
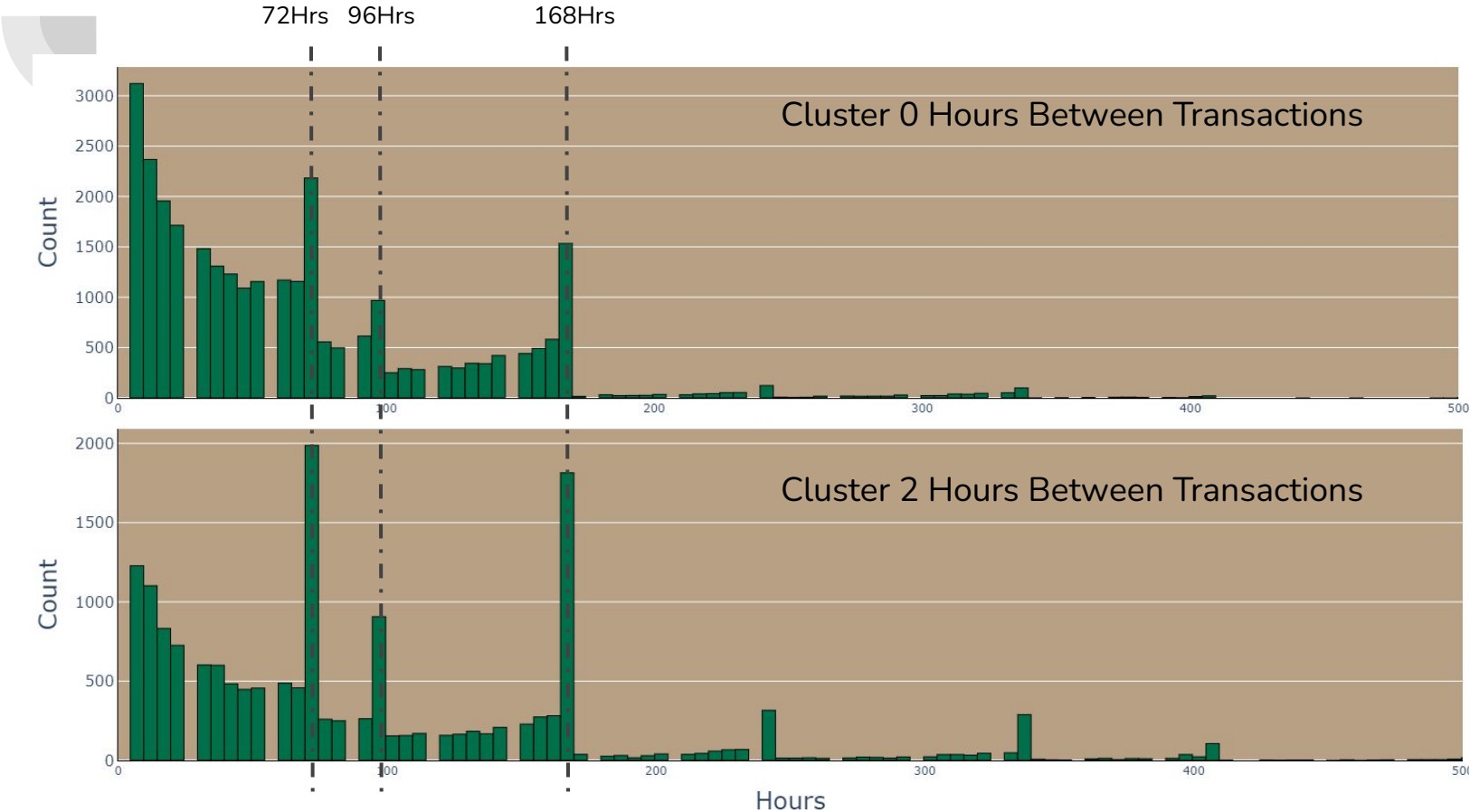
Recap: Who are clusters 0 and 2

Cluster 0

- Wealthy
- Older
- Low R.F.M.
- Low Spenders
- Females Over-Represented
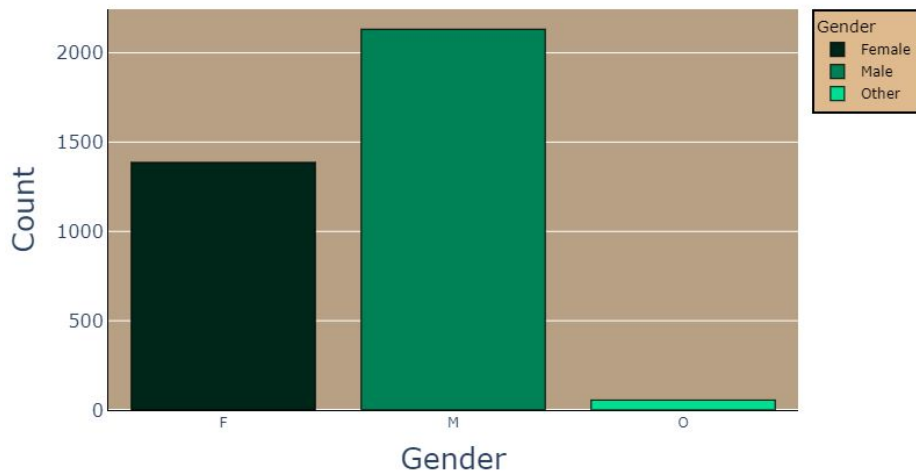- Engaged with App
- More than once per day buyers

