



Microsoft

MOVIE STUDIO ANALYSIS

Kelvin Njenga
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Business Understanding

Microsoft sees all the big companies creating original video content and they want to get in on the fun. They have decided to create a new movie studio, but they don't know anything about creating movies.

What to consider when venturing into movie production?



What Genres generate the highest profits?



What is the correlation between Production costs and Worldwide sales?



Profitability trend of movies throughout the years?

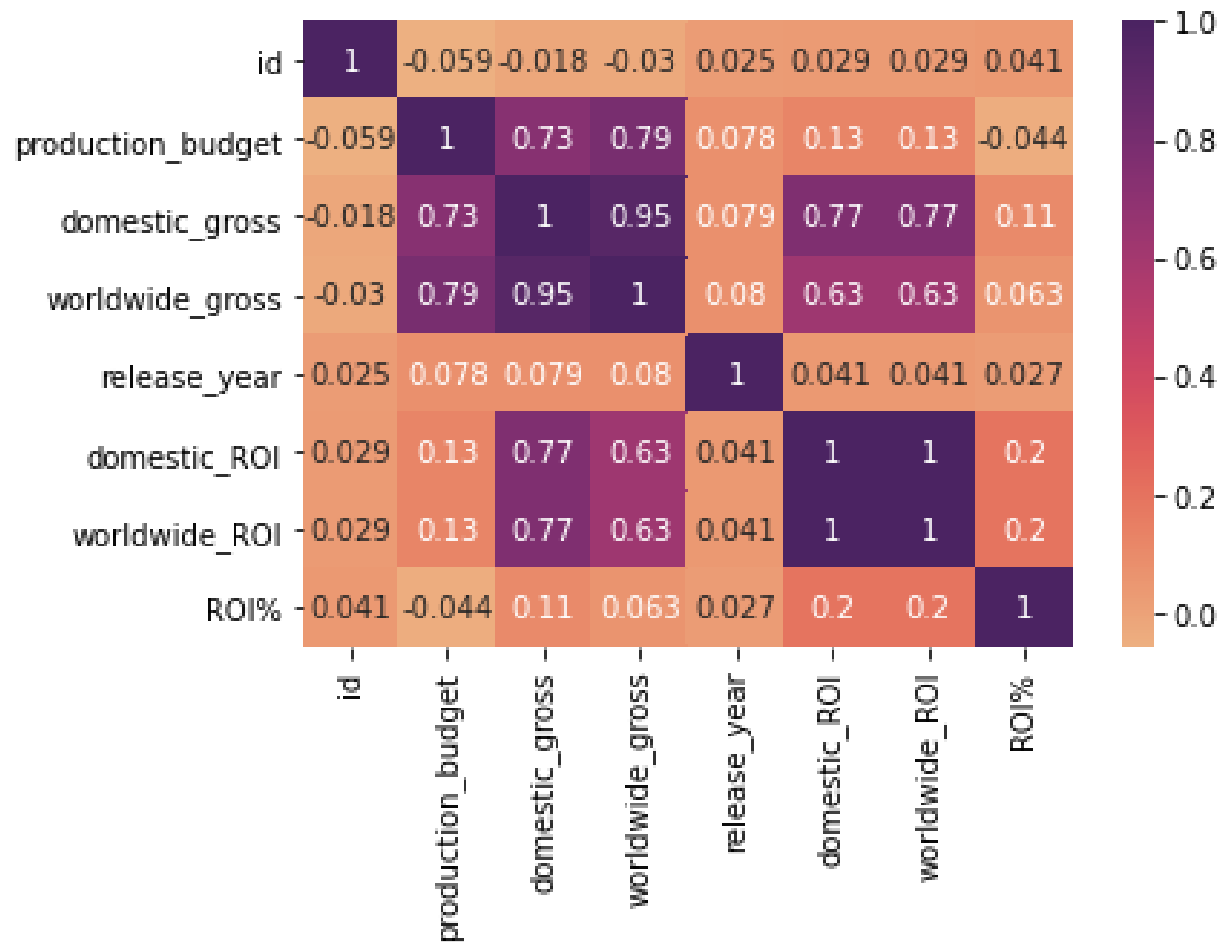


How long should a movie be based on Genres?



