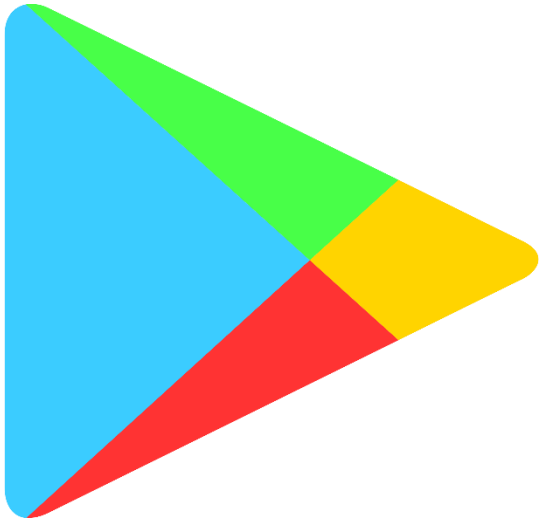

GOOGLE PLAY STORE ANALYSIS

BY:

Abdulrahman Hamzat

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ABSTRACT

This project analyzed Google Play Store dataset with the aim of improving user engagement and revenue for app developers. The analysis explored trends in app categories, pricing, user reviews, and installation counts.

Data cleaning and exploratory data analysis were performed in Google Sheets, and explanatory visualizations were created using Tableau Public to convey the findings.

Key findings include the dominance of free apps on the store, which constitutes about 93% of all the available apps; higher installation counts for less expensive paid apps; most popular app categories; and that app categories with high download counts often aligned with those having the most user reviews, such as game, communication, and social.

App developers opting for a paid model should make it standout from free offerings. App size should be as light as possible, and an increased marketing efforts is recommended for less popular but important app categories.

SECTION ONE

PROJECT DESCRIPTION

This project served as the capstone I completed during my enrollment in EntryLevel's Data Analyst Level 1 program, prior to earning my certification. It's focused on the analysis of Google Play Store data.

I was tasked with analyzing the dataset to provide insights and recommendations to improve user engagement and revenue. The findings I generate would help app developers to make data driven decisions about app development, marketing, and pricing.

SECTION TWO

PROBLEM DEFINITION

- The business problem is to better understand the categorical popularity of apps, pricing, user reviews, as well as identifying trends and patterns.
- The findings would help app developers to make data driven decisions about app development, marketing, and pricing strategies.
- In this report, I sought to investigate the following questions:

    1. What is the count of free and paid apps, and how do installation frequencies vary between them?
    2. What are the most popular app categories?
        i. Specifically, how do the app categories vary between free and paid apps based on popularity?
        ii. And what could be the cause of variation?
    3. What is the impact of app size and price on users' downloads and installs?
    4. What is the average number of reviews across all the available app categories?

SECTION THREE

DATA DESIGN

- The Google Play Store App data contains rich information for numerous apps on the play store. It gives details on app categories, ratings, user reviews, app sizes, type [free or paid], prices, content ratings, genres, etc.
- My data cleaning efforts include removing blank cells, correcting invalid or misrepresented data, and inconsistent data. I converted the dates of updates into standard date format. Also, I deleted extraneous values and unnecessary columns that are not needed for my analysis.
- Next, the cleaned data was visualized using Tableau, and all visuals were organized in a dashboard which was published in Tableau Public.
- I used Google sheets pivot chart and chart tools to perform exploratory data analysis in order to assess the dataset both statistically and visually.

SECTION FOUR

FINDINGS

4.1 Finding #1

About 93.04% of the apps in the dataset are free, while the remaining 6.96% are paid. Also, there are a total of about '141 billion +' user installations for free apps, while it's just '59 million +' for paid apps.

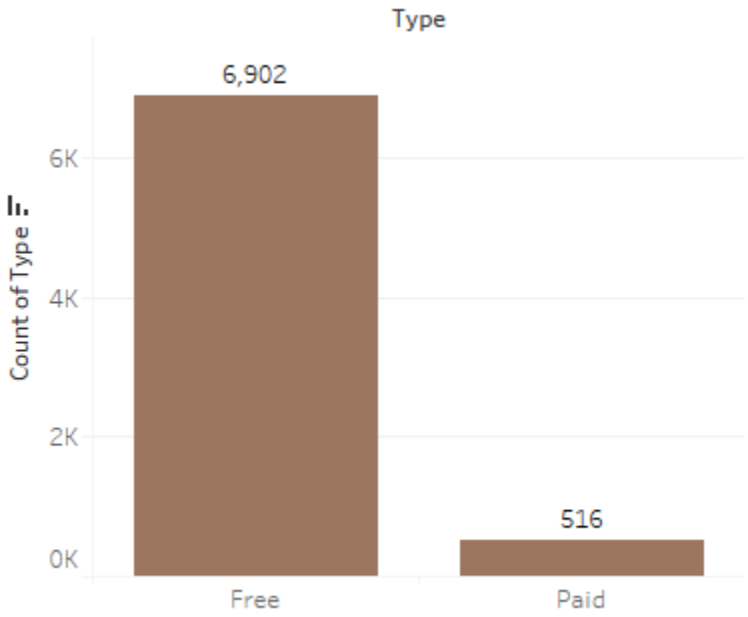

Fig 4.1: Count of free and paid apps.

