

Google App Market Analysis

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I. Introduction

People nowadays own a smartphone. That leads us to believe that the app market has numerous potential to invest in. And Play Store is one of two wonderful resources to gain more insights from that market.

The objective of this project is to explore user, user trend to seek fit community.

II. Understand Data

This dataset has 9659 rows and 13 columns.

App: An app name

Category: An app category

Rating: The average rating of the respecting app from its users

Reviews: A number of reviews about app

Size: An app capacity

Installs: The total number of installs for an app

Type: Free or Paid App

Price: An app price

Content Rating: Target user

Genres: Genres of app can belong to multiple categories

Last Updated: Recorded update on last time

Current Ver: Current version of app

Android Ver: Version of android that app can be compatible

III. Handling Data

Handling data includes many steps such as checking data format, data type, data validation and missing values. Please keep in mind that we can't just remove rows if they have missing values, but we need to check whether if it's numerical data or categorical data to give a good solution for warranting data quality.

After solving those above problems, the dataset has only 9649 rows compared to 9659 rows of the original.

IV. Findings

1. The number of users for each user segment and their capacity

I believe that we should take the maximum capacity for each user segment to estimate the capacity we should use for our app.

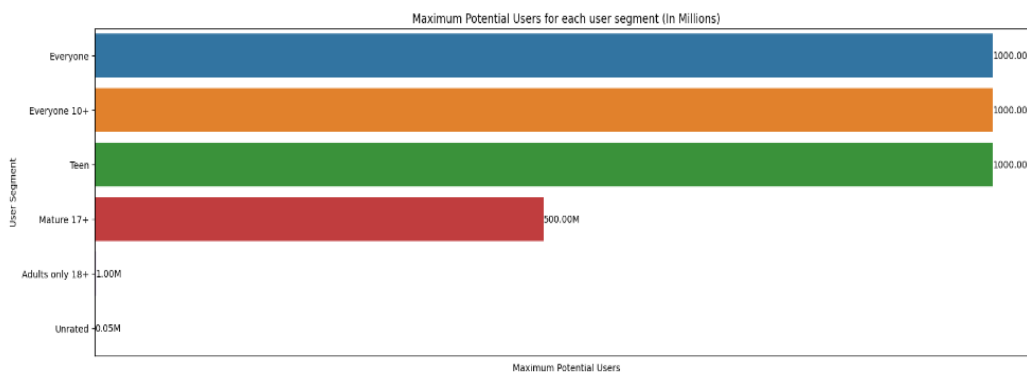


FIGURE 1: THE NUMBER OF USERS FOR EACH USER SEGMENT

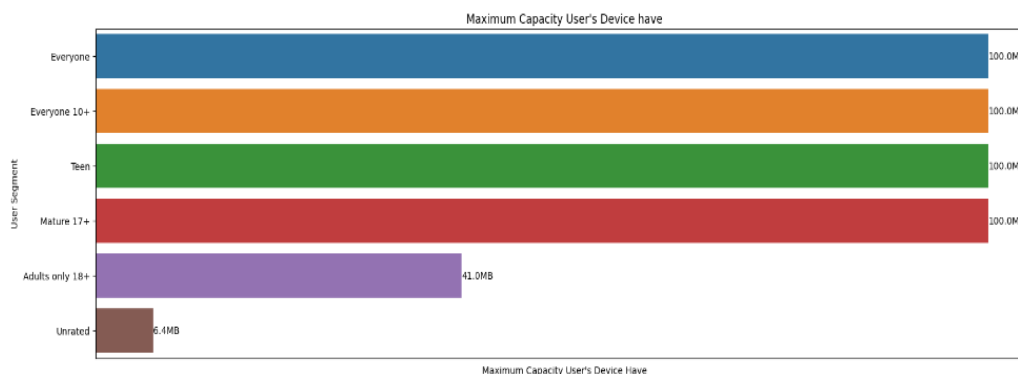


FIGURE 2: THE NUMBER OF CAPACITIES FOR EACH USER SEGMENT

Ideal user segments are: Everyone 10+, Teen and Mature 17+. Why don't I choose Everyone? Because I think focusing on caring for a specific target user is more efficient than trying to target everyone. Even Mature 17+ is half of others, but 500M is still an impressive number.

