

LEVERAGING MULTI- PLATFORM ANALYTICS FOR SMARTER FILM INVESTMENT DECISIONS



BY GROUP 3



INTRODUCTION

In response to the growing trend of major corporations venturing into original video content, our company is embarking on an exciting initiative: establishing a new movie studio.

Recognizing our limited prior experience in film production, the company has enlisted our help as **Group 3 members** to provide essential strategic guidance.



BUSINESS UNDERSTANDING

The global film industry, a multi-billion-dollar arena, demands precise understanding of audience preferences, box office dynamics, and optimal timing for success. To navigate this highly competitive landscape effectively, leveraging data-driven insights is paramount. This project undertakes a comprehensive analysis of historical and real-time data from various platforms. Its primary aim is to uncover critical trends, audience behaviors, and key performance indicators that will inform our studio's launch strategy, enabling us to minimize inherent risks and maximize the potential returns on our initial film investments.



OBJECTIVES

- Consolidate movie performance data into a unified, analyzable dataset.
- Identify key factors influencing movie success.
- Segment successful vs. unsuccessful films to define risk profiles and market patterns.
- Provide **genre and budget recommendations** tailored to market.
- Develop an interactive dashboard/report to guide decision-makers.



DATA SOURCES

The comprehensive analysis of the movie industry was performed using data assembled from the following datasets:

- IMDb Data Base
- Box Office Mojo
- Rotten Tomatoes
- The Movie DB
- The Numbers These datasets collectively provide information on genres, production companies, budgets, revenues, profitability, ratings, language, and popularity scores.



METHODOLOGY

Tools Utilized

- Python for overall analysis
- Reading Data from the sources given above for analysis
- Performed extensive data cleaning to ensure consistency and usability.
- Addressed Missing Values
- Fixing Formatting Issues
- Removing duplicate values to prevent skewed analysis

