Movie Revenue Covariate Analysis for a Streaming Service

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Summary

Covariate analysis of movie revenue during the most recent pre-COVID decade (2010-2019) reveal film attributes most indicative of high gross revenue at the box office and of high number of potential viewers:

- Genres involving Action and Adventure have been the most successful at the box office.
- Documentaries, Biographies, and Historical Drama is liked a lot more than Action and Adventure titles and will likely attract a solid subscription base.
- Poorly rated content has a significantly diminished earning potential.
- Content with highest earning potential has the runtime of around 2 hours. The content with runtime above 2 hours and 40 minutes is almost never watched.

Outline

- Business Problem
- Data and Methods
- Results
- Conclusions

Business Problem

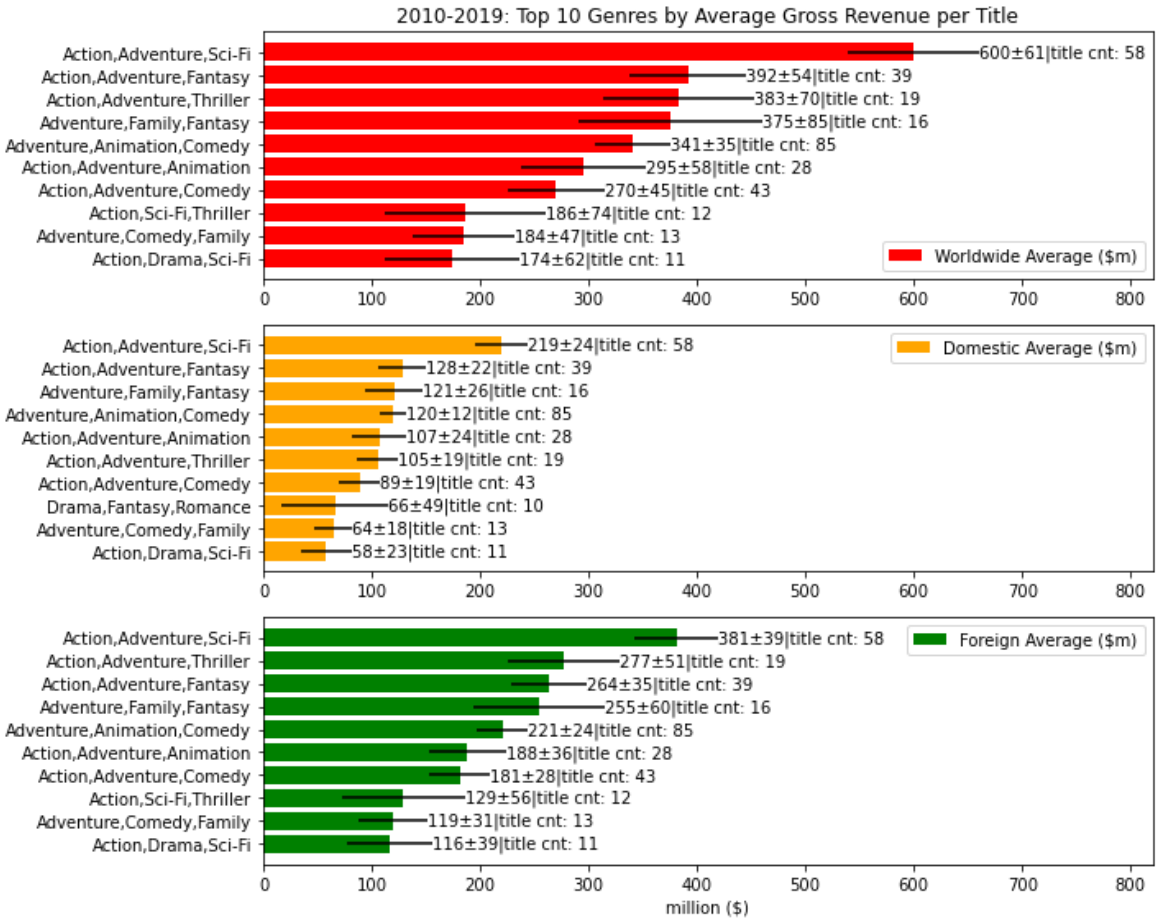
- Create content profile which improves the likelihood of success for a new streaming service.
- This content profile will govern the operation of a new studio that will create content for this streaming service.

