

# Precision Marketing for E-Commerce

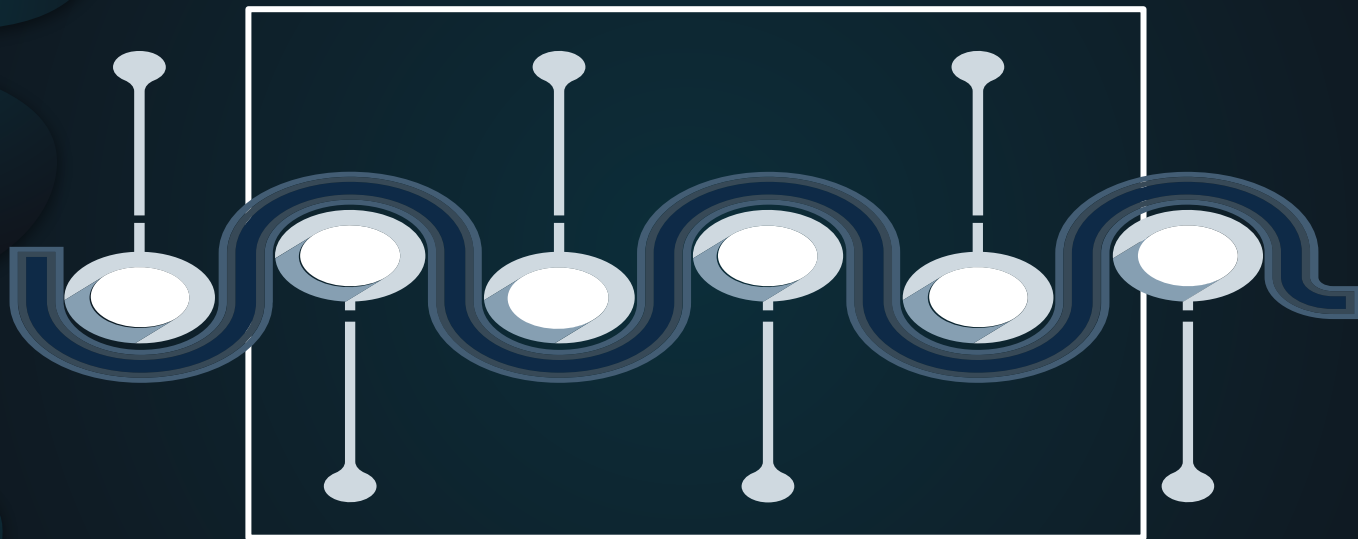
**Alen Tersakyan**

**How can we  
efficiently target  
customers?**

**Data  
cleaning**

**Cohort  
Analysis**

**Clustering**

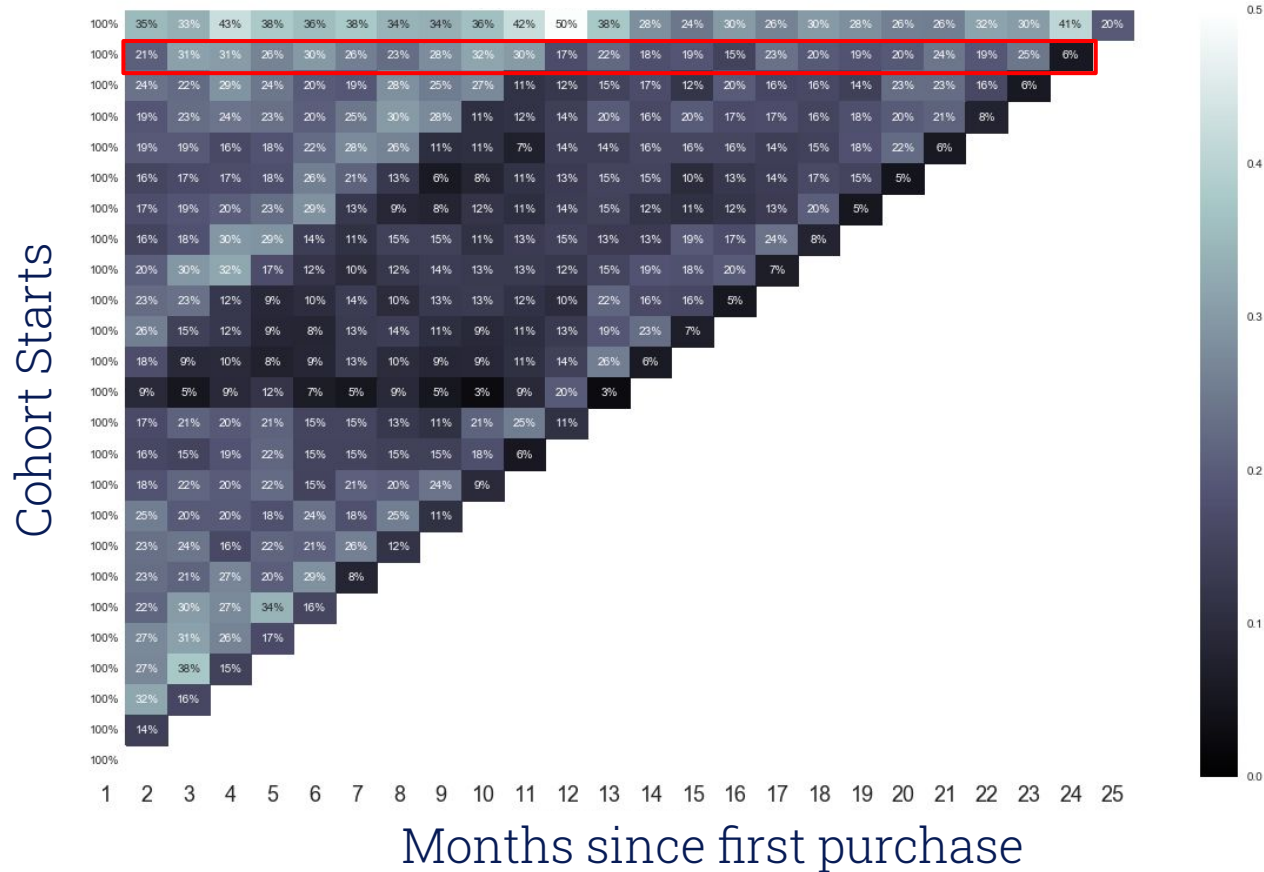


**EDA**

**RFM  
Calculation**

**Time  
Series**

