

Microsoft Movies Analysis

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Summary

Analysis of The Numbers and IMDB film data providing insights on the film industry:

- Release Horror/Thriller movies in the Fall for lower risk and moderate financial gain but lower critical success
- Release big budget Action/Adventure films in the Summer for high risk and high financial reward
- Release in slower months to avoid risks of competing with multiple films
- Release longer Biographical/War/Drama films for more critical success

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

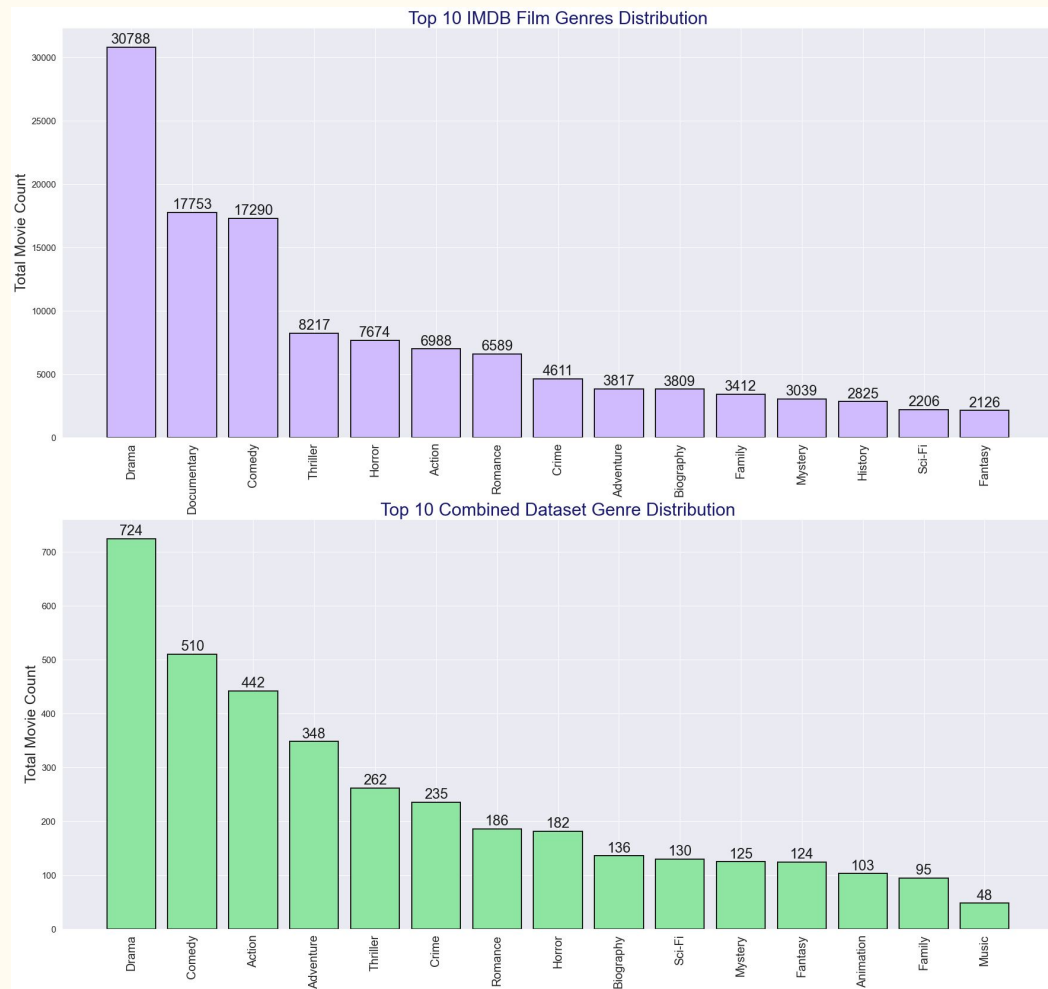
Identify key factors for creating a successful film:

- Genres that produce the best Return on Investment and Gross Revenues
- Genres that have the best ratings
- Months that produce the most financially successful films
- Best time of year to release films

