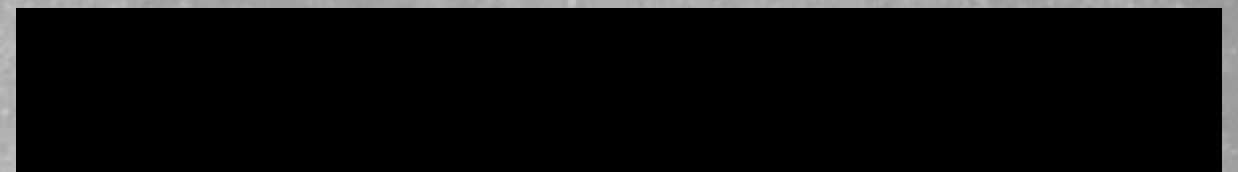# Rilsoft: Movie Insights

Overview

Rilsoft aims to capitalize on the rising trend of movie creation by establishing a new studio. As newcomers to the industry, the team seeks to leverage data from leading movie review platforms to generate actionable insights that will guide their entry into the competitive movie-making landscape.

Business Problem

Rilsoft wants to break into the film industry to compete with major corporations that create original movies. They have the challenge of determining optimal approach to market entry. The critical question is balancing financial investment, creative vision and market demand.

Objectives

Objective 1   To understand high-performing movie genres and provide recommendations based on film ratings

Objective 2   To understand revenue projections and ROI based on the various movie genres

Objective 3   To analyze the various roles for creative movie production

Data Processing

Data Selection and Cleaning

Visualization : Mapping Objectives

Statistical Analysis: Hypothesis Testing and
Regression

Data Selection and Cleaning

The data comes from several reputable sources in the movie industry, including Box Office Mojo, IMDB, Rotten Tomatoes, TheMovieDB, and The Numbers.

These datasets provided insights into various aspects of movie performance e.g movie budgets, movie profitability, audience preferences (by way of movie ratings) and the relationship between budgets and revenue.

Hence, the choice of datasets that would help us achieve the objectives are; the IMDB dataset, bom.movie gross dataset and TN.movie budgets dataset.
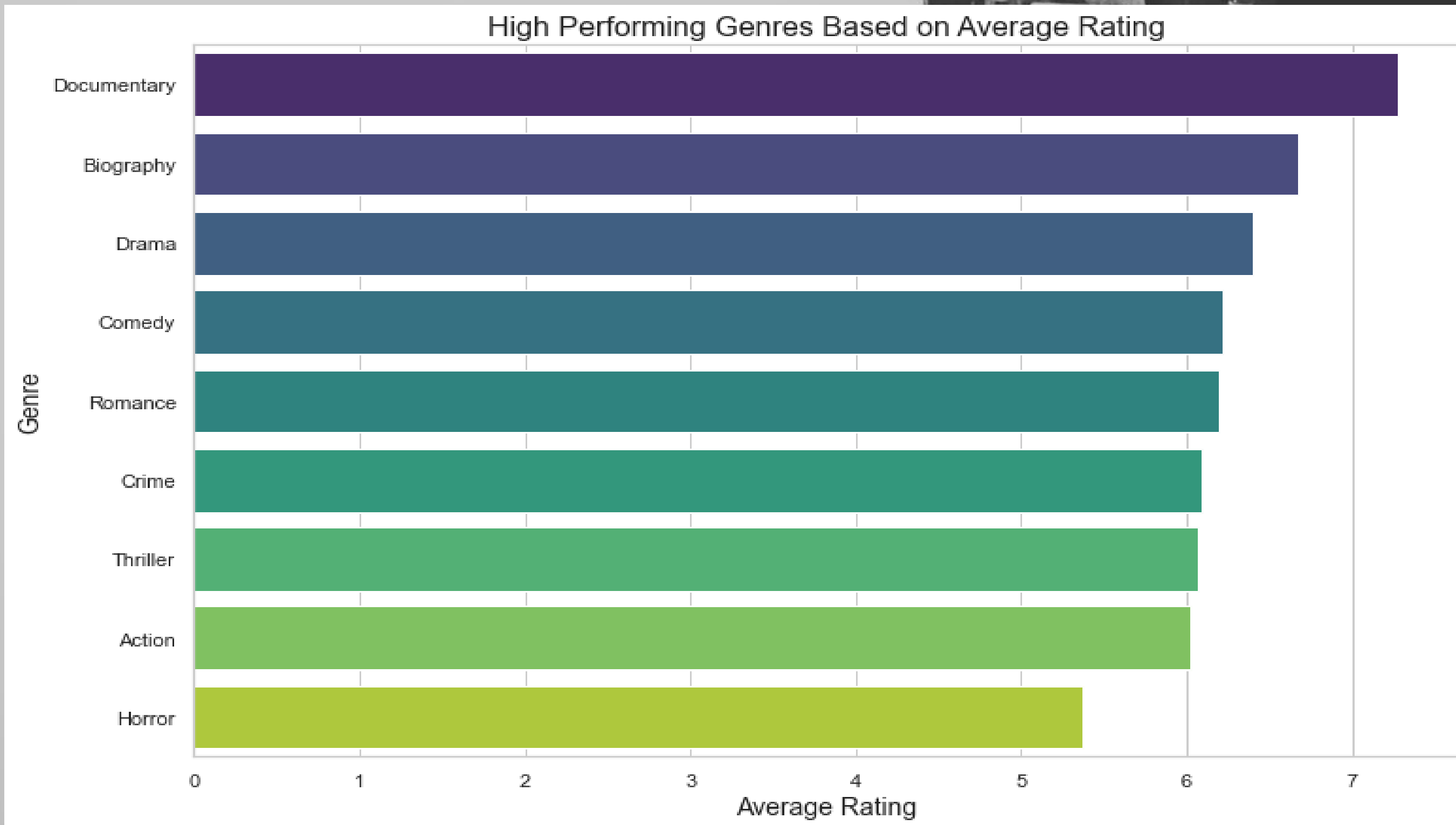
Objective 1:

High-performing movie genres based on highest ratings

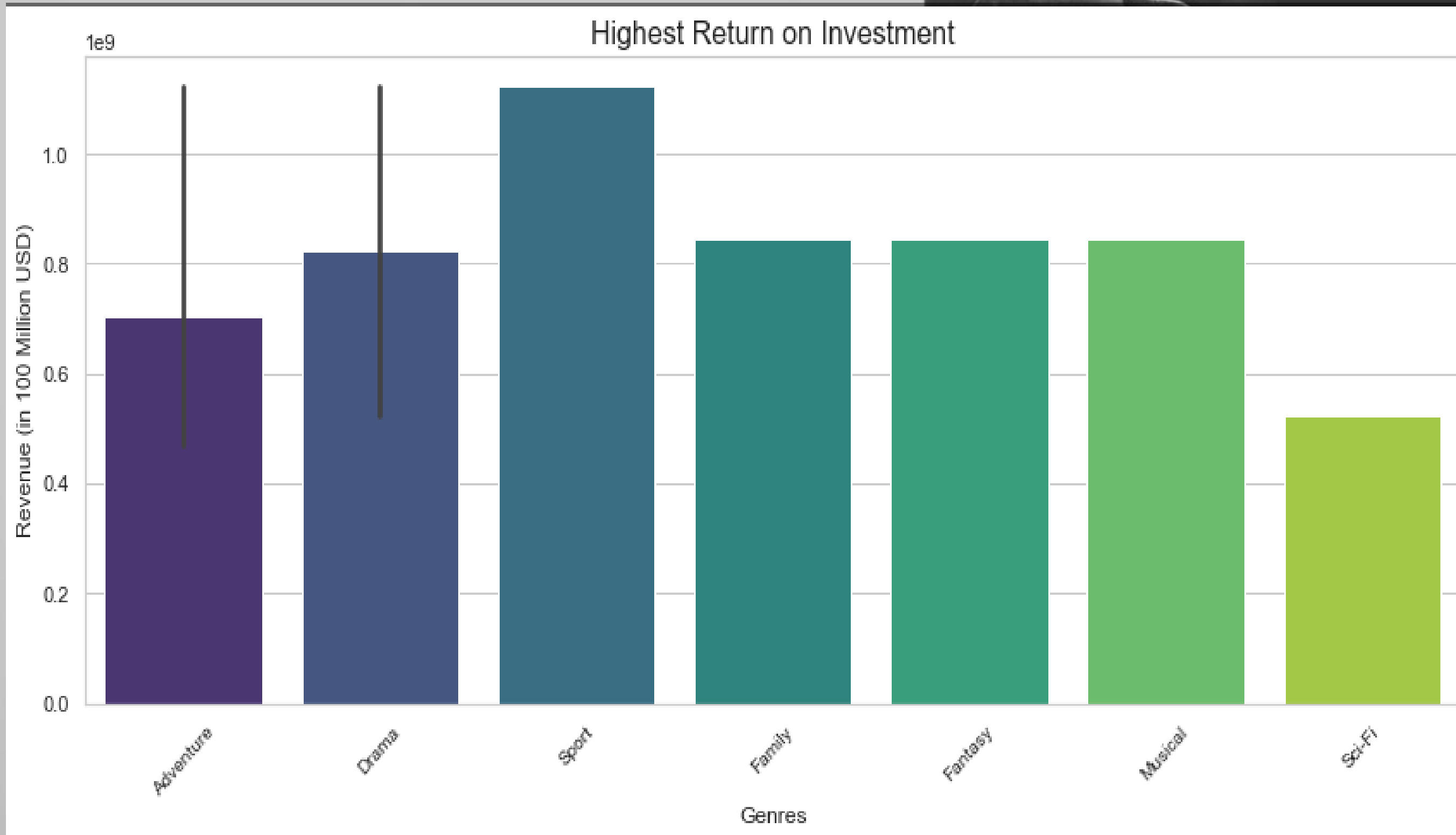High Performing Genres Based on Average Rating

