# Making Products Count
# Inmobi Case Study

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# Our Client: Inmobi

Inmobi enables consumers to discover new products and services by providing contextual, relevant and curated recommendations

# Our Challenge

What platform should they utilize?

What should be their optimal delivery channel?

# The Data

- Deloitte's Digital Demographic Survey Data from 2011
- Included demographic information & answers to survey questions like devices used, frequently used apps, time spent watching different channels (sports/videos/music)

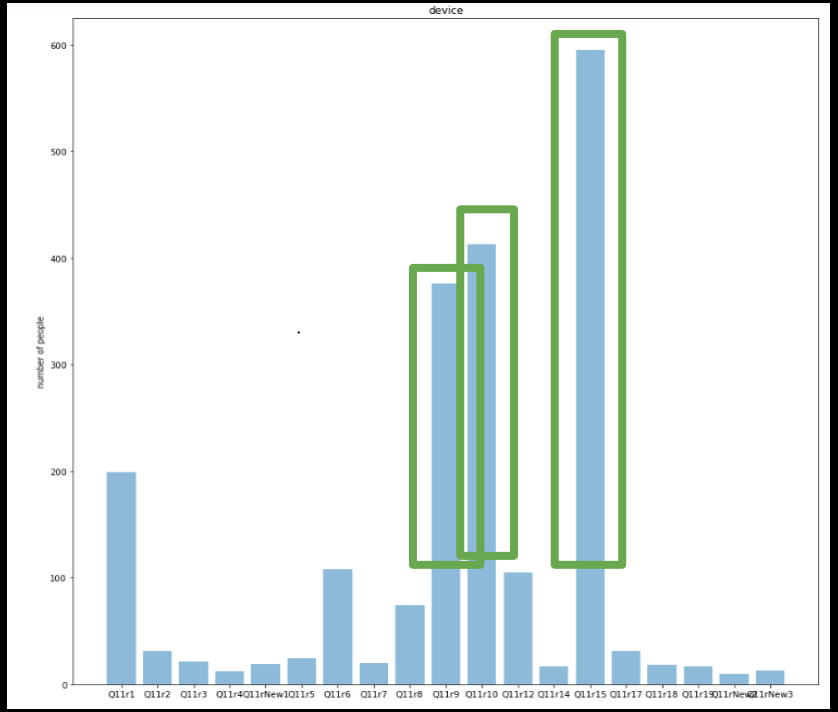
# Preprocessing

1. Format column names
2. Replaced NULL values with meaningful data
3. One-hot encoding
4. Get rid of columns highly correlated with our target variables for classification

