

Analysis Report

Executive Summary:

- **My Vacuum** has the highest revenue per user (almost 200\$) and excellent retention rates even though the number of ads and the display percentage in available slots are high.
- **League Of Fun** has very few users but very high revenue per user (150\$), and retention rates are OK.

users should be routed from other apps towards these apps.

- **Dr.Game** accounts for 40% of the revenue of the firm, and it has had a huge increase in monthly active users since September.

Should up the ad display rates of the available ad slots (40%) and guide users towards this app because retention rates are very high.

- **Clips** has very good retention rates and a high ad display rate but very short sessions.

Effort should be made to increase session time.

- **Master Of Cards** has had 4 months (may-august) without any users at all. It has had 7 users in the past month. The very high average playing time (small sample size) does not help generate revenue or users.

Gaming Television generates an extremely low revenue per user and has very few users.

1. **Further research should be done to try to up the number of users and revenue.**

2. **Consider routing users from these apps towards other apps.**

3. **Company focus should center around other apps.**

- **Large ads generate 8% more revenue on average** relative to the size of the ad. (ad_size_diff sheet in the tableau file)- should consider trying to **maximize the number of large ad displays**, while taking into consideration the tradeoff with retention rates.

Main KPIs:

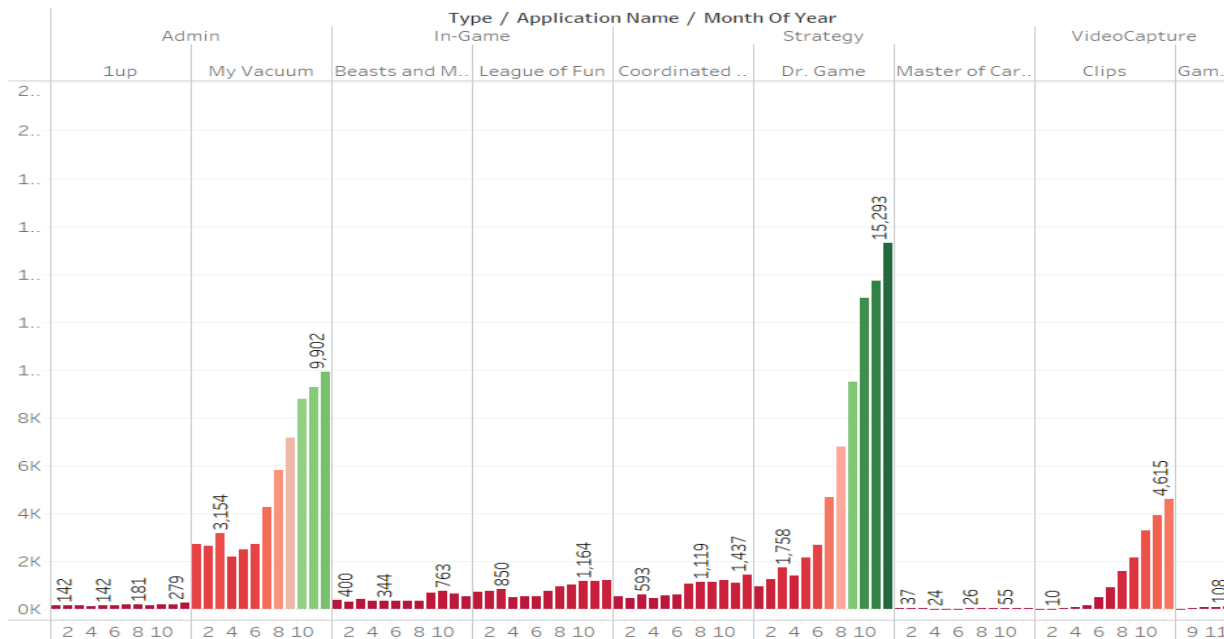
Below you will find a definition of the main KPIs I used in this analysis. These are split into two groups:

- **Engagement KPIs** – designed to provide a better understanding of user behavior regarding these apps.
- **Revenue KPIs** – designed to better understand the game's ability to monetize users and generate profits.