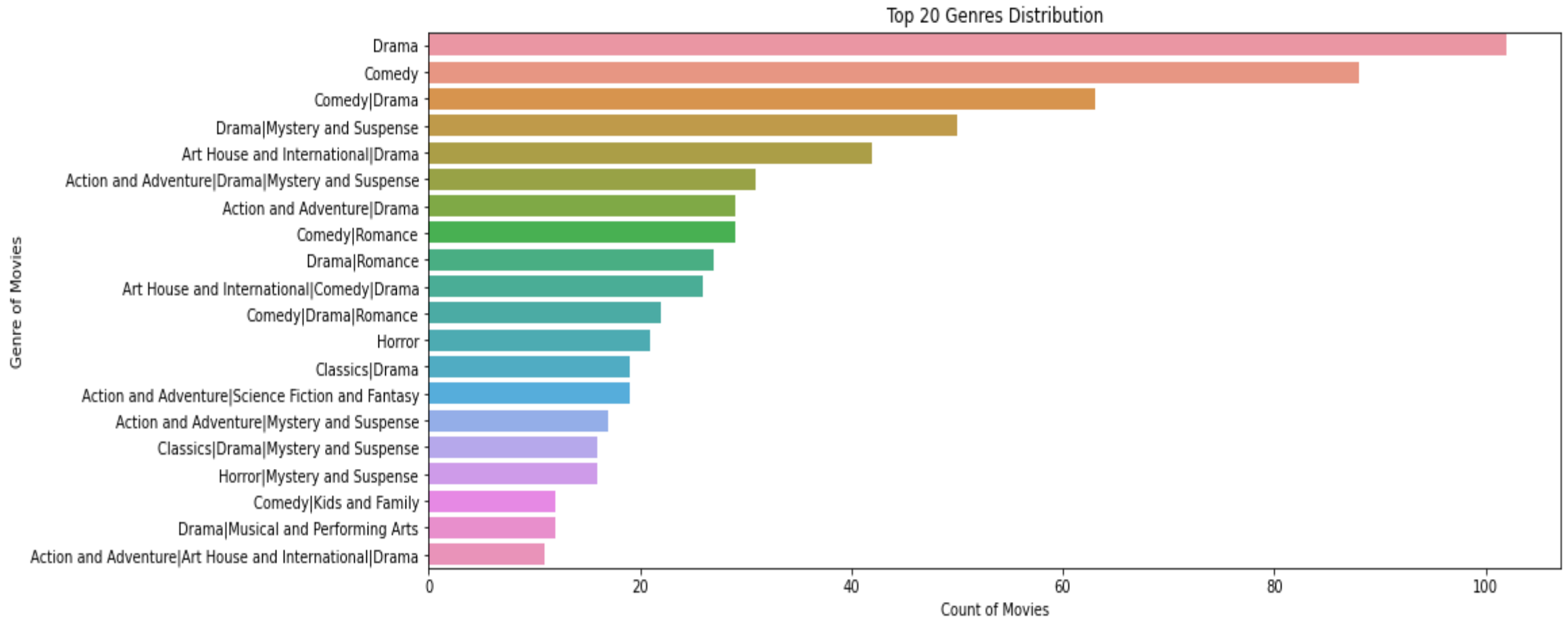
Which Directors/actors to hire based on their hits?