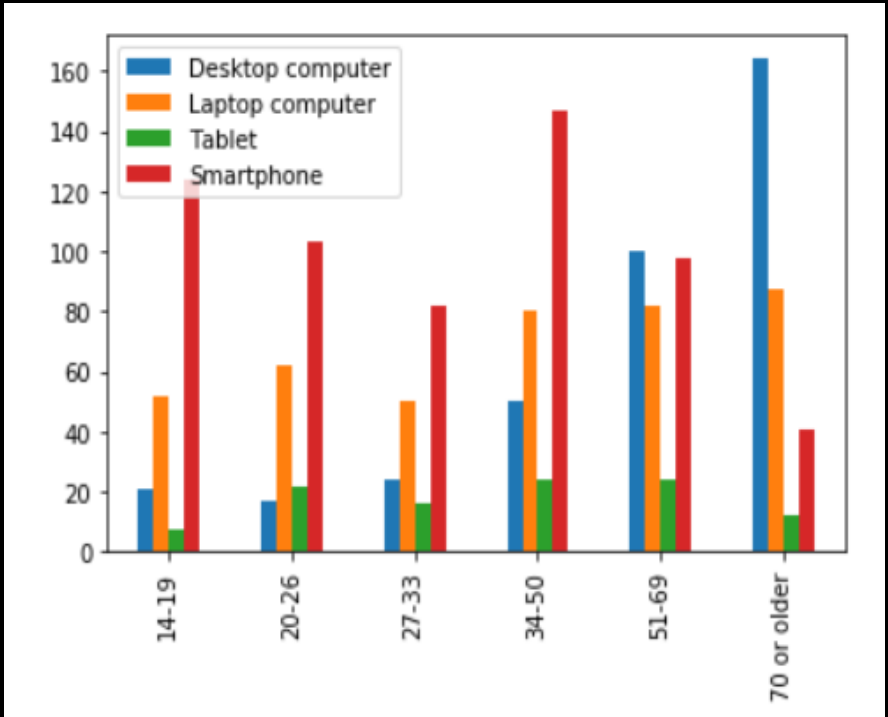
# What Our Data Tells Us

## Top 3 valued devices

1. Smartphones
2. Desktop Computers
3. Laptop Computers