Cluster 2

- Poorer
- Younger
- Low R.F.M.
- Lowest Spenders
- Females Over-Represented
- Engaged with App
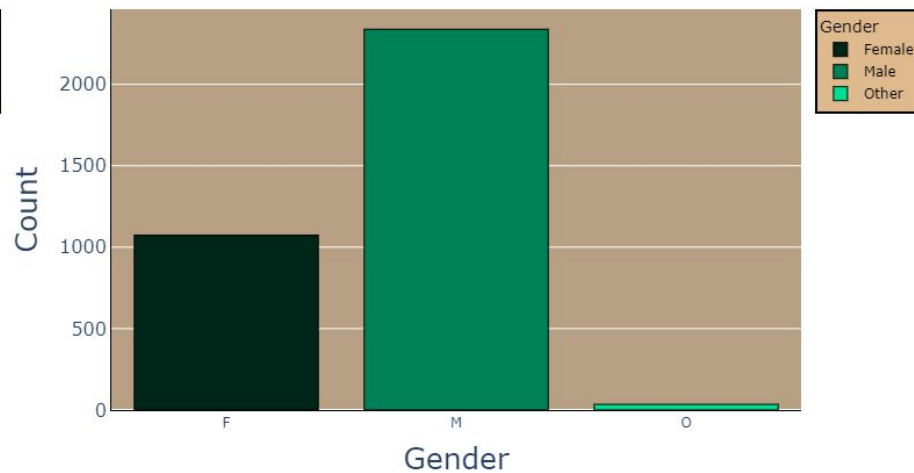- Every 3 or 7 day customers

Differences of Clusters 1 and 3 (Gender)

