

**Bringing big data to the
silver screen:
An analytical framework
for Microsoft movies.**

April 2022

Overview

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Project Goal

Through rigorous data analysis, we will make a series of recommendations that will maximize revenue for the new Microsoft movies division.

Making recommendations for new films which are simultaneously beloved by moviegoers and profitable is the overall goal.

Data

The data used to complete this analysis came from the following sources:

- 1.) <https://www.themoviedb.org> 1930 to 2020
- 2.) <https://www.the-numbers.com> 1975 to 2016
- 3.) <https://www.imdb.com> 2010 to 2022
- 4.) <https://www.boxofficemojo.com> 2010 to 2018

Production budget recommendations

It takes money to make money!

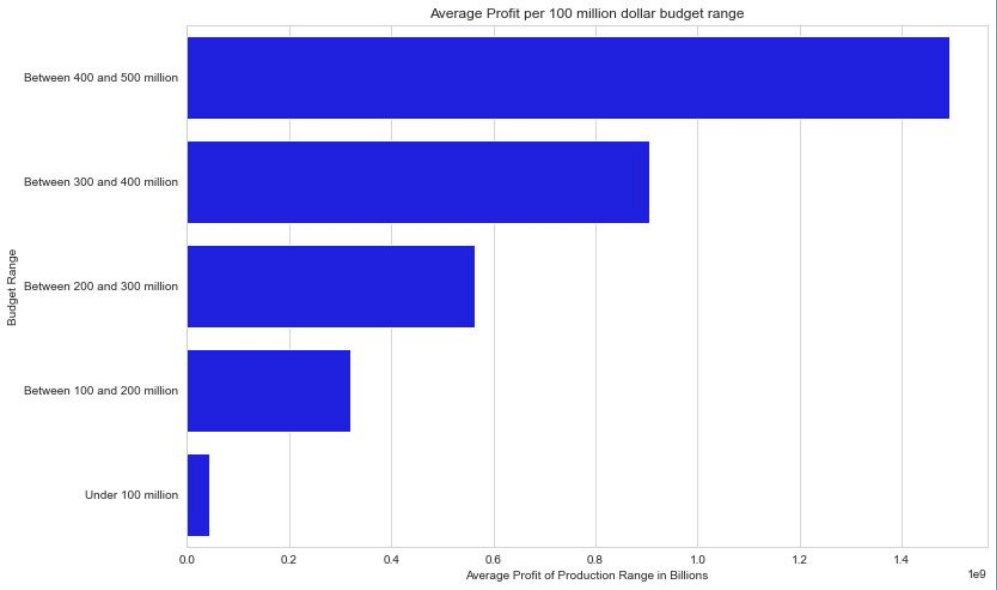
Bigger budgets make you more money!

There is a strong correlation between a movie's production budget and worldwide gross. Therefore, the more money we invest, the more revenue we'll generate.