CORRELATION ANALYSIS OF THE VARIOUS FEATURES

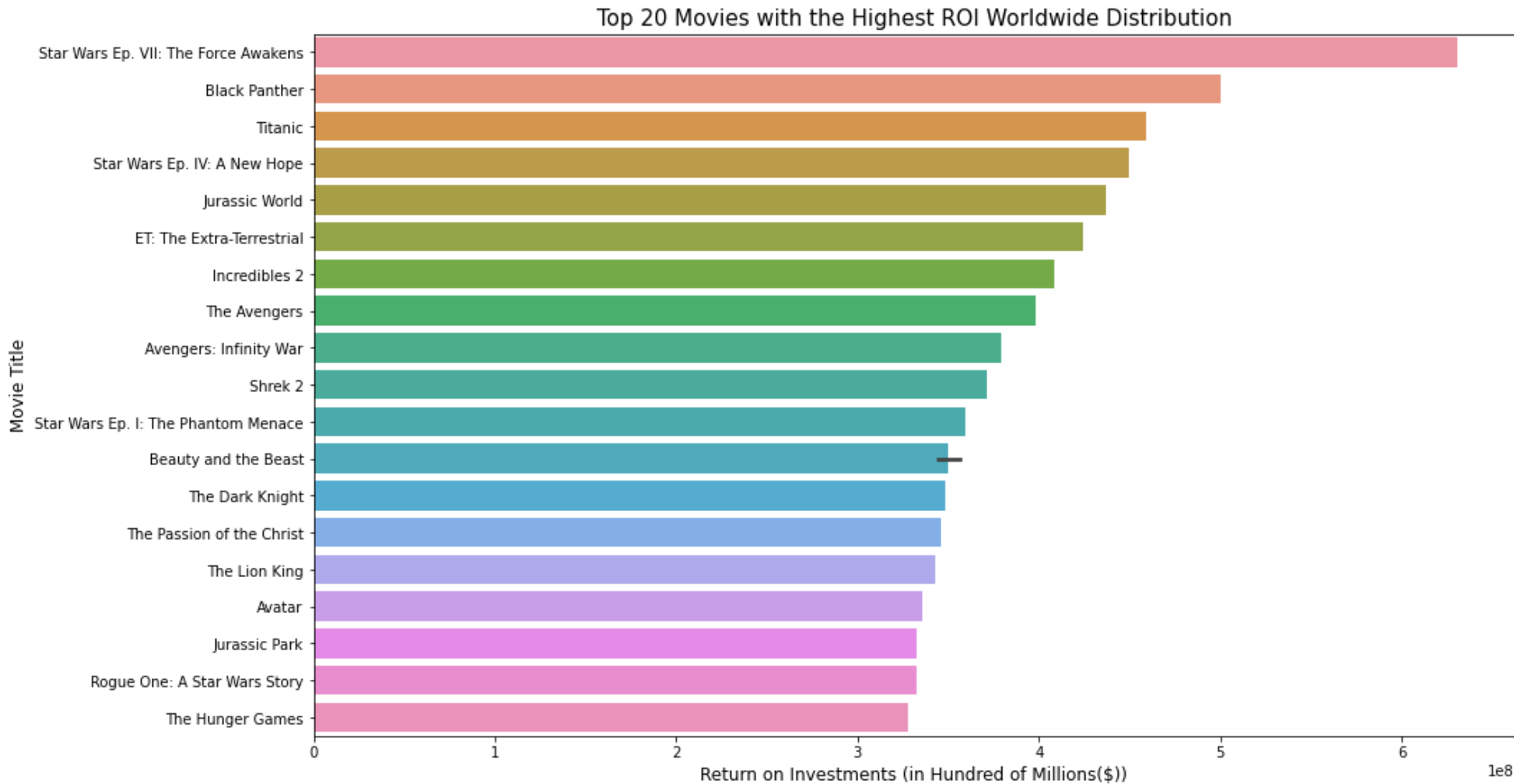


- Values closer to 1 signify a positive relationship
- Increase in production budget leads to an increase in domestic_gross and worldwide_gross respectively
- Focus on the **production_budget**, **domestic_gross** and **worldwide_gross** only.

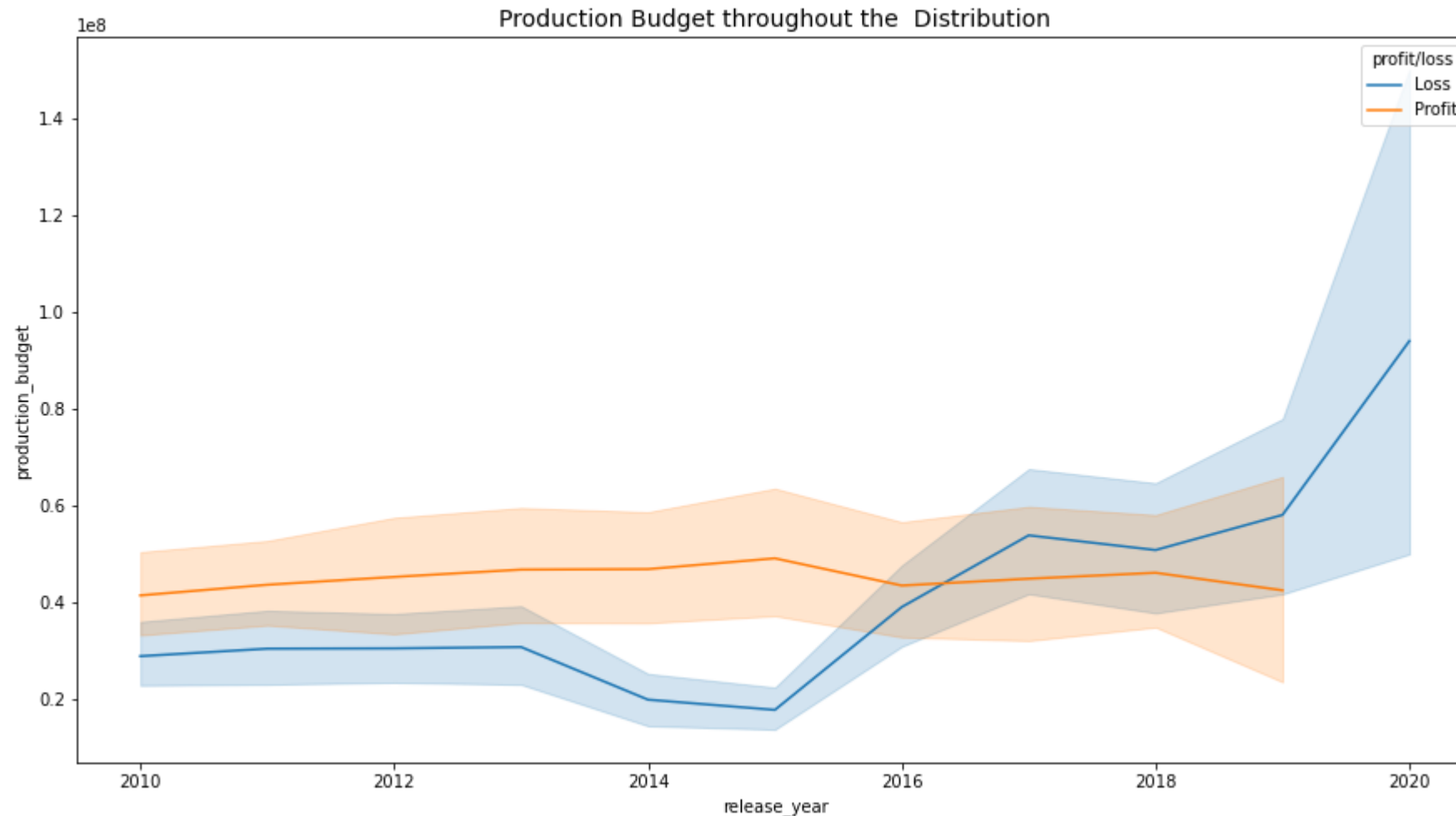
TOP 20 GENRES TO INVEST IN:



TOP 20 MOVIES WITH THE HIGHEST ROI

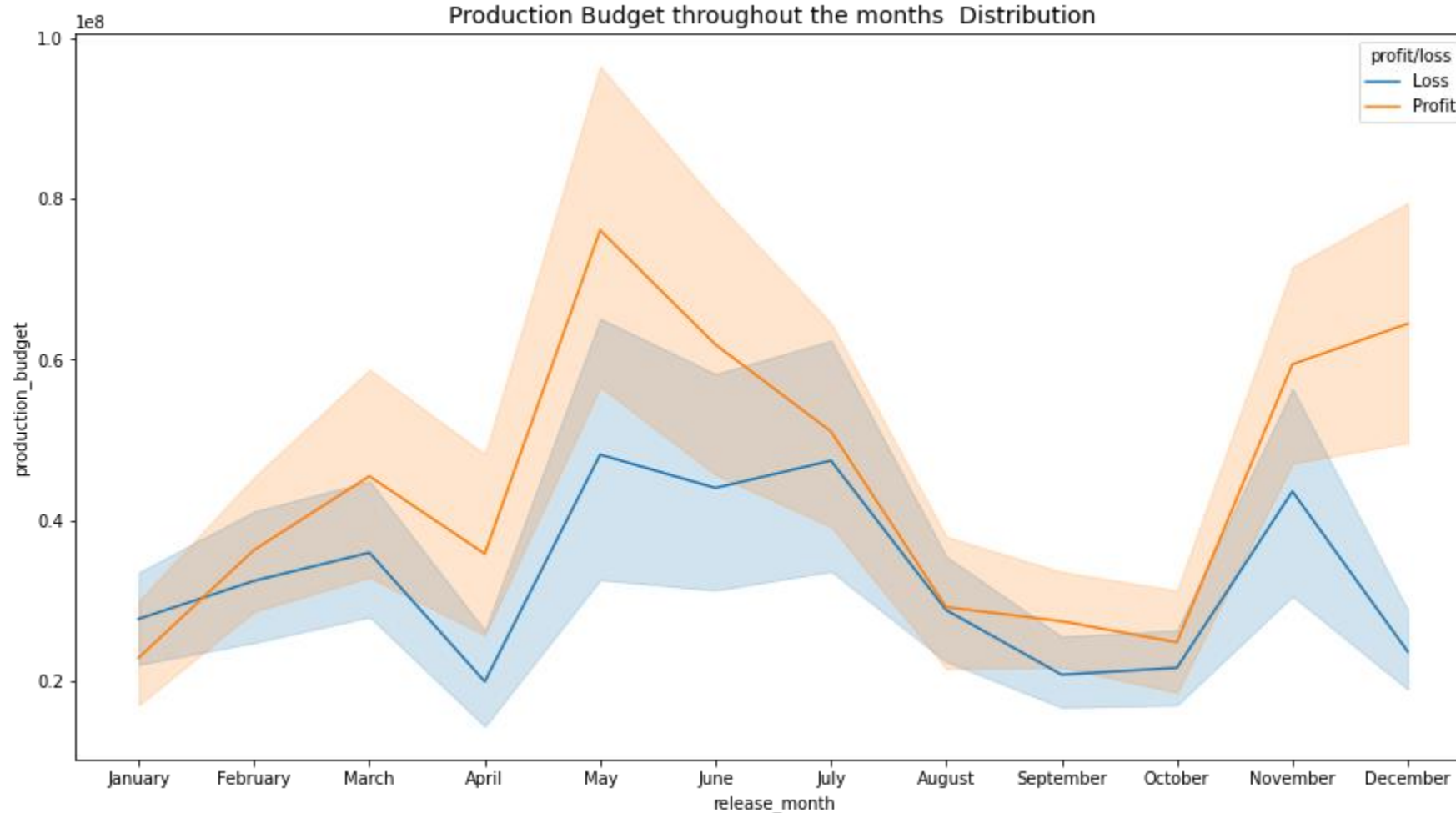


PROFIT AND LOSS TREND ANALYSIS OVER THE YEARS



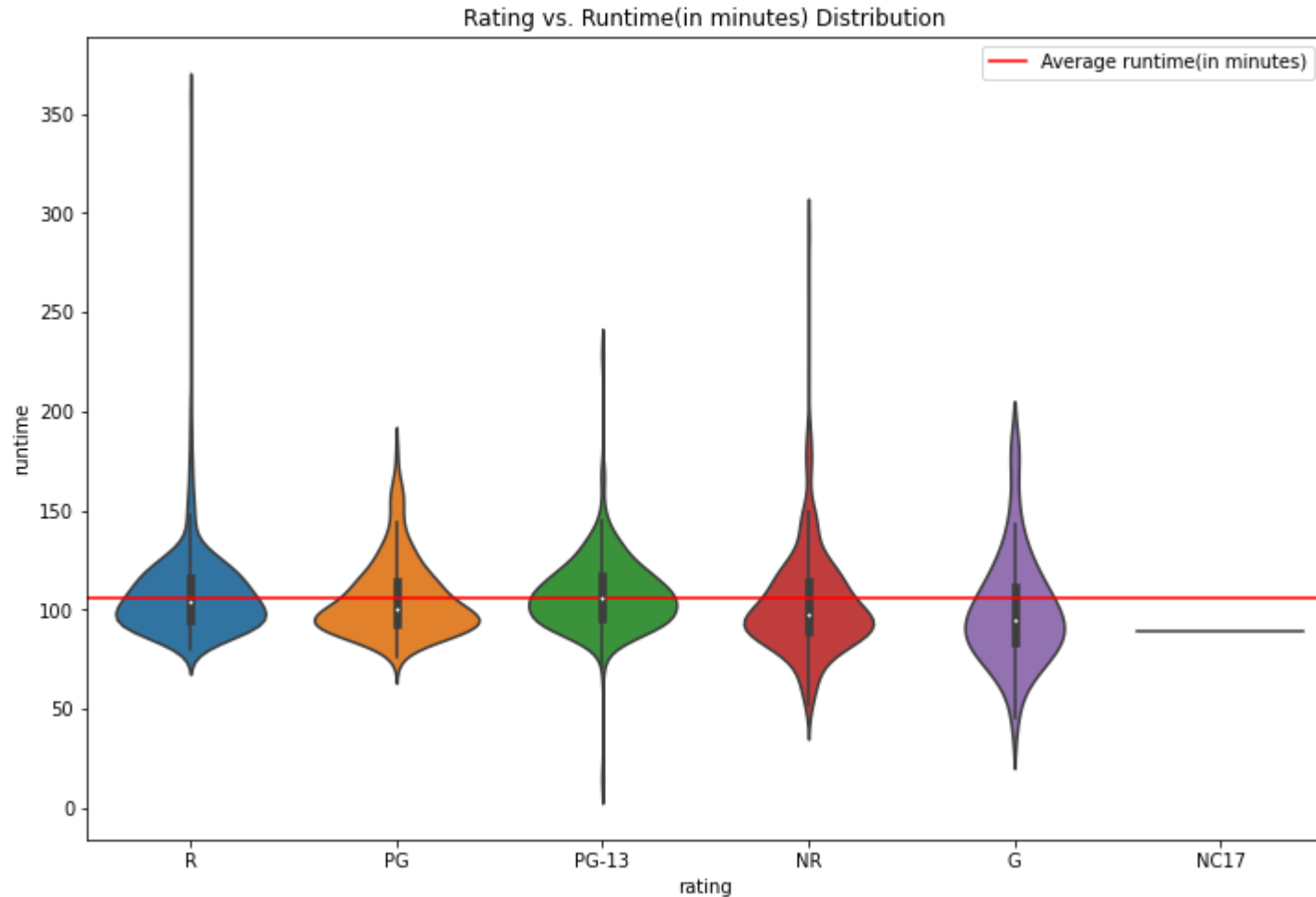
- Since 2010 to 2016 there have been significant profits made by most movie studios
- During 2018 to 2020 there have been significant losses.
