

Money for Nothing

and Graphs for Free!

An Optimal Strategy to Movie Profitability

What market segment?

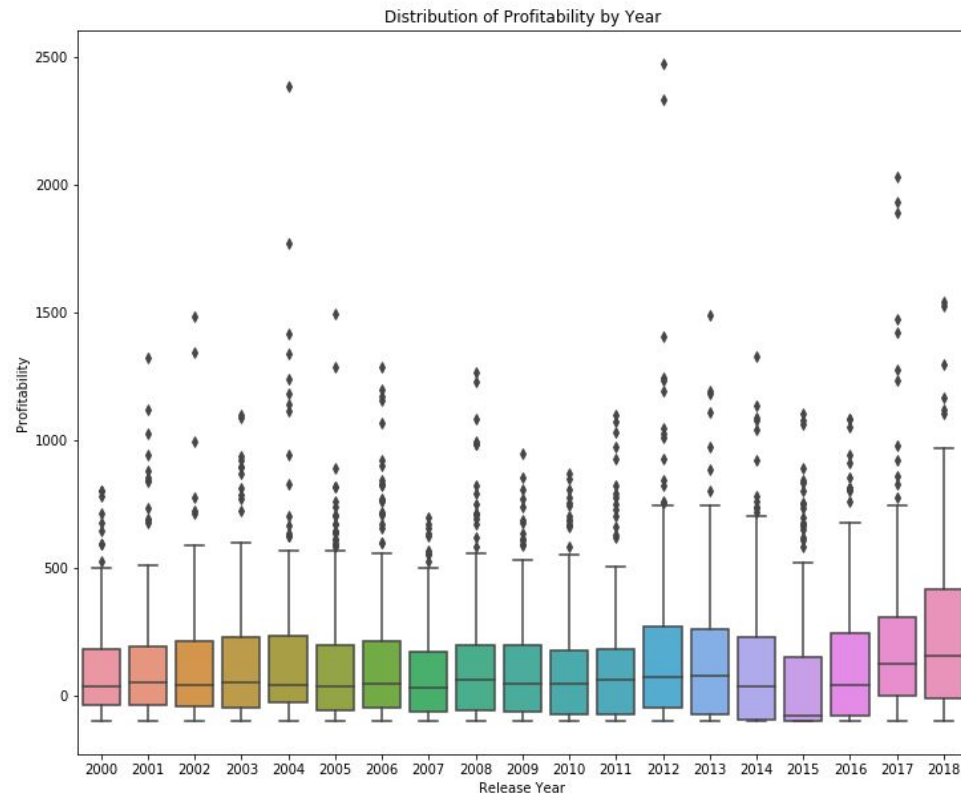
When to release?

Two main data sources

- Movie budget and performance from www.the-numbers.com
- Consumer sentiment using stock market data from finance.yahoo.com
- Timeframe: 2000-2018

Motivation:

How movies' profitability distribute



Profitable Outliers

- Paranormal Activity:
 - Profit: \$200M
 - Cost: \$450,000
 - Return: 440x
- The Gallows:
 - Revenue: \$40M
 - Cost: \$100,000
 - Return: 400x
- What can we learn?
 - Low budget: driving factor
 - How to succeed?

"'Paranormal Activity' is one of the scariest movies of all time. You will be affected as it's hard to ignore the imprint it leaves on your psyche. Nightmares are guaranteed."

- Bloody-Disgusting

FROM BLUMHOUSE, THE PRODUCER OF *PARANORMAL ACTIVITY* AND *INSIDIOUS*



WHAT HAPPENS WHEN YOU SLEEP?

PARANORMAL ACTIVITY

DON'T SEE IT ALONE

PARANORMAL ACTIVITY
NOT PLAYING
IN YOUR AREA?

Demand It!