Production budget recommendations

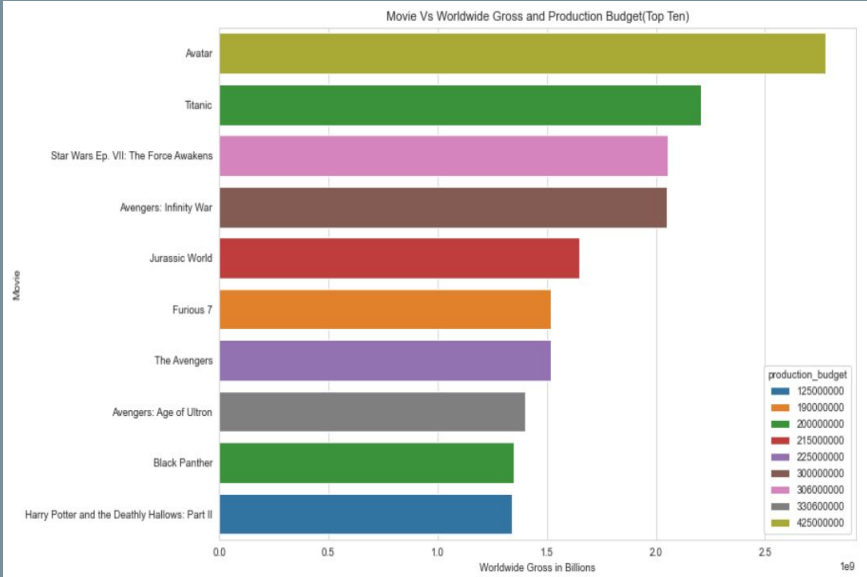
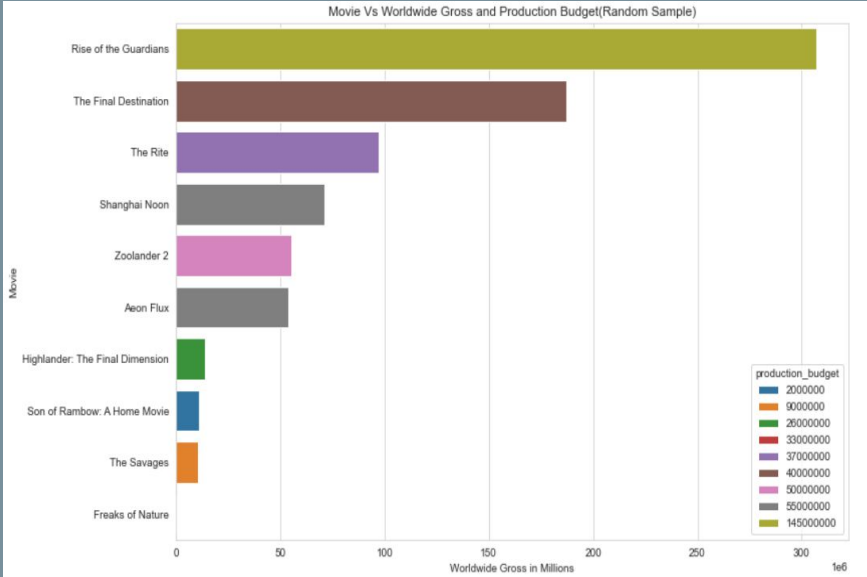
The more you spend, the more you make!



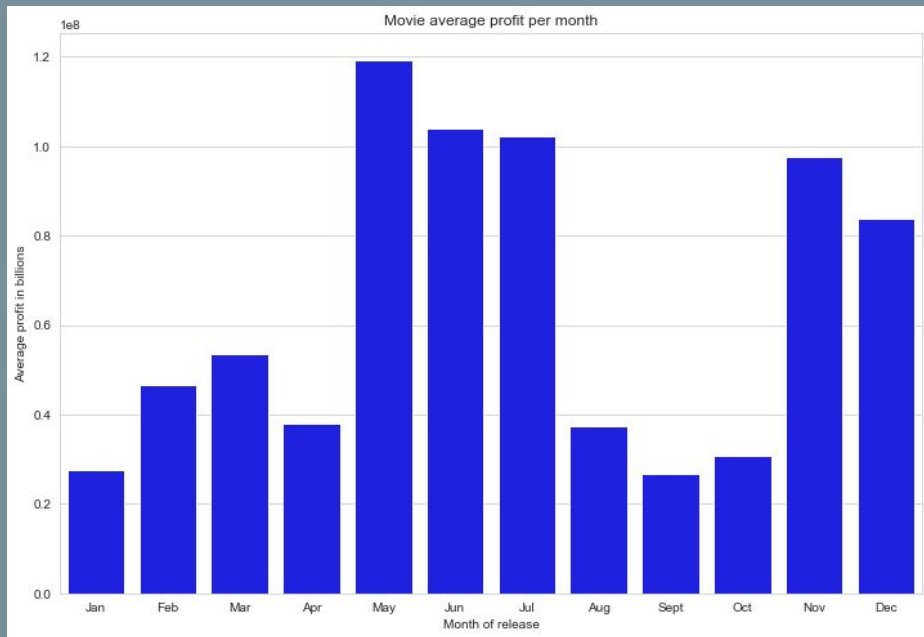
Pumping more money into the production budget will get you a better return.
You could release movie after movie with a budget under 100 million, and you'd still not come close to the average profit received from the higher range budgets.