# What Our Data Tells Us (2)



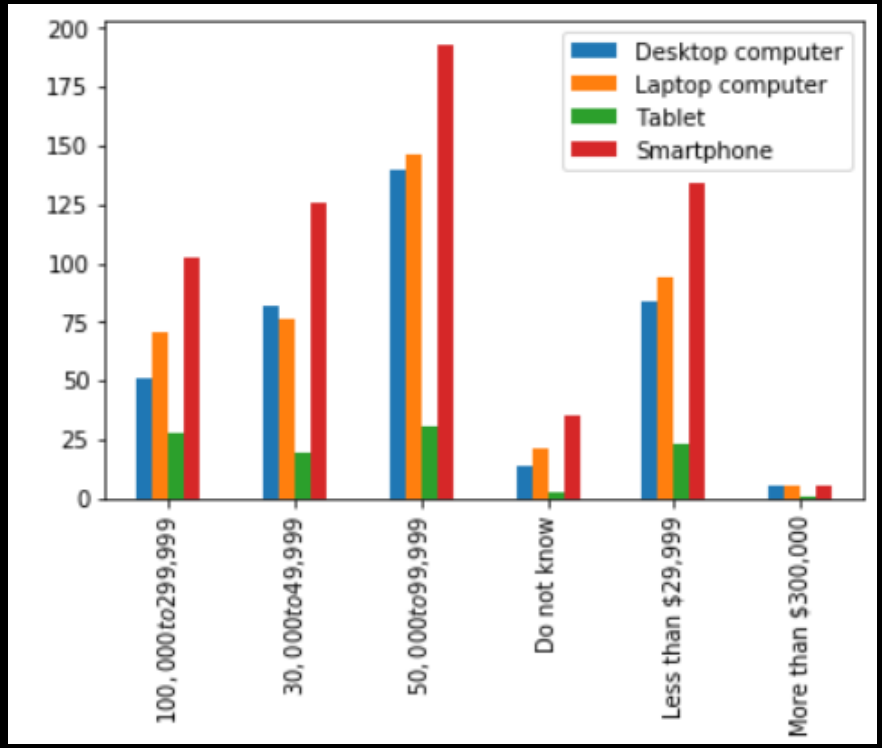

Ages 14 - 50 prefer using smartphones

While older people prefer Desktop Computers

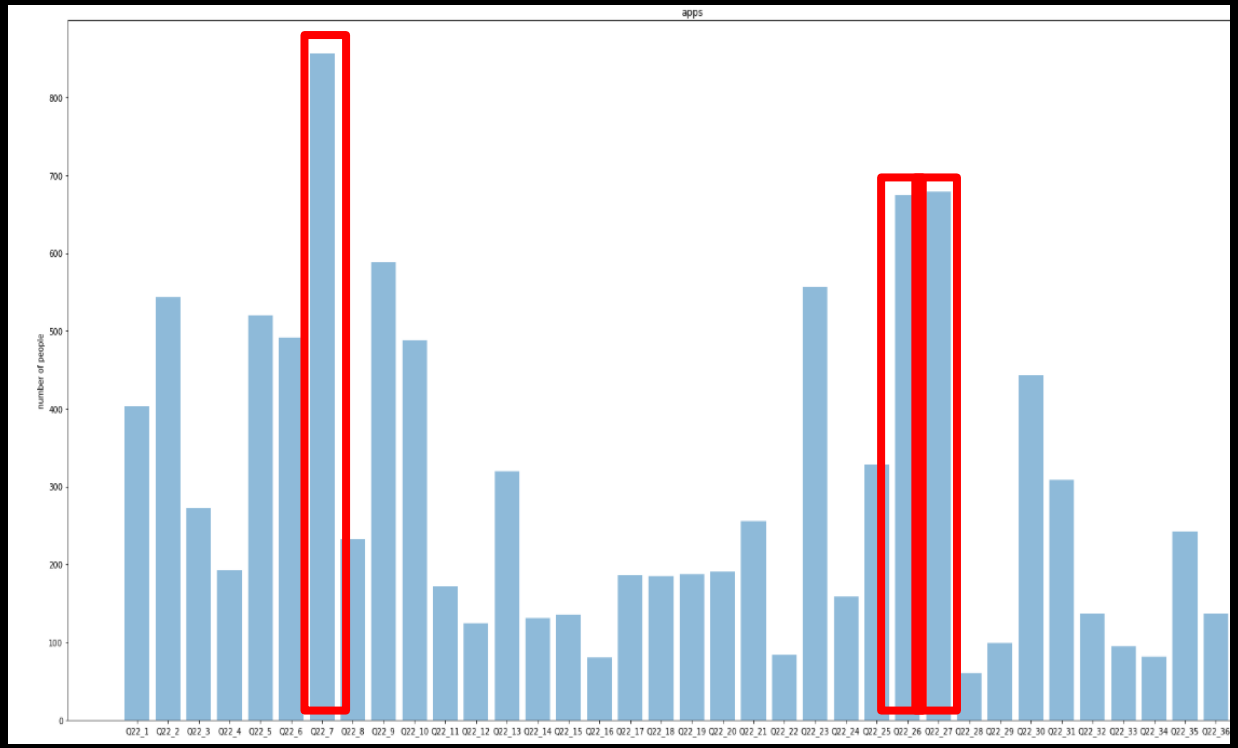