Differences of Clusters 1 and 3 (Income)
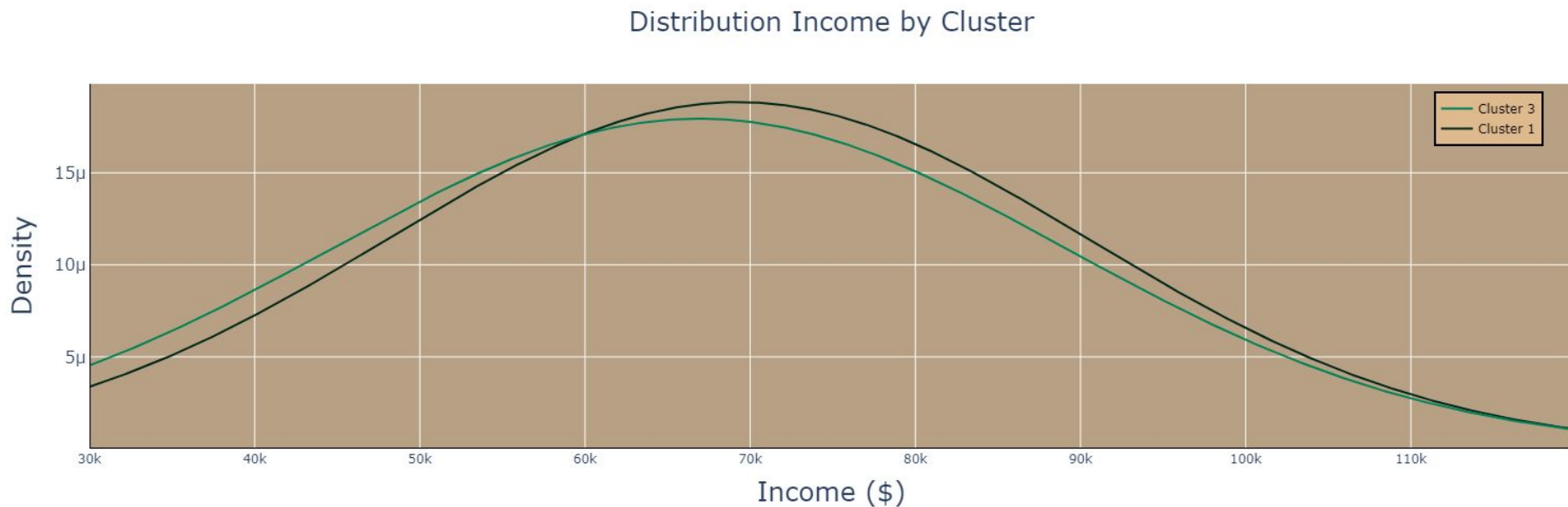

Distribution Income by Cluster

Differences of Clusters 1 and 3 (Age)

