Data Driven Insights For a Modern Film Studio

Overview

In this project, we analysed different datasets to explore what patterns contribute to movie success.

Focusing on movie ratings, genres, runtime, gross (domestic,worldwide, foreign), directors, writers and movie titles to guide our original movie production strategy.

Objectives

-To identify what types of films perform best at the box office by analyzing the different datasets.

-To identify the key factors that contribute to a movie's success (e.g. revenue, high ratings, box office success, streaming performance)

-To provide data-backed recommendations for genre selection, ideal budgets and release strategy.

-To build visualizations and models that support strategic decisions for a new movie production company

Business Understanding

In a fast-evolving entertainment industry, our company is venturing into original movie production.
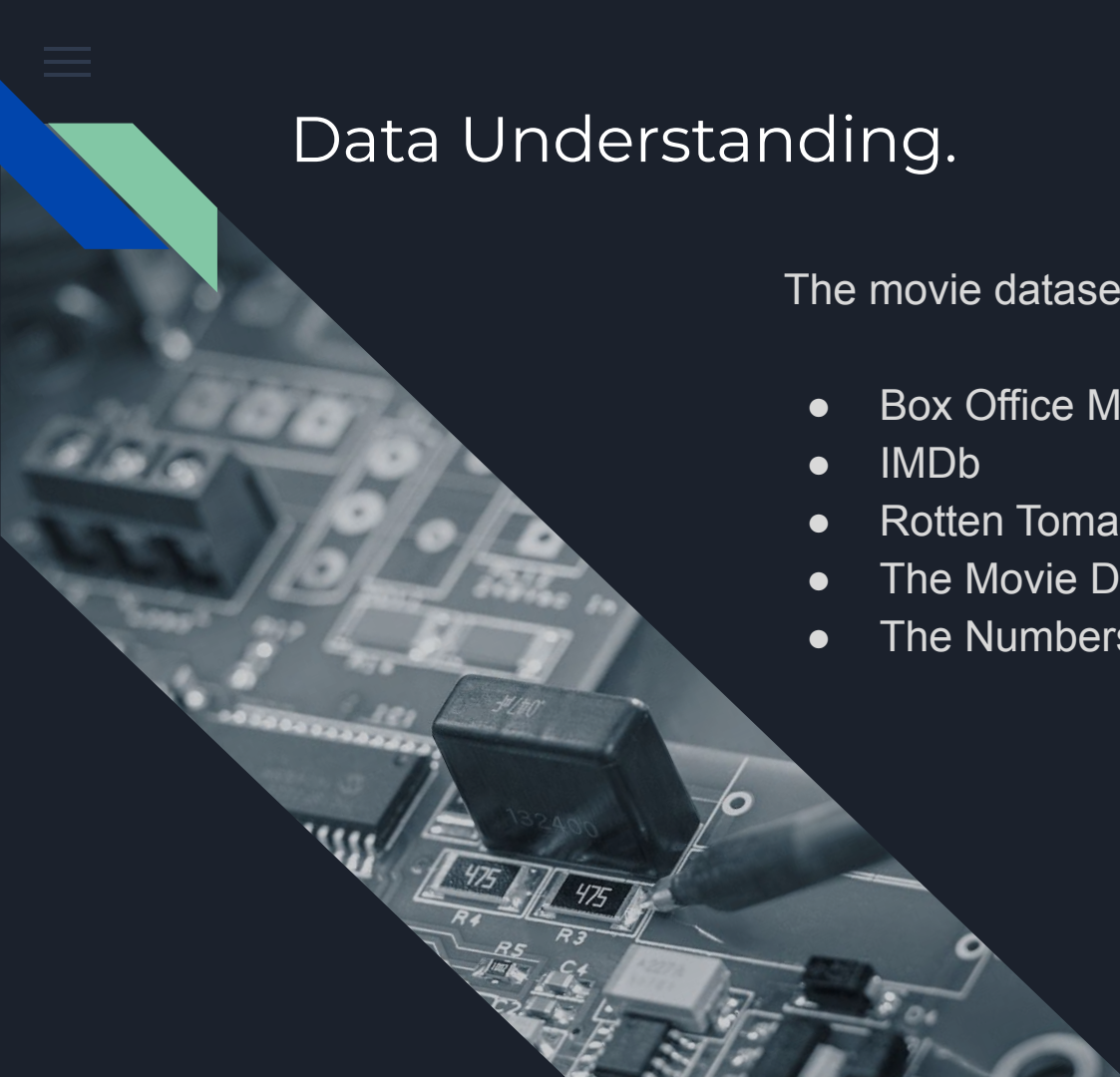
To ensure informed decision-making, we conducted an analysis on provided datasets to uncover patterns in movie success.

