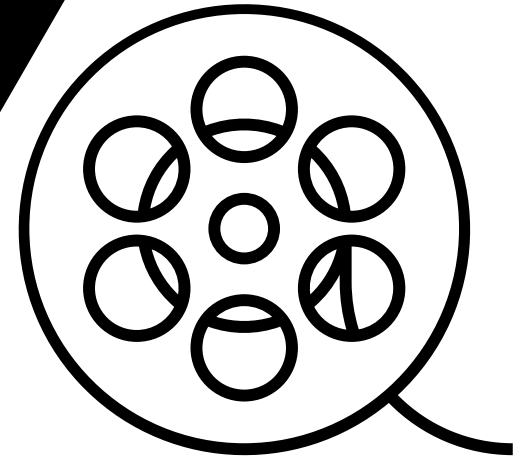


Movie Data Analysis

November 22, 2020
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Business Problem

Microsoft is interested in developing original video content to remain competitive in the tech world by creating a movie studio.

This project will examine the movie industry to provide a set of recommendations on where to get started.

Measures of Success

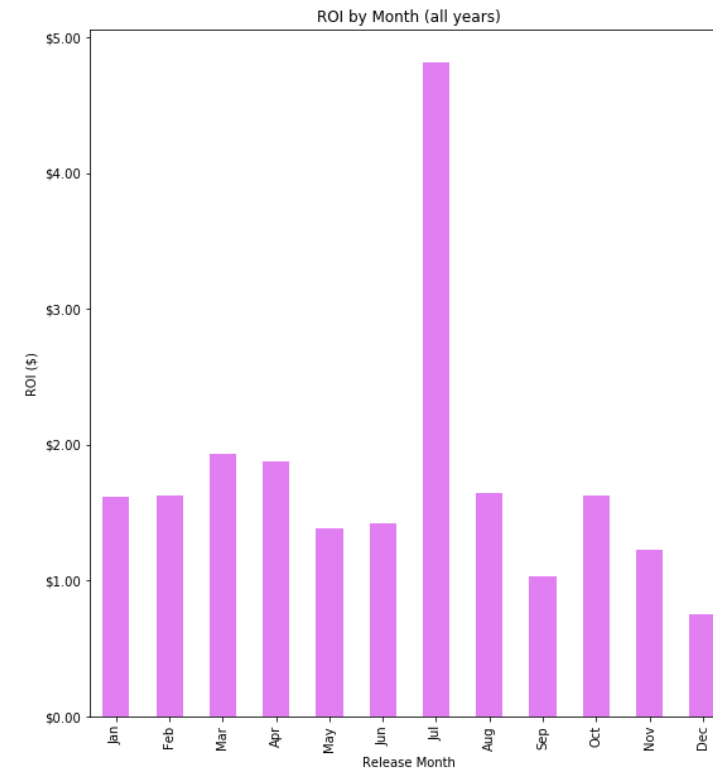
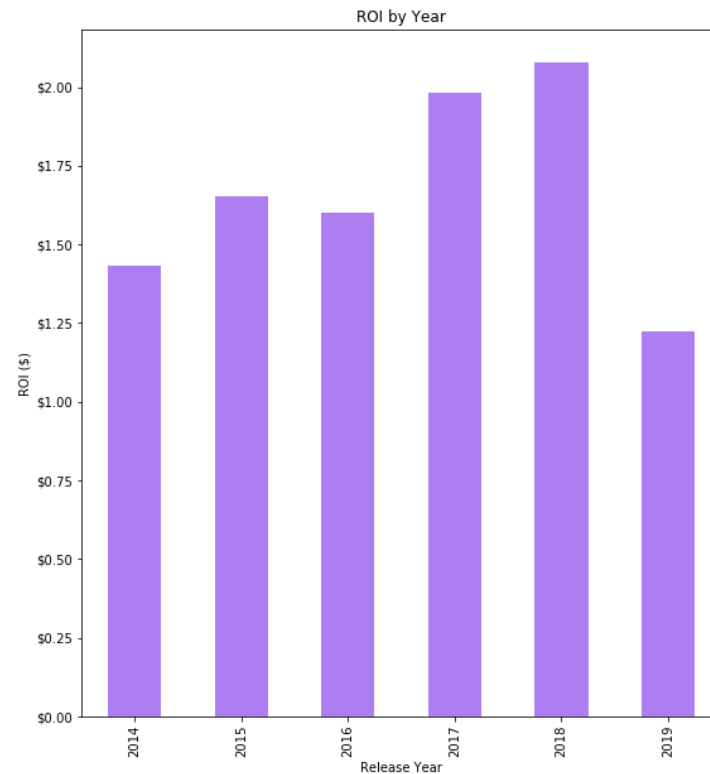
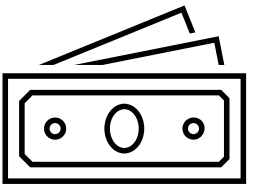
- ✓ **Positive return on investment:** Because ultimately, a successful business venture makes money.
- ✓ **High user ratings:** We want people to like the movie! This will (hopefully) help generate word-of-mouth promotion and social media chat to spread positive opinion.
- ✓ **High critical ratings:** Strong critical reviews mean positive press, which will capture media attention. Having clout in the industry as well can mean getting put up for awards, which can be a great set up to draw in better talent to future films, and better funding from potential investors