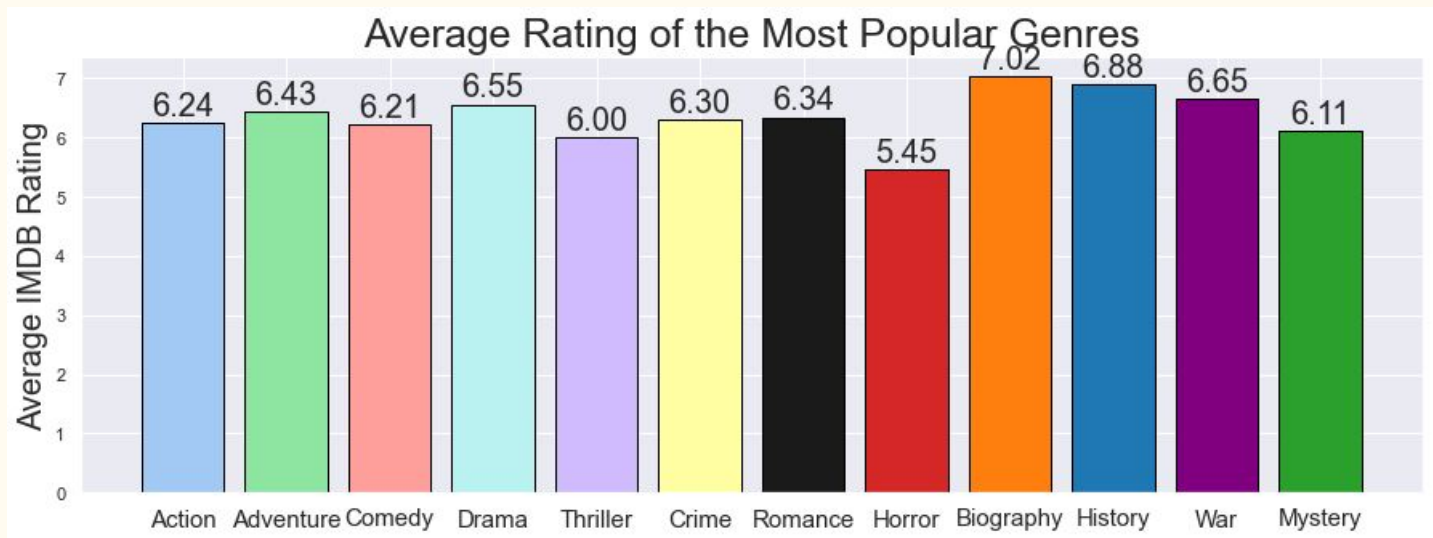


Data & Methods

- IMDB film data from 2010-2019 and The Numbers box office film data
- Separated films with multiple genres into a separate entry for each genre
- Measured film counts by genres and release dates
- Merged the two datasets to analyze genres' average ratings and ROI