Data & Methods

- 109K titles with title profile data: year of release, runtime, and genre;
- 28K titles with rating and number of votes.
- 4,181 titles with revenue data: domestic and foreign.
- Titles with very short (<25 min.) and very long (>6 hours) runtimes are excluded.
- Titles with very few voters (<100) providing a valid rating value are also excluded.

Results

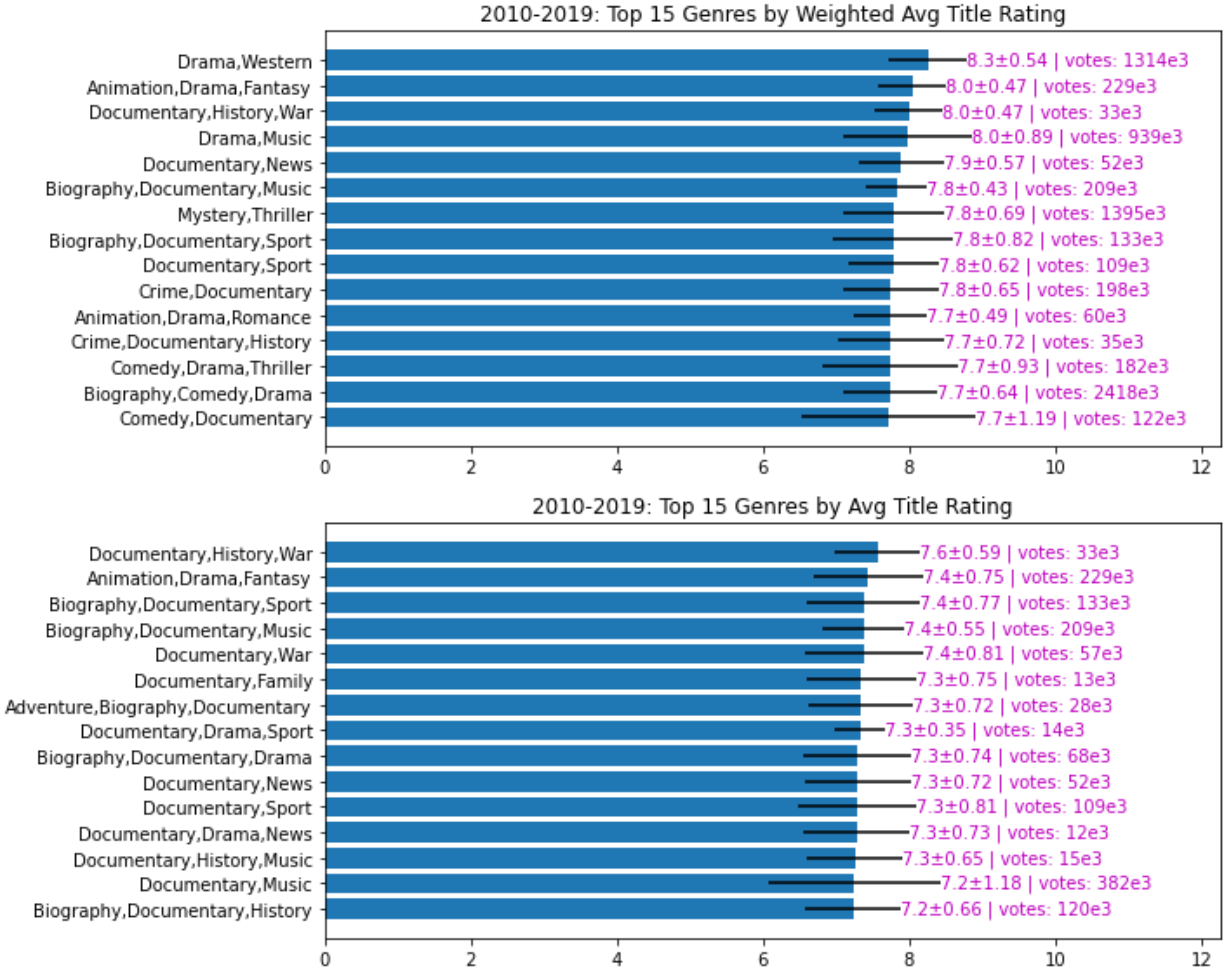
- Most successful genres by worldwide revenue with the least amount of risk are “Action,Adventure,Sci-Fi” and “Adventure,Animation,Comedy”.