Sources:



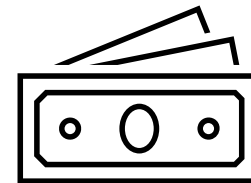
*Data presented is from 2010-2020 and US market only

1. Positive ROI

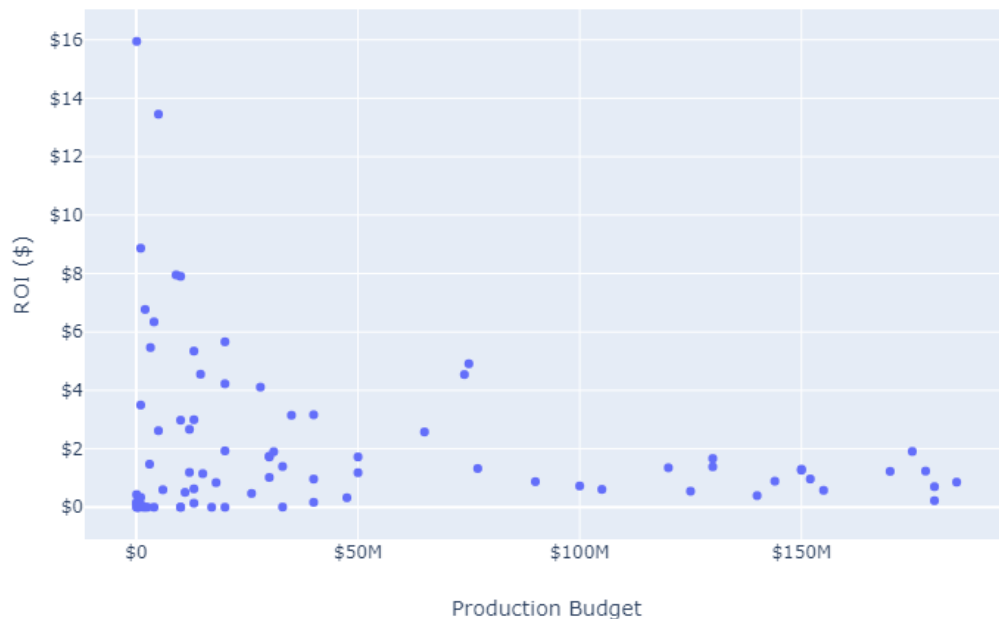


- The budget data shows that in the examined timeframe, movies released in July have a significantly higher return on investment than any other month
- Additionally, 2017 and 2018 were strong years for returns
- The following slide will zoom in on those categories