The genre with the highest rating was Documentary. However, our analysis revealed no correlation between ratings and revenue. Therefore, ratings should not be a determining factor when selecting a genre to pursue.

Objective 2:

## ROI based on movie genres

Highest Return on Investment

The genre with the highest revenue was Adventure despite it not being amongst the highest-rated genres based on average rating.

On the other hand, despite Documentary being the most preferred genre by audiences, the genre's ROI does not reflect the same

Objective 3:

Analysis of the various roles in creative production


Top 10 Professions by Revenue
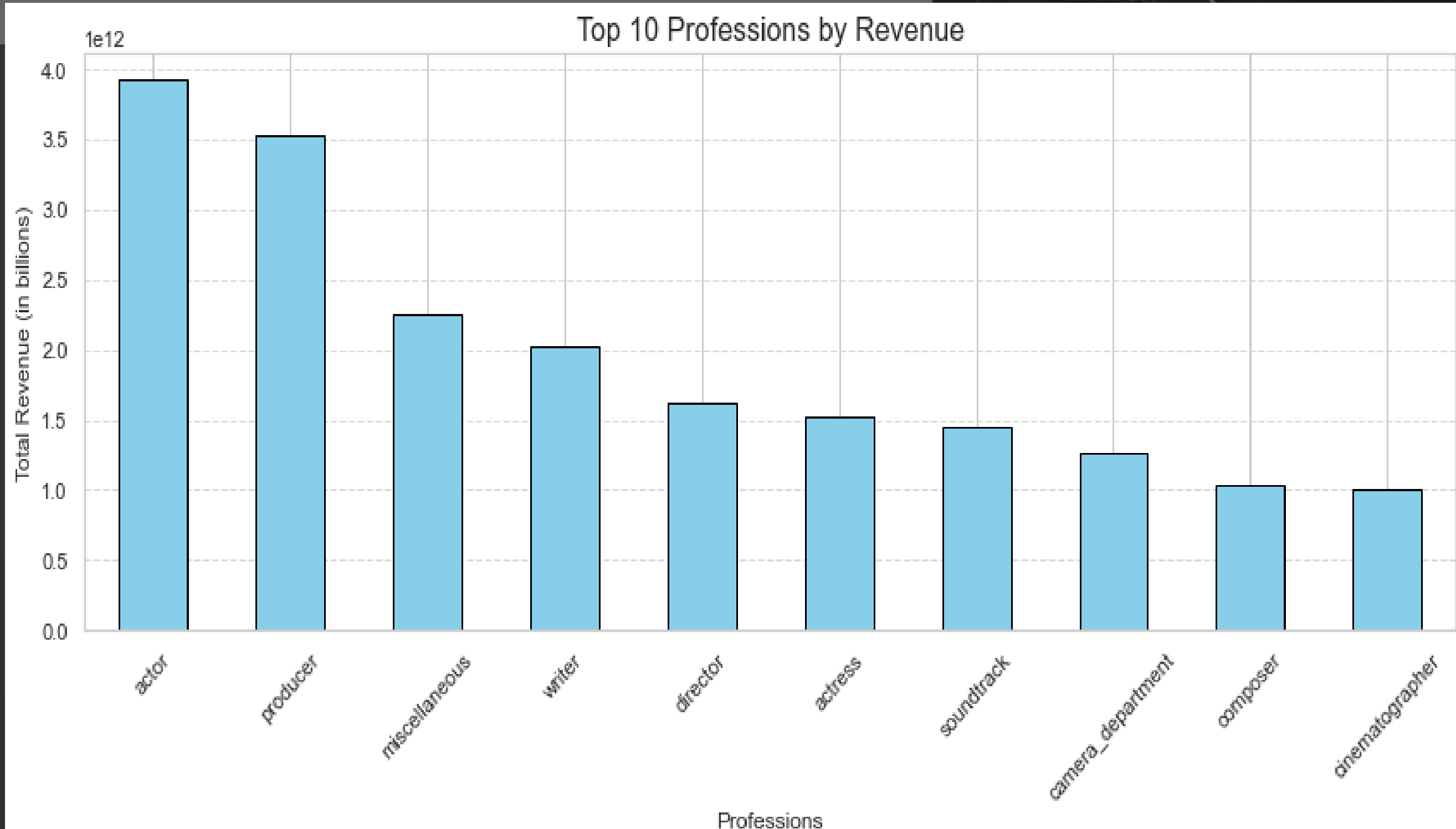
The role with the highest amount in gross income was actors and cinematographers were found to be the lowest earners in a studio set.