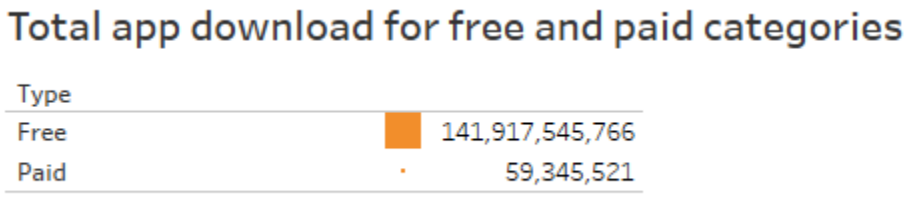

Fig 4.2: Count of downloads for both free and paid apps.

4.2 Finding #2

The top 10 popular app categories are game, communication, social, productivity, tools, family, photography, travel and local, and video players.

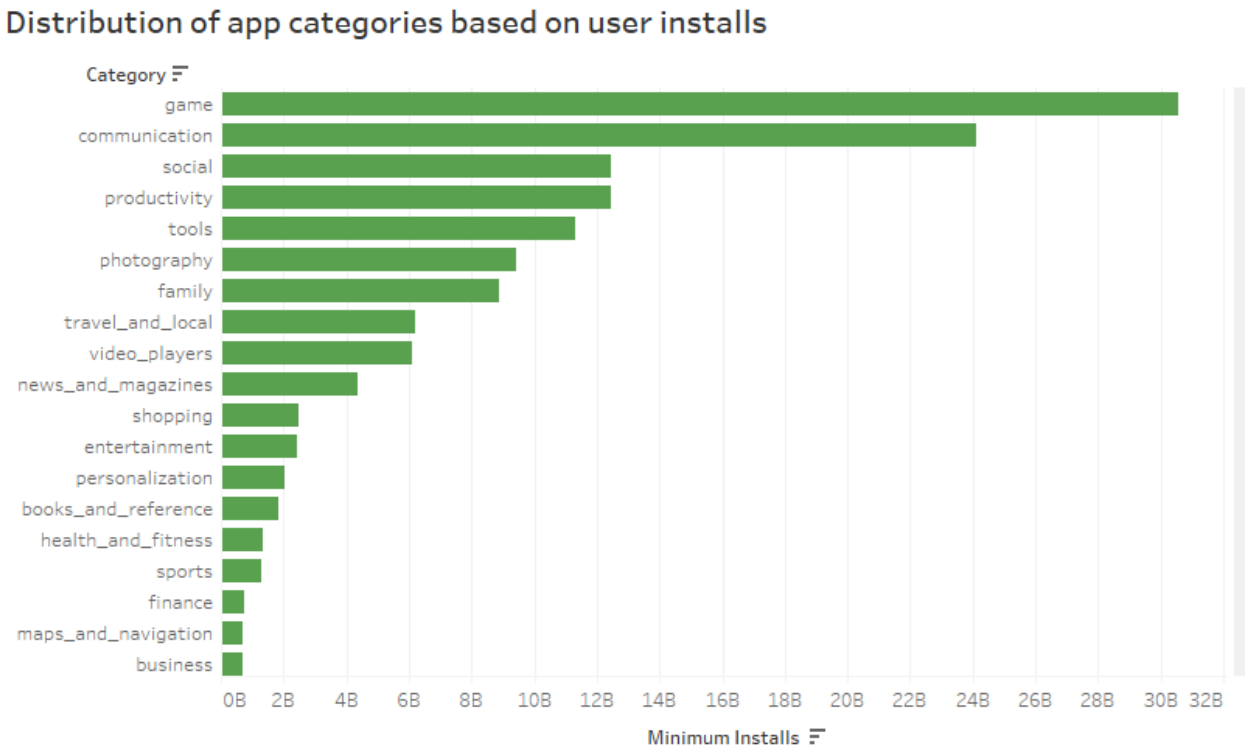

Fig 4.3: Distribution of all app categories based on installation counts.

4.3 Finding #3

There are greater numbers of downloads for apps that are lighter in size, and the lower the price of apps the larger the sum of downloads.

