1)

a. average user session time (set period of time)/average session time (previous time period) - if this measure is less than a target percentage (can be changed according to the company standard) then you can flag the user as a potential churn.

b. number of users who didn’t use the game (set period of time)/ number of users who didn’t use the game (previous time period) - can indicate if there is a growth in the inactivated users which may indicate on churning users.

c. number of uninstallations of the game – simple as it is if someone uninstall the game probably, he’s not going to back soon (maybe in the future)

d. how much a user advanced in the game (on a period of time) – it’s depend on the kind of game but if a user didn’t make any progress in about a month, he probably going to uninstall the game soon.

e. number of in-app purchases (set period of time)/ number of in-app purchases (previous time period) – this variant is more relevant to a high tier user (4,5,6), that’s why this variable is the most concern, those are the users that spent the most the company don’t want to lose them. if a user spent money occasionally and then start to decrease the purchases more and more it can indicate about churning.

2)

today in the age of globalization the number of potential players in a single game is enormous. the company interest is to reach to us many of potential players around the world. unfortunately, not all the customers are the same. One customer perception of the mobile gaming industry is not the same as someone else. Players can differ from each other’s in couple of manners, for example demographic, geographic, lifestyle, etc. in order to increase the reach to the customers, the company divide their customers to a group (segments) with some common attributes/interests. Each group will expose to different content (pricing/promotions, etc.) in order to maximize the potential in convert the lead to purchasing service/watching an ad/download the game.

2b)

a. new players – the most difficult mission in the mobile gaming industry is to attract new players. To those players I suggest giving a

very large and tempting discount in the shop of the games and a welcome gift, this will help to make the first days of the player in the game much easy which will make them want to keep playing the game. as you will see in the below graphs most of the revenue isn’t coming from the FTDs but from future purchases and that’s why it’s important to “spoil” the new players in order to make them stay and make future purchases.

b. the socialists – the ones that play the game to make friends/play with friends and in general- socializing. Those players will look for more cosmetics or visual items which will emphasis their presence and make the interaction with them much more fun. therefor I suggest promoting cosmetics/social features to them. The socialists can get bored very fast with their cosmetics and will constantly look for new “looks”. These players are very good value for the company, they will pay for new items once a while and that is why as a company you need to make sure you constantly update your “cosmetics closet”.

c. the “killers” – the one that make everything they can in order to move up the ranks fast and focus on winning. Those players will be ready to pay in order to success in their mission, I’m suggest promoting for them much more pricier items that will guarantee their winnings.

d. the stubborn but cheap – those players are already play the game for some time but got stack or the game became harder to progress. those players will not pay a high price in order to progress but maybe if there is some discounts at the store it will give them a push of motivation to keep play the game. The company get less money from that but guarantee more play time and potential future purchases.

e. those who will never pay – most of the users belong to this segment, the real challenge is in this segment because it’s very hard to understand why they will not paying, they can be children or an elder with not technological orientation or an adult who just want to pass the time. The best way to approach to this segment is to expose them to ads regard the game and maybe success to make them make a purchase.

2c)

in order to make a user to pay, the company need to give him an offer which he feels enough beneficial agreeing to take. first of all, there need to be at 3 offers, the customer needs to feel like he’s got the option to choose and not push to buy specific offer. Second, the strategy here is to make the customer feel like he “won the system” or got a “special treatment” no one else got. In this situation If the customer is new to the game, I would double the prize for the three offers. 200K for the same price (5$) if the customer plays longer (a year in that case) I would give him the same 3 offers bit with 50% more prizes. the older user familiar with the game already and know exactly what the offer prizes will benefit him so the 50% bonus may motivate him to purchase but I think that there won be much different if the bonus would be higher than 50%. This action makes both sides beneficial. From the side of the company, they insure to get the 5$ and the customer “won” another 100k (which he will spent very fast). You can see this strategy at your game “Slotmania” which they offer a new users 100% more cash.



3)

before suggesting a full opening of the feature for all the population I will perform an A/B testing to the feature. I will take couple of beta testers and split them to two groups, one will be the control group which get the game as it is today and the other group will get the new version with the ad monetization feature, the groups will play at the same time, in the end of the test I will compare the results. The group with a better result goes to prod.

