Apps Survey Analysis Write Up

1. Problem

There are many different apps that are available at the moment. As a data scientist, I was tasked to figure out the customers’ behavior and other information about them that we can take advantage of. By using unsupervised machine learning technique, my goal is to be able to consult to our marketing team as well as the app development team about our best customer segment and their behaviors.

1. Key Insights and recommendation

After running the data analysis, I have come up with some key insights that are valuable. First of all, people age from 18 to 50 are more willing to pay for the apps while people aged 50 and above will be more resistant to paying for apps. This is why my first suggestion is to target people from 18 to 50, which consist mostly millennials aging from 22 to 37. Another thing to note is that when looking at gender, we can see that women are more willing to purchase apps than men.

Interestingly, many other demographic such as race, education level or ethnicity are not important factors when it comes to purchasing apps since we see that across different gender or race, there was no different in their purchase of apps on the apps store.

On the other hand, when it comes to income, I can see that people who earns more than $50,000 a year are more willing to buy apps. In contrast, people in the lower income brackets are less willing to pay for apps.

After running my machine learning algorithm, I divided our customers into 5 different groups, they are: Gamers, Jolly People, Movie Lovers, IPhone Users, Non IPhone users and the last groups doesn’t have a specific characteristic, therefore it was unnamed.

I also did some external research and after combining it with my own data analysis taken from the survey, I recommend that we should focus on 2 most important groups, which are Jolly people and Movie Lovers. Each of these two groups have different characteristics and will be explained further in this report.

First of all, our Jolly group consist of people stays very close to their families and friends. They don’t just check up on their friends and families through social media but they also seek and talk to them on a regular basis. These people are not very tech savvy as they are rarely the ones who give advice on technology.

Secondly, we have our movie lover group, they really love movies since they use Netflix and IMDB app a lot. They are also young professional or actively looking for a job since they also spend time on LinkedIn. This group also love shopping and they like the idea of package deal because it helps them avoid having to do a lot of planning.

After looking at the characteristic of the two group mentioned above, I think that they share the same characteristic of a female person, which is why I suggest that our development team create a movie app that target female professionals aging from 18 to 50. This is because females are more likely to spend money on apps than men. Moreover, our target groups are female professional, which mean they should have an income higher than $50,000 and they are also more willing to spend money on apps as mentioned above. For our app, we should include many contents that are popular to women such as romantic movies. We should also spend time working on designing the apps since our target customers are very picky and they really appreciate nice looking apps that are cool and trending. It is a very good idea to target these groups because they are really close to their friends and families and they are willing to share their cool apps to others. Our revenue should come from a subscription model just, the same as Netflix’s subscription. We should also include a bundle deals for long-term subscription since our target customers prefer this.

In my analysis, I also divided each groups into 5 clusters, indexing from 0 to 4, and see the significant of each cluster. I suggest that we focus on cluster 2 of our Jolly groups and cluster 3 of our Movie lovers since they are the clusters that had the most significant.