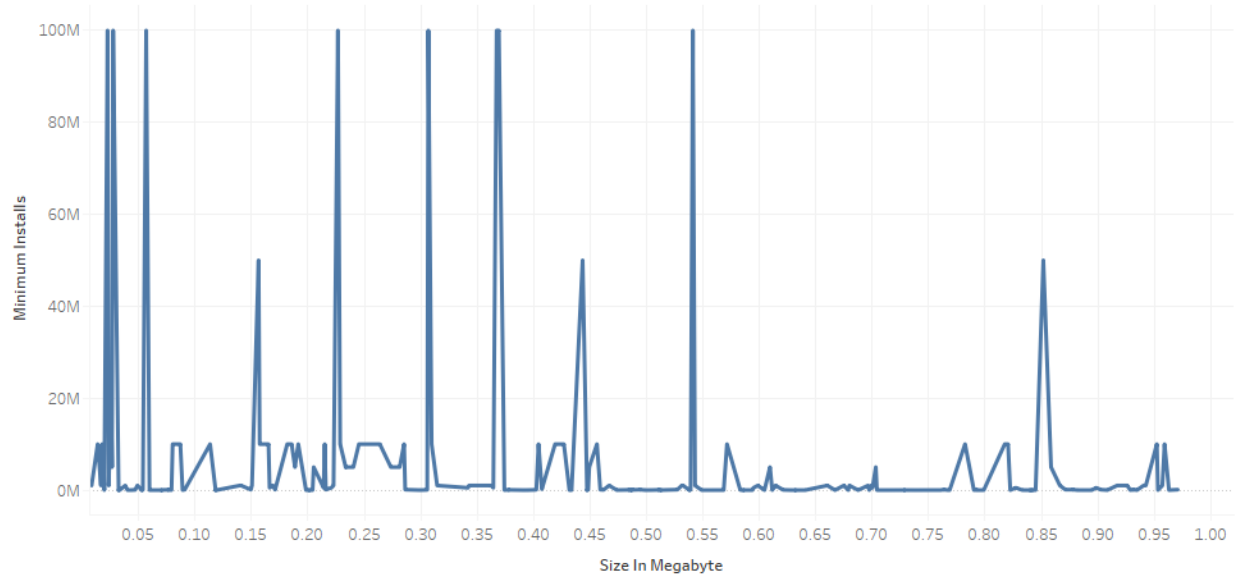

Fig 4.4: App size versus users' installation count.

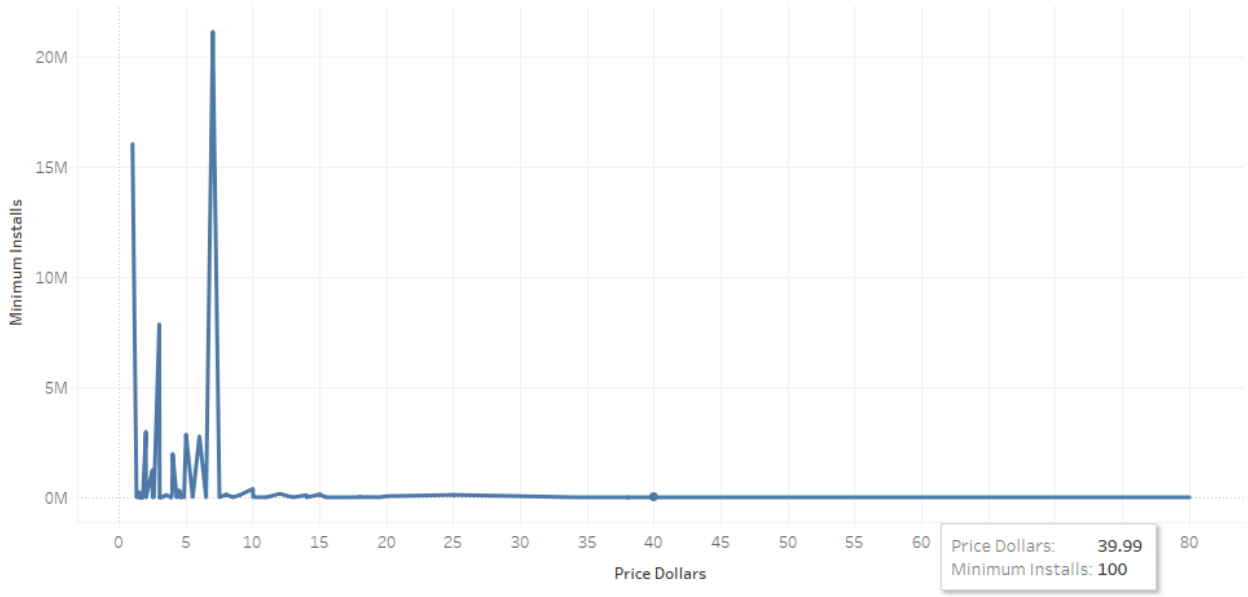

Fig 4.5: App price versus users' installation counts.