Actors are also paid significantly higher than actresses and directors. This could be a factor used in casting decisions.

Other key visuals:

Heat map showing the correlation between various variables

Correlation Of Variables
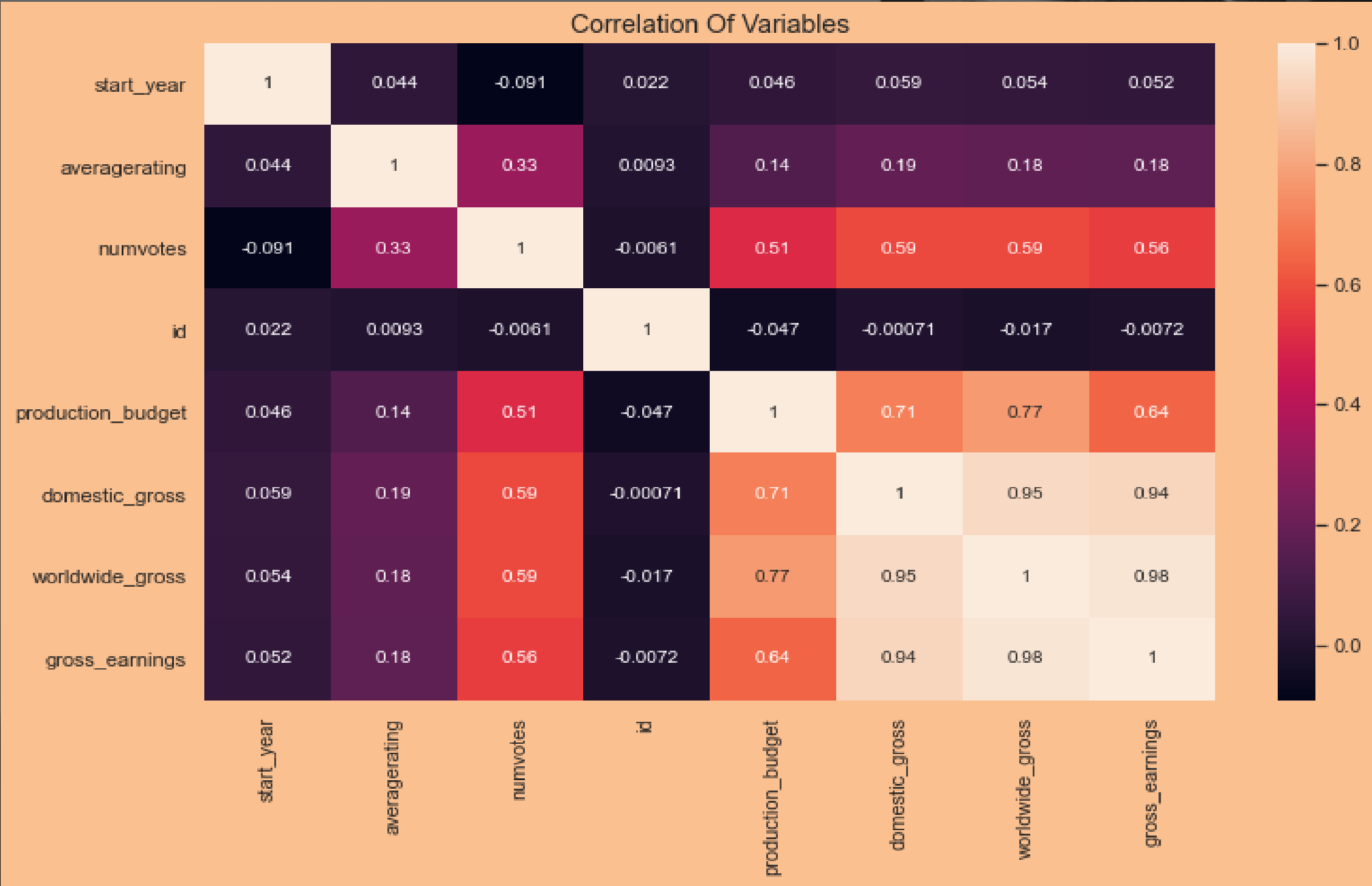
The heat map shows that there is a strong positive correlation between worldwide gross earnings and production budgets.