This business-driven analysis will directly inform the studio's production strategy, helping minimize risk, maximize audience satisfaction, and compete effectively in a highly saturated entertainment market.

Data Understanding.

The movie datasets are drawn from:

- Box Office Mojo
- IMDb
- Rotten Tomatoes
- The Movie DB
- The Numbers

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In this section we explored the structure, scope, and quality of the datasets used for analysis.

Our data sources included publicly available movie datasets with information on:

1. Movie metadata: genre and runtime.

2. Financial data: production budget, box office revenue

3. Ratings: audience ratings

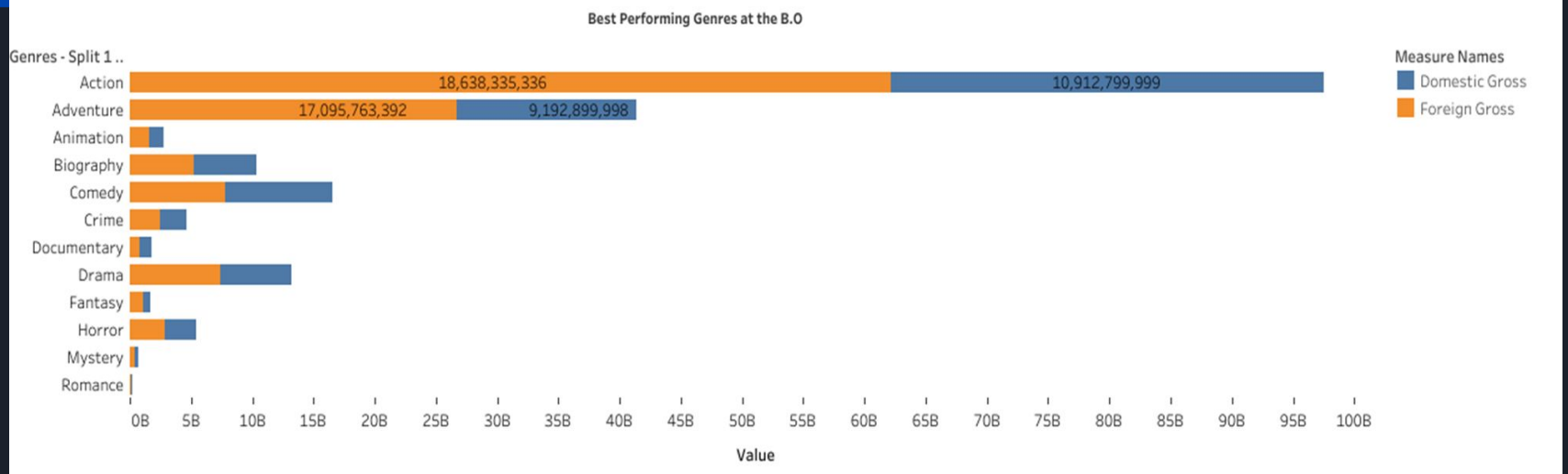4. Streaming availability: release date

Data Analysis

Before analysing we first cleaned the provided datasets by:

- Dropped unnecessary columns
- Filled the null values
- Standardised column
- Convert data types

After cleaning we merged the datasets that had similar columns to create a unified dataset , to prepare the data for exploratory analysis.