# Cohort Analysis





## **Recency**

Days since  
last purchase



## **Frequency**

Number of  
purchases in  
time window



## **Monetary**

Total revenue  
in time  
window

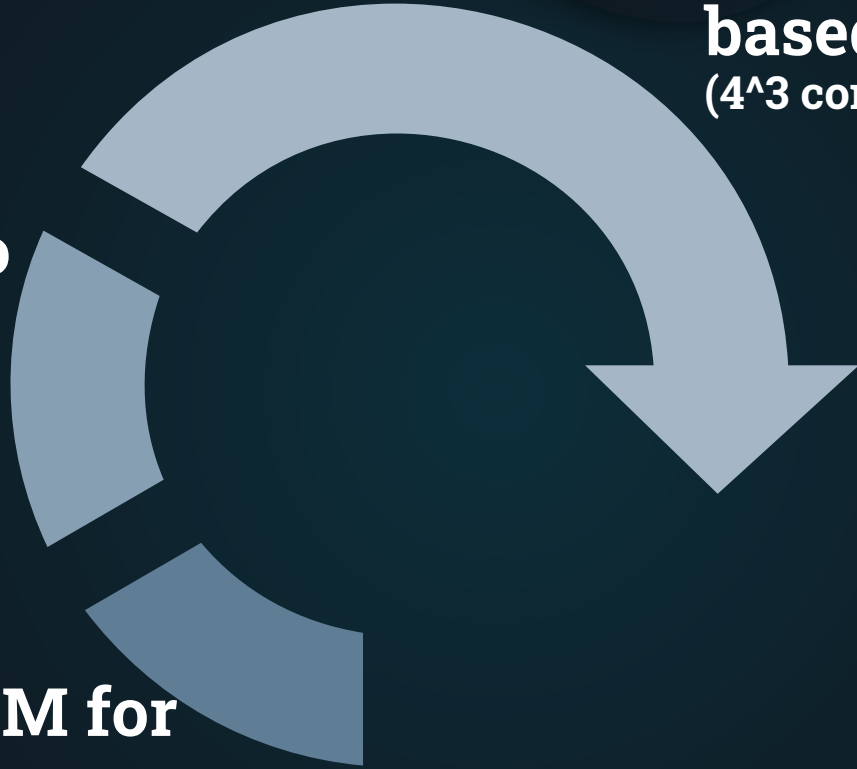
# **RFM Analysis**

**Recommendations  
based off total RFM  
( $4^3$  combinations)**

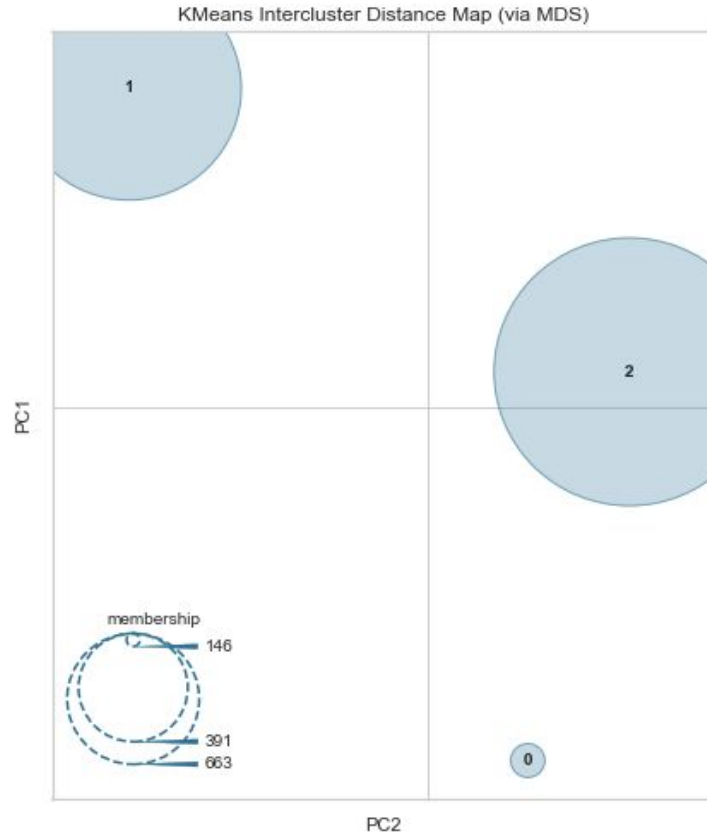