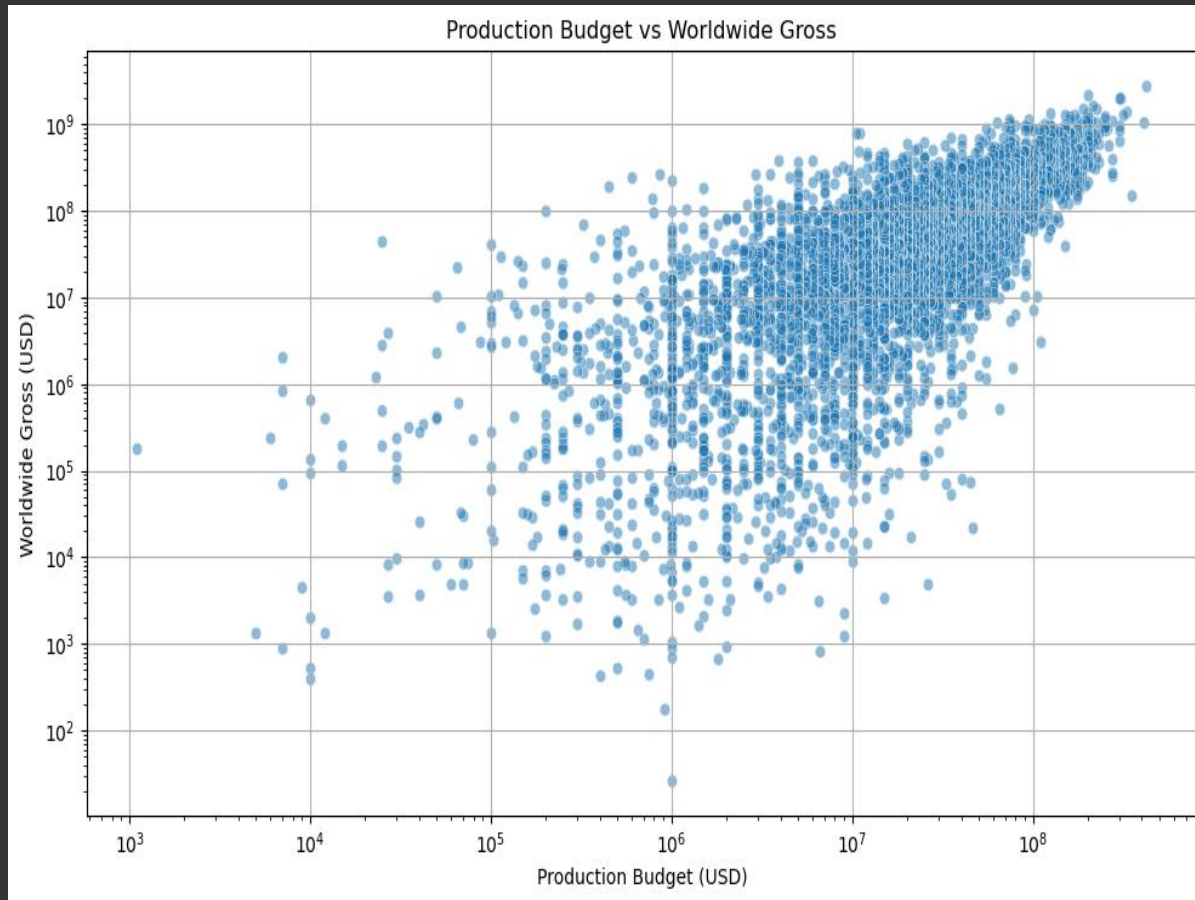
EXPLORATORY DATA ANALYSIS

This section involves the methodology mention above to ensure that the objectives for this project are achieved.

Several Libraries from Python were used to develop visualizations shown in the next section.