- An action genre title made, on average, $600 million in revenue with 10% ($61 million) of variability around the average.
- An adventure, animation, and comedy title, on average, made $341 million with 10% ($35 million) of variability around the average.

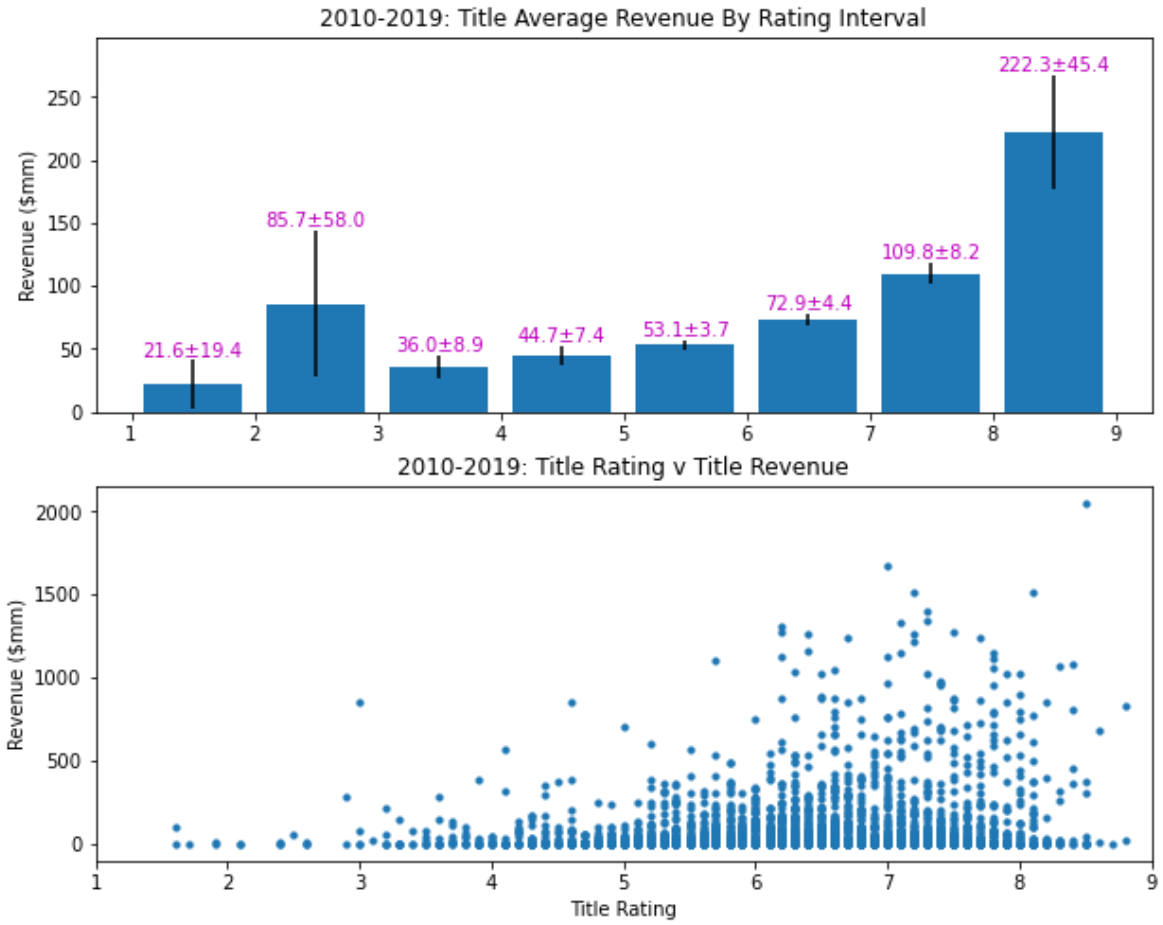
Results

- Ratings show that audiences like to watch documentaries, biographies, and historical dramas.



Results

- Title rating increases the likelihood of a title to make money.
- The dependence can be observed on average for a rating interval.



Conclusions

- Producing content in genres “Action, Adventure” and “Adventure,Animation,Comedy” will contribute to the success of the streaming venture.
- Documentaries, biographies, and historical drama will help to build a solid subscribers base.
- Testing in content in production is crucial to avoid bad outcomes.

Next steps:

- Separate data on feature films and television series to generate more targeted recommendations for each content segment.
- Investigate the influence of promotional budget on revenue given that such data are available.

Thank you!

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