<u>KPI Type</u>	<u>KPI</u>	<u>Explanation</u>	<u>Comments</u>
Engagement KPIs	MAU	Monthly Active Users- the amount of users that have opened the app and used it in a month, for every month.	There's no minimum playing time filter (like above 15 second sessions) because there's no way to filter the revenue data based on the session length.
	Session Duration	The percentage of users that have exceeded a certain amount of playing time. (e.g. half a minute or more)	Example: 1up has had 24% of the session durations last half a minute or longer. Calculation: Case when session duration >= bin (half a minute, 1 minute and so on)/ sum(session_duration)
	Daily Usage Per User	Average Daily usage time per user. Considers the number of sessions per day to create common ground between the apps.	Avg(avg(session_duration) by day and user) by app
	Retention Days	The percentage of users that have exceeded a certain number of days playing the game (e.g. for "1up" 80% of users have exceeded 1 day of playing the game). ** app_installs has data starting from 15.9.2020 While the rest of the tables start at 1.1.2020 .	day difference between the last playing time of a user (max session date) and the corresponding installation date (there could be several installations). The calc includes active users that could still theoretically be using the app. Calculation: DATEDIFF(DAY, INSTALL_TIMESTAMP, MAX(APP_SESSION_TIMESTAMP))
Revenue KPIs	Impressions Per User	Calculates the average number of ads presented to a user during his app usage up until now.	Calculation: Sum(impressions)/count (distinct user_id)
	Revenue Per User	Calculates the average revenue generated by a single user.	Helps determine the potential revenue of an app and determine where to guide users towards. Calculation: Sum (Revenue)/count (distinct user_id)
	Ad Display Rate	Calculates the percentage of cases where an ad was displayed in an available ad slot.	Combined with retention rates- helps determine whether changes in the rates should be made. Calculation: Sum(impressions)/ sum(inventory)
	Monthly Revenue	Calculates the revenue generated in a month, for every month.	Sum (Revenue) grouped by month

Revenue Dashboard

Monthly Rev



Type

- ☒ (All)
- ☒ Admin
- ☒ In-Game
- ☒ Strategy
- ☒ VideoCapture

Application Name

- ☒ (All)
- ☒ 1up
- ☒ Beasts and Mo...
- ☒ Clips
- ☒ Coordinated At...
- ☒ Dr. Game
- ☒ Gaming Televis...
- ☒ League of Fun
- ☒ Master of Cards
- ☒ My Vacuum

