

Launching XBoxOffice

Repeating success in the family room at the silver screen.

Summary

- Codename, XBoxOffice: Microsoft enters the film business
- Microsoft hired FurPig Inc for analysis on:
 - Film Genres
 - Release Months
 - Creative Personnel
- 1000 films analyzed
- FurPig recommends further analysis in the Action/Adventure genres of film

Outline

- Business Problem
- Data Analyzed
- Methodology: Independent/Dependent Variables
- Business Questions
- Question 1: Genre
- Question 2: Month
- Question 3: Creatives
- Conclusions

Business Problem

- Microsoft's wants to increase its brand recognition to the Blockbuster industry
- The current five titans of the film industry:
 - Walt Disney/20th Century Fox
 - Warner Brothers
 - Sony/Columbia
 - Universal Studios
 - Paramount Pictures
- Microsoft commissioned Data Science firm FurPig Inc. for analysis and recommendations for this venture
- Data Scientist Greg Osborne conducted the project.

Data Analyzed

For the analysis, FurPig Inc. looked at four datasets and considered a fifth:

Data Base	Primary data gleaned
Internet Movie Database (IMDB)	Runtime, Genres, creative personnel
Box Office Mojo (BOM)	Film Studio, Box office data
Rotten Tomatoes (RT)	This dataset did not include any specific films, so we didn't use it
The Movie Database (TMDB)	Month and year of release for each film
The Numbers (TN)	Production Budget, Domestic/foreign/worldwide Box Office totals

Methodology: Driving metric / dependent variable

- Two reasons for this initiative:
 1. Box Office Returns / Profit
 2. Brand Recognition
- Maximize audience for worldwide brand recognition
- Driving Metric / Dependent Variable: Box office dollars (USD)

Methodology: Independent Variables

- Microsoft contracted FurPig to select three independent variables
- Microsoft has complete control over these three variables
- What changes to these variables allow for maximum revenue?
- The three variables selected by FurPig are:
 1. Genre
 2. Release month
 3. Creative Personnel (Writer, Director, Producer, Actor, Actress)

Business Questions

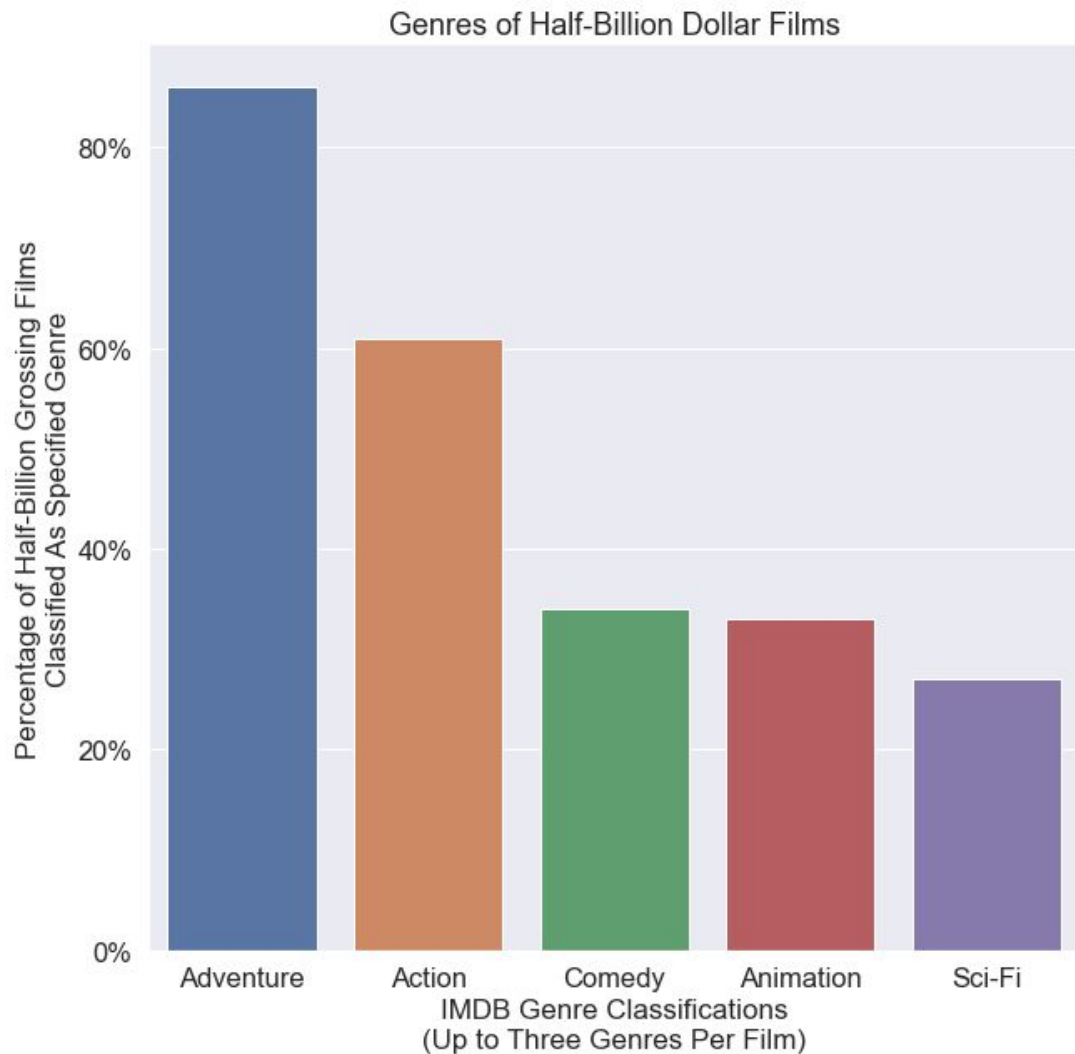
Three business questions we will answer:

1. What genres of film produce the highest box office revenue?
2. What is the best month to release a film to generate the most revenue?
3. What writers, directors, producers, actors and actresses have the highest revenue earning potential?

Question 1: Genre

Question 1: What genres of film produce the highest box office revenue?

- Data includes 100 films that grossed over \$500M (USD)
- Chart shows genres included in the 100 half-billion films
- Over half of the films classified as action and adventure.



Question 1: Genre, IMDB Definitions

Adventure

- Hazardous or exciting experiences for a specific goal.
- Journeys to lost lands and exotic locales.
- Treasure hunt, heroic journeys, travels, and quests for the unknown.
- Not to be confused with Action.
- Definition is subjective.
- Examples:
 - The Goonies (1985)
 - Lord of The Rings: Fellowship of the Ring (2001)
 - Life of Pi (2012)

Action

- Spectacular and destructive.
- Non-stop motion, high energy physical stunts, chases, battles, and destructive crises (floods, explosions, natural disasters, fires, etc.).
- Multiple action scenes.
- Definition is subjective.
- Examples:
 - Die Hard (1988)
 - The Avengers (2012)
 - Wonder Woman (2019)

These are definitions are truncated versions of the genre definitions from IMDB's website.
For the full definitions, see this [Link](#).

Question 1: Genre, Question Answered?