1. Positive ROI

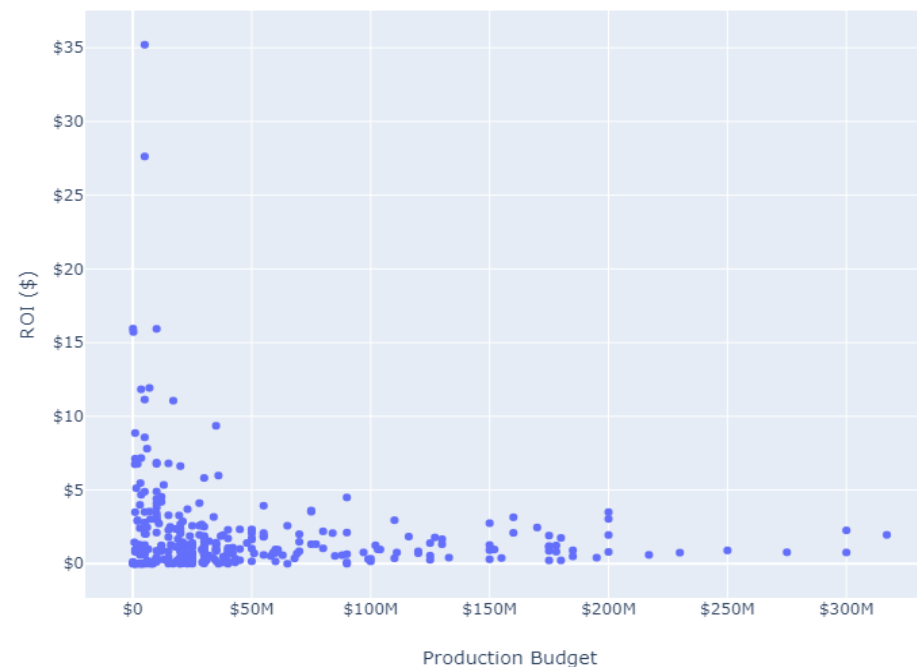


July Movies: ROI vs Budget



Top movies*: A Ghost Story, Lights Out, Unfriended: Dark Web, Purge: Anarchy, The Purge: Election Year, Eighth Grade, Bad Moms, Sorry to Bother You, The First Purge

2017-2018 Budget by ROI



Top movies*: It, A Quiet Place, Happy Death Day, Truth or Dare, I Can Only Imagine, Sleight, Halloween, A Ghost Story, Split, Get Out

