

Phase 1 Project: Leveraging Box Office Trends for Microsoft's Movie Studio

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OVERVIEW

My aim is to dive into the current Microsoft box office landscape, uncovering trends that can empower Microsoft's movie studio to make strategic decisions about its film . By analyzing popular genres, top grossing films, audience demographics, and distribution strategies that will provide actionable insights to guide the studio towards box office success.

TASK

Microsoft wants to get in on the excitement after noticing that all the major corporations are producing original video content. They don't know anything about making movies, yet they have decided to start a new studio. It is your responsibility to research the kinds of movies that are currently doing the best at the box office. The next step is to convert those results into practical advice that the president of Microsoft's new film company may use to choose the kind of movies that should be made.

BUSINESS UNDERSTANDING

Business Understanding Microsoft lacks experience in the film industry and wants to establish a movie studio. In order to determine which movies the corporation should invest in most strategically, I have been entrusted with looking over box office data.

Objectives

- 1.To help me reach my goal, I made the decision to divide the primary target into smaller, more focused goals, like these:
 - 1.To determine the demographic we want to target in order to create material that will appeal to them and help Microsoft achieve box office success.
 - 2.To ascertain the method of distribution to be employed for seeing the films—in theaters or on streaming services—so that the business can capitalize on it.
 - 3.Using the data analysis, to determine which movie genres are the most strategically important to generate.
 - 4.To identify the highest grossing movies in which the business can make investments by examining the production costs in order to optimize profits.