BRING IT TO YOUR
CITY BY VISITING
PARANORMALMOVIE.COM



THE
GALLOWES

EVERY SCHOOL HAS ITS SPIRIT

JULY 10

#THEGALLOWES

Competition and Profitability

Separate movies by Budget:

- Independent (Low Budget)
- Mass Production (Major Studios)

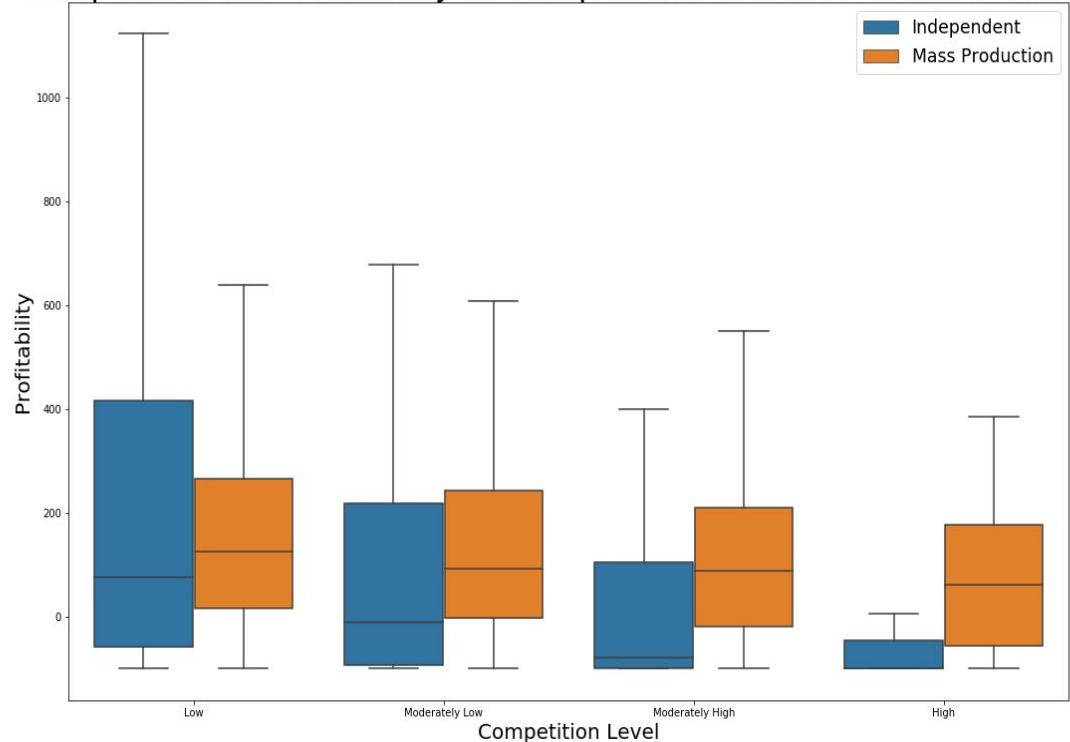
Competition:

- # of movies released at same time frame
- 4 bins

Finding:

- Independent movies:
 - Momentum
 - Prone to competition
- Mass Production
 - Steadier outcome
 - Supply side:
 - Resources
 - Advertising
 - Loyalty

Competition and Profitability for Independent vs Mass Production Movies



Consumer Sentiment and Profitability

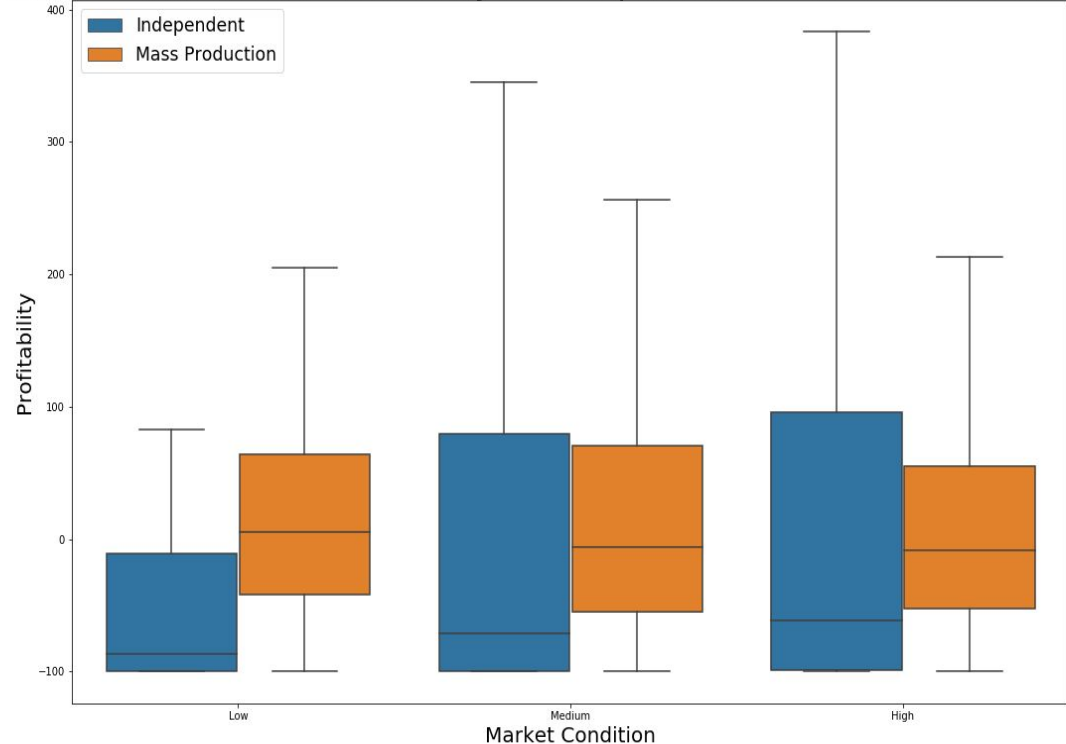
Stock market:

- Measure consumer sentiment
- 3 bins: High, Medium, Low

Finding:

- Independent movies:
 - Elastic to consumer sentiment
 - Consumer sampling behavior
- Mass Production: steadier outcome
 - Advertising
 - Familiarity

Market Condition and Profitability for Independent vs Mass Production Movies



Seasonality: Independent Films

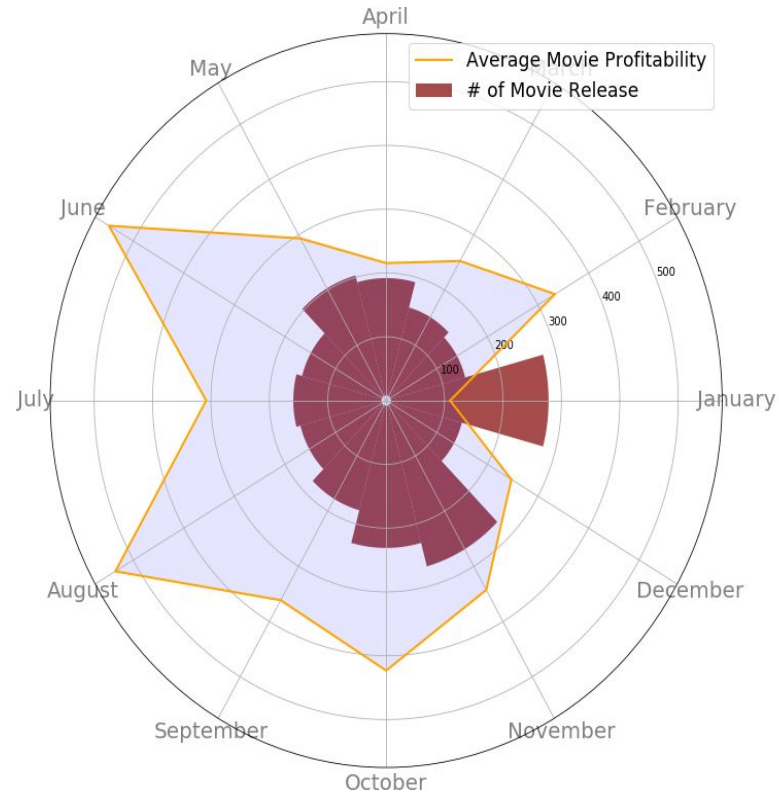
Bars: number of Independent movies released

Spider web: average profitability

Findings:

- Confirms competition hurts profitability
- Strong seasonality pattern:
 - Best: Jun, Aug, Oct, Feb, Nov
 - Worst: Jan, Dec

Number of Movie Release vs. Profitability



Recommendations

- Focus on Independent films:
 - Low budget: better risk control
 - Bright upside in return
- Time release to avoid competition
- Hold off when the market is bad
- Pay attention to seasonality of supply and demand

Next Steps



- Combine our data with IMDb data sets to get more qualitative film info (genre, cast, production company) about profit percentage outliers
- Combine our data with the Rotten Tomatoes review data set and look into word frequency analysis, word vectorization etc.