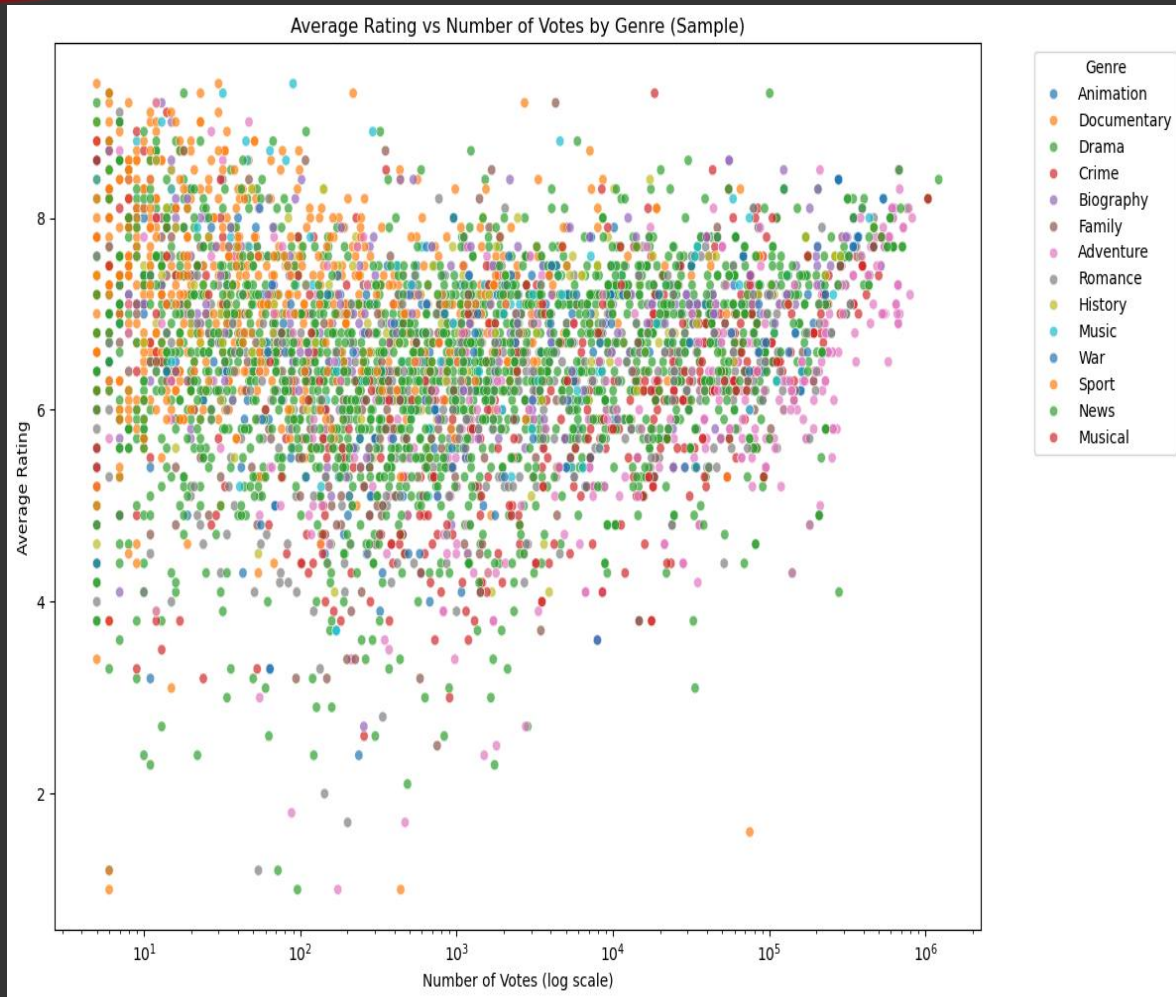


PRODUCTION BUDGET VS WORLDWIDE GROSS REVENUE



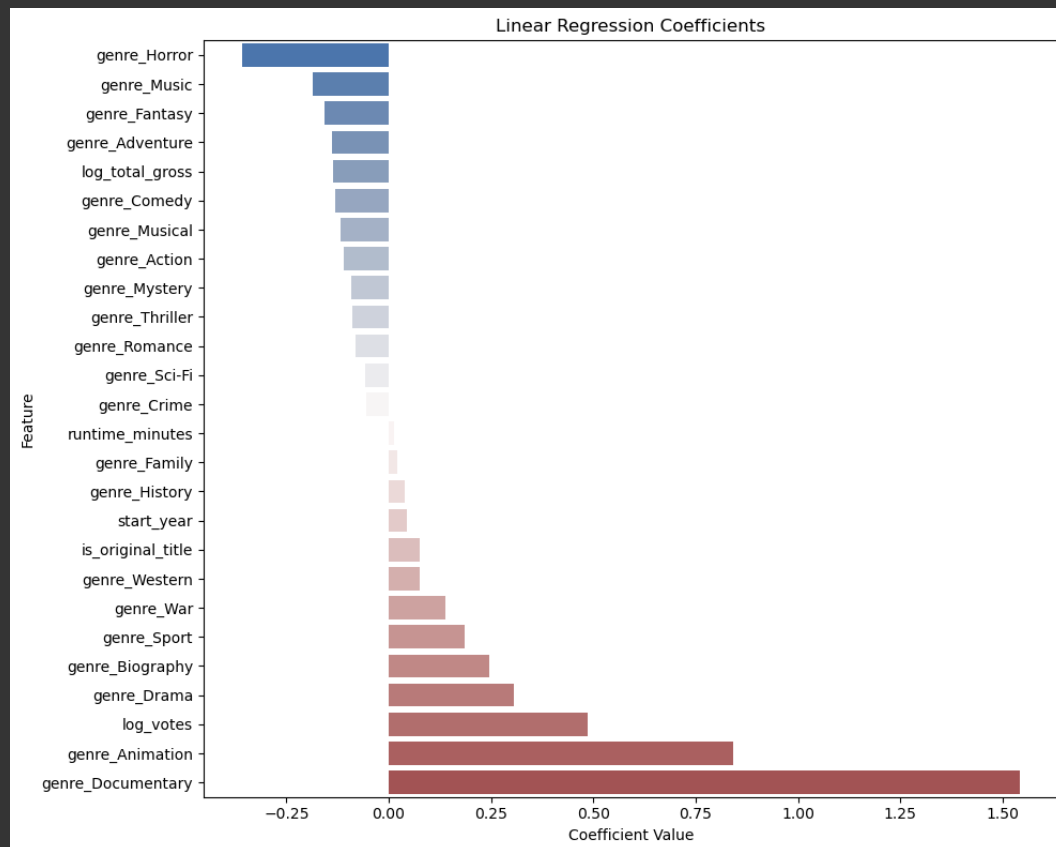
- Generally, there's a clear positive relationship – higher production budgets tend to correlate with higher worldwide gross.
- The plot spans several orders of magnitude for both budget and gross (from thousands to hundreds of millions/billions USD), indicating the trend holds across diverse film scales.

