

# Microsoft Studios: The Optimal Box Office Release

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# Agenda

## **Overview**

Microsoft's Business Problem

## **Data**

Assumptions and Data

## **3 Recommendations**

Insights: Movie Runtime, Release Window, and Genre

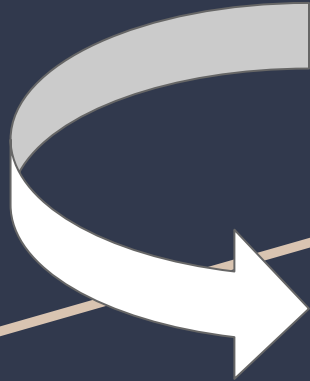
## **Findings**

Analysis and Results

## **Next Steps & Conclusions**

Questions, Limitations, and Improvements

# Business Problem



## Microsoft's New Movie Production Studio:

Q

What type of film should you produce?

A

A medium-length sci-fi movie, released in November

# Assumptions and Data

Databases Used:

IMDB

TMDB

The Numbers

## Key Assumptions

- Measured movie success as profits greater than 1.5x budget
- Limited to movies from 2010 - 2019
- Multi-genre films were counted in each genre bucket

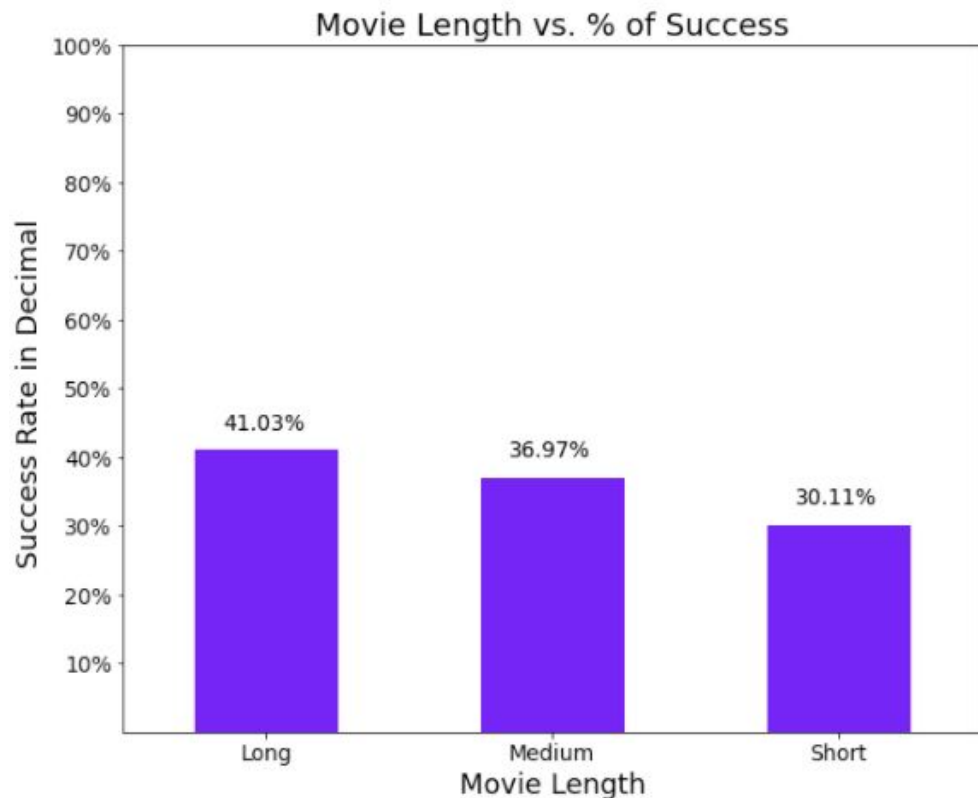
Year	Movies
2009	99
2010	515
2011	579
2012	539
2013	575
2014	631
2015	813
2016	548
2017	433
2018	370
2019	148
2020	3

# Recommendation

1:

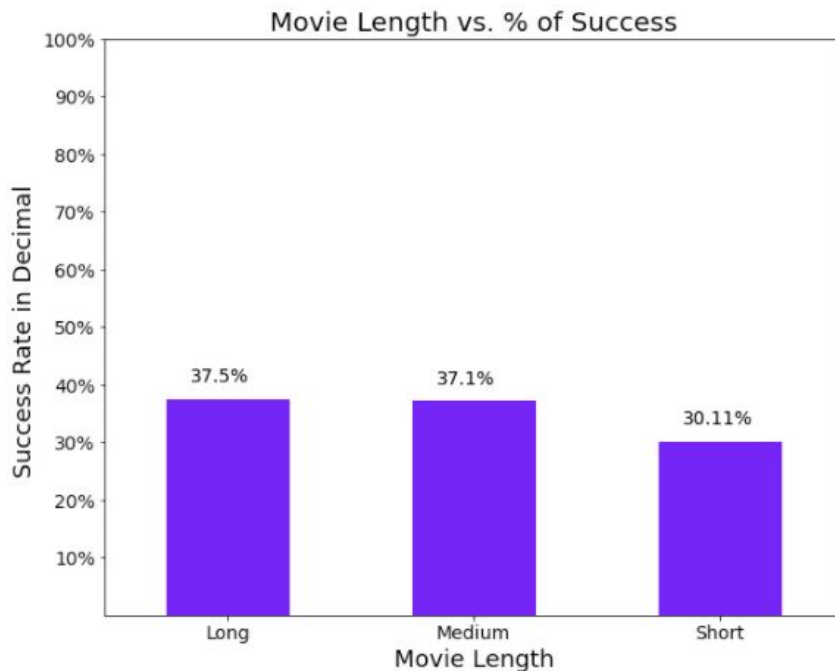
Movie Runtime  
(between 90 - 150 mins)

- Initial dataset reveals higher success rates for a higher duration movie runtimes



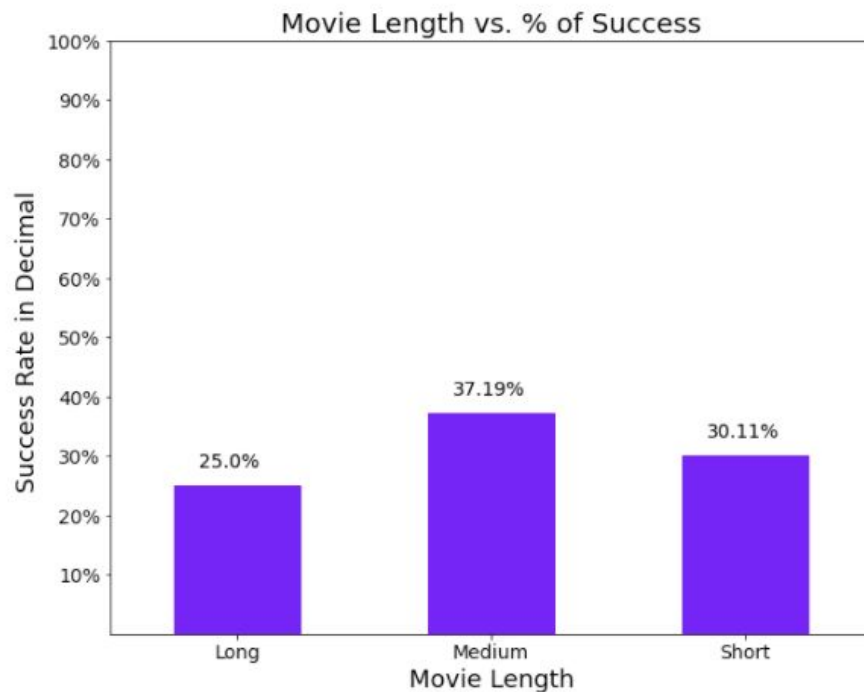
# Recommendation 1: Movie Runtime Runtime (90 and 165 mins)