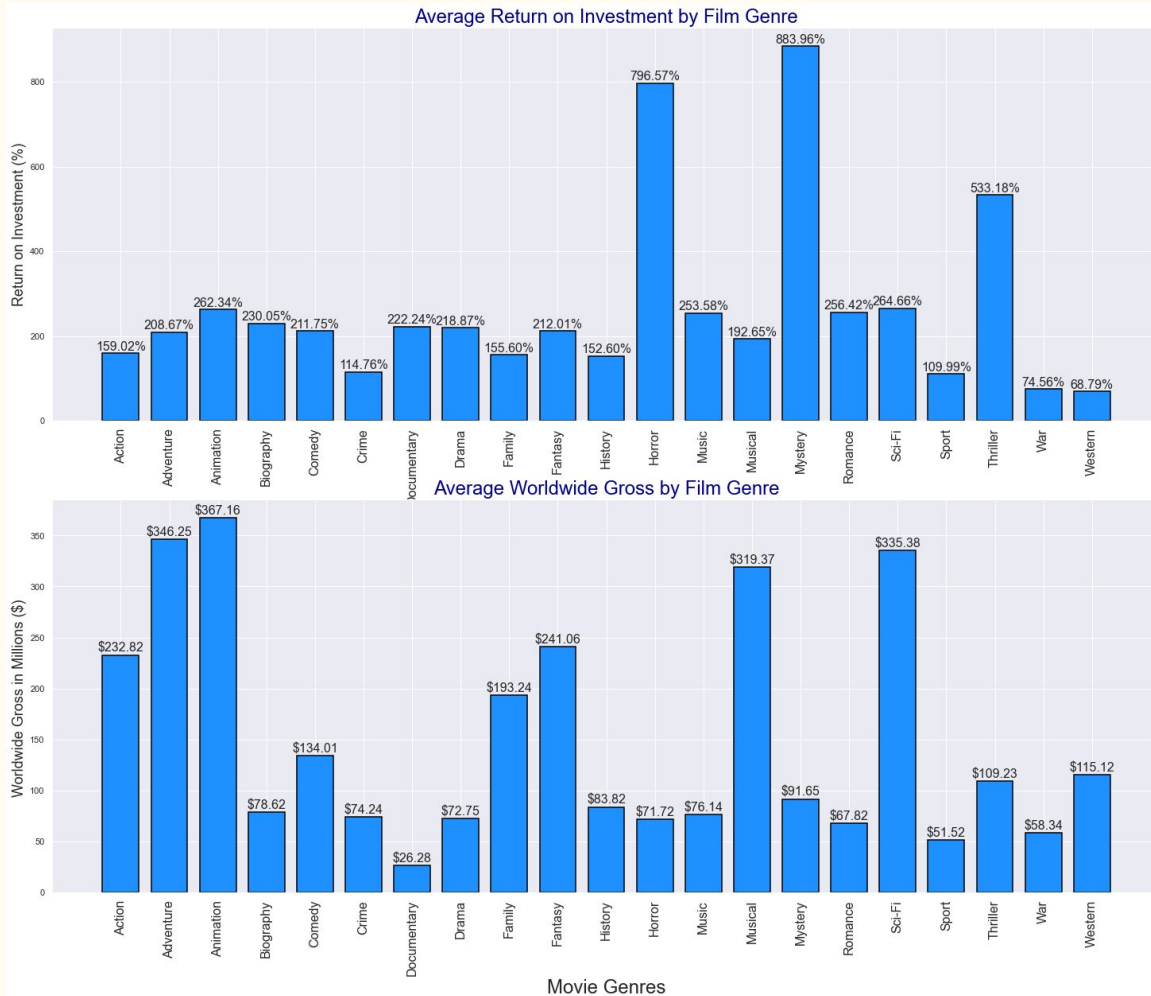
Results



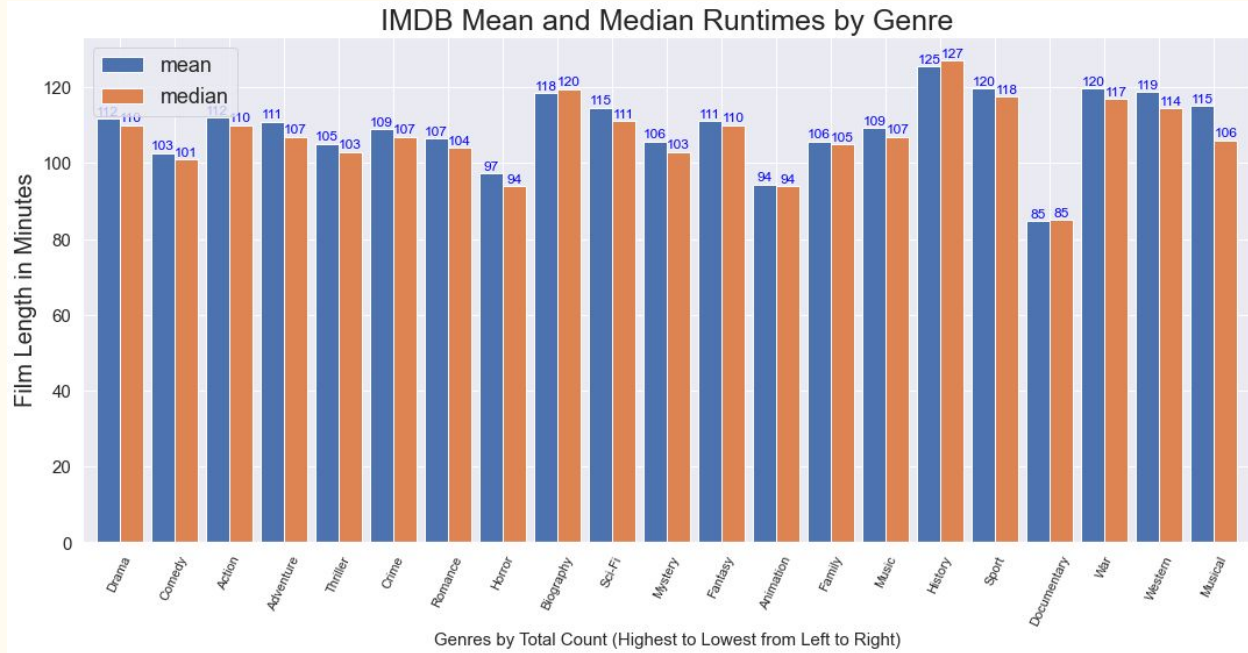
- Biography, History, and War are genres that commonly overlap in a film and perform the best critically
- Horrors typically perform poorly despite their popularity