4.4 Finding #4

The top ten app categories here with the highest reviews are very similar to the ten most popular categories earlier, with the exception of app categories such as family, entertainment, shopping which fall in the top ten reviews but not the top ten installs/downloads.

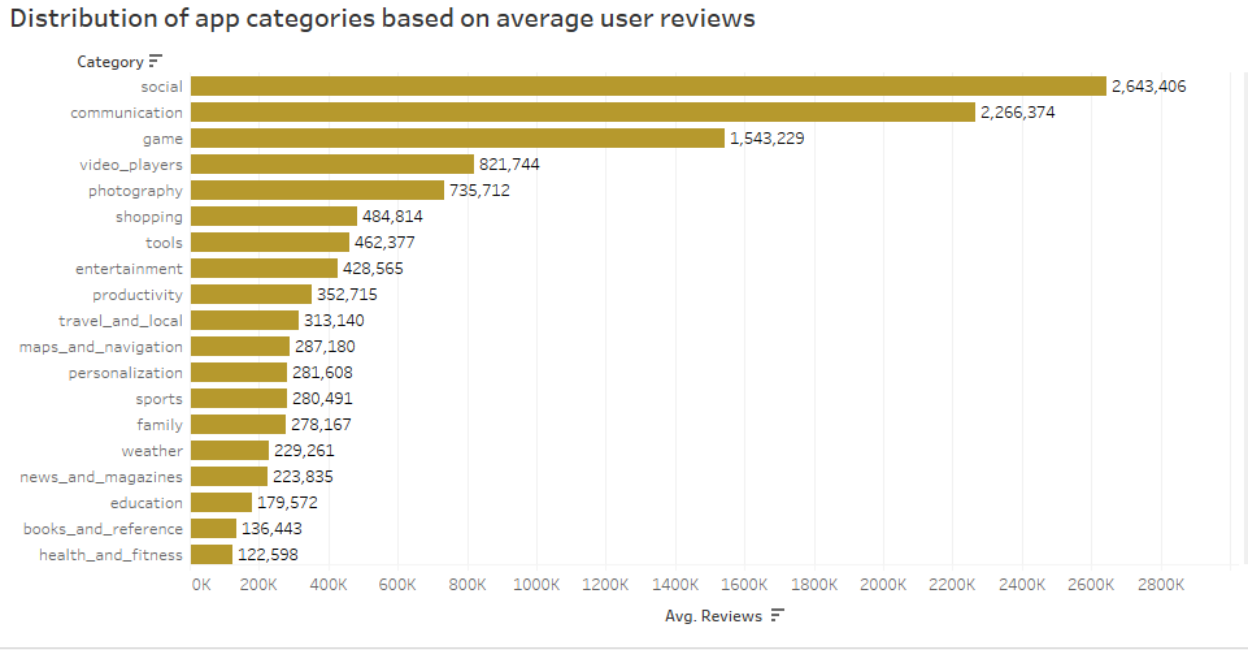

Fig 4.6: Distribution of app categories based on users' review count.

SECTION FIVE

SUMMARY

- About 93.04% of the apps in the dataset are free, while the remaining 6.96% are paid. In addition, about 99.96% of total user downloads are for the free apps, while the remaining 0.04% are for paid apps.
- The top 10 most popular app categories are game, communication, social, productivity, tools, family, photography, travel and local, and video players.
- While there exist some common most popular categories for both free and paid types, the top ten list for both free and paid app types is a bit different even in their ranking. This variation could be attributed to the higher average rating scores associated with the paid apps.
- There are greater numbers of downloads for apps that are lighter in size, and the lower the price of apps the larger the sum of downloads.
- The data tells that the most popular apps usually have the highest user reviews.

SECTION SIX

ACTIONS AND RECOMMENDATIONS

- App developers should consider making their app paid only if it has some cool extra features beyond what the majority of free apps in the same category can offer.
- Developed apps should be light in size as possible, and should not be too costly for the targeted category of users.
- More marketing and advertising campaigns should be created for apps that fall in the least popular but important categories such as ‘medical’, ‘auto and vehicle’, ‘libraries’, ‘demo’ etc., to increase their popularity, download, and usage.

APPENDIX

Projects' Dashboard Link:

https://public.tableau.com/app/profile/abdulrahman.hamzat1331/viz/VizfromGooglePlayStoredata/Dashboard1