90> runtime < 165 mins

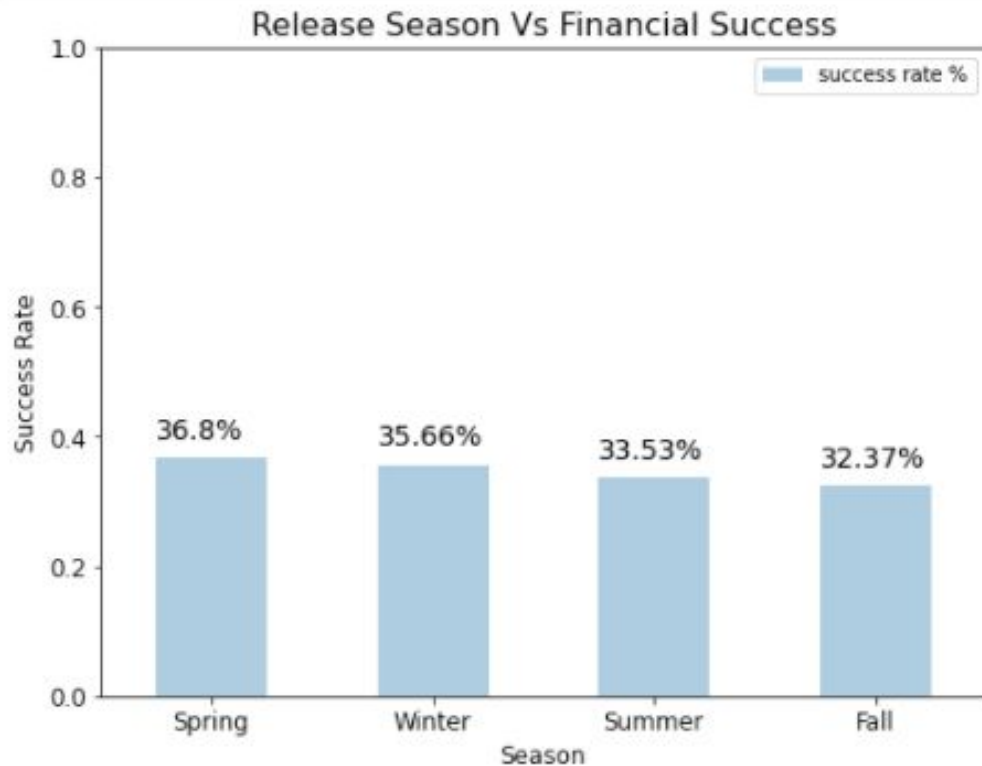


# Recommendation 1: Movie Runtime Runtime (90 and 170 mins)

90 < runtime < 170 mins