Results

- Scary movies have very high ROI, but relatively low gross revenues
- Action, Adventure, Animation, Musical genres are typically big budget productions and yield strong revenues



Results

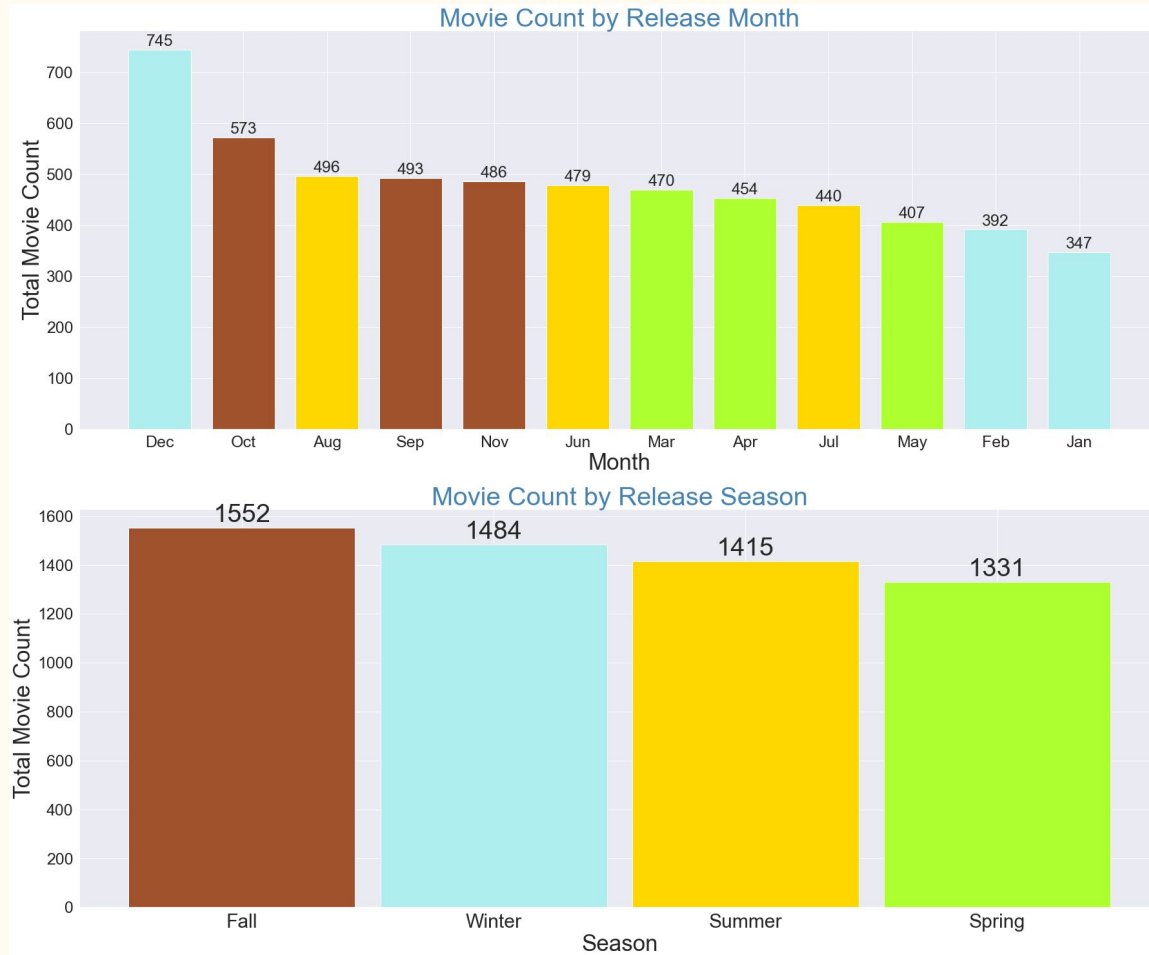


Possible correlation between film duration and average ratings:

- Scary Movies are a bit shorter than most films and are typically lower rated
- Historical films (Biography, War, Sport, History) are the longest film types and also the highest rated