We also see that there is a weak positive correlation between production budgets and average rating.

The insight from this heat map can be used as a guide to sift through the information for prioritization of the fundamental elements of

Statistical Analysis

This analysis investigates the distribution of production budgets across genres and applies linear regression to explore the relationship between budget, audience engagement, and revenue.

Fit and Explanation:
The linear regression model explains approximately 65% of the variation in revenue using production budget and the number of votes. While this is a reasonable fit, incorporating additional factors or adjustments may improve model performance.

Significance:
All three coefficients (intercept, production budget, and number of votes) are statistically significant as their confidence intervals do not include 0.

Contd.

Practical Implications:
- **Production Budget**: Every dollar spent on production leads to a consistent increase in revenue, indicating a strong positive relationship.
- **Number of Votes**: The number of votes significantly impacts revenue, likely reflecting audience engagement or popularity.

Limitations:
The model's generalizability may be limited if the dataset is restricted to a specific region or time period.

Conclusion:
The model achieves a 65% confidence level in explaining revenue variation and is reasonably reliable when applied to new data within the dataset's context.

Evaluation and Conclusion

Evaluation

Movie genres consistently achieve the highest ratings and high ROI
- The genres that consistently achieve the highest ratings and high ROI; Drama cut across both highest rating and high return on investment

Projected revenue and return on investment (ROI) across different Movie genres for strategic decision making
- Adventure, Drama and Sport gave the highest return on investment. Sport should be considered due to its low budget, Drama cuts across audiences as well as return, while Adventure will deliver the highest return but also with a high budget. Musicals were also noted to have the lowest budget with the highest revenue

Roles contributing to the success of high performing movies and movie genres
- The major roles were actors, producers, writers, directors and actresses

Contd.

Insights derived from top-performing movie genres to inform Rilsoft movie studio production

- The production budget, has a significant effect on revenue. Therefore for higher returns high budget is required.
- The Drama category cuts across both the audiences as well as high return
- The talents selected play a key role in success of the movies
- Not all high budgets result in high revenues as seen in the case of Pirates of the Caribbean movie
- The total number of votes per genre has a direct correlation with the revenue. More votes, more revenue.

Conclusion

Recommendations for the business

The following genres are recommended;

- Adventure, Sports and Drama.
- Sport should be considered due to its low budget, Drama cuts across audiences as well as return, while Adventure will deliver the highest return but also with a high budget.

The following professions are recommended;

Actors, producers, writers, directors and actresses with the top names being;

- Actors; Sam Hargrave, Doug Mallette, Zachary J. Luna, Chadwick Boseman
- Producers; Alvaro Zendejas, Chadwick Boseman, Elizabeth Olsen
- Writers; Jacob Johnston, Doug Mallette, Chadwick Boseman
- Directors; Doug Mallette, Alvaro Zendejas, Tom Holland
- Actresses; Florence Kasumba, Elizabeth Olsen, Cerris Morgan-Moyer

Reasons why the analysis might not fully solve the business problem

- There were some columns in datasets that had multiple null values hence could not be used to retrieve insights
- The 65% fit of the model may affect accuracy
- Variance in the data sets that were merged resulted in some loss of data

Future input to improve the project

- To provide marketing insights, we would need to have domestic gross per country.
- Continued analysis and adaptation to market trends to stay ahead of industry shifts
- Acquiring insights based on demographics e.g. age, gender etc.
- Include comments from critics

Thank You!

CREDITS

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