Microsoft Goes To Hollywood



INTRODUCTION



Microsoft Goes To Hollywood

Global box office earnings was \$42.5 billion in 2019.

The creation of Microsoft Studios will create an entirely new revenue stream for the company as well as provide many opportunities to synergize with existing products.

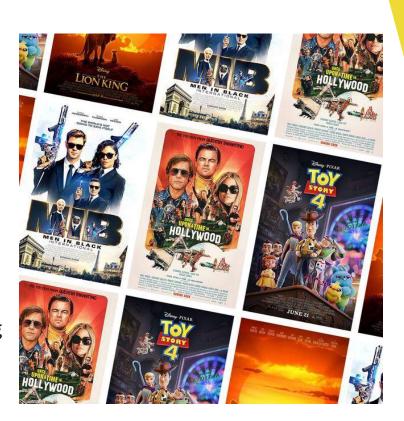
How can we minimize risk and maximize return by using a data-driven production system?



INTRODUCTION

Over the course of this presentation, we will answer the following questions:

- Is there a correlation between a film's budget and its performance at the box office?
- Do films in certain genres perform better at the box office? If so, which genres?
- Is there a relationship between a film's MPAA rating and it's ROI?
- Does a film's runtime affect its worldwide gross?



THE DATA

We analyzed various data points on 2,225 films released in the last 10 years.



The Numbers was also used as a reference to confirm certain aspects of the data. The Numbers is the largest freely available database of movie industry information on the

web.

A majority of the data compiled for this presentation comes from IMDB. IMDB is the "International Movie Database" and is widely considered the ultimate source of film information.

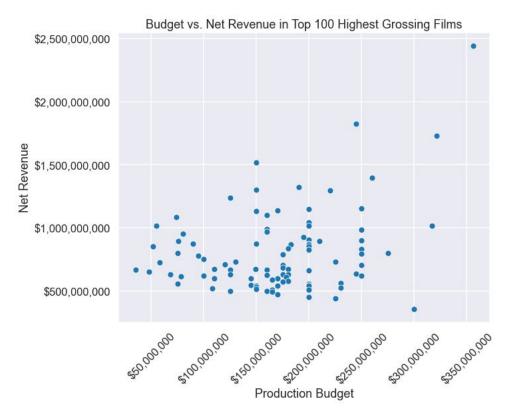


Budget vs.
Revenue

Is there a correlation between a film's budget and its performance at the box office?

BUDGET VS REVENUE



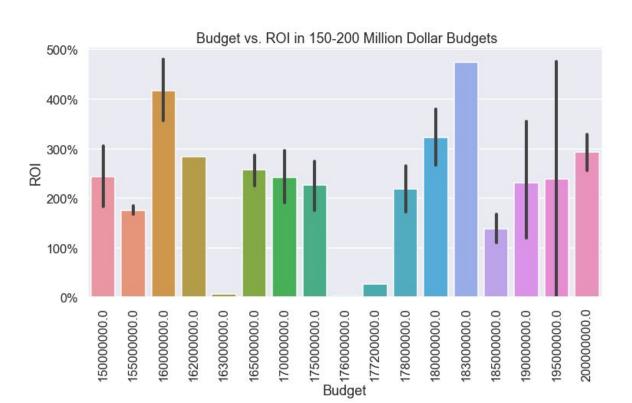


Is there a "sweet spot" between production budget and net profits?

Outside of a handful of "home runs", the largest number of profitable films falls between 150 and 200 million dollars.

BUDGET VS ROI

As we can see in this image, the optimal budget in this range in terms of ROI is \$183 million. This should be our goal budget.



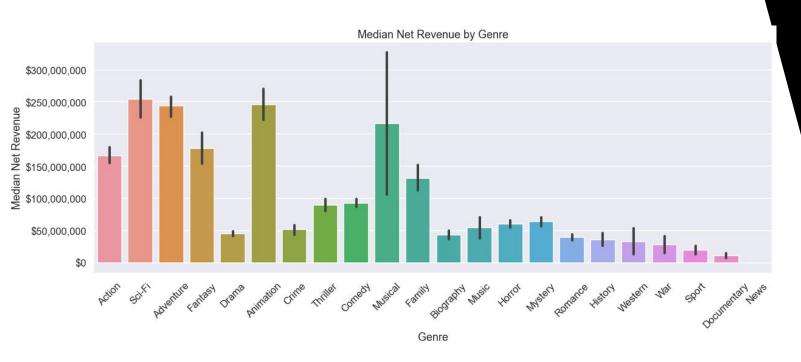
2. Genres

Do films in certain genres perform better at the box office?

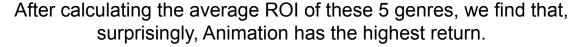
GENRE

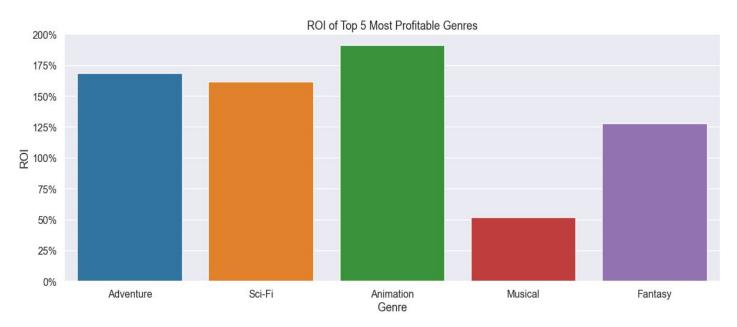


The figure below represents the median net revenue for each major genre over the last 10 years. The highest median net revenues are Sci-Fi, Adventure, Animation, Fantasy & Musical.