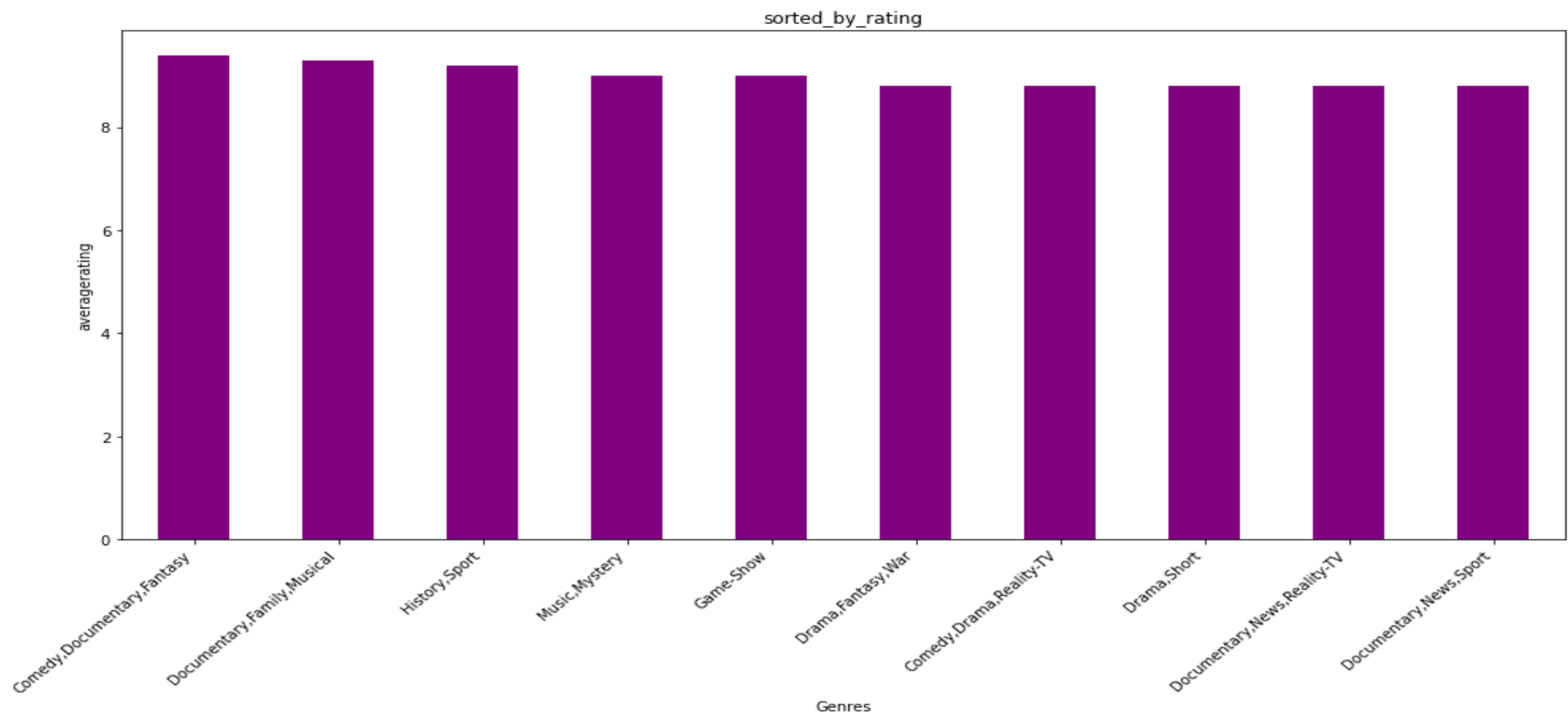
DATA UNDERSTANDING

Three different files will serve as the data sources for this research.

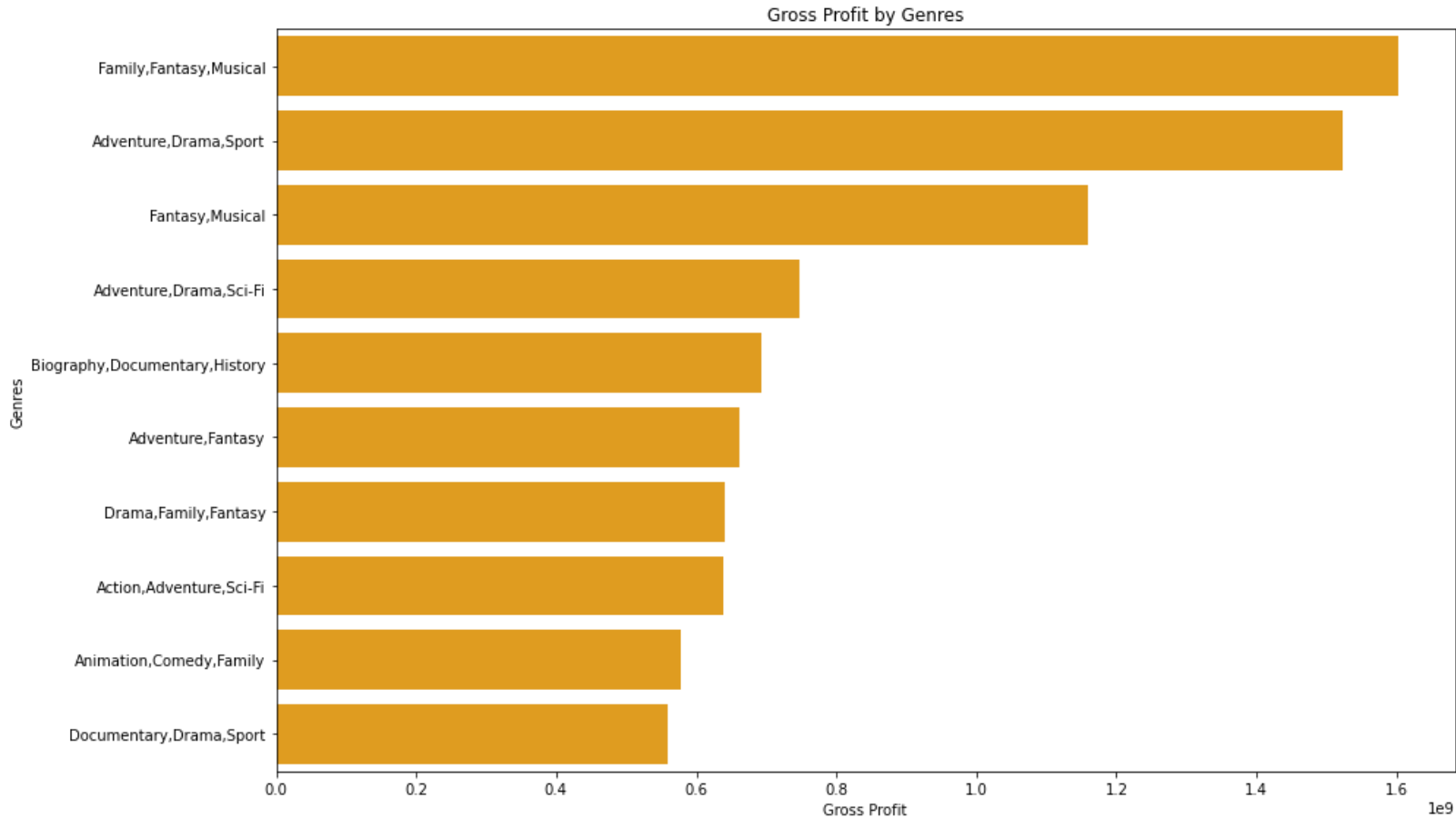
- IMDB(Internet Movie Database)
- The Movie DB
- The Numbers
- IMDB(Internet Movie Database)used to obtain movie genre and type of Microsoft can produce
- The Movie DB used to obtain the rating and popularity of the films
- The Numbers was used to obtain the budgets, ROI, and profit of the films