- We might need to investigate more on what happened since most films made losses.

PROFIT AND LOSS TREND ANALYSIS OVER THE MONTHS



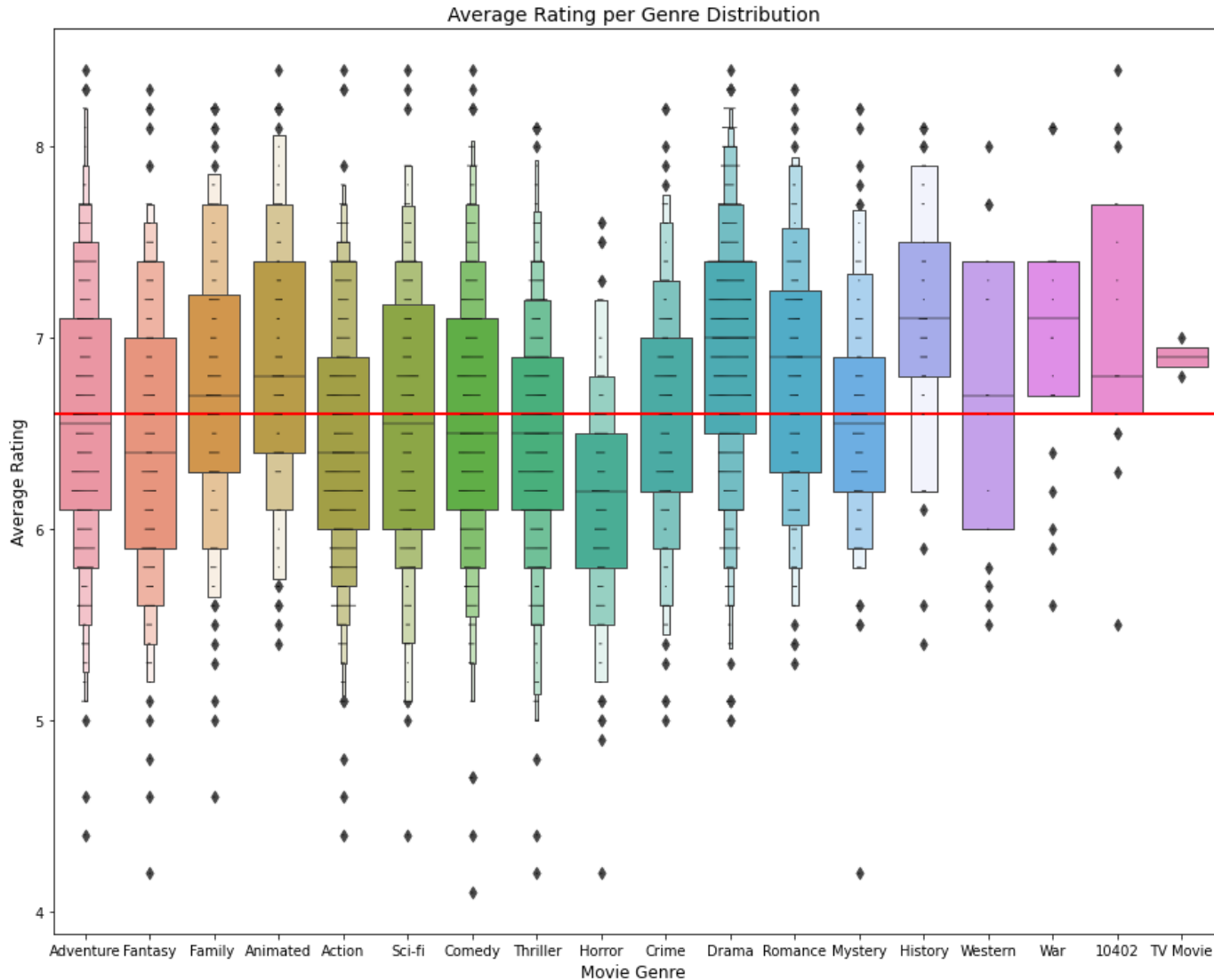
- May and July are the most profitable months to release a movie
- There is a 50/50 % chance that the movie may make losses between May to July