AVERAGE RATING VS NUMBER OF VOTES BY GENRE



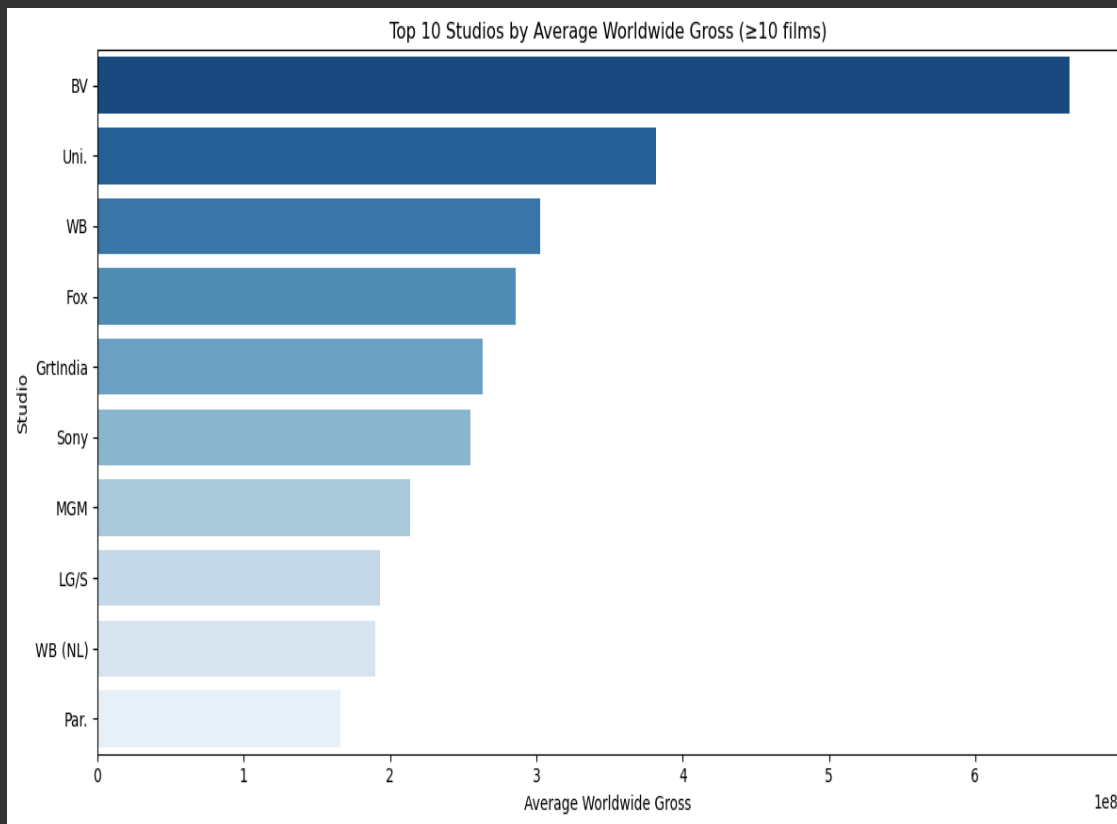
- As the number of votes increases, average ratings tend to converge and are generally higher, clustering above 6.
- The majority of critically well-received films (ratings 7+) have a substantial number of votes, suggesting widespread appeal or recognition.
- Higher vote counts often reflect a more stable and generally positive audience consensus on film quality.