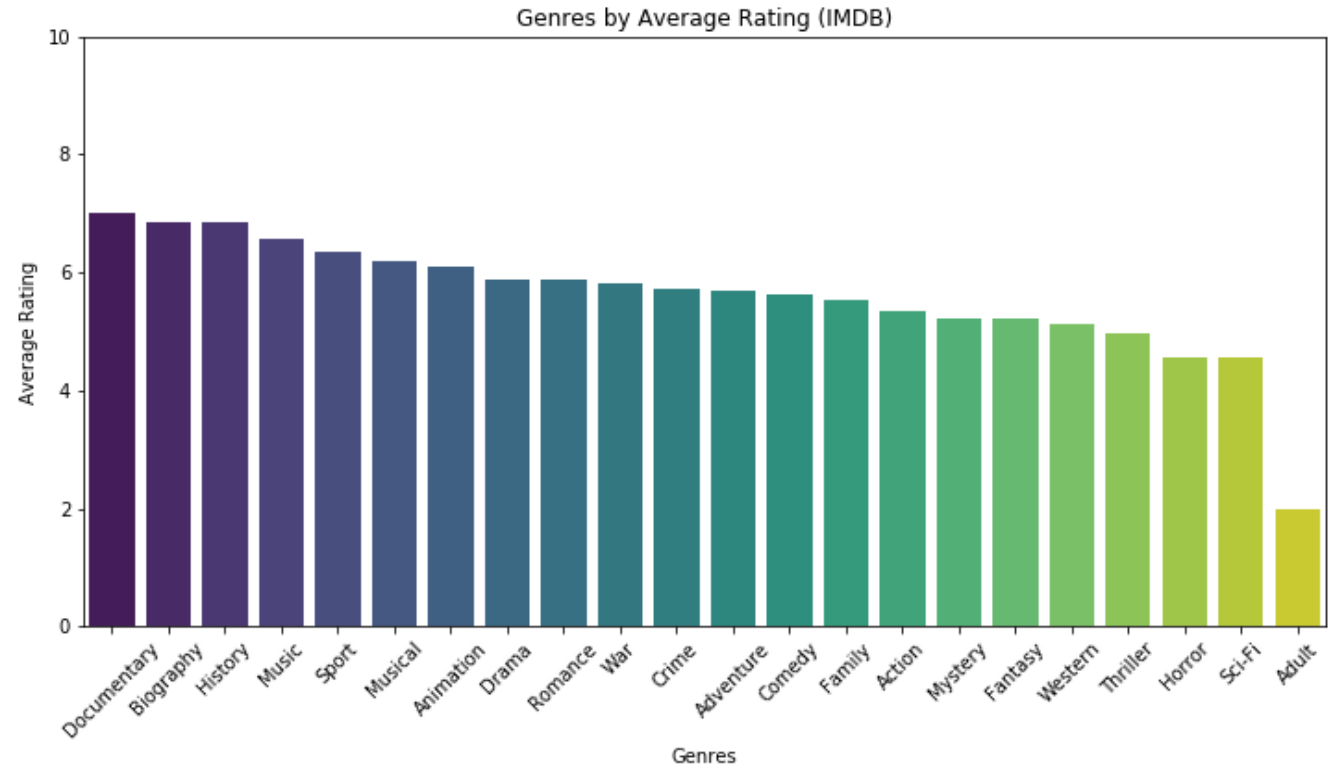
- The majority of these movies have budgets on the lower end of this spread. To not get too risky, we can aim to start with a budget of ~50MM. These titles are diverse and contain horror, action, comedy and drama which gives us lots of options
- If we were to look at just the highest grossing films and not factor in budget, we would see all major franchises, such as Star Wars and Avengers, and big-budget remakes or sequels. The ROI data shows we don't need to compete with those to make a profit, as there are a wide range of movies that have done well in the same release window