Distribution of Age by Cluster
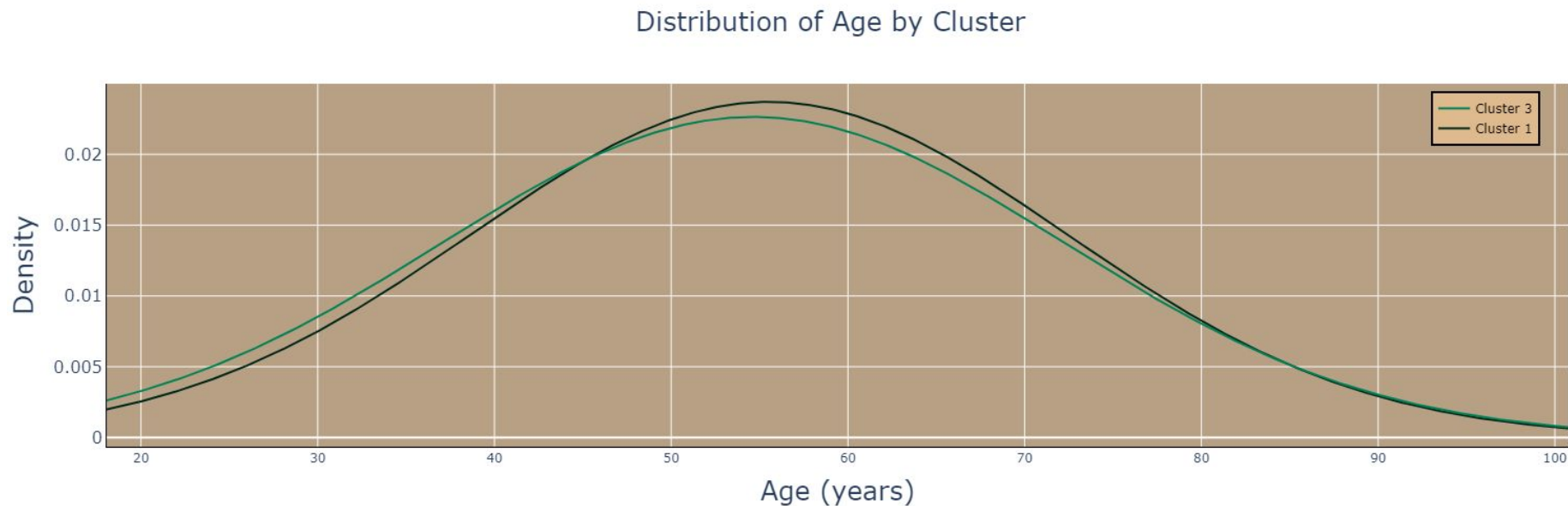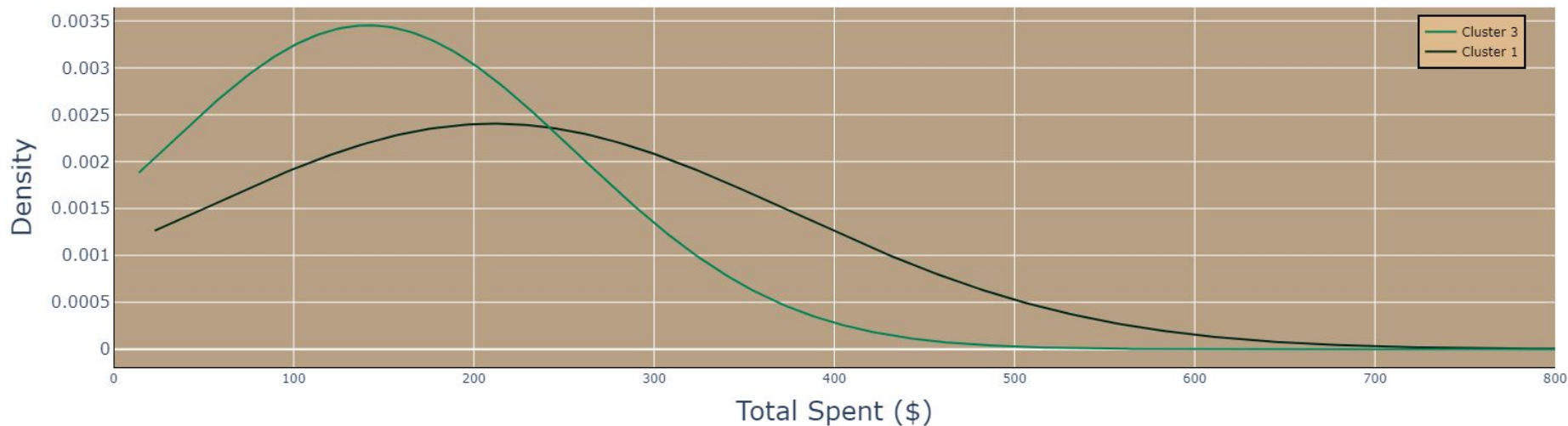
Differences of Clusters 1 and 3 (Revenue)