LINEAR REGRESSION COEFFICIENTS



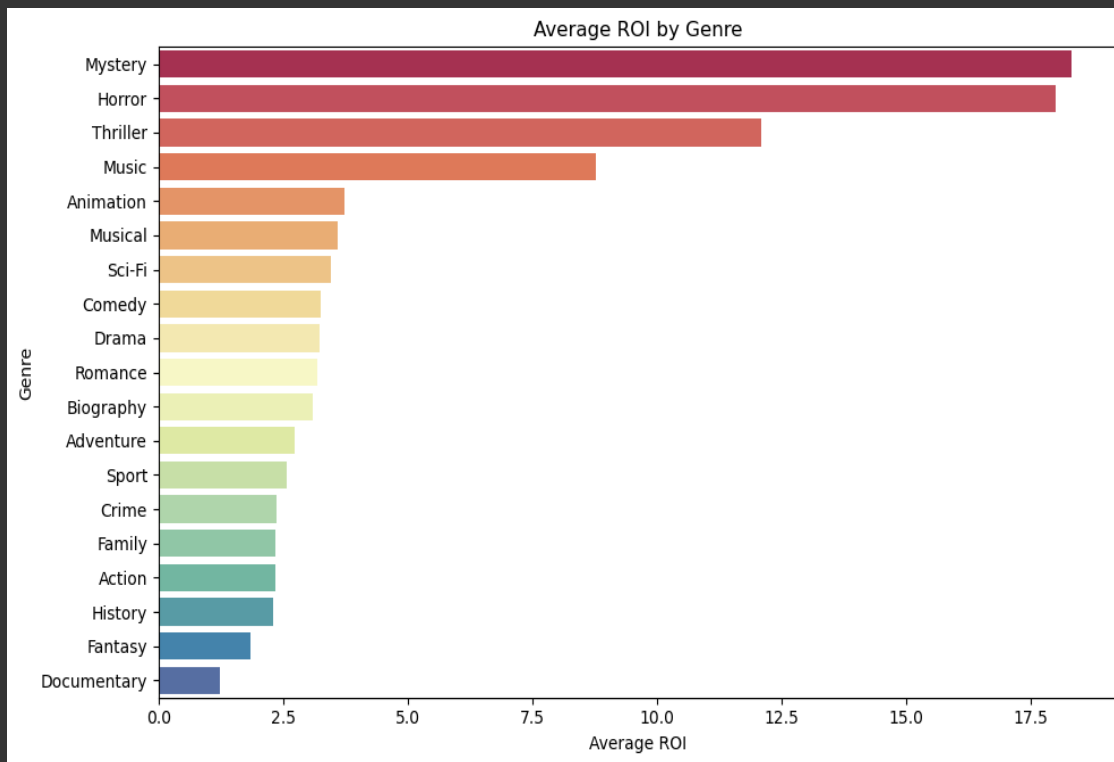
- Different genres have distinct linear relationships with the success metric, ranging from strong positive to strong negative.
- Features like runtime minutes, start year, and is_original_title have coefficients close to zero, indicating minimal linear influence on the predicted outcome.

TOP 10 STUDIOS VS AVERAGE WORLDWIDE GROSS



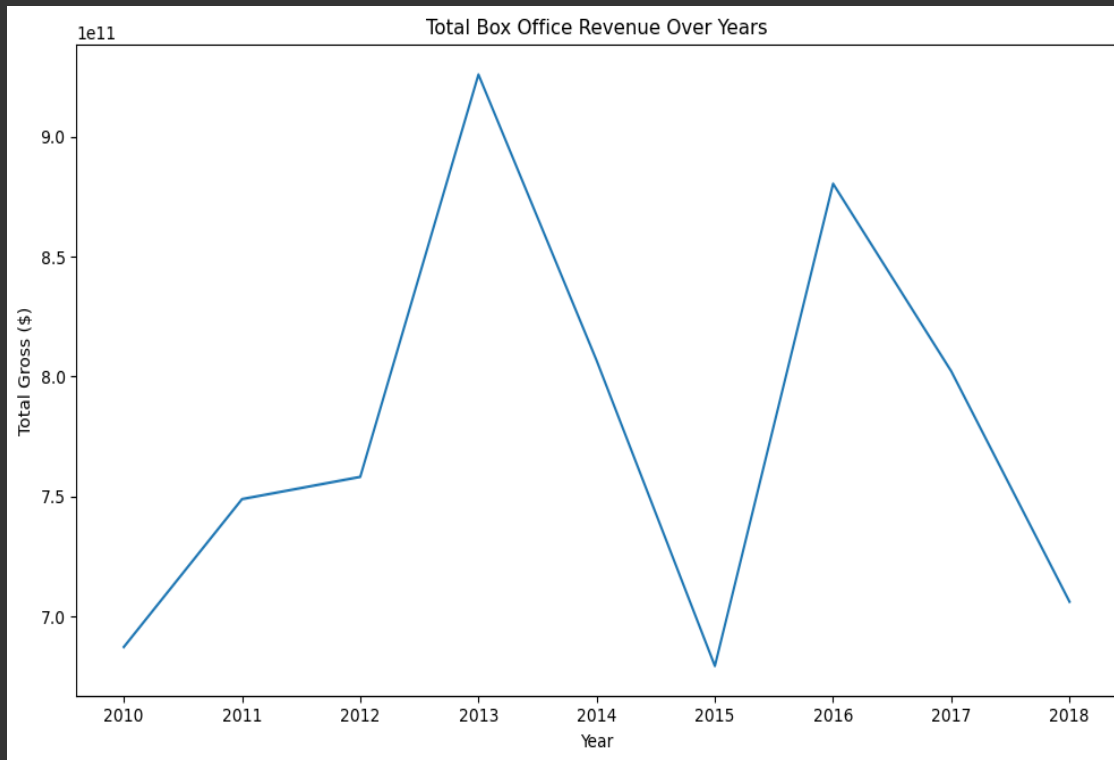
- Buena Vista leads by a significant margin, achieving the highest average worldwide gross among studios with at least 10 films.
- There's a clear hierarchy, with a substantial drop from the top-performing studio (BV) to the second (Uni.) and subsequent studios.
- The data considers studios with ≥ 10 films, indicating these studios have achieved high average gross over a consistent body of work, not just a single hit.
- The average gross figures highlight which studios consistently deliver high-earning films, informing potential partnership or investment strategies.