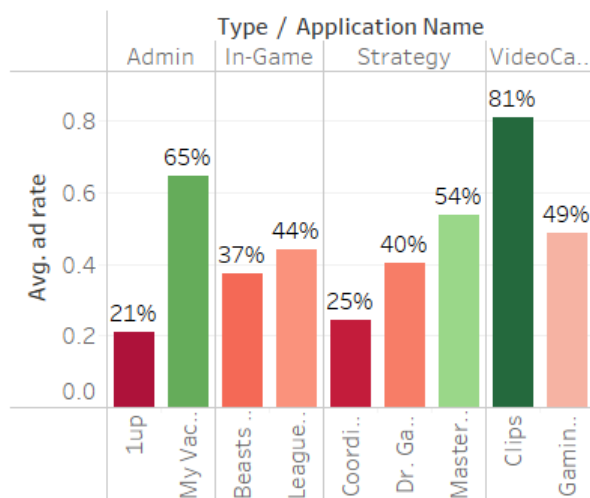
Start Date

01/01/2020

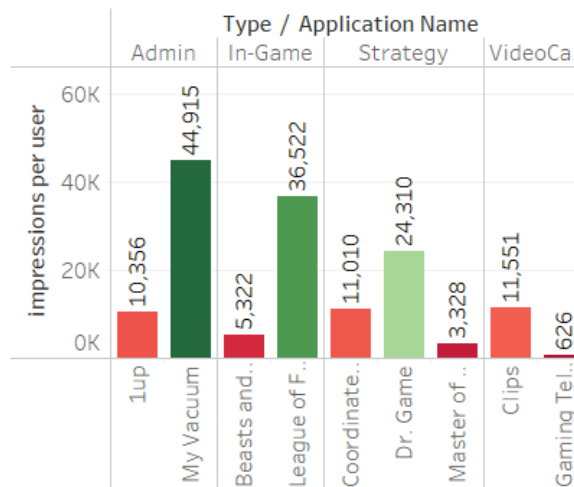
End Date

31/12/2020

Ad Display Rate



Impressions Per User

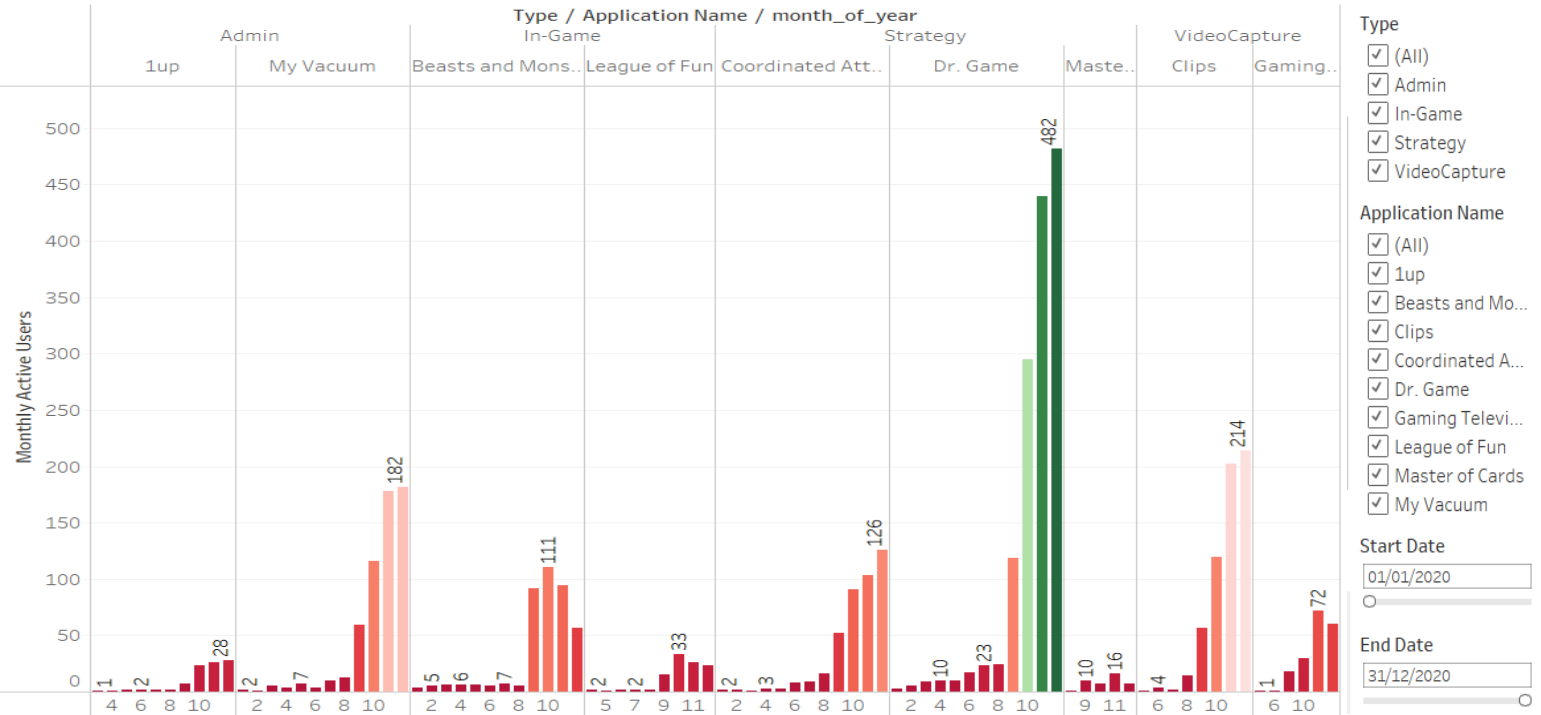


Rev Per User

Type	Application Name	Rev_per_user	Large ad %	Small ad %
Admin	1up	43.0	80.2%	19.8%
	My Vacuum	194.6	74.1%	25.9%
In-Game	Beasts and Monsters	22.1	81.7%	18.3%
	League of Fun	150.8	75.4%	24.6%
Strategy	Coordinated Attack	45.5	80.6%	19.4%
	Dr. Game	92.2	74.5%	25.5%
	Master of Cards	11.7	68.2%	31.8%
VideoCapture	Clips	47.5	70.0%	30.0%
	Gaming Television	2.6	82.8%	17.2%