Distribution Total Spent by Cluster

Transaction Frequency
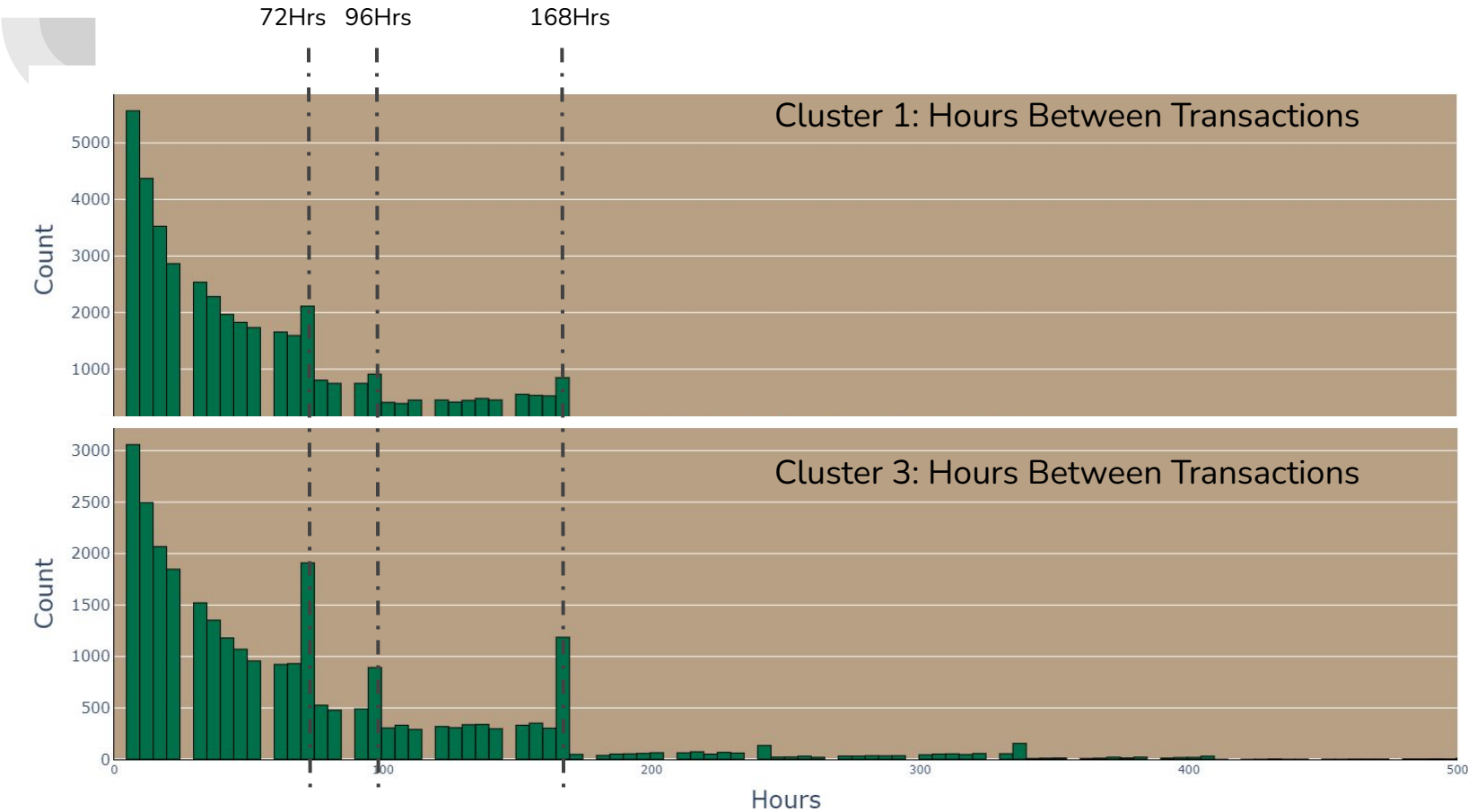
Recap: Who are clusters 1 and 3

Cluster 1

- Moderate Income
- Median Age
- High R.F.M.
- Highest Spenders
- Males Over-Represented
- Not Engaged
- Highest Number of Purchases Per Day

Cluster 3

- Moderate Income
- Median Age
- High R.F.M.
- High Spenders
- Males Over-Represented
- Not Engaged
- More than once per day buyers

