

Movie Data Analysis for Microsoft

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Summary

Analysis of movie data reveals several features that lead to successful movies:

- Larger budget movies generate higher profits and ratings
- Animation, Adventure, and Sci-Fi are the most profitable genres
- Mystery and Horror films provide the greatest return on investment
- The summer and holiday months are the best time to release a new movie



Outline

- Business Problem
- Data
- Methods
- Results
- Conclusion

Business Problem

- Microsoft is opening a new movie studio
- Needs analysis of movie data to guide decision making



Data

- Combined data from IMDb and The Numbers
 - Over 1300 movies
 - 2010 to 2020
- Included Features:
 - Genres
 - Ratings
 - Release Dates
 - Financials

The IMDb logo is displayed in a bold, black, sans-serif font. It is centered within a bright yellow rectangular background with rounded corners.The logo for 'THE NUMBERS' is set against a dark purple background. The words 'THE' and 'NUMBERS' are in a large, white, outlined font. The letters are filled with a pattern of small, light purple numbers. A registered trademark symbol (®) is located at the top right of the word 'NUMBERS'.

Where Data and the Movie Business Meet

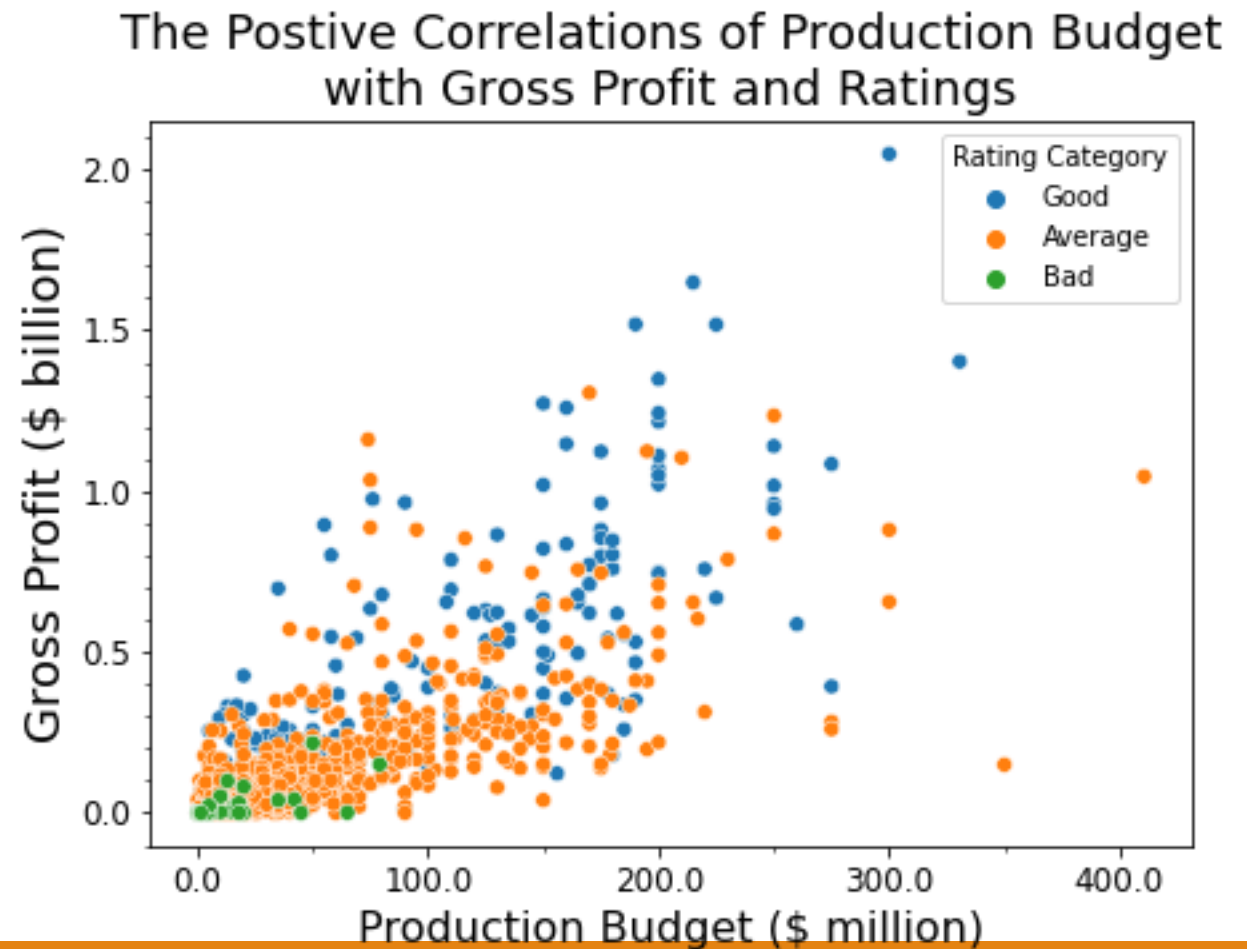
Methods

- Data Preparation
 - Selecting columns
 - Converting data types
 - Dataset Merging
 - Feature Engineering
 - ROI
 - Rating Category
- Data Analysis
 - Trends and Summary Statistics



Results: Production Budget

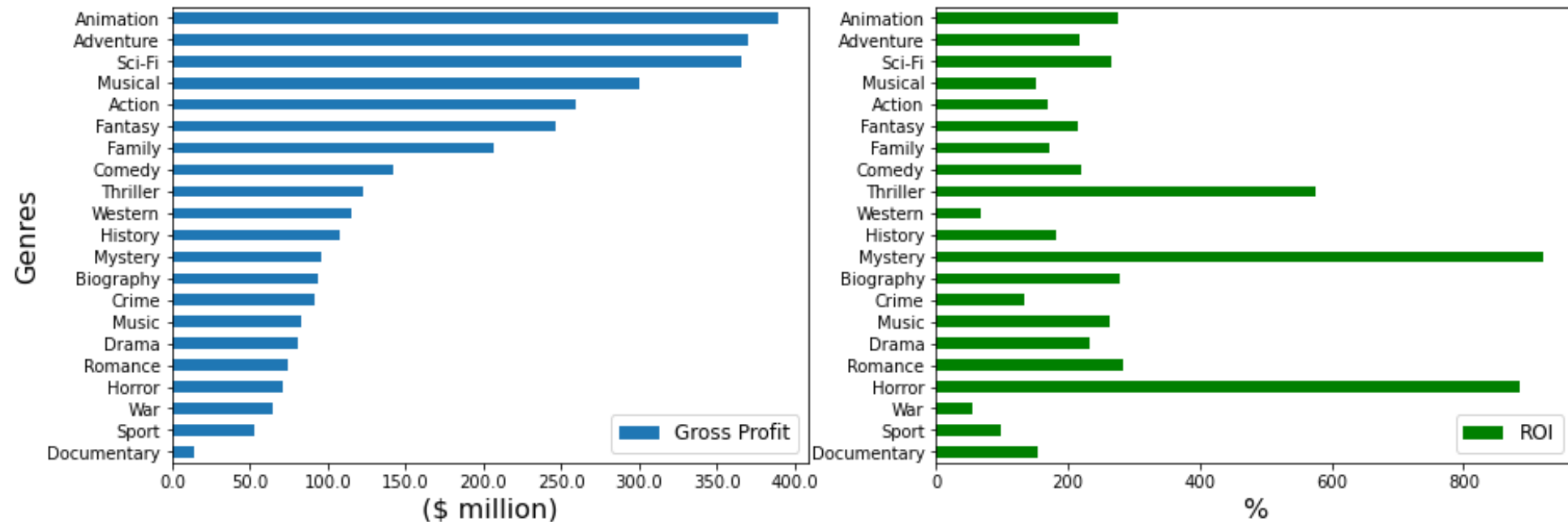
- Larger budget movies make more money and get higher ratings on average