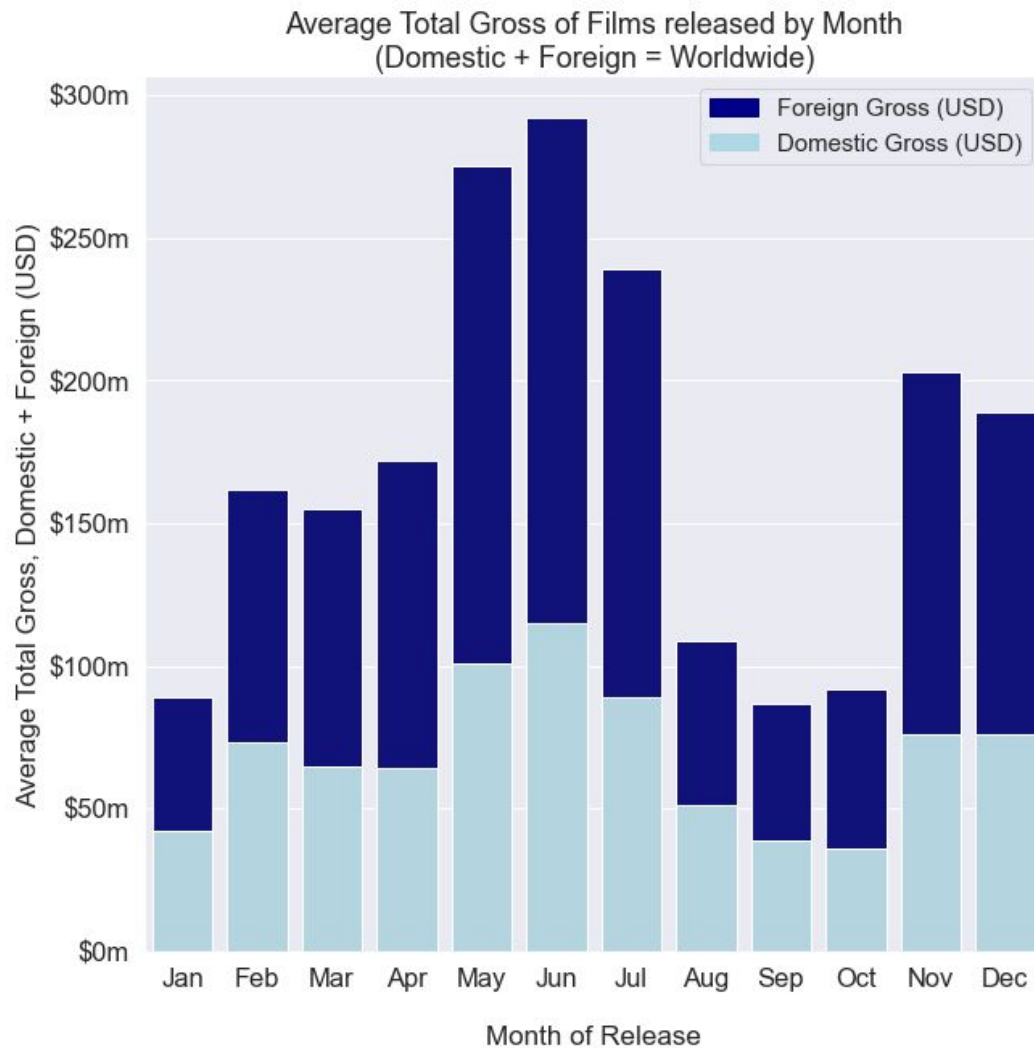
Question 1: What genres of film produce the highest box office revenue?

- The question is answered
- However, the question has flaws
- Film genres are subjective
- But if we accept that ambiguity, then the analysis is sound
- Debating genre classifications is art criticism, not business analysis