Best performing Genres

Best Performing Genres at the B.O

Genres - Split 1 ..		
Action	18,638,335,336	10,912,799,999
Adventure	17,095,763,392	9,192,899,998
Animation		
Biography		
Comedy		
Crime		
Documentary		
Drama		
Fantasy		
Horror		
Mystery		
Romance		

Measure Names
■ Domestic Gross
■ Foreign Gross

Value
0B 5B 10B 15B 20B 25B 30B 35B 40B 45B 50B 55B 60B 65B 70B 75B 80B 85B 90B 95B 100B

Action movies bring more revenue while Romance brings the least revenue.

Average Runtime per Genre

Avg Runtime Per Genre
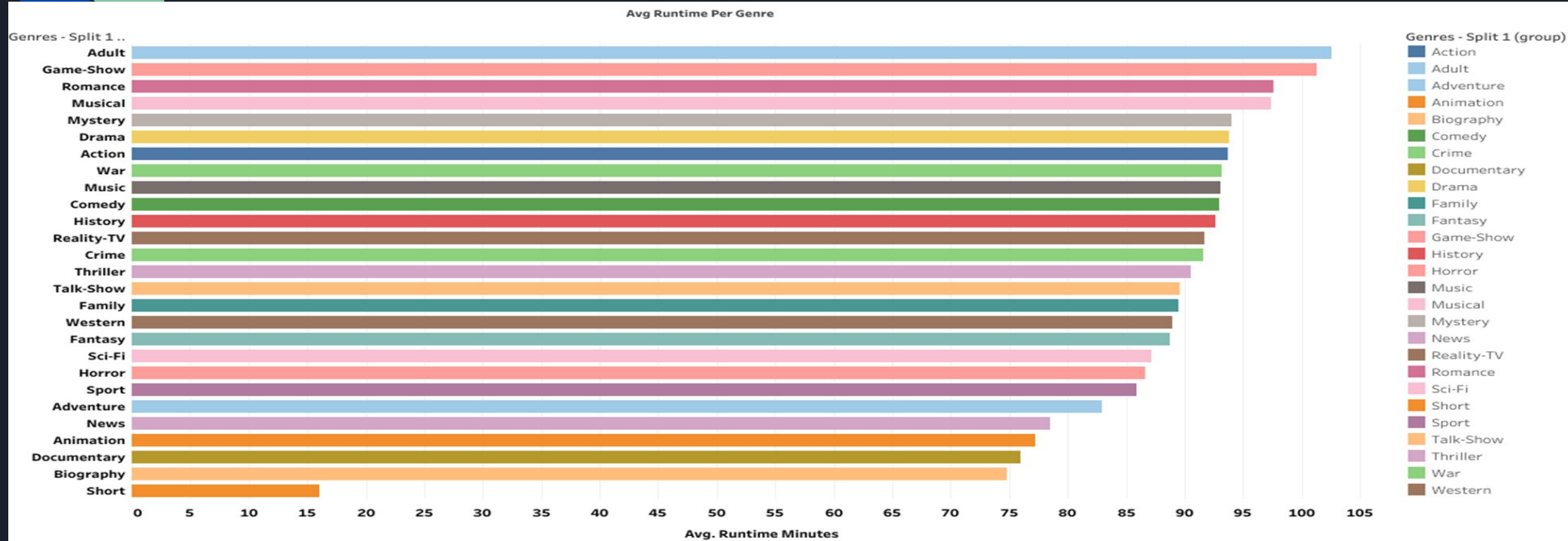
Most Movie Genres have a runtime of 75-120 minutes.
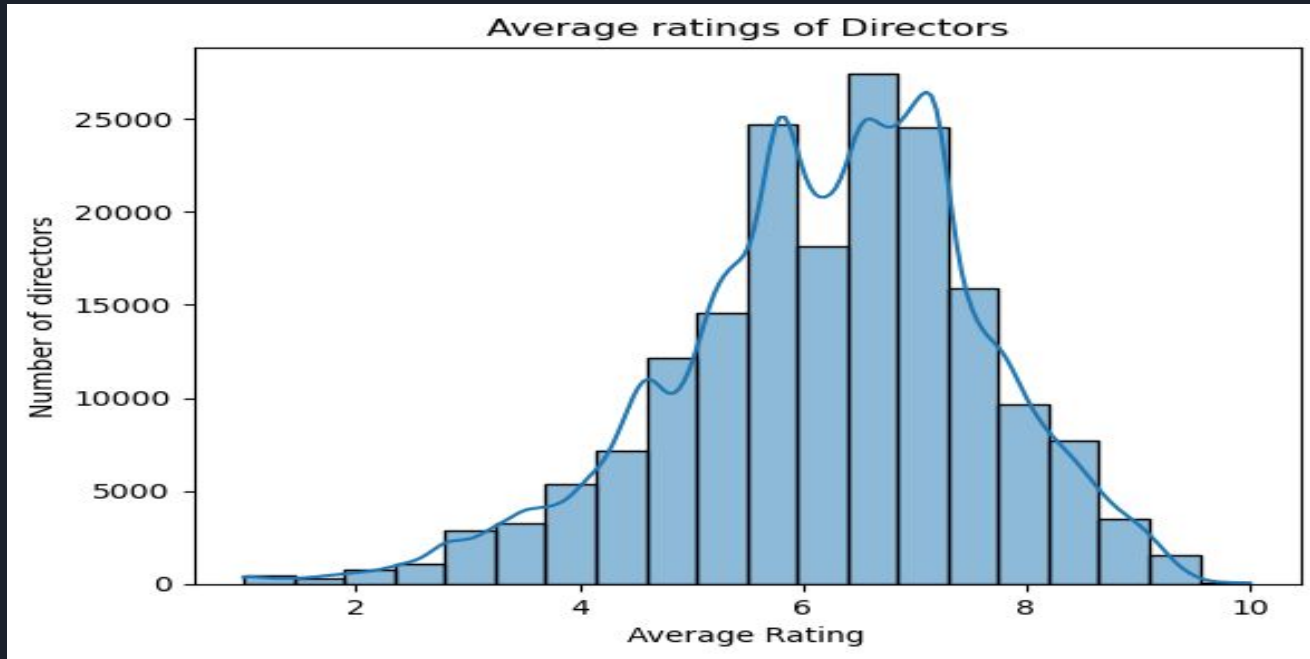
ROI vs Genres