Production budget recommendations

Investing more money will give you a better chance of a bigger return!



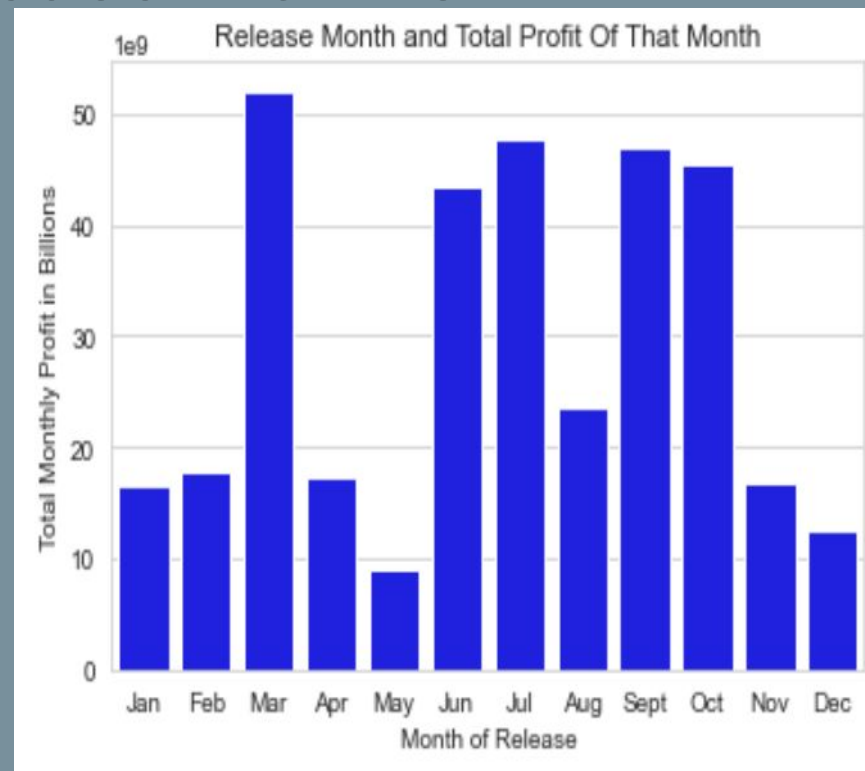
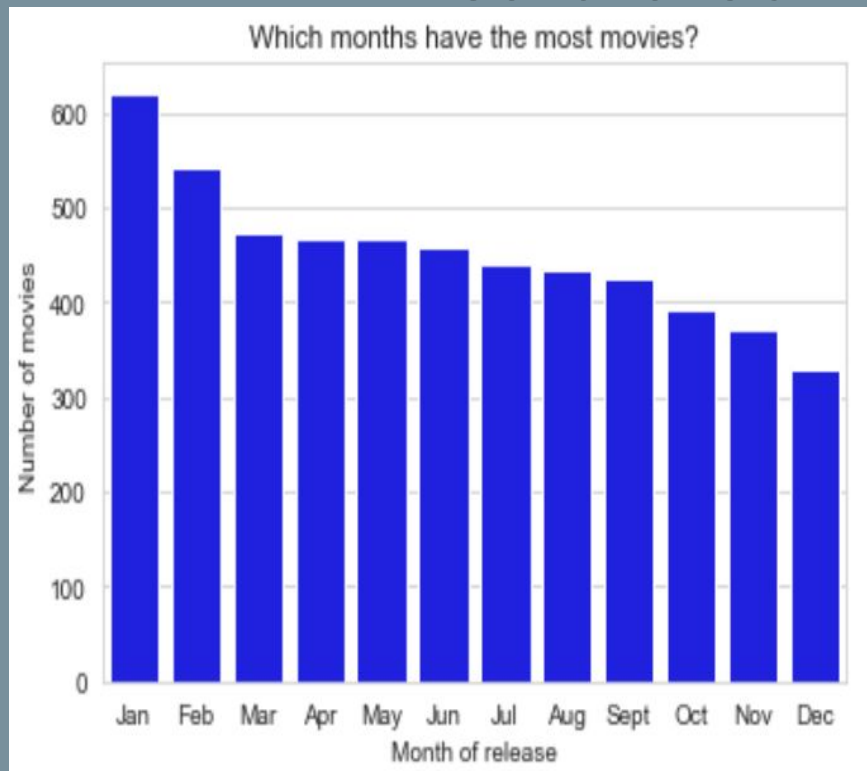
Maximize your profit by releasing during the right time!