GENERAL RATED MOVIES LENGTH:



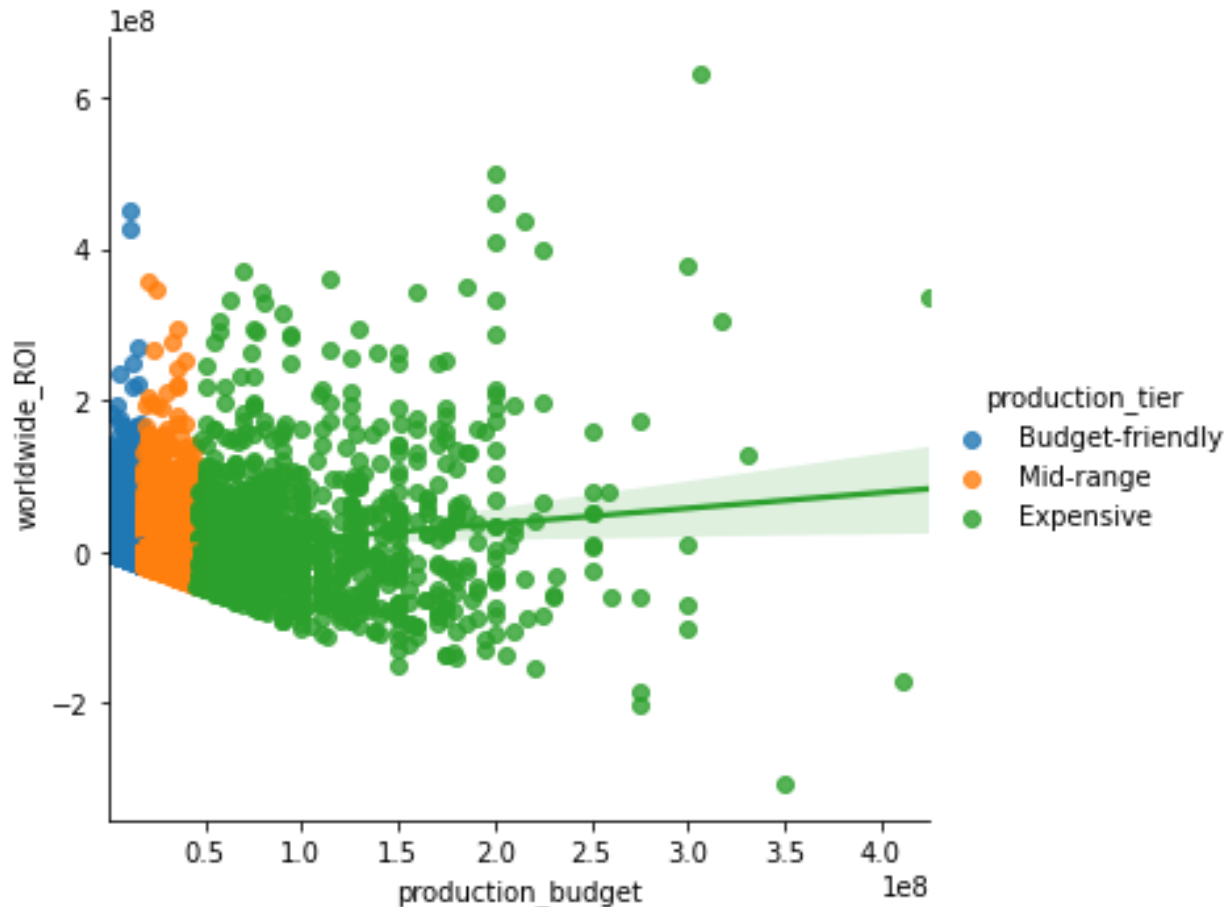
- Majority of the films are 150 minutes long except those rated **NC17**
- Only few movies rated **R** might run for more than 350 minutes
- A few movies rated **G** can run for less than 50 minutes
- Movies rated NC17 are rarely released and if they exist they run for 90 minutes