# What Our Data Tells Us (3)

Users across all income brackets, ranked smartphones #1

..surprising?



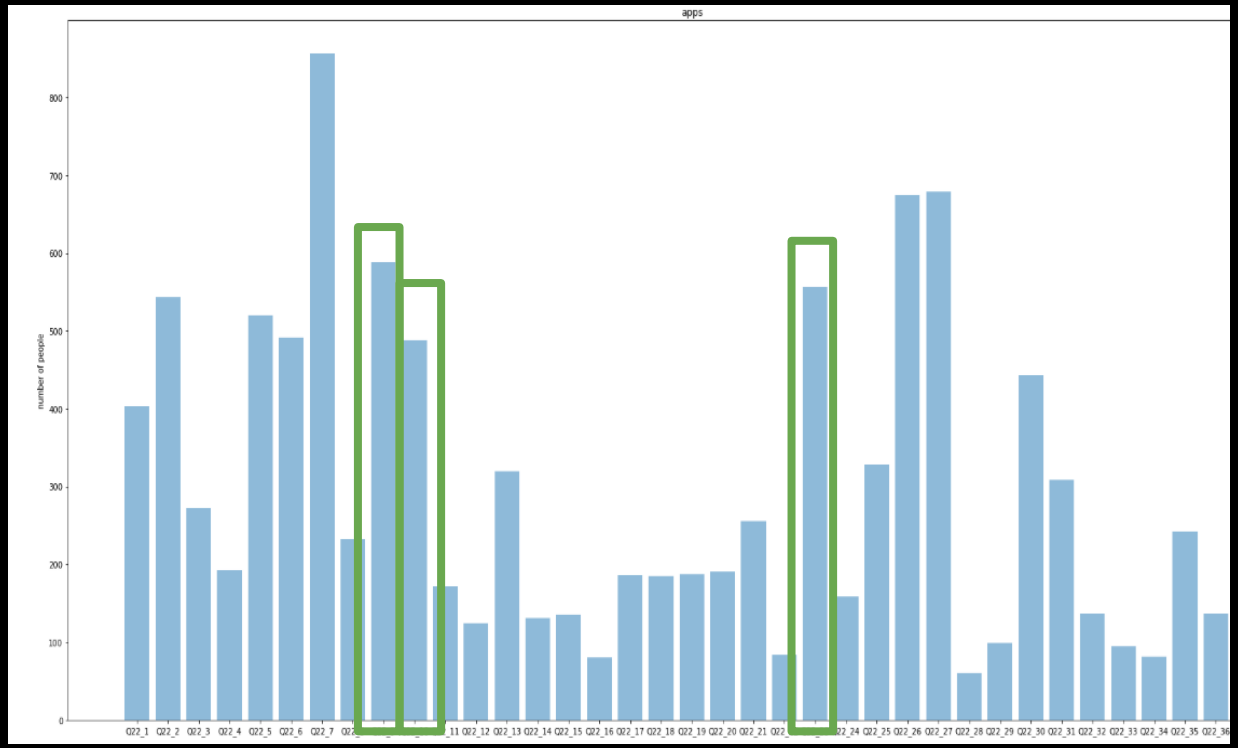
# What Our Data Tells Us (4)