Bar plot for the top 10 most popular genres

The data suggests that movies combining genres like Comedy, Documentary, or Fantasy tend to have higher average ratings based on the bar plot



Bar plot for the most profitable genres in the film industry

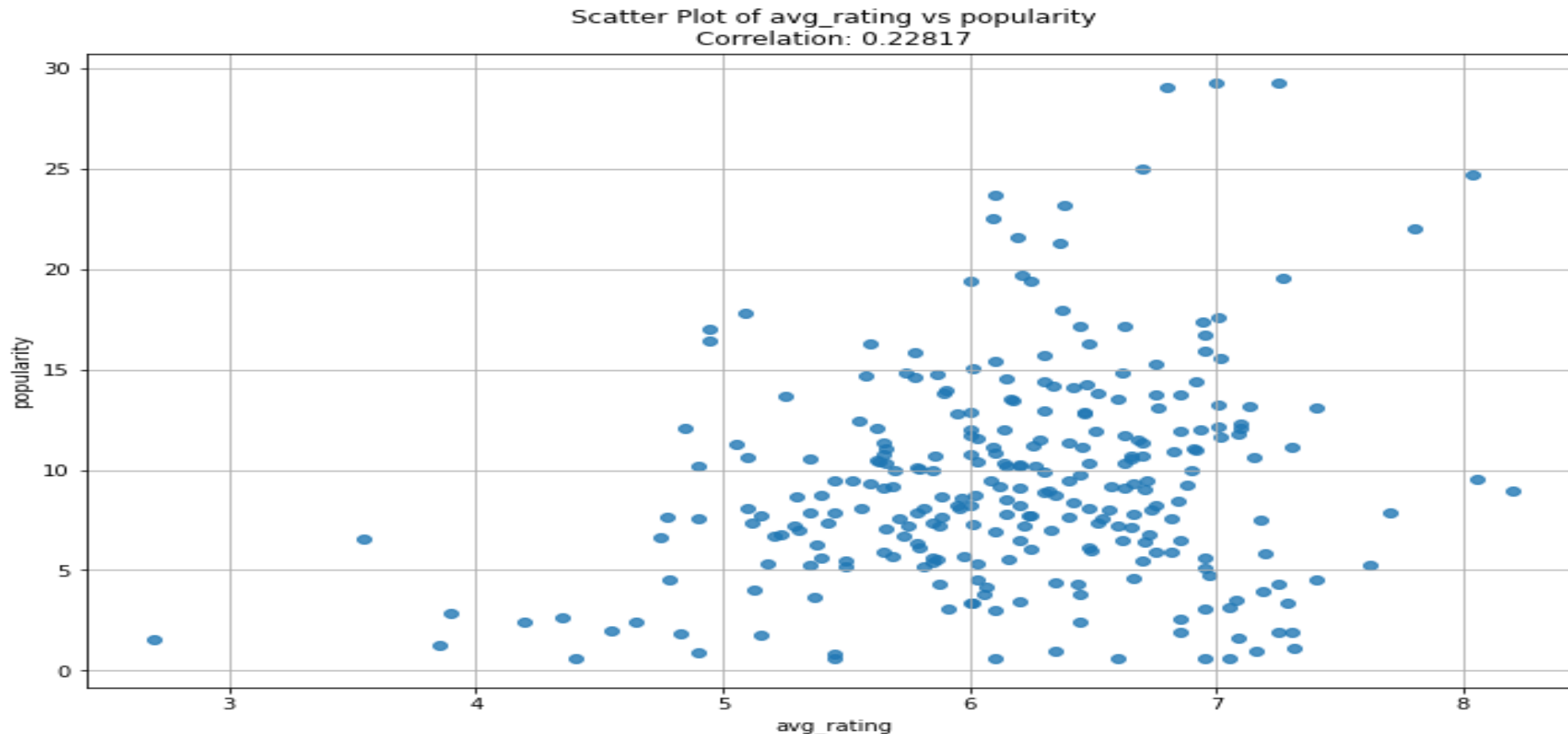


Bar plot for the most profitable genres in the film industry Conti...

Genres with the highest average gross profit will have the longest bars on the left side of the chart i.e. Family, Fantasy, Musical Adventure, Drama, Sport, Fantasy, Musical. This visualization allows us to quickly identify the genres with most profitable film industry based on the data.