2. The ratio of Free and Paid apps and their number of users for each user segment

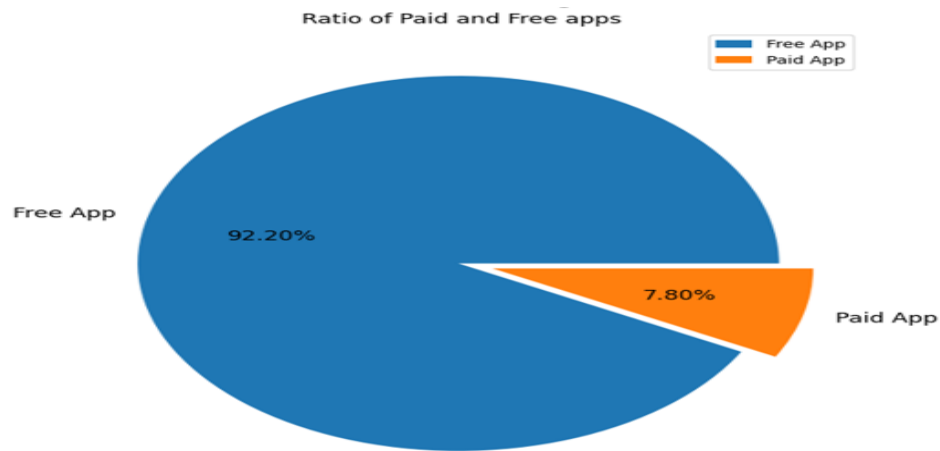


FIGURE 3: THE RATIO OF FREE AND PAID APP

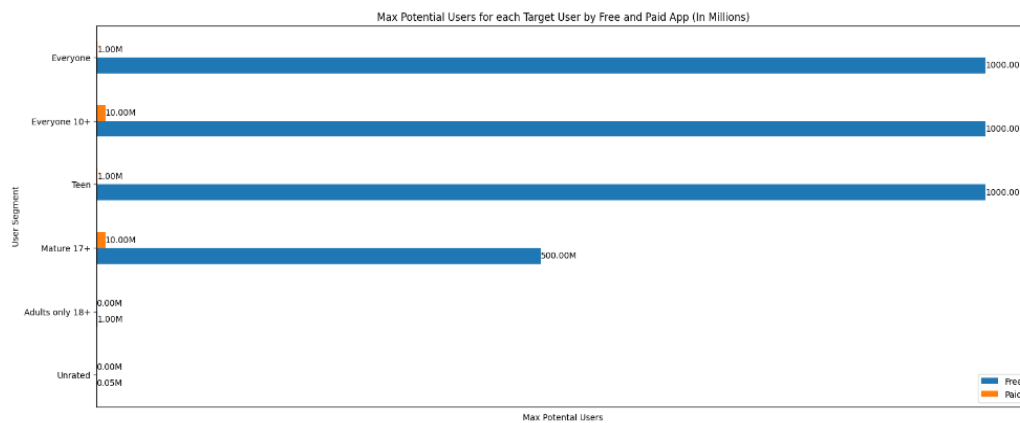


FIGURE 4: THE NUMBER OF USERS FOR EACH USER SEGMENT

With enormous users that can explain somehow Free App are dominant (> 92%). However, if we want to build a Paid App, we can choose user segments such as Everyone – Teen (1 million users) or Everyone 10+ - Mature 17+ (10 million users).