GENRES TO FOCUS ON BASED ON AVERAGE RATING SCORES



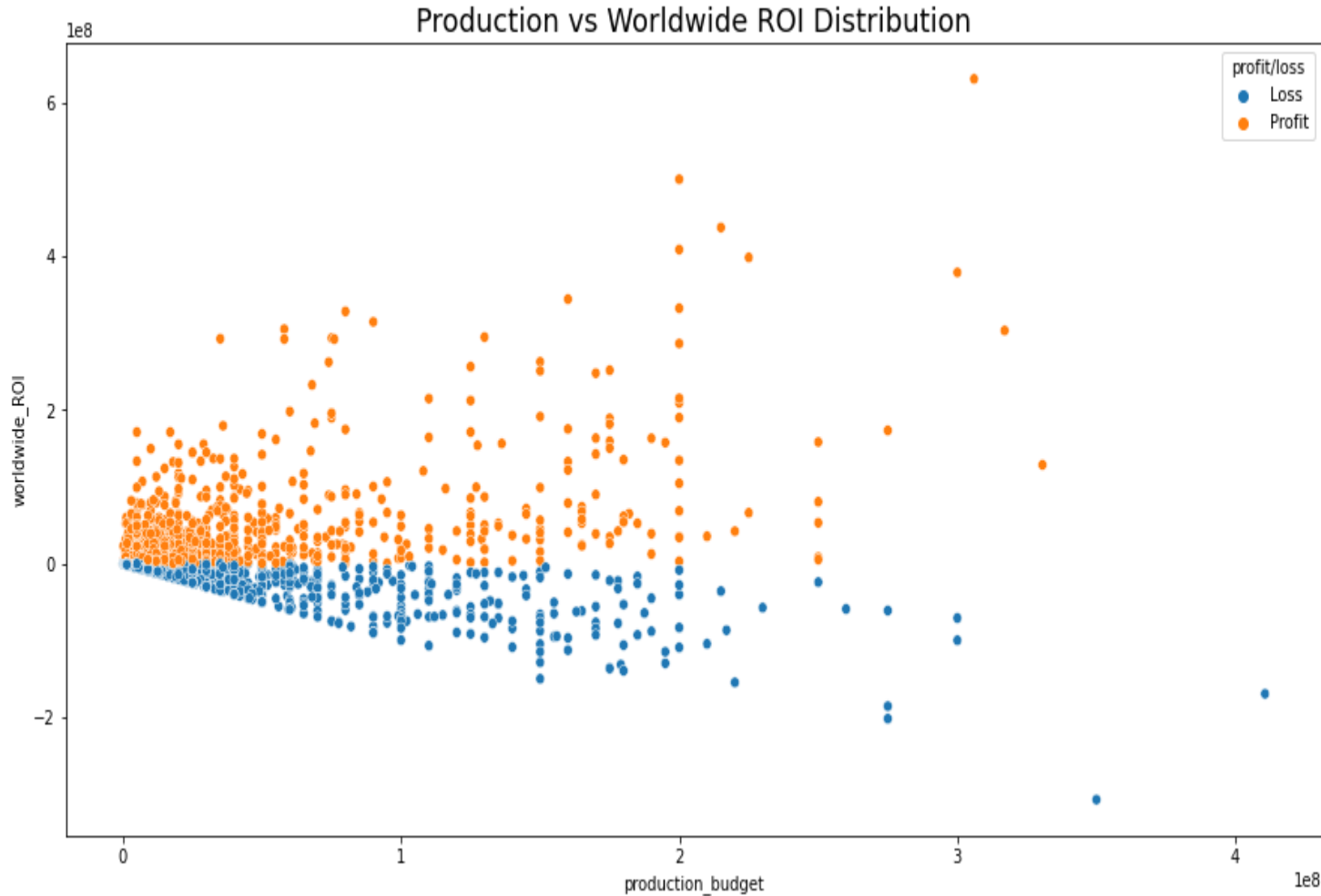
- Family, Animated, crime, Drama, Romance, History, Western, War have better average ratings
- Horror have the lowest ratings