The movie business is extremely seasonal. Here we see that our best bet will be to release movies during the busy summer season or over the holidays. Releasing movies during the slower months will produce considerable headwinds.

Suggested release months

Maximizing profitability by avoiding saturated release months.



Which genres do people enjoy?

With this we can see which genres of movies will return the best ratings

The top 5 genres are

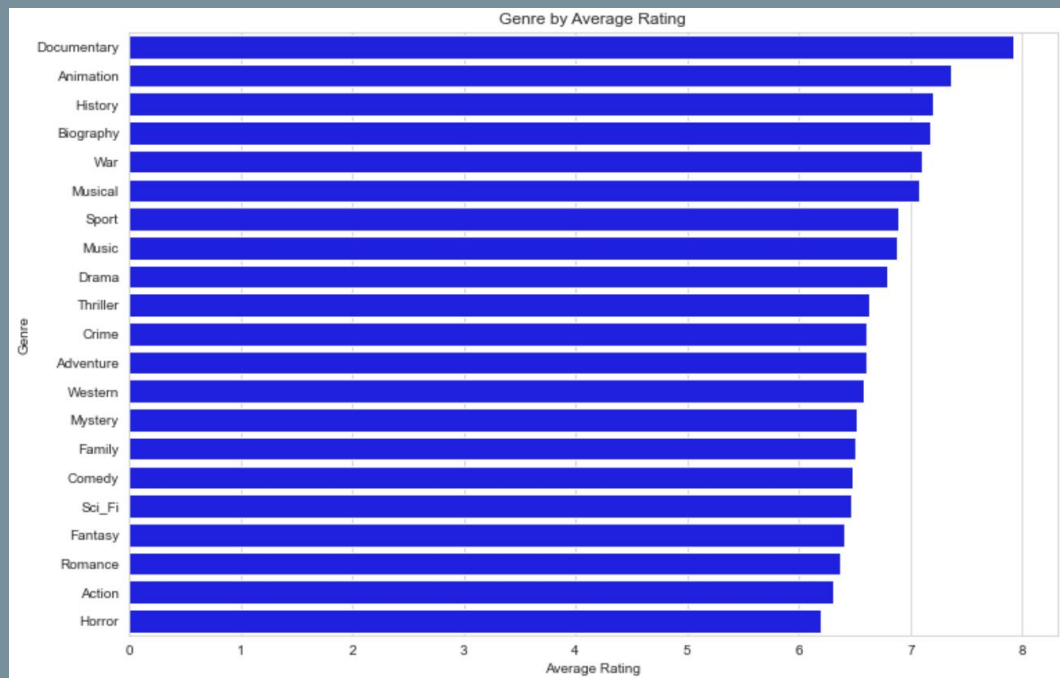
Documentary

Animation

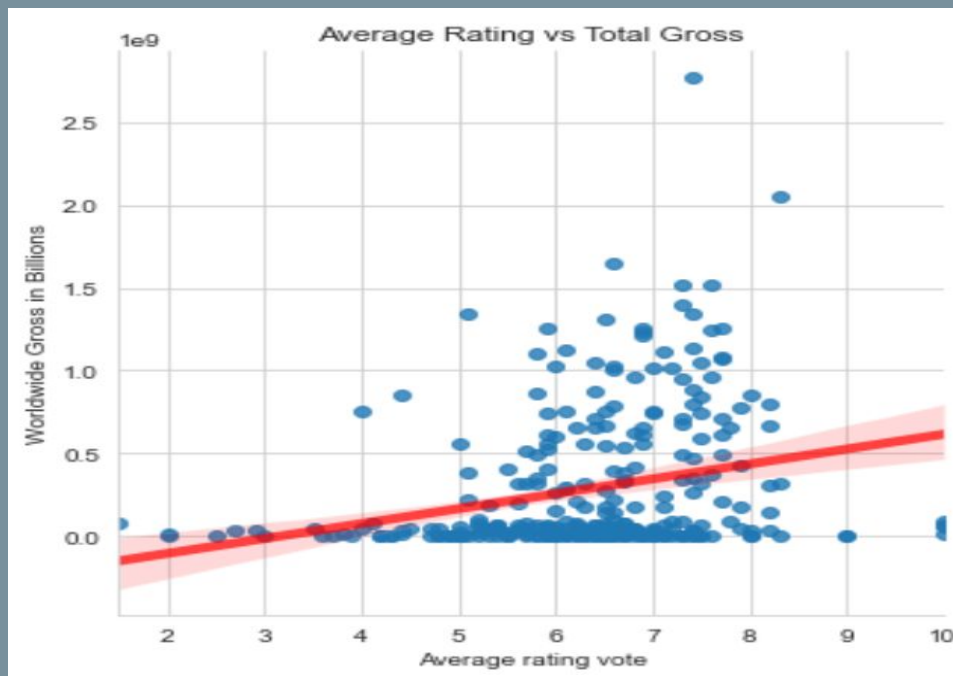
History