*Highest ROI with production budget under \$50MM

2. High User Ratings



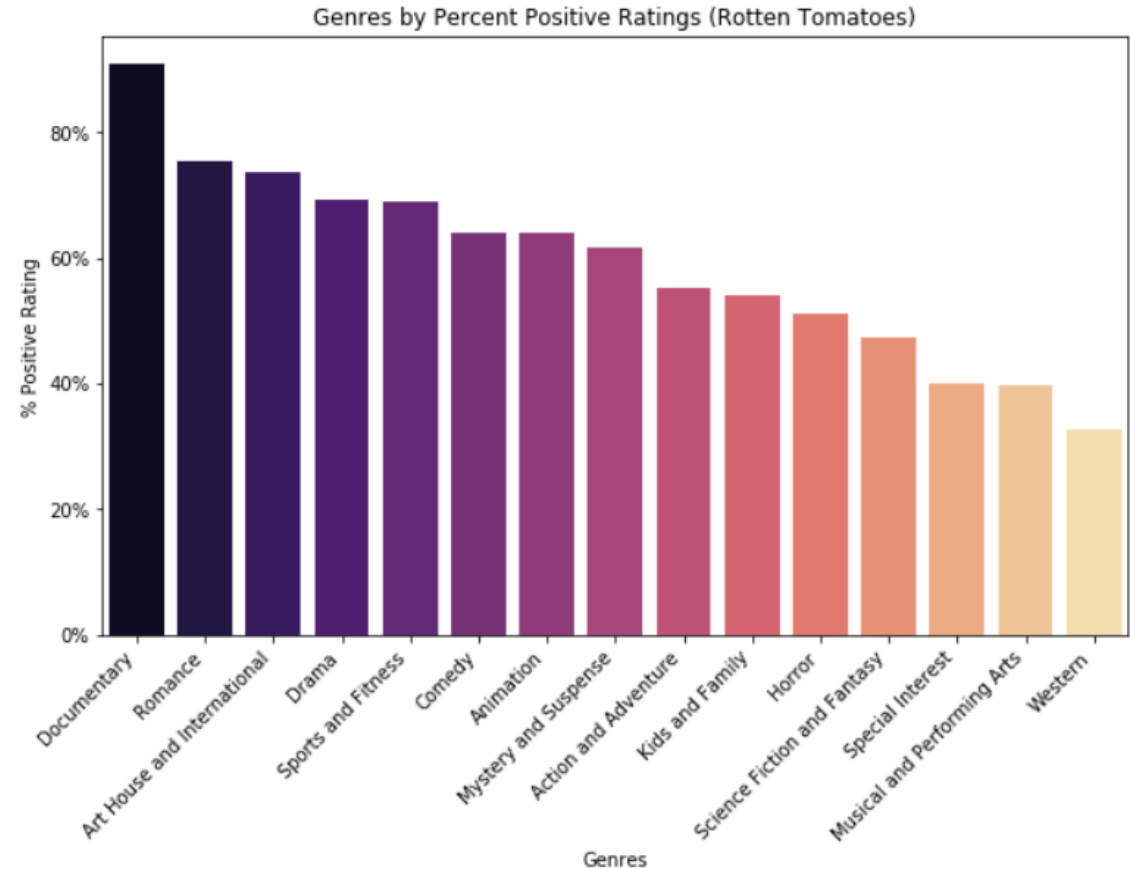
- From taking the average user rating for all the movies in a given genre, the results show that non-fiction genres like Biography, Documentary, History & Sport look to have highest ratings. Another contender is music/musical
- We should consider a non-fiction subject, maybe a profile of a musician or athlete that is relevant right now
- There was no clear correlation between user ratings and movie runtime, so the recommendation is to stay close to the mean runtime of 97 min

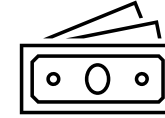


3. High Critical Ratings



- Since Rotten Tomatoes ratings are on an inconsistent scale, I looked at overall positive vs negative reviews. This data is shown as % positive, so the methodology is different from IMDB
- Documentaries are still the top-rated genre. However, music looks like it's on the lower end compared to IMDB rankings.
- While Romance and Drama weren't in the top categories in the IMDB data, they were still above average. Art House and International is a vague category, but may recall some of our top revenue-driving movies with lower budgets from the budgets data.
- While a lot of horror titles came up in the budgets data, horror as a genre is low ranked in both the IMDB and Rotten Tomatoes data sets





Conclusions

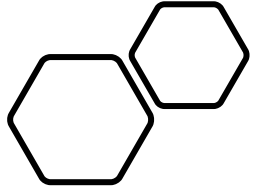
- **Release a movie in July for the biggest return on investment.** A variety of movies from different genres all performed well as July releases
- **Start with a budget below \$50MM since most movies with high returns fell at or below this.** You don't need to pour hundreds of millions of dollars into a huge franchise to be successful



- **People have high opinions of non-fiction genres like Biography, Documentary, History & Sport – consider these genres for a first venture.** Non-fiction genres are having a moment on streaming services, and the prevalence of the true-crime genre may have renewed the appetite for real-life stories



