PHASE 2 - PROJECT

OVERVIEW

Our company plans to launch a new movie studio but lacks the insights to ensure commercial success in a competitive industry. To bridge this gap, we analyzed datasets from **IMDb, TMDb, and The Numbers** to identify trends in **profitable genres, director success, language profitability, and budget efficiency**.

By merging and cleaning these datasets, we created a **comprehensive framework** for data-driven decision-making. Our findings will guide **production strategies, budget allocation, and industry partnerships**, ensuring informed choices that maximize profitability

PROBLEM
STATEMENT

Our company seeks to enter the movie industry by launching a new studio, but lacks the necessary insights to ensure financial success in a highly competitive market. Without a clear understanding of industry trends, we face uncertainty in selecting the **right genres, languages, directors and budgeting strategies** for profitable films.

To bridge this gap, we conducted a **data-driven analysis** using IMDb, TMDb and The Numbers datasets, focusing on key factors that influence box office performance. This analysis will help identify trends in **movie profitability, director success, audience preferences and production strategies**, allowing our company to make informed decisions and maximize returns.

PROJECT OBJECTIVES

❖ Identify **profitable genres** for commercial success.

❖ Assess the impact of **directors and actors** on box office performance.

❖ Determine **seasonal trends** for strategic movie releases.

❖ Validate insights using **hypothesis testing** on key success factors.

❖ Provide **data-driven recommendations** for the movie studio to maximize the chances of making a profit.

KEY FINDINGS FROM THE DATA

- ✓ Profitable Genres: Adventure, Animation, and Sci-Fi movies yield the highest average profits.

- ✓ Language Impact: Movies in English generate strong financial results.

- ✓ Director Influence: Hiring top-rated directors significantly boosts profitability.

- ✓ Budget Strategy: High-budget films generally perform well, but strategic allocation is crucial.

- ✓ Seasonal Performance: We noted the high profits are gotten during the summer months of May, June and July .Certain months like December also tend to be more profitable.

FINDINGS IN INSIGHTS (HYPOTHESIS TESTING)

➢ Top-rated directors generate higher profits (statistically significant)

➢ Popular movies make more money—investment in advertising and casting is crucial.

➢ Highly rated movies tend to earn higher profits, balancing entertainment and quality.

CONCLUSION

- ❑ **Popularity drives profits**: A movie's popularity is the strongest predictor of its commercial success. The studio should invest in marketing, promotions, and casting actors with large social followings.
- ❑ **Quality matters**: Higher-rated movies significantly outperform lower-rated ones. Invest in:
  High-rated directors
  Award-winning actors
  Strong scripts or adaptations from high-quality source material
- ❑ **Top directors yield modest gains**: Hiring highly-rated directors improves profitability, but the effect size is small (0.31). Focus on a balanced team.
- ❑ **Timing of release**: Summer months — May, June, July — tend to see higher average profits. Plan releases accordingly.
- ❑ **Profitable genres**: Stick to genres with the highest mean profits: Adventure, Animation, Sci-Fi, Musical, Fantasy, Sport, Action.
- ❑ **Go animated:** Animated movies had consistently higher profits. Prioritize projects in this category.
- ❑ **Stick with English**: Due to dataset limitations and target market considerations, produce films in English.

RECOMMENDATIONS

- ✓ FOCUS ON PROFITABLE GENRES – PRIORITIZE ADVENTURE, ANIMATION, AND SCI-FI FOR HIGHER RETURNS.

- ✓ WORK WITH TOP TALENT – HIRE RENOWNED DIRECTORS AND POPULAR ACTORS TO BOOST SUCCESS.

- ✓ OPTIMIZE BUDGET ALLOCATION – EFFICIENT SPENDING ENSURES PROFITABILITY—INVEST STRATEGICALLY.

- ✓ TARGET HIGH-PROFIT LANGUAGES – ENGLISH, RUSSIAN, AND CHINESE FILMS PERFORM BEST GLOBALLY.

- ✓ STRATEGIC RELEASE DATES – LAUNCH MOVIES IN MAY AND DECEMBER FOR MAXIMUM REVENUE.

- ✓ INVEST IN MARKETING – INCREASE MOVIE POPULARITY TO DRIVE FINANCIAL SUCCESS

- ✓ BALANCE QUALITY & ENTERTAINMENT – ENSURE HIGH RATINGS WHILE APPEALING TO A BROAD AUDIENCE.

FUTURE WORK

o Expand Dataset Coverage – Incorporate more international films to balance the dataset beyond Western markets.

o Deeper Genre Analysis – Investigate subgenres within Adventure, Sci-Fi, and Animation for more precise insights.

o Audience Demographics Study – Analyze viewer preferences across different age groups and regions.

o Streaming vs. Box Office Performance – Compare profitability between theatrical releases and streaming platforms.

o Advanced Predictive Modeling – Use machine learning to forecast movie success based on production attributes.

o Marketing Impact Analysis – Study how advertising budgets influence movie popularity and revenue.