Biography

War



Does the rating of a movie affect how much money it will make?



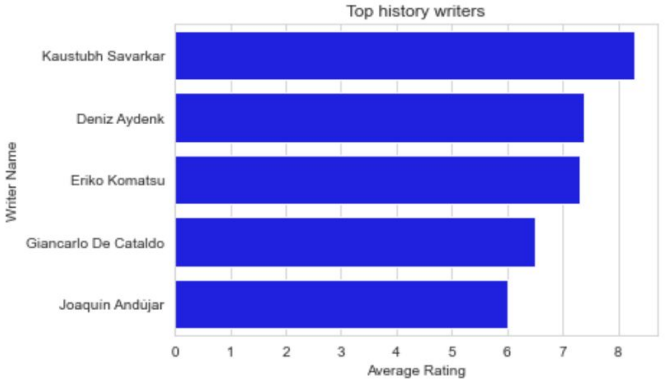
From this graph we can see that ratings do have an impact on the total worldwide gross. Except for a few outliers, this shows we can expect a good return for any movie that has an average rating over 5.

Writer suggestions

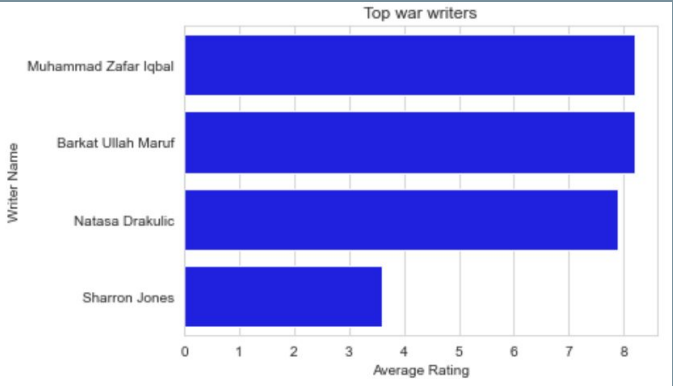
Top writers in the top rated Genres

For the five genres most likely to generate revenue while maintaining high ratings, I suggest approaching these top rated writers.