Question 2: Month

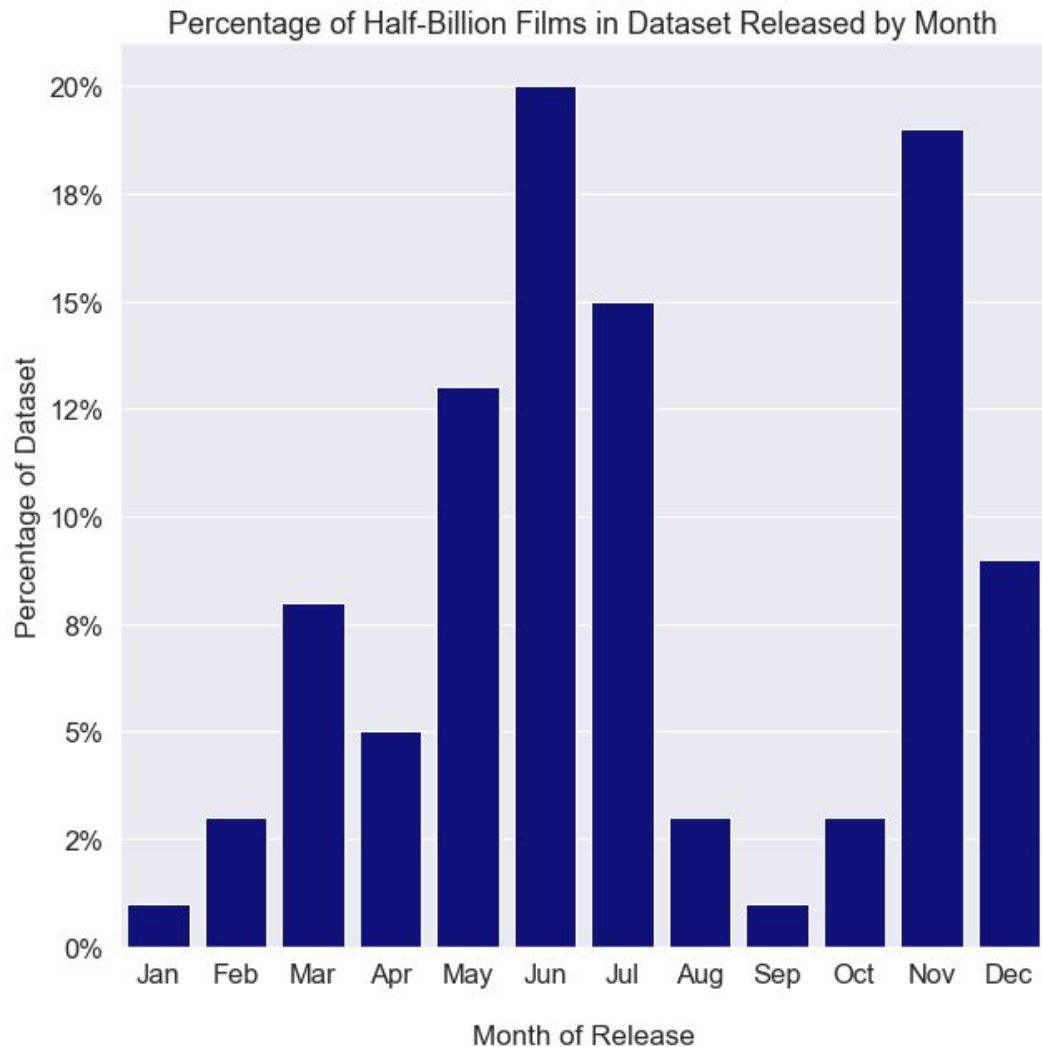
Question 2: What is the best month to release a film to generate the most revenue?

- 1000 films divided into their release months
- Graph shows average foreign and domestic revenue
- Two peak seasons:
 - May–July
 - November–December



Question 2: Month

- This graph shows the same division of release month, but only for the 100 half-billion dollar films (USD)
- Half-billion dollar films do follow this trend
- However, there are half-billion dollar films released in the slowest months of the year



Question 2: Month, Question Answered?