Top 3 apps used on smartphones

1. Social Networks
2. Weather
3. Internet Browser

# What Our Data Tells Us (4)




But for the purpose of our client, we considered

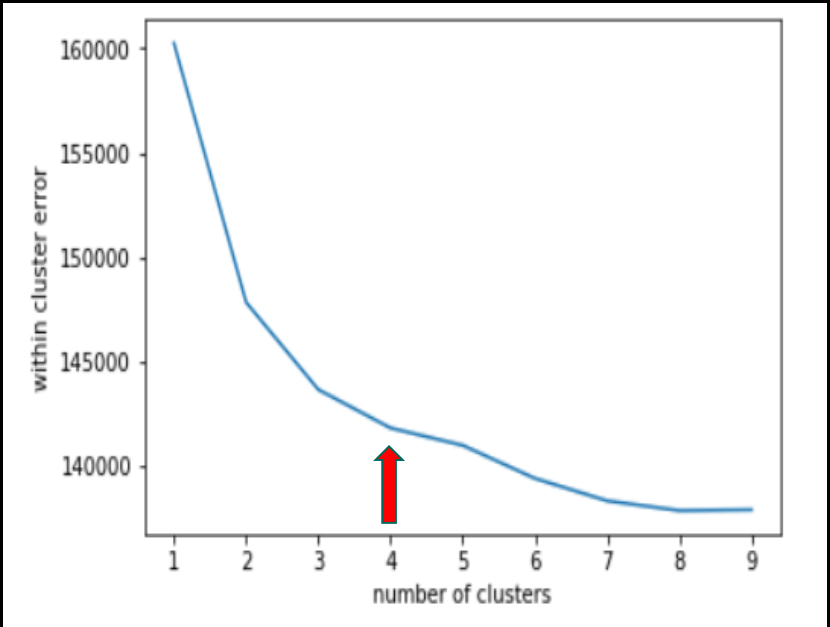
1.Music Streaming

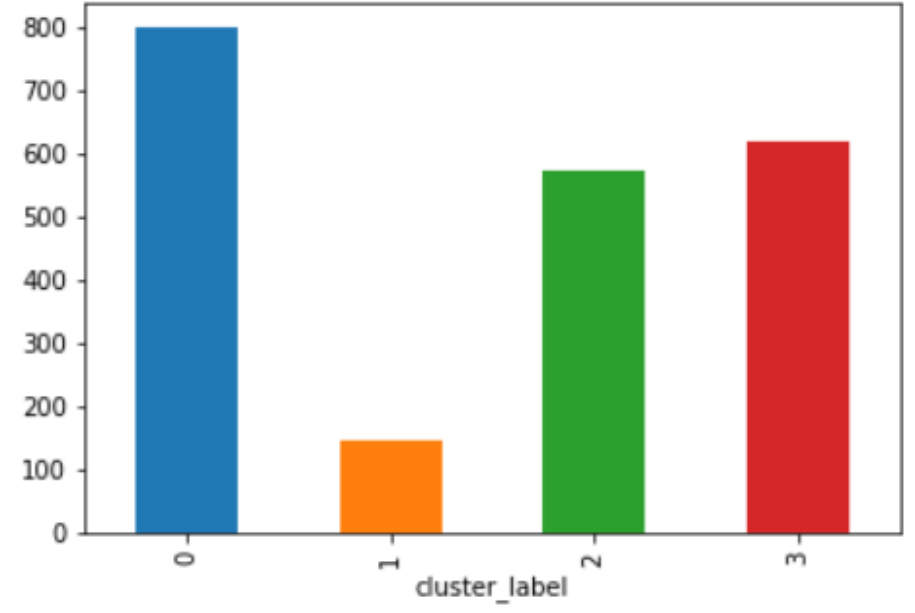
2.Gaming

3.Video Streaming

# Part 1: Platform Analysis

Applied K-Modes Clustering and determined 4 to be the optimal number of clusters using the elbow method



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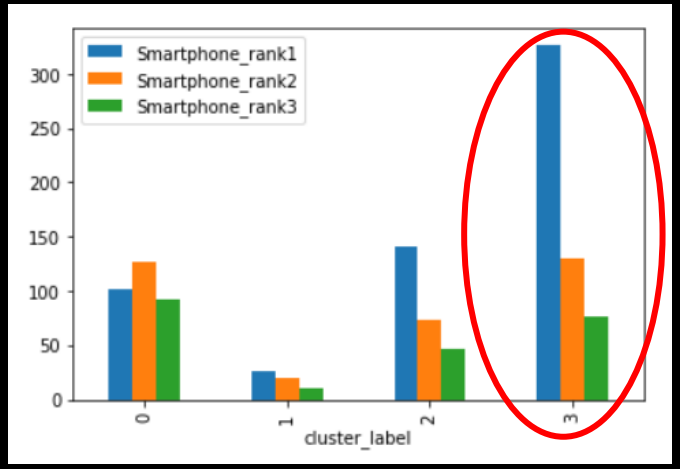