Engagement Dashboard

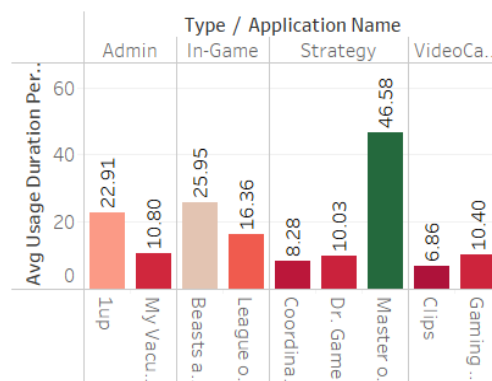
Monthly Active Users



Type	Applic..	>=1day	>=3 days	>=7 days	>=month	>=3 mont..
Admin	1up	80%	74%	65%	39%	22%
	My Vacuum	92%	86%	77%	46%	20%
In-Game	Beasts an..	74%	68%	57%	35%	10%
	League of ..	79%	71%	60%	29%	11%
Strategy	Coordinat..	93%	82%	70%	43%	16%
	Dr. Game	93%	86%	76%	44%	19%
	Master of ..	67%	52%	39%	6%	0%
VideoCa..	Clips	90%	84%	73%	43%	19%
	Gaming T..	91%	81%	70%	36%	8%

Type	Appli..	>= 30 sec	>= 1 min	>= 5 min	>=15 min	>= 30 ..
Admin	My Vacu..	35%	26%	10%	4%	2%
	1up	24%	18%	10%	7%	6%
In-Ga..	League o..	44%	32%	13%	5%	3%
	Beasts a..	56%	33%	19%	17%	12%
Strat..	Coordina..	36%	22%	6%	3%	1%
	Dr. Game	44%	34%	5%	3%	2%
	Master o..	82%	82%	55%	39%	37%
Vide..	Clips	17%	10%	5%	2%	1%
	Gaming T..	22%	15%	7%	5%	3%

Daily Usage Per User (Minutes)



App Analysis:

My Vacuum:

- Highest revenue per user because it displays the highest number of impression Per user.
- High number of impressions per user is driven by good retention rates and a high display rate of ads in available slots.

Engagement:

Number of users is on the way up (although in the last month the mau hasn't gone up as expected). Very good when it comes to retention. Low on playing time categories.

Revenue:

Highest by far when it comes to revenue per user and impressions per user. The ad display rate is also high but surprisingly it doesn't affect the retention rates. Has almost half of the users that "Dr.Game" has but is second best when it comes to monthly and total income (34%, Dr.Game: 40.5%).

Conclusion:

this should be the highest priority app to guide towards from other apps. The potential is the highest and It needs a push in the number of users category because the increase has slowed down and so has the revenue.

Dr. Game:

Engagement:

By far has the most Monthly active users, had a very high increase in the number of users since September. Retention wise it is a very good app, session duration wise it does not excel and the average playing time for day isn't high as well.

Revenue:

Accounts for 40% of the firm's revenue, has the highest Monthly revenue which is expected because of the large number of users. In the revenue per user KPI it is 3rd but not close to the 2nd best. Ad display rate wise, it is a bit below average.

Recommendation:

this is one of the top apps of the firm. Should up the ad display rates to generate more revenue because the retention rates are excellent.

Conclusion:

- **Increase ad display rates in available slots**
- **this should be an app to guide towards from other apps.**

League of fun:

Engagement:

Active for only 7 months. Very low number of users (max in one month is 33). It is on the way down in number of users. Retention rates are a bit low. A bit below average when it comes to daily usage per user and the session length is slightly above average.