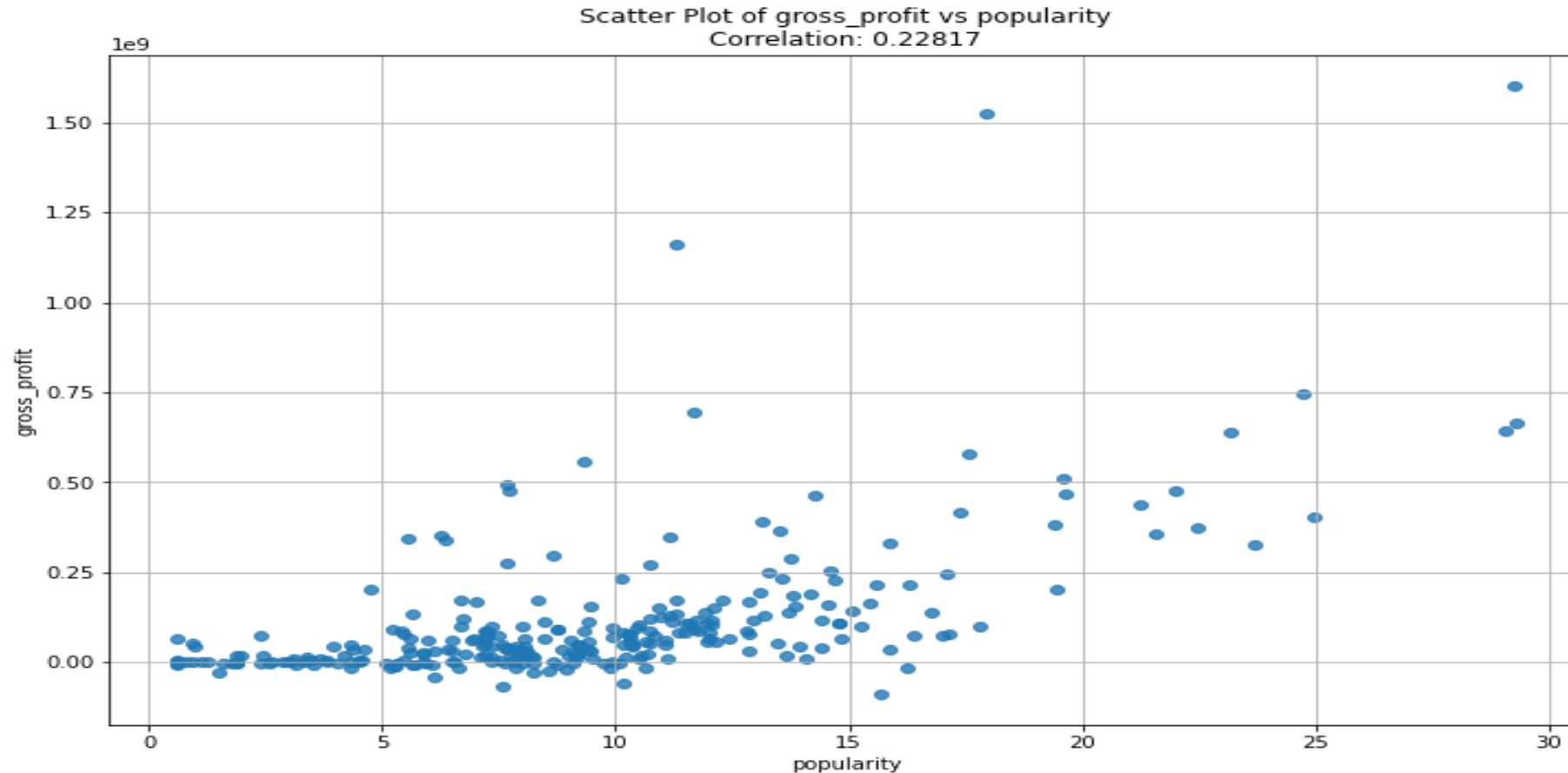
scatter plot to visualize the correlation between avg-rating and popularity

The correlation coefficient of , 0.2096, indicates a weak positive correlation between average rating and popularity which suggests that while good critical reception can contribute to a movie's success, it's not the sole determinant of popularity.