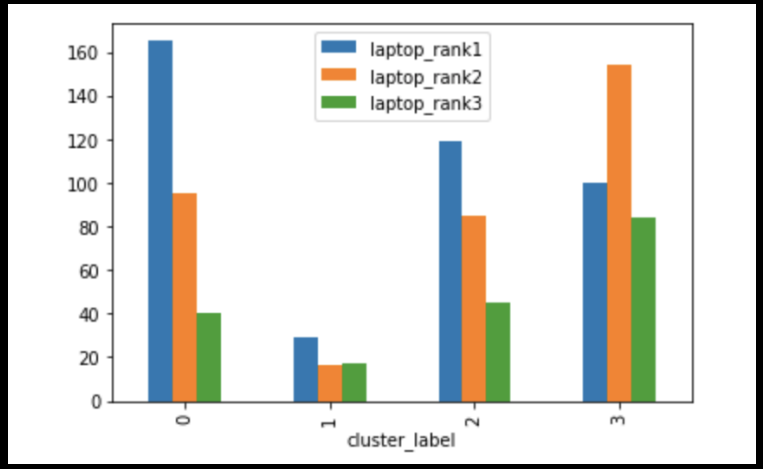


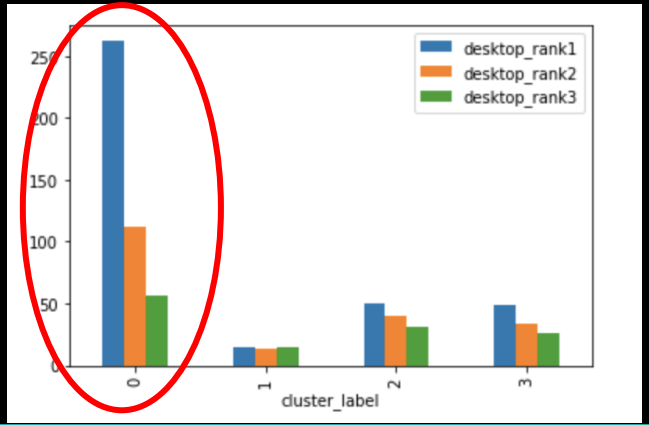

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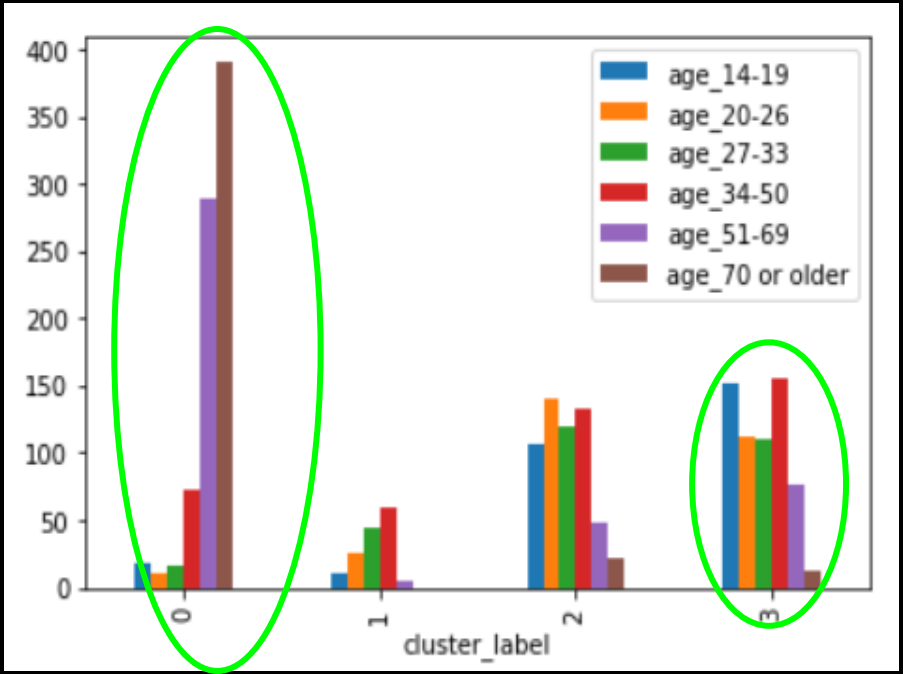
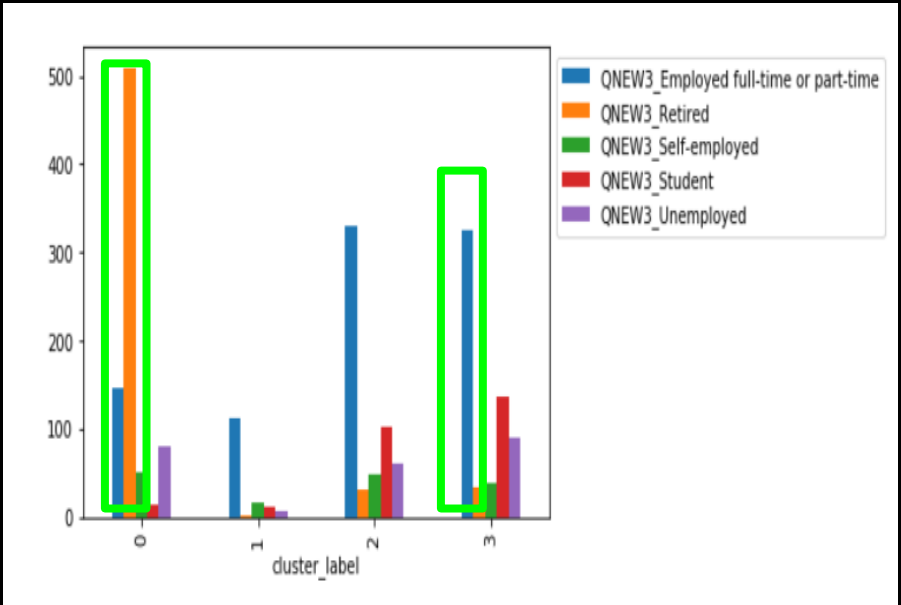



The age range is quite distributed for cluster 3.