Revenue:

150 cents per user makes it second on the revenue per user category. Also very high in the number of impressions per user. Accounts for 5.5% of the total income even though it is new and has a low number of users. Displays ads at an average rate.

conclusion:

this is an app that needs a boost coming from the rest of the apps so that the number of users would increase. There's a big revenue potential because of the revenue by user category, and the fine retention rates but it is yet to be fulfilled. **Push users towards this app.**

Clips:

Engagement:

Only active for 6 months in the 2017. Above average in the number of users category, and it is increasing nicely. usage per day wise it is the lowest. Retention rates are high. Session duration is the lowest as well.

Revenue:

Accounts for almost 10% of the total income, but has the potential to be in the top 2 in monthly revenue with that type of increase in number of users. An average revenue per user and a very high ad display rate (outlier)

Conclusion:

It is surprising that the retention rates are high and the revenue per user is low because it displays a high percentage of ads. **There should be more available slots for advertisement.**

1up:

Engagement:

The number of users is on the way up but rather slowly.

Scores Very low on the Session Duration dist. In contrast to that, the "Usage per Day Per User" KPI (Ranked a close 3rd) is very high (relatively high number of players playing for 30 minutes or more pushes the average up).

It is also ranked among the last when it comes to Monthly active users.

Revenue:

Third lowest when it comes to total revenue and monthly revenue. Average on revenue for user which is interesting because the ad display rate is the lowest of them all. Gets 80% of revenue from the larger ads which is among the highest. A low ad display rate (20%) is not encouraging because there's not much to be done in that category to up the retention and user rates.

Conclusion:

A bad app when it comes to revenue and usage. There's a need to make the game better and lowering the ad rate is not an option.

Beasts And Monsters:

Engagement:

On the way down in monthly active users but still has an average number of users. Playing time is high, thanks to a high number of users playing 30 or more minutes. Bad when it comes to retaining users.

Revenue:

This app has a very low revenue considering the number of monthly active users and considering the revenue per user. Ad display rate is low which doesn't help retention.

conclusion:

Engagement and revenue wise, Beasts and Monsters **should display ads of other apps to up the amounts of users for the apps with the higher revenue per user** (My Vacuum, League Of Fun).

Coordinated Attack:

Engagement:

A tad below average in Mau, very low on usage per day and session duration but has very good retention rates.

Revenue:

Monthly revenue doesn't have a high increase rate, Accounts for about 5.5% of the total income for the firm, which is low, average on rev by user and has a very low ad display rate.

conclusion:

Coordinated Attack **should display many more apps on the inventory slots** because the ad display rate is low, and the retention rates are high. This app should also guide users towards the higher revenue per user apps (My Vacuum, League Of Fun).

Master Of Cards:

Engagement:

Very low when it comes to monthly active users and does not have a constant increase in that department, max is 16. Twice as high as the next in line in the usage per day category (though the sample size is very small). Retention wise it is the worst but it excels in session duration.

Revenue:

Accounts for 0.24% of the total revenue due to a low number of active players and a low revenue per user, monthly rev is not increasing constantly. Has a high ad display rates especially because the session length is very long.

conclusion:

Bad app as of now. **Drastic changes should be made in the game for it to be profitable.** A long session length is encouraging but in order to conclude from that the number of users should be much higher. Should lower the ad display rate but it's just a small change.

Gaming Television:

Engagement:

Only active for 6 months in the 2017. The MAU is low but is on the way up, though it had a fall back in December. Below average in usage per day per user, and in session duration. It is a fine app retention wise, especially in the one month barrier but there a big decrease after 2 month.

Revenue:

Accounts for 0.17% of total revenue, because the revenue per user is extremely low comparing to the others (big outlier)- because of a low amount of ads per user. Ad display rate is a bit below average. Monthly revenue is relatively stagnant. Makes most of the revenue from the bigger ads (80%).

conclusion:

Needs to make drastic changes to become more profitable. There's a big discrepancy between the ad display rate and the revenue per user. **Should have more available ad slots.**

This app should definitely **guide users towards My Vacuum and League Of Fun.**