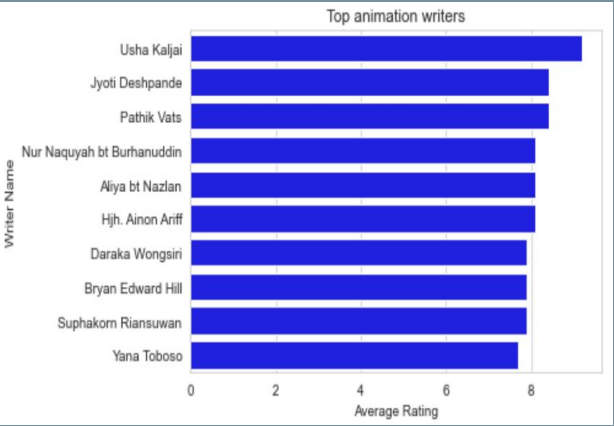
History



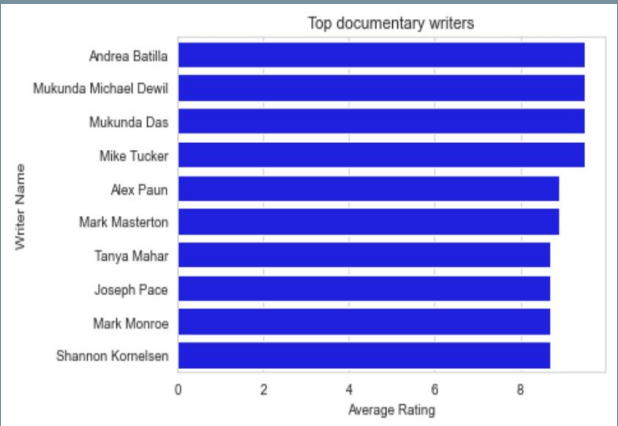
War



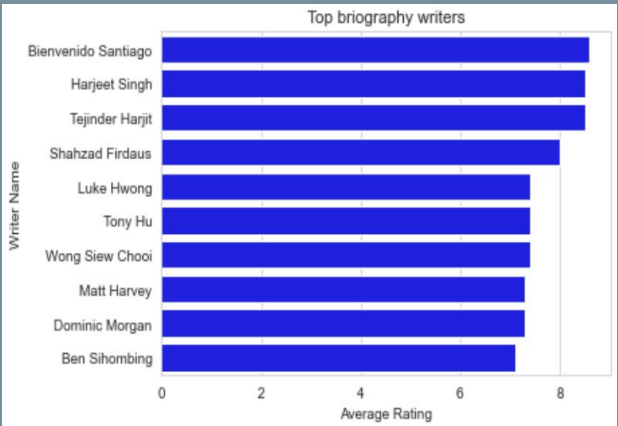
Animation



Documentary



Biography



Overall Suggestion

- 1.) We want to have a larger production budget; the data shows that generally larger production budgets will have a higher overall gross and profit. I suggest a 300 million to 400 million dollar production budget. Due to the fact that only 2 movies had over 400 million it is hard to tell if the average profit will remain high.
- 2.) May, June, July, November, and December should be our target release months. Movies released during these months have the highest returns, and the holiday month of December is particularly promising due to the lack of competition with other new releases.
- 3.) Documentary, Animation, History, Biography, and War are genres with compelling opportunities due to the fact they generate high ratings and high revenue.
- 4.) When targeting those top genres, we should reach out to the top rated writers in that category.

Thank you for your time.

With more analysis we can further predict what will make Microsoft more in regards to movies.

- 1.) In the future we might explore actors and actresses that do well.
- 2.) We can determine which directors Microsoft could look at to employ.
- 3.) Explore the possibilities of creating an ongoing series.