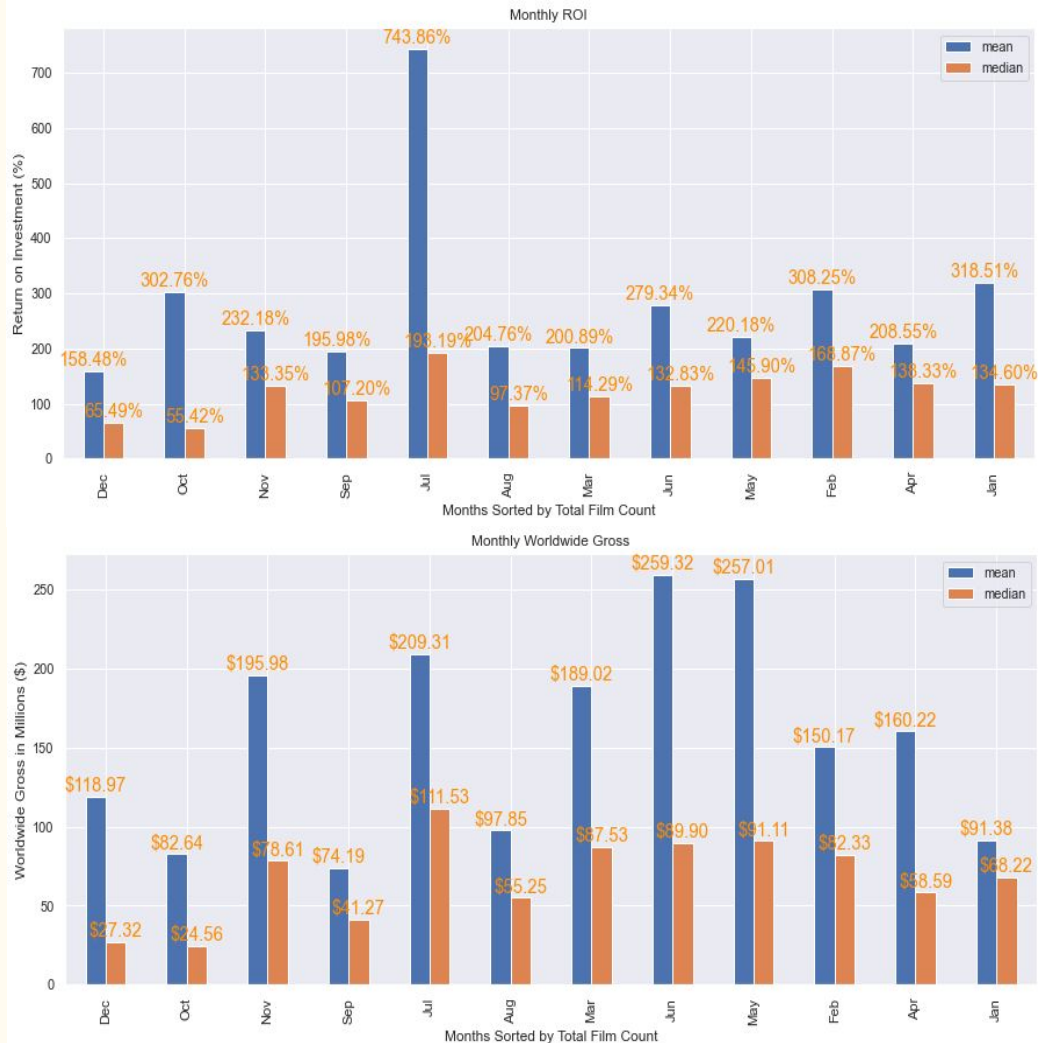
Results

- Most films are released in December

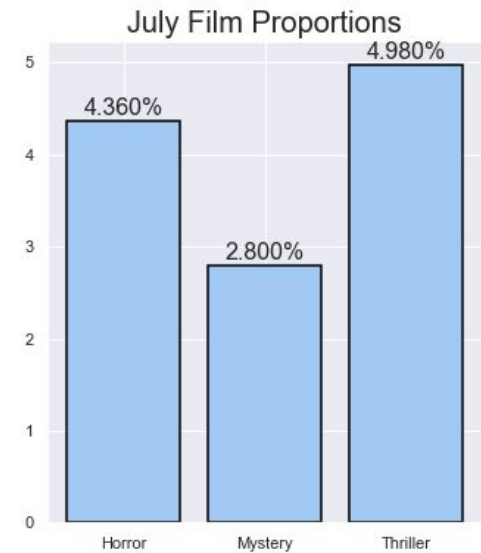
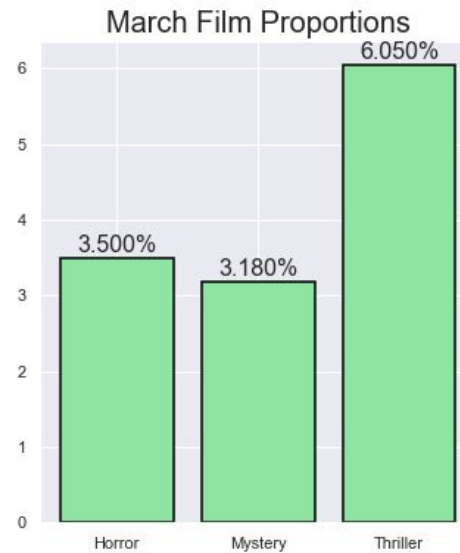
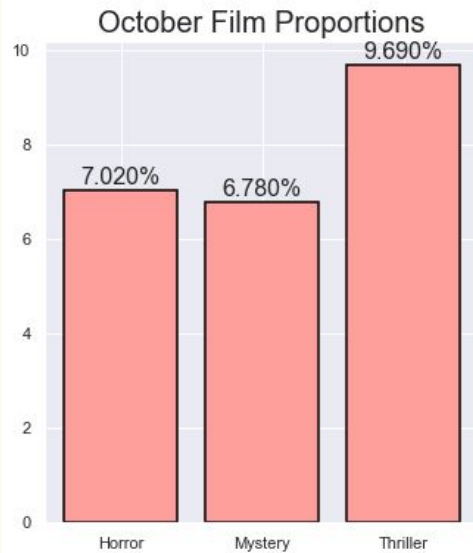


Results

- Despite release frequency, films in December don't perform well
- Films perform fairly well in slower months (Jan, Feb)
- Summer months (May, Jun, Jul) perform strongly



Results



- Average ROI in October is very high, likely skewed by one or two major releases each year
- Scary films are released almost twice as often in October, ahead of Halloween

Conclusions

- Releasing a Horror film in October (low risk, but very high financial reward. likely weak critical success)
- Release a Summer Blockbuster (high risk, high reward). Action/Adventure or Animation/Musical
- Biopics perform well critically but not commercially
- Avoid releasing a film in December

Next Steps:

- Observe actors, directors, writers, other cast and crew with respect to these genres
- Improve modeling using larger datasets
- Improve methods to limit outliers

Thank you!

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