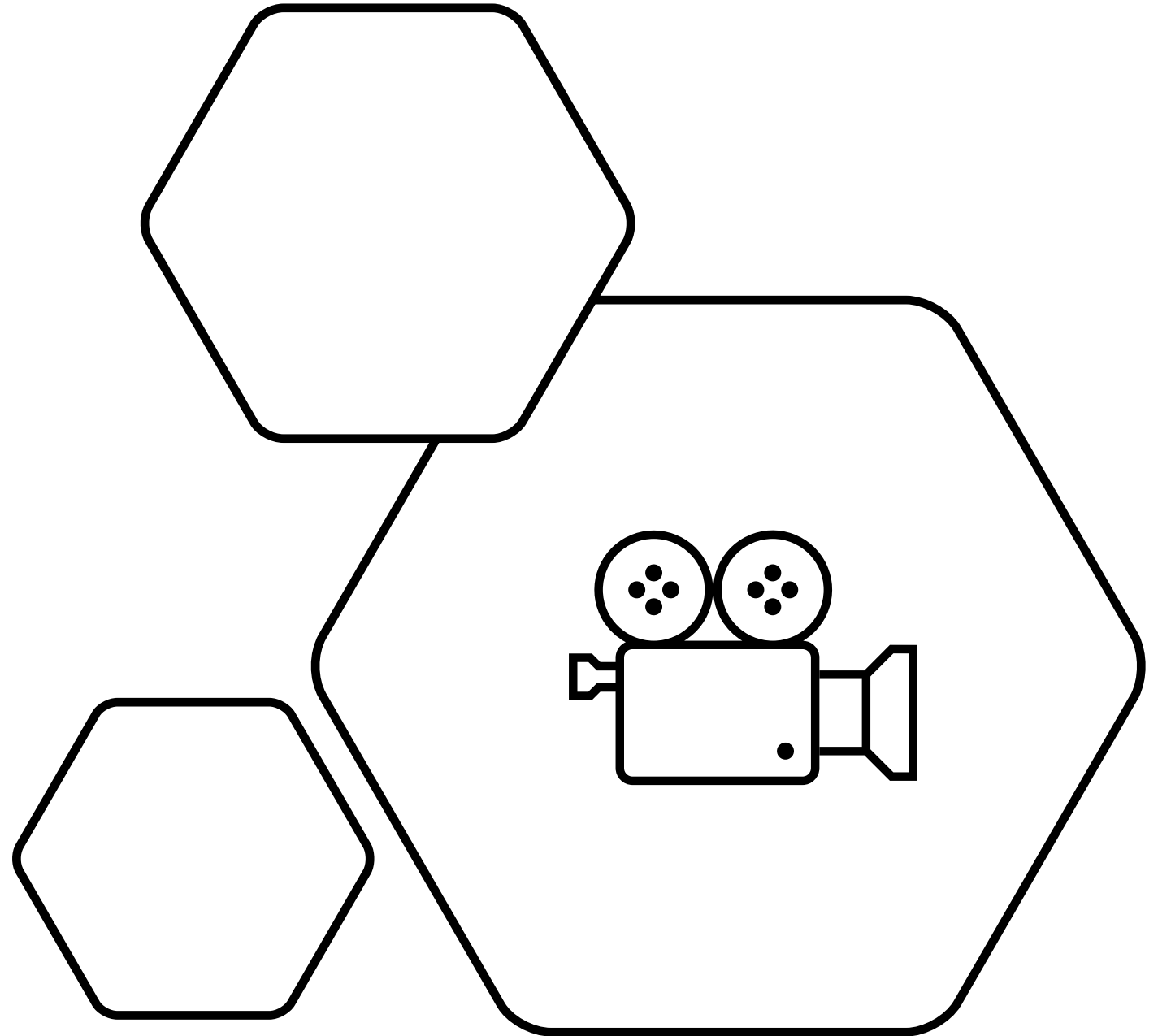
- **Documentary, Romance, Art House/International, and Drama were overall popular with critics.** These genres may not be as clearly linked, but thinking about what they are not (Comedy, Action, Sci Fi/Fantasy, Horror) will help us understand what to steer away from



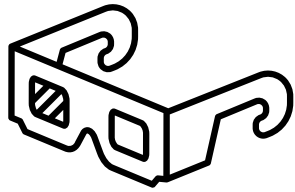
Future Work

The below is recommended for continued research:

- An analysis on press/awards for different titles and studios and this has affected revenue, particularly new entries such as Netflix and Amazon Prime Video
- A market research analysis of the movie industry during Covid-19, and how established players are adapting to this challenging environment



Thank You!



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