GENRE

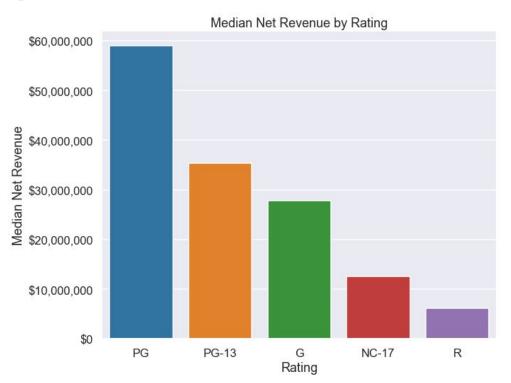




The Rating

Is there a relationship between a film's MPAA rating and its performance?

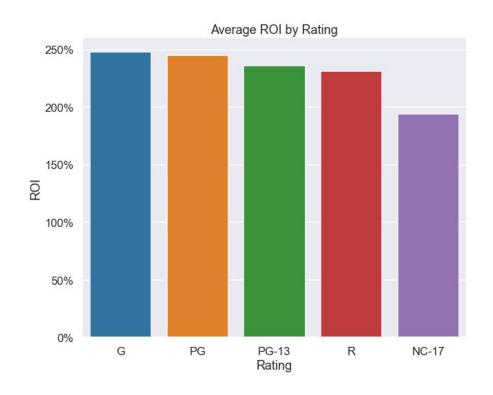
RATING



The figure above represents the median net revenue of movies with particular MPAA ratings over the last 10 years. Films that are rated PG are, on average, the most profitable.



RATING



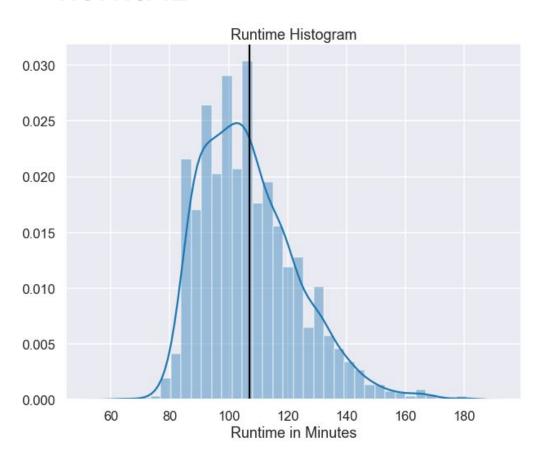
In terms of ROI, we can see that there's little difference in the average ROI between the ratings with G rated movies slightly edging out the others in this category. Therefore, we can still say that making a PG rated movie is the safest bet.

4.
The Length

Does the length of a film affect its worldwide gross?

RUNTIME



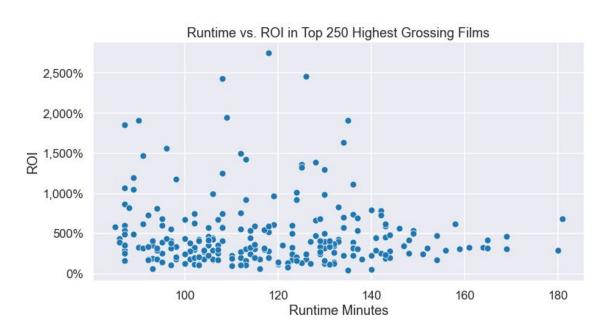


The histogram below shows the range of the runtimes of all the movies in the dataset.

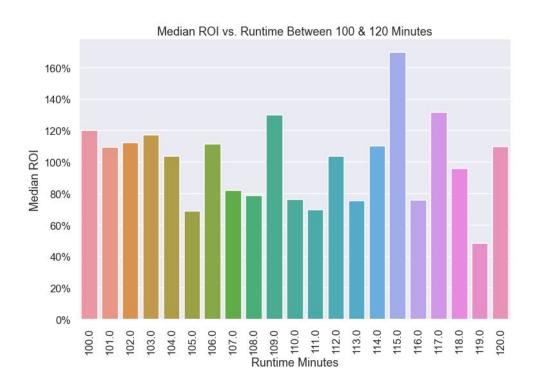
We can see that the runtime of most films falls between 80 minutes and 140 minutes with a mean of 107 minutes.

RUNTIME

The figure below represents the relationship between the length of the top 250 highest grossing movies and each films worldwide gross. Taking a look at the results we see that, while close, the most dense area coincides with the area between 100 and 120 minutes in length.



RUNTIME



To further narrow this down to find the perfect intersection of runtime and ROI, the figure below compares the Median ROI of films with a specific runtime between 100 and 120 minutes.

As we can see, the highest ROI occurs when a film is 115 minutes long.

CONCLUSION

What have we learned?

- The most consistent rate of return occurs when the production budget is \$183 million
- The most profitable film genre is Animation.
- Films with the highest rate of return tend to be rated PG.
- Films should aim to be roughly 115 minutes in length.



CONCLUSION

Our Recommendations:

- The film should be made with a production budget of \$183 million.
- The genre of the film should be Animation.
- This film should be rated PG.
- The film should be 115 minutes in length.







FUTURE WORK

With more time, we can extract even more useful information, including:

Franchises

Are established franchises more of a "sure thing"?

Is it worth investing in an established IP?

Awards

Do major award nominations affect overall earnings? Does acclaim equal dollars?

Streaming

Is it worth exploring creating and producing content for streaming platforms?

THANK YOU



Any questions?

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