Results: Genres

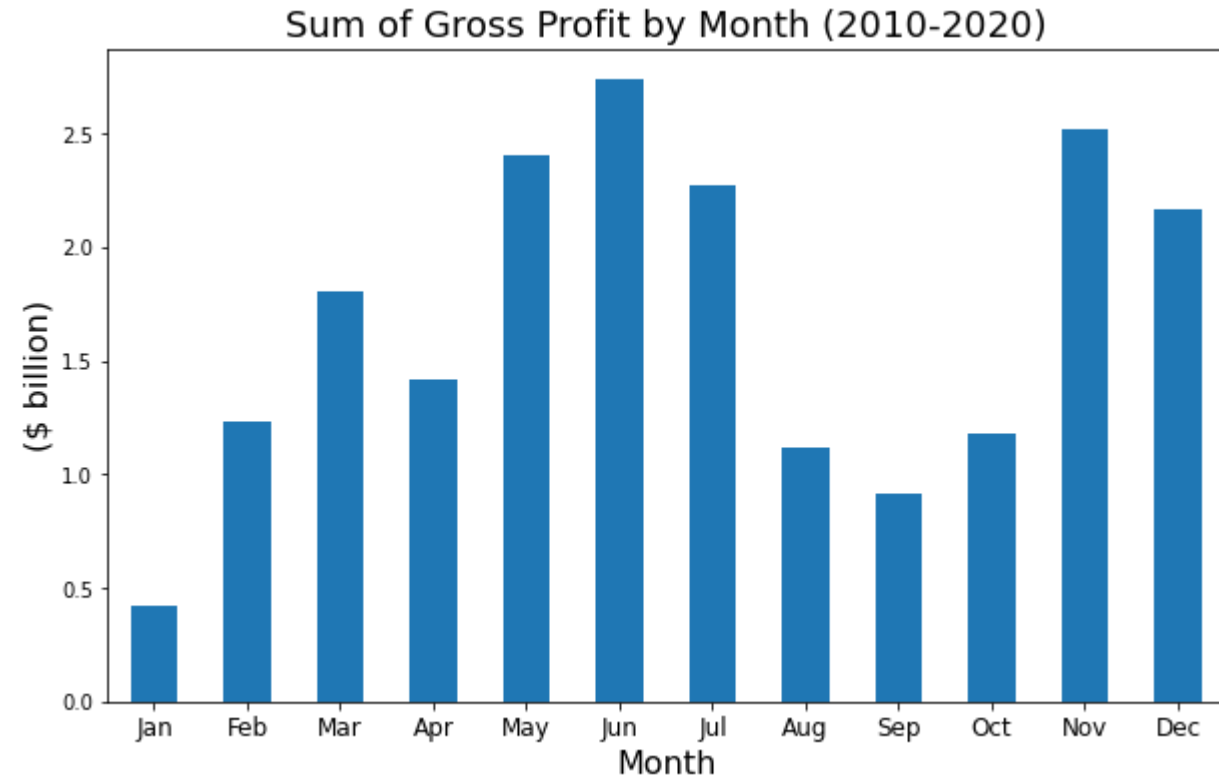
- Animation, Sci-Fi, and Adventure generate highest average gross profits
- Mystery and Horror offer greatest return on investment

Average Gross Profit and ROI by Genre



Results: Release Date


- Summer (May-July) and holiday (November-December) months have seen the highest gross profits over the last 10 years



Conclusions

- Invest in larger budget movies in the animation, sci-fi, and adventure genres that generate high profits and ratings
- Fill out movie collection with lower budget mystery and horror films that provide a greater return on investment
- Schedule movies to be released during the summer and holiday months

Next Steps:

- Determine what other factors impact ratings
 - Explore the impact of cast and crew on movie success
 - Analyze the impact that streaming has had on box office profits
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Thank You!

Questions?

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