# Part 1: Platform Analysis




Majority users in cluster 3 were employed full-time or part-time

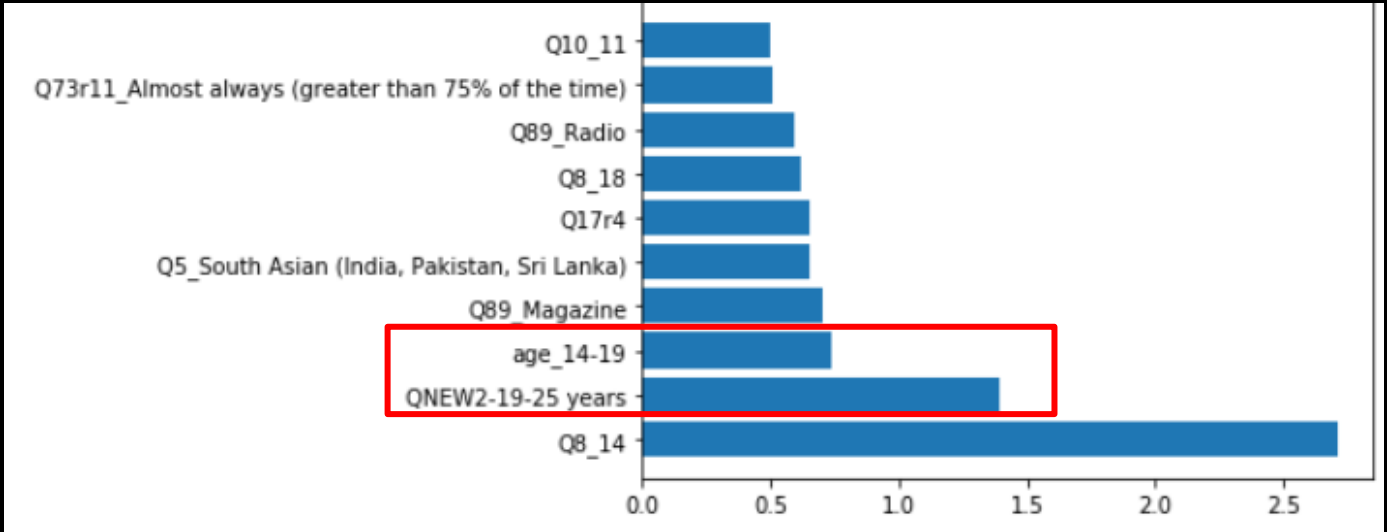
As expected, majority of cluster 0 was retired

# Part 2: Predicting Target Application

- We developed three different prediction models
- The models were trained on 75% of our full dataset, and tested on 25%.
- The three target variables used were our three target applications:
  Music streaming, Gaming, Video streaming