The pros of this feature is:

* it’s another way to generate revenues.
* increase in-app purchases because for the nonpaying user the little prize can give a tease to what he can get if he will pay more.
* Better user experience. in contrast to in-app ads the user has a choice weather he prefers to watch the ad and get the reward or keep on playing and pass the reward.

The cons of this feature:

* Trust issue – this feature can make users to download and use an app that would make them annoyed.it will backfire to the company because the users will accuse the company of working with unsuited apps which will harms the company's reputation.
* Steal the focus - Players will prefer to acquire the prize from the ads with no money instead of paying money to the company for offers. Although the company get money for the ads view but it does not close to the amount of money they gets from one transaction at the store.

This feature will have positive effect on the retention ratio because it will give to users more reasons to stay in the game, they just work hard for whose coins. From another perspective it can increase the churn ratio due to the bad trust issue that may have occurred

Plus, it will probably increase the revenue for the same reason that I wrote above. this feature will make a tease for nonpaying users which in some cases will lead to purchase.

On the negative side it can influence on the FTDs and the paying users’ numbers, it’s delaying the purchase process a little further or even to non-exist in some cases.

4)

In order to find odd events along the timeline I built a line chart which shows how many active users was per day and filtered by the tier ranking in order to check whether there is a dependency regard the user’s lifetime value.

As we can see from the graphs in every tier there was a decrease in the number of DAUs between 13.2-27.2.

in order to understand more about that time, I draw a line chart of the DAUs in February clustered by Version numbers. I could focus only in the 13.2-27.2 but I wanted to understand to whole story, what happened before the decrease and what happed after.

As we can see from the graph at the 17.02 new version deployed (3.42) which probably was buggy or make the players unsatisfied which cause them to not play the game. Only 3 versions later there was an increase in DAUs.

In addition, from the graph above we can learn that version 3.39 and version 3.41.3 was the most beloved versions. It is worth checking what changed in those versions and maybe try to understand what attract so many players to play those.

From another direction I’ve tried to search for events which is platform base, most of the graphs look the same despite the graph of platform 6 which has spikes in random locations along the time line as you can see in the graph below.

To understand what the causes of the spike is I’ve decided to divide the graph to tiers. And indeed, you can see from the graph below that where there is a spike a group of users from tier 3 enter the game via platform 6. In addition, platform 6 is the platform with the least number of players. I guess that platform maybe used as a beta testing environment and the spikes cause when they made some testing with tier 3 players. Another hypothesis is that platform 6 is a regular yet niche, and from time to time there is a limited time events which attracts tier 3 users.

5. In this state of the business I’m going to answer on questions a, b, c, d.

you can see the whole dashboard at sheet: “Q5 Dashboard in the attached excel file.

as you can see from the graph, the company is in constant growth there was an increase of 16.25% in gross revenue.

in addition, you can see that from all the active users more users paid this year. From qtr2-qtr4 the revenue and the payment per user ratio stay balanced.

the growth in the net revenue is even bigger thanks to the amount of expenses the company manage to reduce (see the graph below). that is thanks to the new platform of the company which enables users to purchase and play directly from the app instead of purchased from an intermediary party.

Although there was an increase in revenue along 2017 In the graph above you can see that the amount of installation during 2017 decreased drastically in compared to 2016 quarters. I suggest investing more money on advertising the studio’s game or invest more resources to develop an in-game system which give the users rewards for every friend they bring to the game in order to increase the potential users.

In addition, you can see that the average revenue per purchase is decrease along the quarters in 2016,2017. it can indicate on Seasonal dependency which the company should investigate and try to overcome. average revenue per purchase in 2017 also decrease in compared to 2016.

So how can we explain the increase in revenue despite the latest findings? You can see that the total amount of paying users out of the active users increase up until quarter 2 of 2017. The average transaction amount may go down a bit but much more users willing to pay.

Plus, you can see that until quarter 2 there was a decrease in the FTDs in compared to all the paying users. which means that more and more users willing to pay on the game more than once. those are the best users for the company.

Its seams that after quarter 2 of 2017 the studio stay balanced in the measures up until the end of the year, in a short them that is fine but in the long term it’s problematic. the studio should be on a constant growth trend and maybe it’s an indicator for a need in freshness to the game.