

How can we increase revenue from Catch the Pink Flamingo?

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Hello, My name is Khushal, and I'm here to talk on how Egence.inc can increase their gaming revenue from Catch The Pink Flamingo Game.

Problem Statement

How can we use the following data sets to understand options for increasing revenue from game players?

We can use the 8 provided csv files to generate following insights

- Number of times each items purchased by Users and their categories.
- Highest Revenue generating adCategory
- Top 10 Heavy Spenders and top 10 PennyPinchers
- Top 10 Sharpshooters and time spent by them playing games
- Gaming platforms and revenue generated on each of them

There are 8 CSV files provided by Egence with information on Users, Teams, Team Assignments, User Sessions, Level Events, Clicks on Ads and Games, and purchases thereof. They all have important information viz. which ads are mostly clicked by users and what items

they purchase. Also, the gaming platform and user sessions data can tell us the level of user engagement and their hit-rate. Team level data would be helpful in identifying highly engaged teams. We can make use of these insights to identify various revenue streams for Eglence.Inc.

Data Exploration Overview



Preliminary exploration of the datasets show us that

- Most Purchased Item is BuyID = 2 followed by BuyID=5 and BuyID=0. Where, BuyID=5 generates highest revenue while BuyID=0 generates the least revenue though it was 3rd most purchased item, increasing its price may garner higher revenue for Eglence.
- We can also see that the Top Buying user doesn't have the highest hit-ratio, meaning he's spending more on ads instead of advancing the game level with sharp shooting.

What have we learned from classification?

The single important variable in classification model for predicting whether a player is a HighRoller or PennyPincher is the platform type.

Iphone users are heavy spenders than others which is evident from their purchasing power.

After the classification exercise we can observe that

- Users with iphone platformType are mostly HighRoller and
- Users with Linux platformType are all (but two) PennyPinchers.
- Even, Mac users are more inclined to spend on ads than linux/windows/android platform users.

What have we learned from clustering?

Clusters and Centers	Adclicks	Revenue	GameClicks
1	36.44	46.96	926.11
2	24.98	35.06	357.95
3	32.35	39.42	2310

The Clustering analysis results in the shown centers and conclude that the

- Users with the highest revenue and adclicks are not the ones who are playing the most but an intermediate result in game clicks.
- users who play the less also produce the less ad revenue and click count. finally
- the users who play the most are not the ones who produce the most revenue, the revenue in the middle along with the ad click count

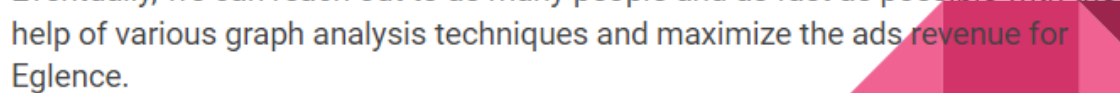
From our chat graph analysis, what further exploration should we undertake?

We have explored the longest conversation path and the nodes that participated in that. Also, found the top 10 most chattiest users and teams.

With the help of Clustering coefficient, we identified the most active groups.

Further, we can explore other avenues in graph analytics viz. Community and Centrality Analytics.

Eventually, we can reach out to as many people and as fast as possible with the help of various graph analysis techniques and maximize the ads revenue for Eglence.



Eglence also provided us chat datasets with which we have done path analytics and connectivity analytics.

Now, we can explore community and centrality analytics.

We can find distinct communities and their influencers or leaders to send specific ads that can reach maximum users.

We can also find shortest paths from leaders to listeners to reduce the reachability time.

For various times of day, we can find users who are actively engaged in chatting to send selected offers.

Recommendation

Send ads to users from their favorite ads category to increase chances of ad clicks	Since, total amount spent (or revenue per user) is directly proportional to the number of ads he/she clicked, sending each user ads from their favorite ads category will enable purchase and increase company's revenue
Encourage players in Cluster 2 to spend more time playing the game	Players in Cluster 2 are 5x more likely to click on ads (25/358 vs 32/2310) while playing the game than players in Cluster 3.(adclicks/gameclicks). This recommendation will generate more adClicks from Cluster 2 Players and hence more Revenue for Eglence.Inc
Increase prices for ads items shown to Cluster 3 Players	Cluster 3 Players have lowest (1.21) revenue per ad clicked i.e. ratio of total_spend and totalAdClicks. Since they are playing the game the most (most gameclicks), company can generate more revenue from them by increasing prices of ads shown to these players.

Finally, we recommend Eglence to,

- Focus on promoting ads item with BuyId=5 that generated maximum revenue.
- Send ads to users from their favorite ads category to increase chances of ad clicks.
- Encourage players in Cluster 2 to spend more time playing the game .
- Increase prices for ads items shown to Cluster 3 Players.
- Expensive items can be shown to iphone users to increase their click rate and hence acceptance.