**Cut each into  
Quartiles**

**RFM  
Analysis**

**Calculate R,F,M for  
each customer**

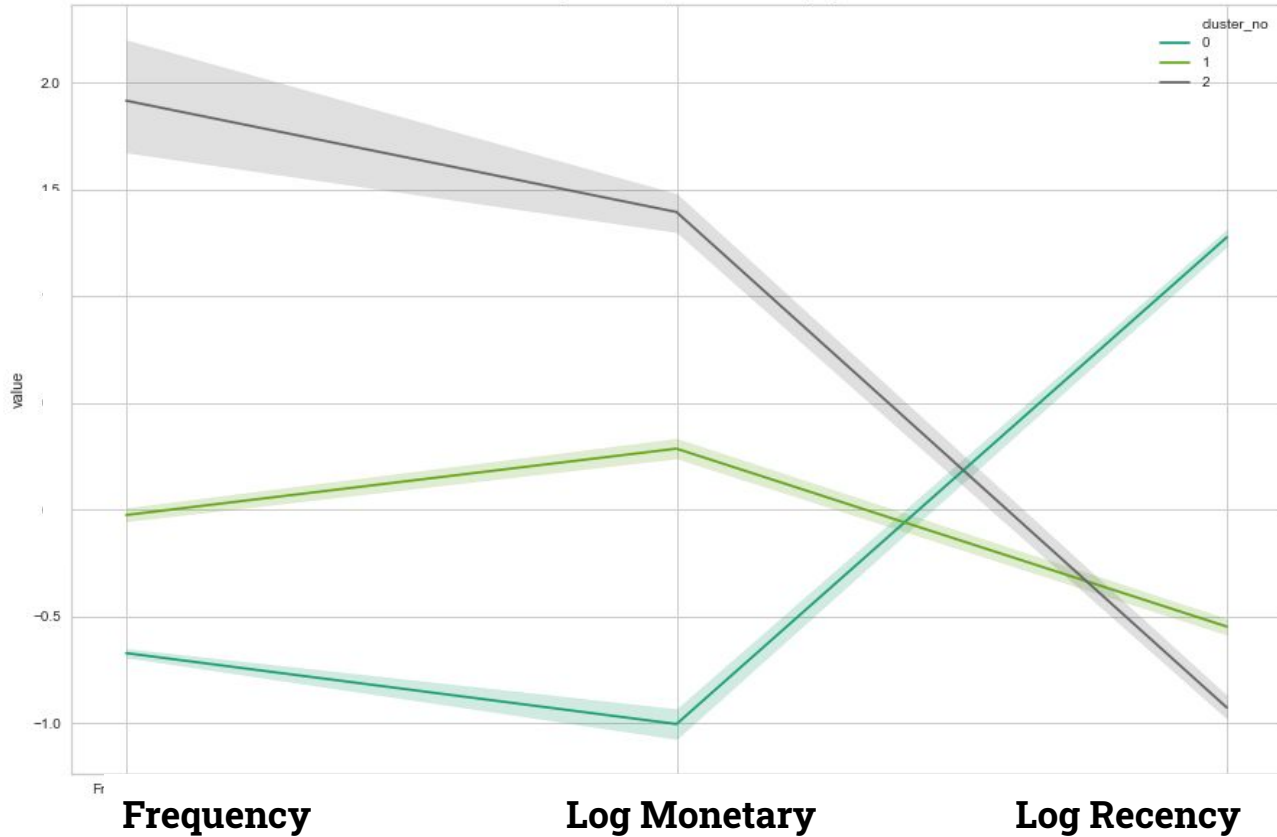


# Cohort clusters for Q1-4

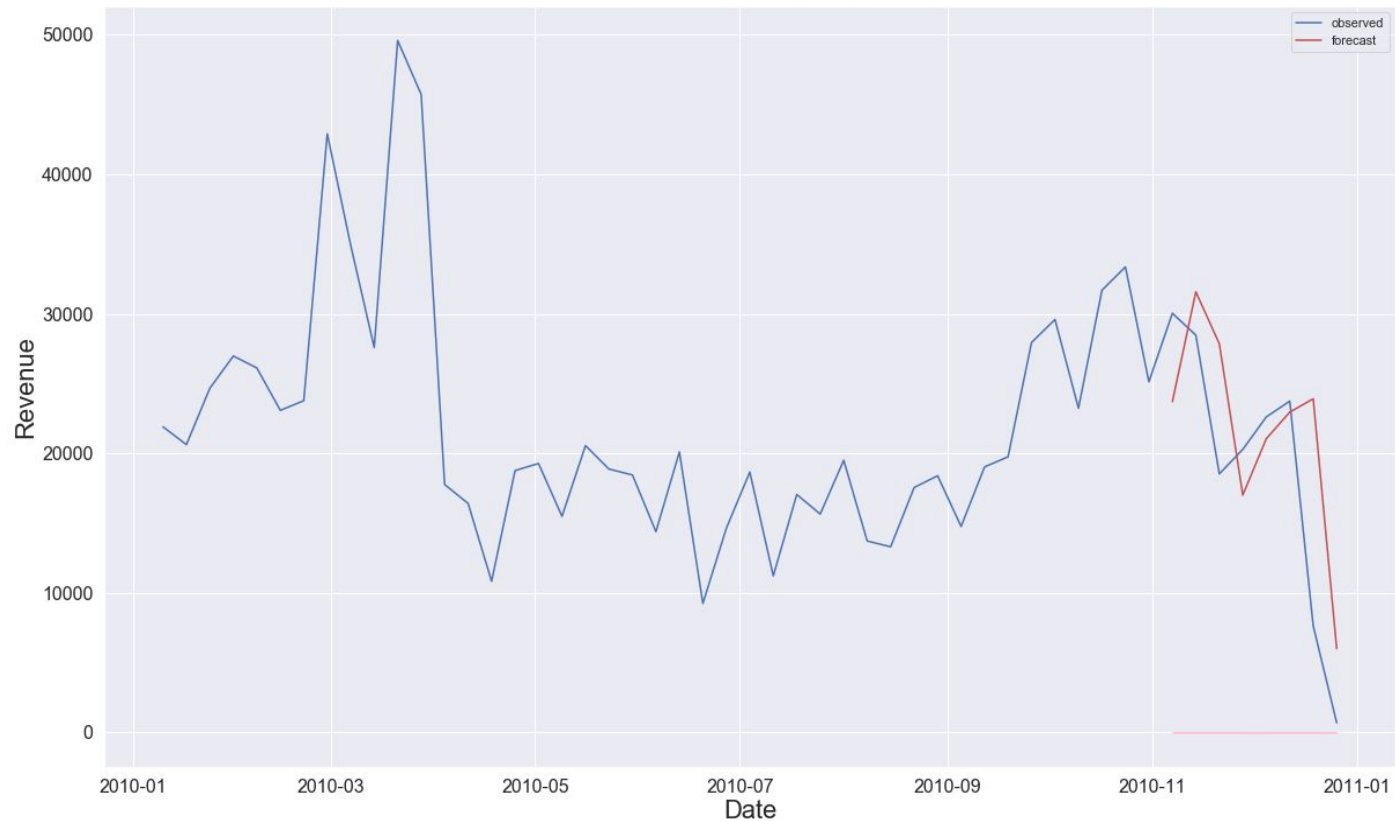




## RFM Behavior of Each Customer Cluster



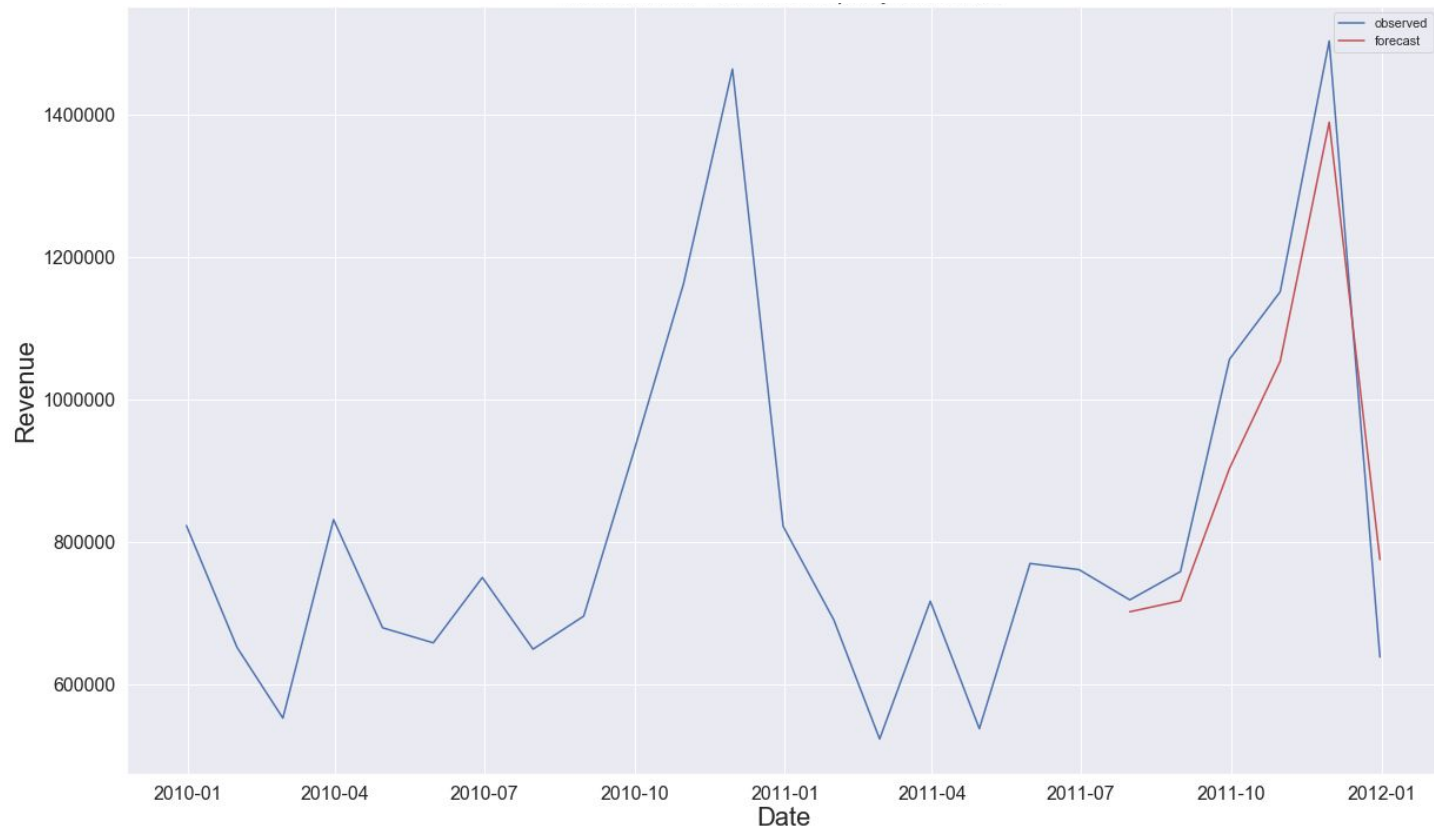
## Cluster 1 Time Series Forecast



## Cluster 2 Time Series Forecast



## 2 Year Time Series Forecast for Entire Company Revenue



# Recommendations

- Create new RFM score for each customer every month- quarter to see how their behavior is changing over time
- Cluster customers at every time period
- Try to develop the individual time series models more to help inform customers to target.



**Thank You**

# Summary

- 1 Goal: More efficient/targeted marketing strategy, based on customer behavior
- 2 Customer Behavior: Cohort Analysis + RFM
- 3 Clustering: KMeans to cluster customers based on RFM
- 4 Time Series: Time series on different clusters