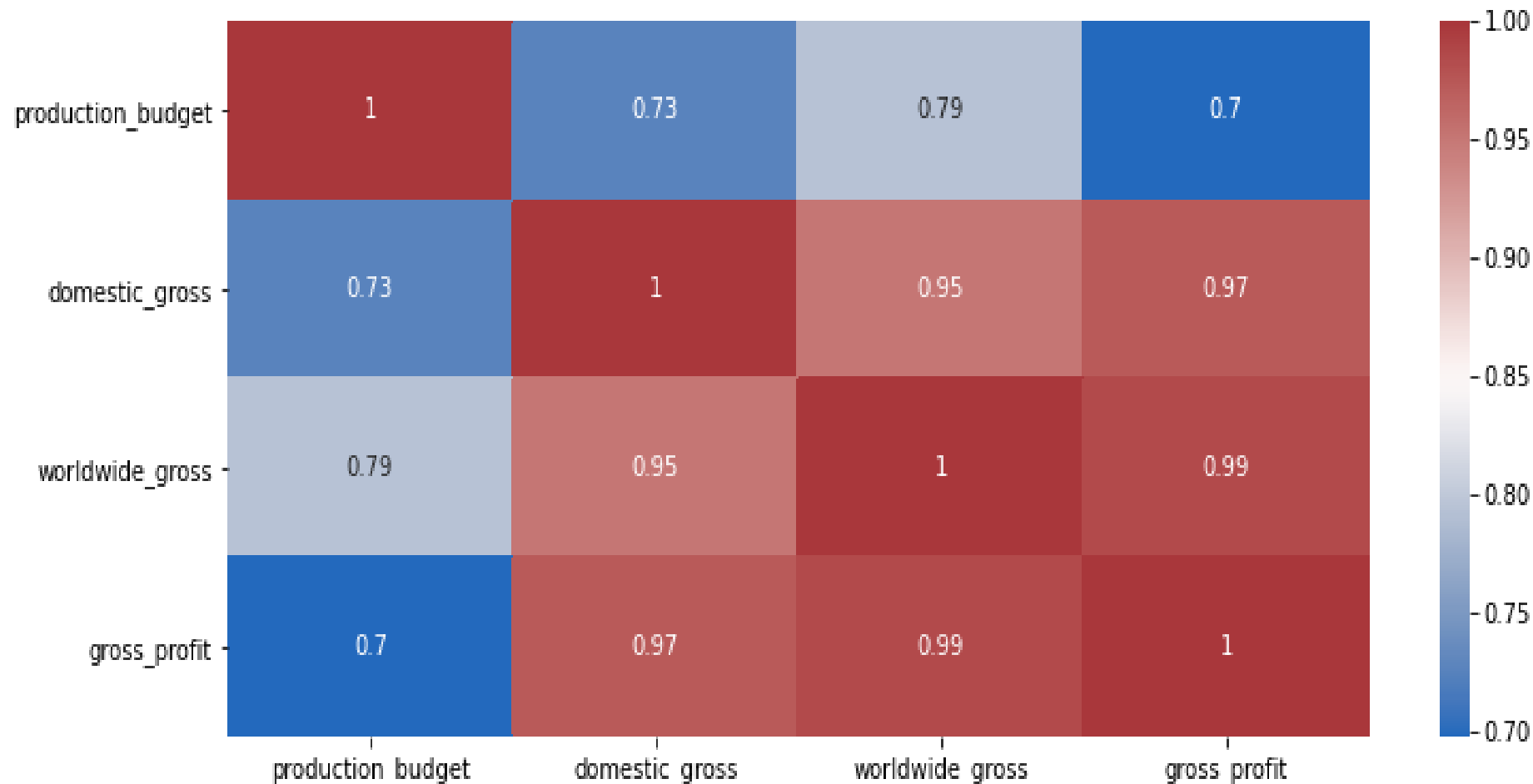
scatter plot to visualize the correlation between popularity and gross profits

The weak positive correlation indicates that popularity is one factor influencing a movie's gross profit, but it's not the sole factor. Production costs, distribution deals, and other revenue streams all play a role in determining how much profit a movie generates.



correlation btw vote average and vote count is weak positive correlation.

The production budget, worldwide gross, profit, and worldwide gross all show a strong link, as can be seen in the heat map above. Based on this, we can infer that the larger the budget, the higher the revenue for the various films.



CONCLUSION

Results of the analysis carried out above are listed below:

The profitability of the movie will be greatly influenced by the production budget in addition to other elements like the cast, producers, marketing, and language of the movie. It should be noted that the success of the picture does not necessarily follow from the budget that is allotted. A movie's profitability is not guaranteed by its level of popularity. Several genres had high vote counts according to our data, but their profitability was marginally lower. Movies that fit into multiple categories are both profitable and well-liked. Short films, particularly documentaries and biographies, have a strong return on investment.

Recommendation

Considering that there is a positive correlation between the budget and the income, it would be wise to establish a healthy budget for the film production. However, it should be mentioned that the movie needs a strong marketing plan that takes into account the producers and actors involved. Focusing on short documentaries is a fantastic idea because they have a high return on investment. It's critical that they expand the range of genres and film styles they produce in order to appeal to a larger audience. A movie's success can be influenced by a number of outside variables, thus it's critical to comprehend the market and contemporary social and demographic issues like "Black lives matter," "Gender Inclusion," "race," etc. In order to appeal to the target market, it would be beneficial to support the genders that the company finds relatable. Films typically last between ninety and one hundred and fifty minutes, therefore if a lengthier picture is likely to be produced, it's preferable to make a limited series.

Questions?

Thank You

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