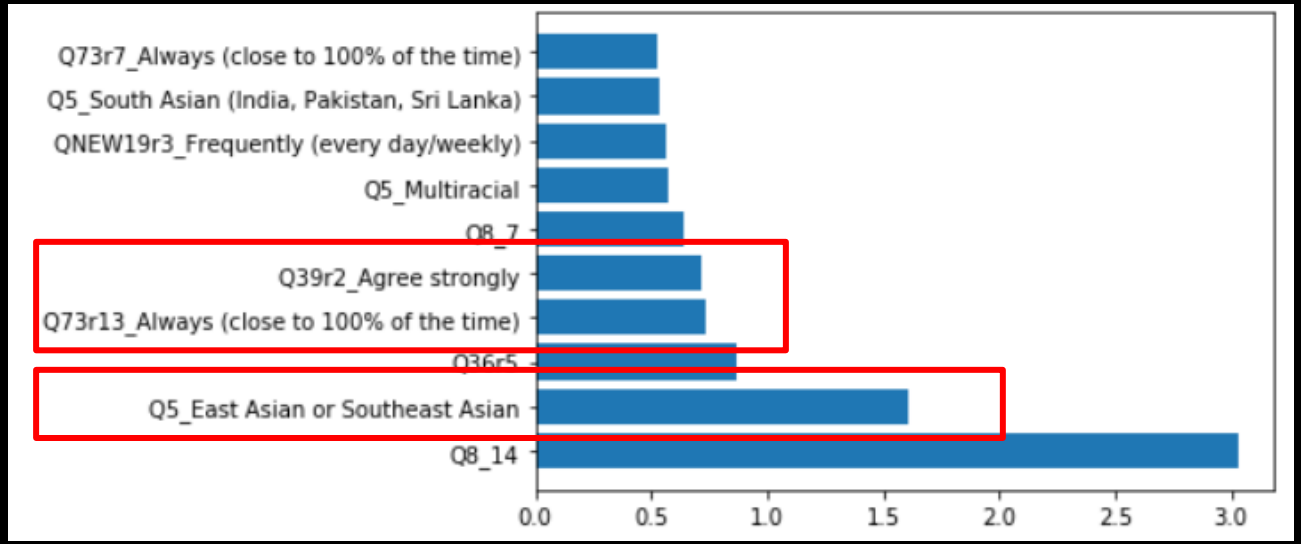
# Part 2: Predicting Target Application

## Results from the Music Streaming Predictive Model



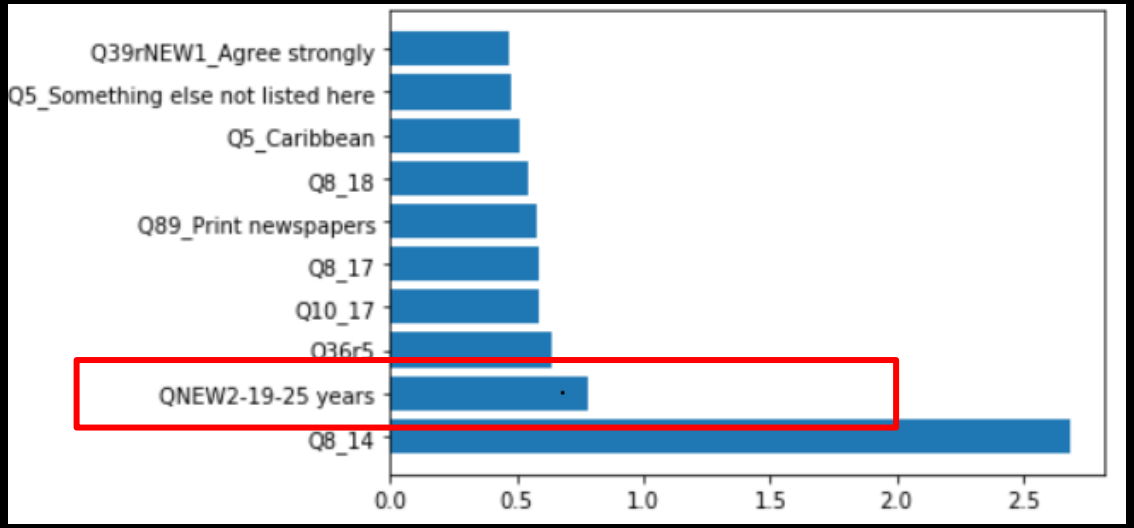
# Part 2: Predicting Target Application

## Results from the Gaming App Predictive Model



# Part 2: Predicting Target Application

## Results from the Video Streaming Predictive Model



# Part 2: Predicting Target Application

1. Music Streaming App Predictive Model Accuracy - 76.9%
2. Gaming App Predictive Model Accuracy - 77.3%
3. Video Streaming App Predictive Model Accuracy - 76.2%

# Take-Aways

People across various demographic categories value their smartphone as their most valued device.

People over the age of 70 value Desktop Computers.

Target users using Gaming applications.

# Recommendations & Further Considerations

- The next steps may consist of including questions regarding desktop/tablet application usage as well.
- How to cope with those who have subscriptions to get rid of advertisements

# THANK YOU

Any Questions?