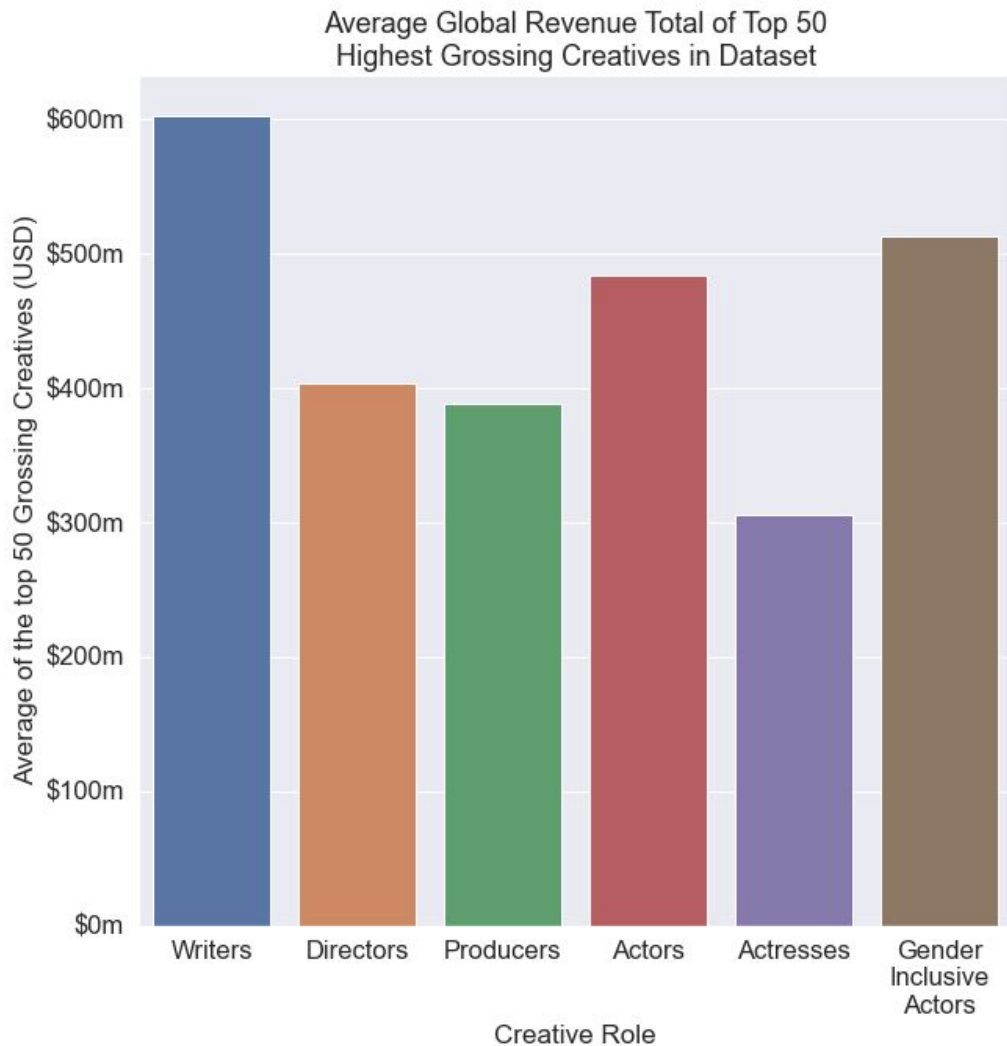
Question 2: What is the best month to release a film to generate the most revenue?

- The business question as it's written has been answered
- More factors to analyze:
 - Weeks of release
 - Holidays
 - Competition with media releases outside the movie theater industry
 - Releasing the same weekend as other high-grossing films
 - Multiple films targeting the same audience released the same weekend

Question 3: Creatives

Question 3: What writers, directors, producers, actors and actresses have the highest revenue earning potential?

- All 1000 films analyzed
- Creatives with at least 3 films
- Averaged revenue per creative
- Top 50 averaged together
- Writers and actors/actresses are most effective creatives
- Pay equity between male and female actors is recommended



Question 3: Creatives

- These are the highest earning writers, actors and actresses in our dataset
- Each film project has different factors for choosing the right creatives

Rank	Writer's name	Actor's name	Actress's name
1	Guillermo del Toro	Richard Armitage	Sandra Bullock
2	Christopher Markus	Ian McKellen	Bryce Dallas Howard
3	Stephen McFeely	Robert Downey Jr.	Evangeline Lilly
4	Derek Connolly	Chris Evans	Scarlett Johansson
5	David S. Goyer	Chris Pratt	Eloise Mumford
6	Chris McKenna	Chris Hemsworth	Anne Hathaway
7	Erik Sommers	Benjamin Bratt	Holly Hunter
8	Philippa Boyens	Andy Serkis	Judi Dench
9	Fran Walsh	Mark Ruffalo	Angelina Jolie
10	Suzanne Collins	Martin Freeman	Emily Mortimer

Question 3: Creatives, Question Answered?

Question 3: What writers, directors, producers, actors and actresses have the highest revenue earning potential?

- The question is answered, but the question leads to other questions
- More questions to analyze:
 - How much pull do specific actors and writers have
 - How prominently did the higher grossing films use the actors and writers names in marketing?
 - How big a roll did these actors have in the films they are listed in?

Conclusions

- From the analysis done, I can draw three conclusions:
 - The public likes action and adventure films.
 - Release in May–July or November–December.
 - Creatives who sell tickets: actors and writers.
- This analysis is limited by time and budget.
- More Factors to analyze:
 1. Value of Film Franchises?
 2. Appetite for more of the same?]
 3. Buy an existing franchise?
 4. Streaming a better investment?
 5. Buy a film studio?
- More analysis will lead to greater success for Microsoft's film aspirations.

Thank You!

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