How to Improve

Targeted Marketing

Reward - Difficulty - Duration

Overall Offer Engagement

Overall Reward/Difficulty/Duration Distribution
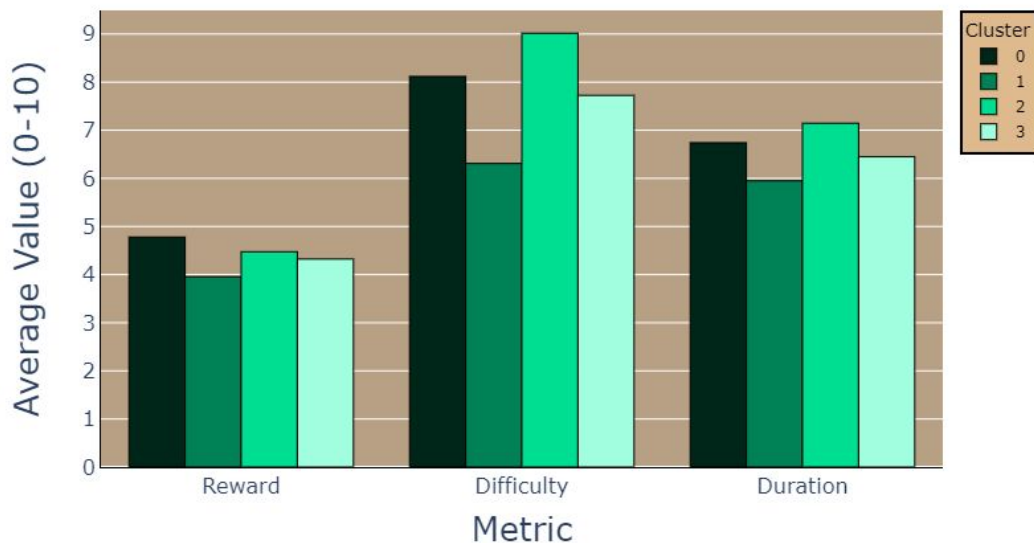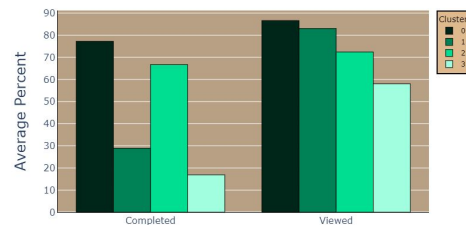
- Reward and difficulty metrics scaled 0-10

- Duration is number of days the offer is valid

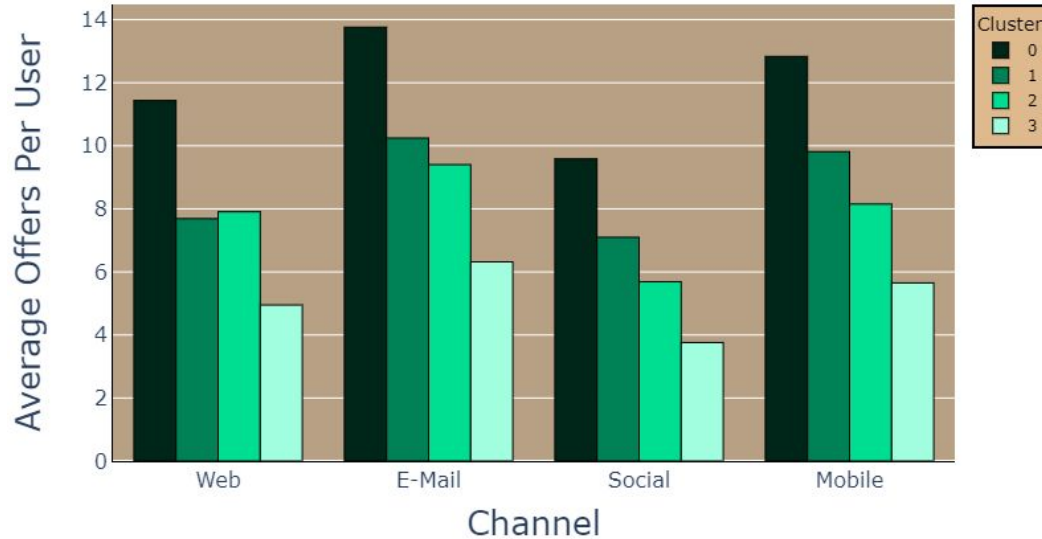- Plot represents the average of all offers sent

Cluster 1 and 3 Offer Types

Methods of Offer Distribution

Overall Offer Channel Distribution

- Overall consistent trend with existing offers

- Cluster 2 received more web and email offers than the trend

- Social media offers are the least visible

Proposed New Offers

Cluster	Reward	Difficulty	Duration	Type	Web	Email	Social	Mobile
0	4	9	7	BOGO		X		X
1	7	7	7	Discount	X	X		X
2	5	9	3	Discount	X	X		X
3	3	5	7	Discount	X		X	

Proposed Follow-Ups

- Predict viewership and completion ratios for proposed offers and their impact on revenue
- Find more succinct ways of visualizing differences between clusters
- Use 1-4 instead of 0-3 for cluster naming, or create nicknames