PRODUCTION BUDGET VS WORLDWIDE PROFITS



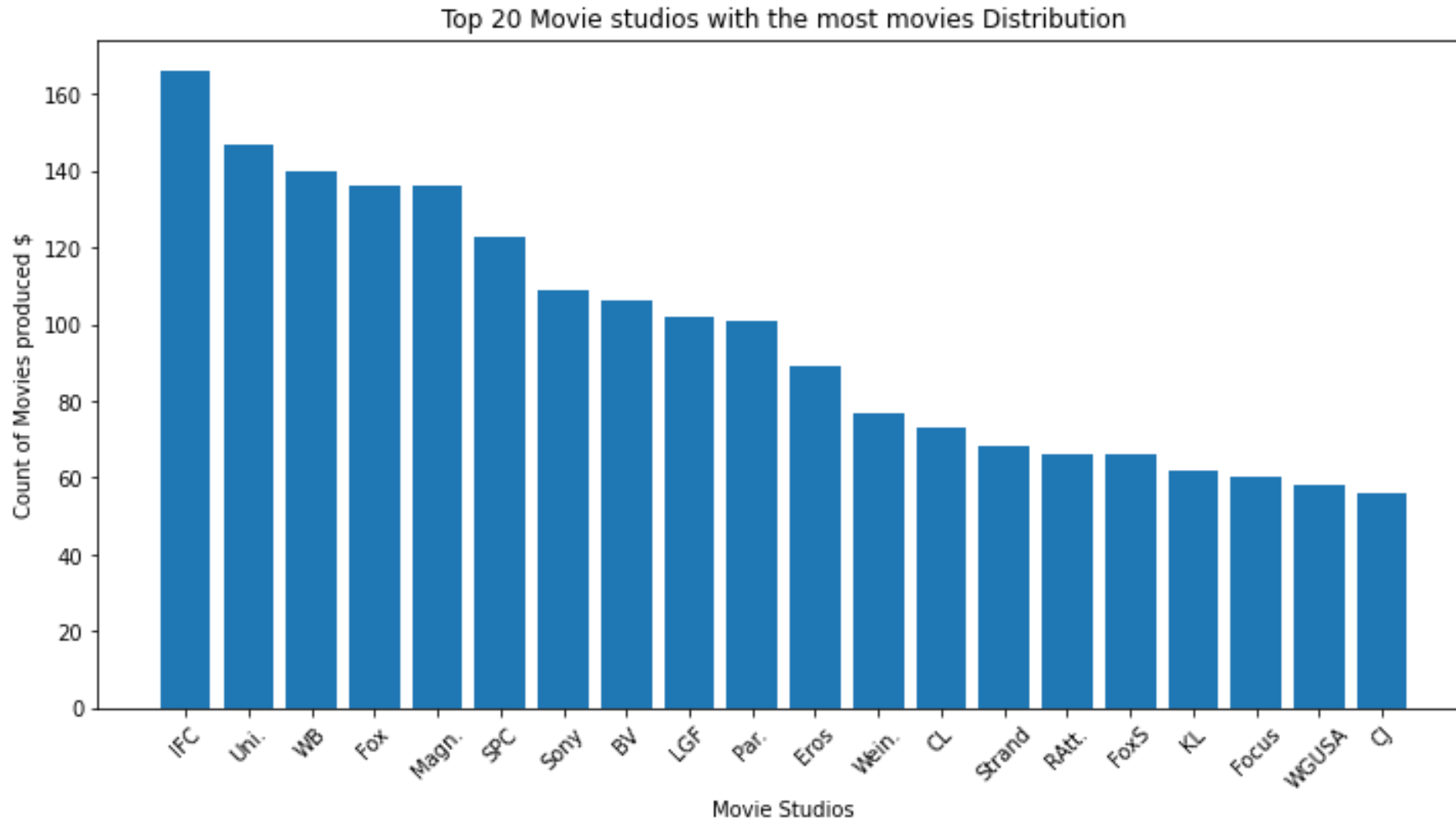
- As the budget increases so does the profit margin except for a few outliers
- Most Movies have high budgets

RETURN ON INVESTMENTS ANALYSIS



- Around 55-60% of the films make profits during their release at the Box office

COMPETITORS IN THE MOVIE INDUSTRY



TOP 15 DIRECTORS KNOWN FOR THE BEST RATED MOVIES

MovieTitle	Director	averagerating	numvotes
Deadpool	Tim Miller	8.0	820847
Django Unchained	Quentin Tarantino	8.4	1211405
Gone Girl	David Fincher	8.1	761592
Gravity	Alfonso Cuarón	7.7	710018
Guardians of the Galaxy	James Gunn	8.1	948394
Inception	Christopher Nolan	8.8	1841066
Interstellar	Christopher Nolan	8.6	1299334
Mad Max: Fury Road	George Miller	8.1	780910
Shutter Island	Martin Scorsese	8.1	1005960
Star Wars: Episode VII - The Force Awakens	J.J. Abrams	8.0	784780
The Avengers	Joss Whedon	8.1	1183655
The Dark Knight Rises	Christopher Nolan	8.4	1387769
The Hobbit: An Unexpected Journey	Peter Jackson	7.9	719629
The Hunger Games	Gary Ross	7.2	795227
The Wolf of Wall Street	Martin Scorsese	8.2	1035358



RECOMMENDATIONS

Focus on releasing Movies worldwide **(0.79)** not only limited to domestic **(0.73)** as shown by the correlation heat map, as they have better **ROI** .

Invest to produce movies of these genres:

- Family, Animated, crime, Drama, Romance, Sci-Fi, History, Western, War since they have better average ratings

Produce movies that last for around 90 to 150 minutes based on majority.

Focus on producing content rated **R, PG-13, PG, NR** and **G** avoid movies rated NC17



NEXT STEPS

- Perform Advanced analysis on budget tiers
- Explore multi-genre films and find a better way of dealing with them
- Explore different actors/directors and their influence to movie Success (Profits)





THANK YOU

 KELVIN NJENGA

 <https://www.linkedin.com/in/kelvin-njenga-94aaa4186/>