Genres - Split 1 (group)
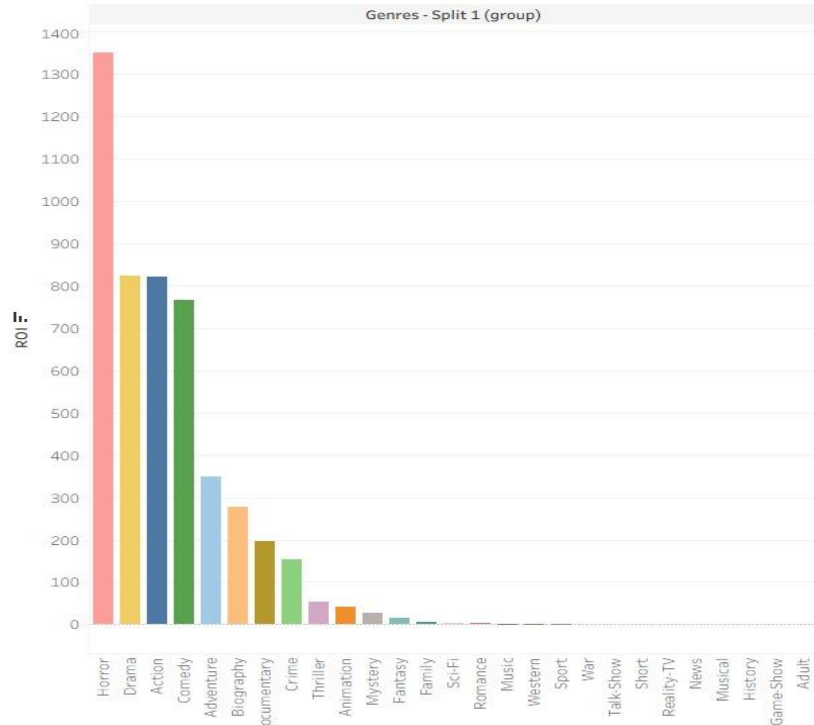
Horror films tend to make more profit compared to how much money is spent making them.