REVENUE DISTRIBUTION VS GENRE



- There's a substantial difference in average ROI between the most profitable and least profitable genres, highlighting varying financial risks and rewards.
- This analysis strongly suggests that investing in Mystery, Horror, Thriller, and Music genres could yield higher financial returns on average.

TOTAL BOX OFFICE REVENUE OVER TIME



- Total box office revenue has shown considerable year-to-year volatility, with no consistent upward or downward trend over the decade.
- The fluctuating pattern suggests the box office is susceptible to various factors such as film quality, economic conditions, and changing audience viewing habits and technology dynamics.

RECOMMENDATIONS

- Prioritize High ROI Films: Focus on lower-budget projects with strong audience appeal to maximize return on investment.
- Diversify content: Given revenue volatility, a diversified genre and release strategy can hedge risk and maintain steady performance.
- Ensure Quality and Audience Engagement: Invest in strong content and marketing to achieve high IMDb ratings and generate significant audience buzz.
- Enter Niche Markets Strategically: Build expertise in specific genres or types of films before attempting broad market penetration.
- Explore co-production opportunities, distribution deals, or content acquisition in major non-Western film markets to tap into their large audience bases.
- Implement Smart Marketing & Distribution: Develop cost-effective and targeted strategies to ensure films reach their intended audience.
- Adventure, Action, Animation, Sci-Fi, and Fantasy consistently demonstrate the highest median worldwide gross across both 2013 and 2016. These genres also contain the majority of the highest-grossing outlier films.
- "BV" (Buena Vista/Disney) consistently dominates both average worldwide gross per film and total gross, driven by strong franchise development and global marketing. Other major studios like Universal (Uni.), Warner Bros. (WB), and Fox also demonstrate consistent high performance.

RECOMMENDATIONS

- Implement rigorous financial planning for each project. Balance a few larger-budget, high-potential "tentpole" films (likely in the top-performing genres) with more numerous, lower-budget, high-ROI projects to diversify risk and stabilize revenue
- Studios like BV (Buena Vista/Disney), Universal, and Warner Bros. consistently lead in both total gross and average gross per film, often due to their strong IPs, franchise development, and global marketing reach. Therefore focusing on creating high-quality content in popular genres while simultaneously exploring unique IPs, co-production opportunities, or talent-driven projects that offer a competitive edge without requiring immediate mega-budgets is important.
- Consider the global appeal of your film ideas. Develop robust international distribution strategies and marketing plans tailored to diverse markets to maximize worldwide box office potential because the success of top genres and studios relies heavily on worldwide gross, indicating the importance of international markets.
- Preparedness for market dips, and building flexibility into budgets and marketing plans to withstand underperforming years.
- Continuously monitor industry trends, audience preferences, and emerging technologies. Be prepared to adapt production strategies and genre focus based on real-time market data.

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Q & A

THANK YOU

