

How can we increase revenue from Catch the Pink Flamingo?

ARYAN RASTOGI

Problem Statement

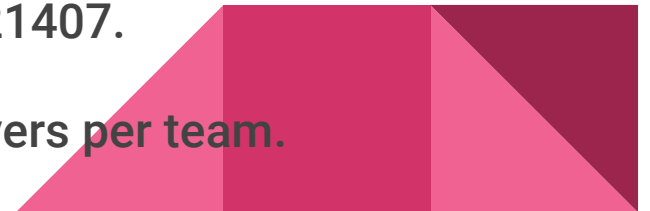
How can we use the following data sets to understand options for increasing revenue from game players?



Data Exploration Overview

Listed below are some important statistics regarding the game:

1. The number of players playing the game on their smartphones greatly outnumber those who play it on other devices.
2. Advertisements relating to Computers, Games, Clothing and Sports are the most clicked, implying that most of the players are tech-savvy youngsters.
3. Items with buyIds 0,2 and 5 are most sought after, registering sales above 1000 units. The total combined revenue stands at \$21407.
4. Average team count stands at approximately 78 players per team.

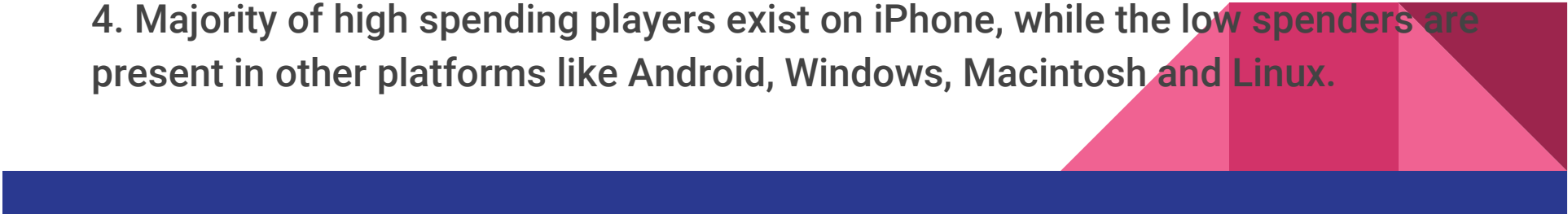


Data Exploration Overview

5. Most of the teams have a team Level of around 4, implying that most of the teams comprise of casual players.
6. The hit ratio, which the users' accuracy, as expected is 0.11.
7. Revenue generated by advertisements is \$8161.5 for 9 different categories.
8. There are 184 teams in all, in which the team number 94 contains the most joining players.
9. Most of the biggest teams in strength have a team number less than 100, implying that players tend to join the older teams more.



What have we learned from classification?

1. Classification using KNIME Workflow is done on the collected data, which aims to demarcate players who are high spenders from those who are low spenders.
 2. Here, spending is determined by the net price of items bought during a single in-app purchase.
 3. It is observed that this demarcation is basically platform dependent.
 4. Majority of high spending players exist on iPhone, while the low spenders are present in other platforms like Android, Windows, Macintosh and Linux.
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What have we learned from classification?

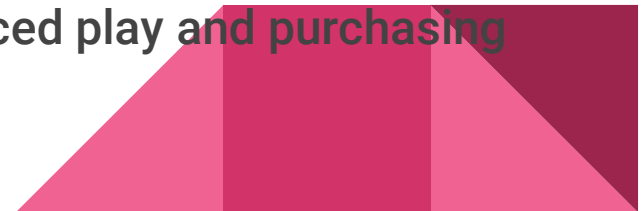
Thus, following steps may be taken to improve revenue sales:

1. Offer exclusive and time-limited high priced items to iPhone users, thus extracting more revenue from them.
2. Incentivise the players on other platforms by the means of targeted sales, holiday discounts, and power-ups.
3. Revenue may also be generated from new player base by offering level bonuses and better team recommendations.



What have we learned from clustering?

1. Clustering is done on Spark MLLib to categorize people based on their game habits.
2. Based on the observation of the users' advertisement preferences, in-app purchases and actual play habits, the following trends were observed:
 - The group of users registering high advertisement and moderate play activity were particularly high spenders on in-app purchases.
 - Most of the players with high play activity had balanced play and purchasing behaviour

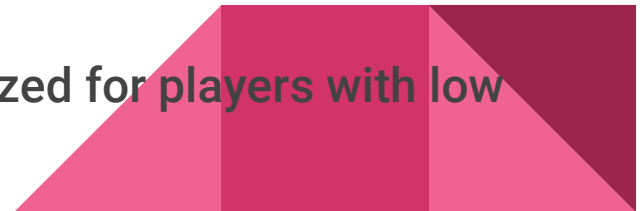


What have we learned from clustering?

- The players with low play and advertisement activity were noticed to be low spenders.

3. The following suggestions may be implemented in this regard:

- Offer exclusive benefits and better products to the addictive “high-spending” players.
- Hold exclusive events and competitions to stir the interest of players with less play activity, and incentivise them to make in-app purchases.
- Make advertisements more welcoming and personalized for players with low advertisement activity, to generate their interests.



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

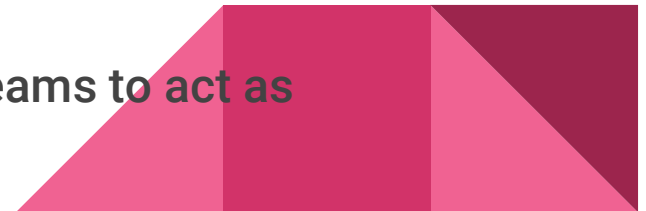
From our chat graph analysis data, we can proceed with the following steps:

- Select a few chattiest players and introduce them to new products. They can also be enlisted as “influencers”, which will allow for better dissemination of new in-game items among the player base.
- Analyse the chats of the most active teams for useful insights into the general outlook of the player community towards the game.
- The groups which are the most active in the game may be approached for direct advertising of certain products, in lieu of discounts or bonuses

Recommendation

The following points should be considered, as per the analysis of the collected data

1. Personalized advertising for different player groups.
2. Rewarding the avid spenders with exclusive products and content.
3. Improving the player base across different platforms, and influencing players to consider in-app purchases by incentivising them with less advertisement or power-up bonuses.
4. Enlisting the help of popular and active players and teams to act as influencers and promote the game.



Conclusion

Though our main motive is to improve revenue generated from this game, it is also necessary that we promote a healthy gaming environment, and strive to implement better functionality to the existing ecosystem.

THANK YOU