3. The price that user consider affordable app

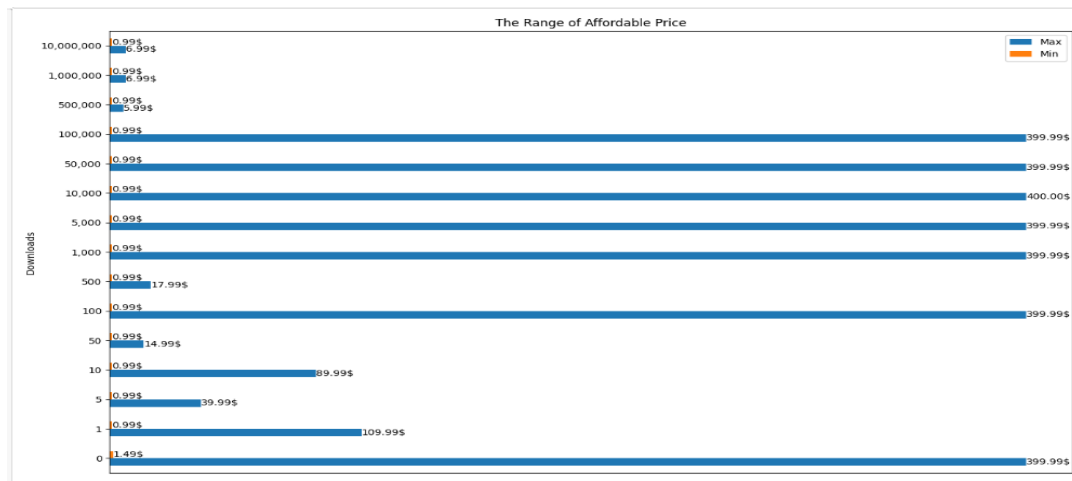


FIGURE 5: THE AFFORDABLE PRICE RANGE

It's easy to see that user accepts 0.99\$ as a standard price to download app. But users also accept ~ 400\$ with downloads in range (1.000 – 100.000). With download (> 500.000), they just accept the price in range (5.99 – 6.99)\$\$. (Fun Fact: It seems like every app applies Psychological Pricing Strategy).

4. The downloads in Millions for each category

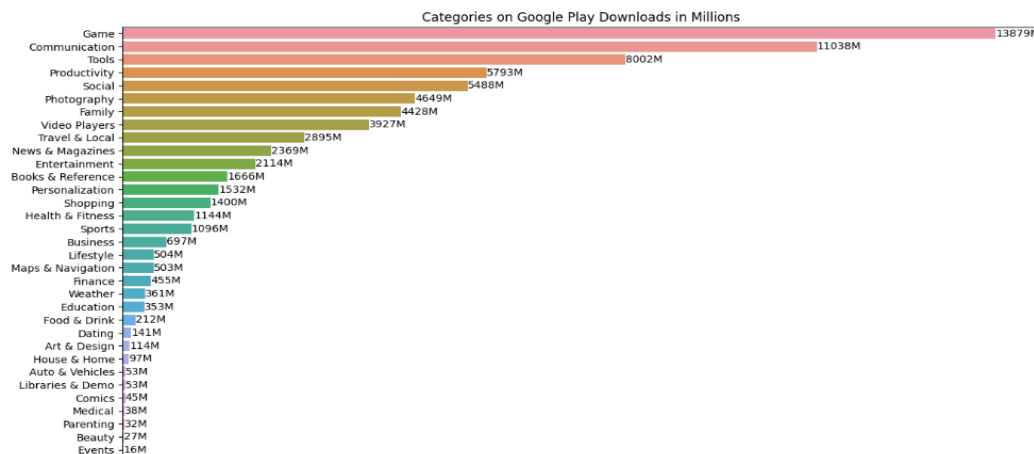


FIGURE 6: THE DOWNLOADS FOR EACH CATEGORY

Top 5 popular categories: Game, Communication, Tools, Productivity, Social.

5. Some formidable competitors when we aim for Everyone 10+ with Paid App that category is in top 5

	App	Category	Rating	Reviews	Size	Installs	Type	Price	Content Rating	Genres	Last Updated	Current Ver	Android Ver
9170	Stickman Legends: Shadow Wars	Game	4.4	38419	100.0	1000000	Paid	0.99	Everyone 10+	Action	2018-08-03	2.3.24	4.1 and up

FIGURE 7: THE COMPETITORS WHEN WE AIM FOR EVERYONE 10+ WITH PAID APP THAT CATEGORY IS IN TOP 5

There are three approaches to deal with:

- 1) Compete it directly. But I think this is not a wise choice. Why? First and foremost, the minimum price in this segment is 0.99 and that's the exact price of Stickman. Moreover, rating 4.4 is really impressive. But if you keep wanting to compete with it, I suggest you can approach in Size (<100 MB) or extends Android Ver to attract its user.
- 2) Compete it indirectly by not choosing its own Genres (Action).
- 3) Choose the top 5 categories except Game.

V. Summary

This report reveals some insights based on the dataset:

- Most users install Free App than Paid App (92.2% - 7.8%). If they choose Paid App, the lowest price that they accept is 0.99\$. The highest price is 399\$ for downloads in range [1.000 – 100.000] and [5.99 – 6.99]\$ for downloads (>500M).
- Noticeable number of users are 1 billion users for user segments with Free App (Everyone, Everyone 10+, Teen), 10 million users for user segments with Paid App (Everyone 10+, Mature 17+) and 1 million users (Everyone, Teen).
- There are 6 main user segments:
 - Everyone, Everyone 10+, Teen with estimated capacity to install app is 100 MB (1 billion users).
 - Mature 17+ with estimated capacity to install app is 100 MB (500 million users).
 - Adults only 18+ with estimated capacity to install app is 41 MB (1 billion users).
 - Unrated with estimated capacity to install app is 6.4 MB (200.000 users).
- Only one competitor when we aim for Everyone 10+ with Paid App that category is in top 5. There are 3 approaches for it.