Profit vs Release Month

Average Profit by Release Month
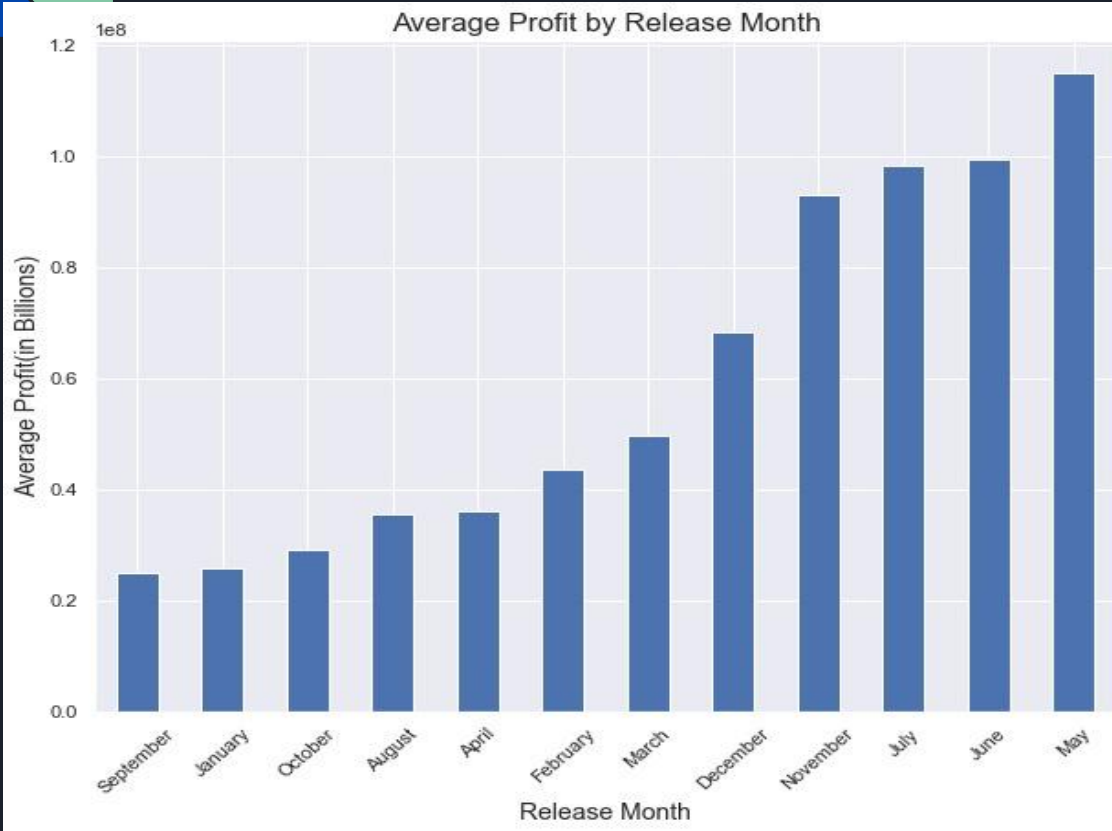
Films released in May tend to make the most profits compared to the other months.

Average Ratings of Directors

Average ratings of Directors

Most Directors had a rating of 6.5 to 7

Recommendation

1. Invest in market research to tailor content for global audiences and consider partnerships for international distribution

2. Improve foreign market strategy (subtitling, cultural adaptations, international trailers) to increase reach and ROI for untapped foreign market potential.

3. Plan major releases around high traffic months to maximize exposure and potential earnings.

4. Target the 90 to 120 minutes runtime.

Recommendation

5. Focus on creating films for specific audiences.

6. Consider the best Directors and writers with the highest viewer ratings to target better success potential

7. Explore underutilized months for release of films to increase a films chances of financial success.

Next step

1. Conduct Deeper Analysis

- Perform feature selection for modeling.

- Explore predictive modeling (e.g., profitability, ROI, rating prediction).

2. Expand analysis to include streaming performance and include the detailed audience engagement.

3. Develop a genre-performance matrix to guide future film development.

THANK YOU

Questions ?