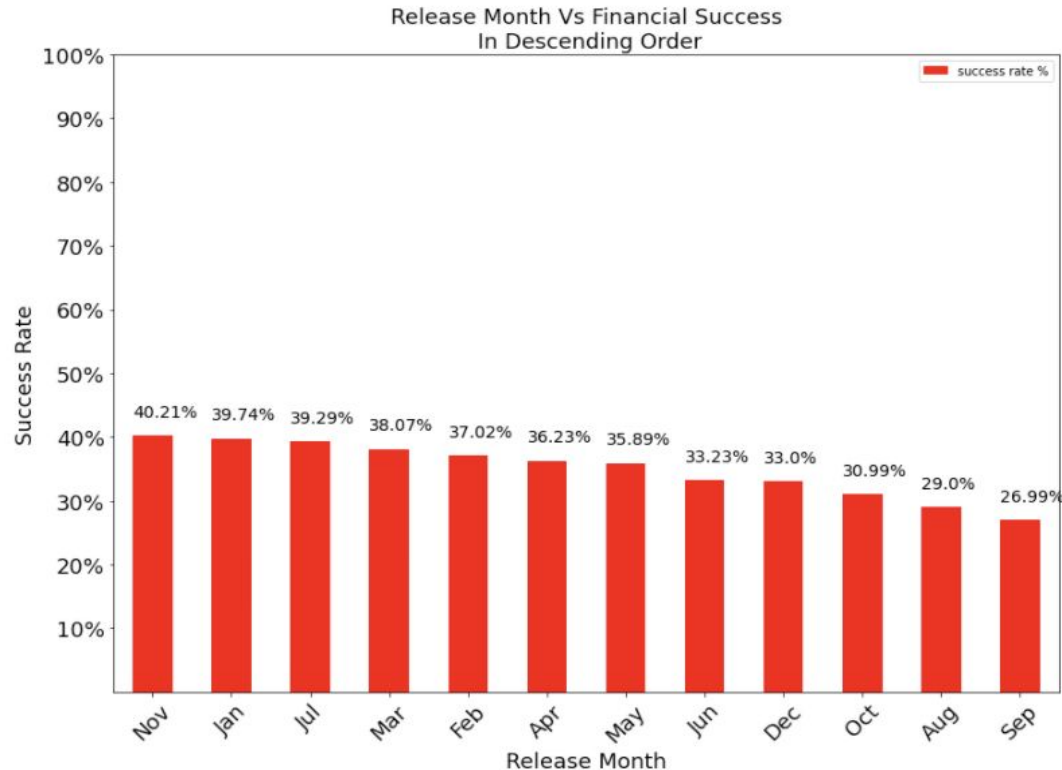


## Recommendation 2: Movie Release Month

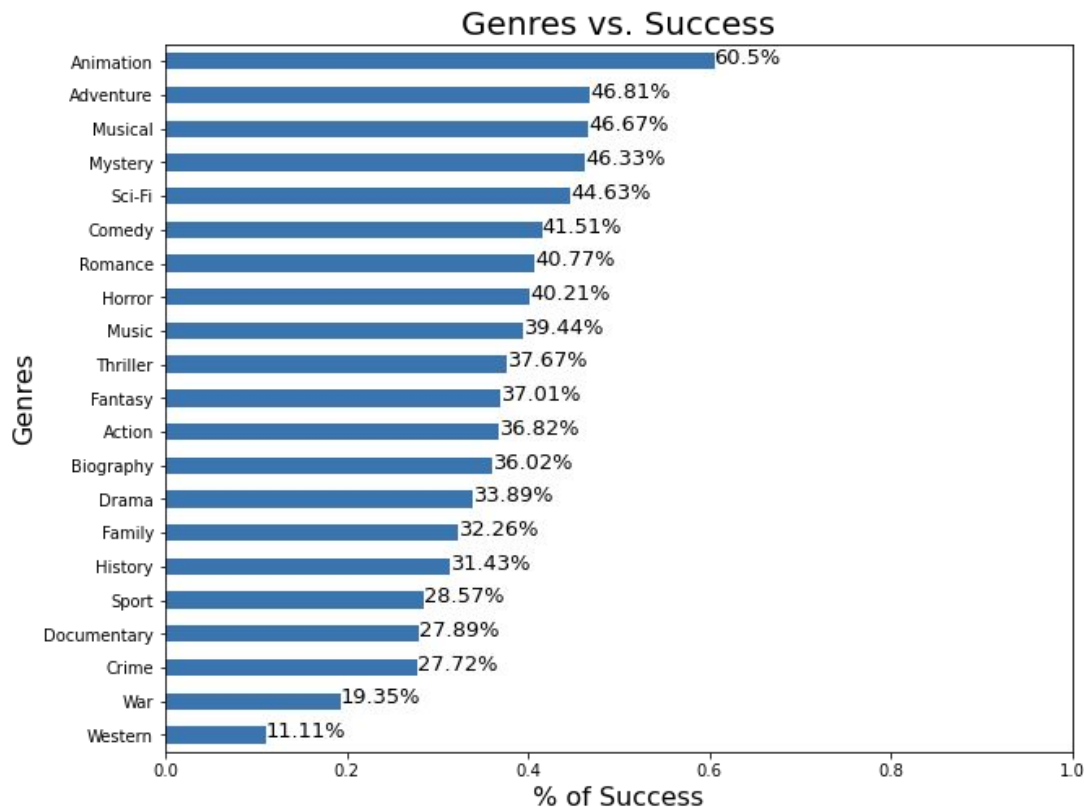




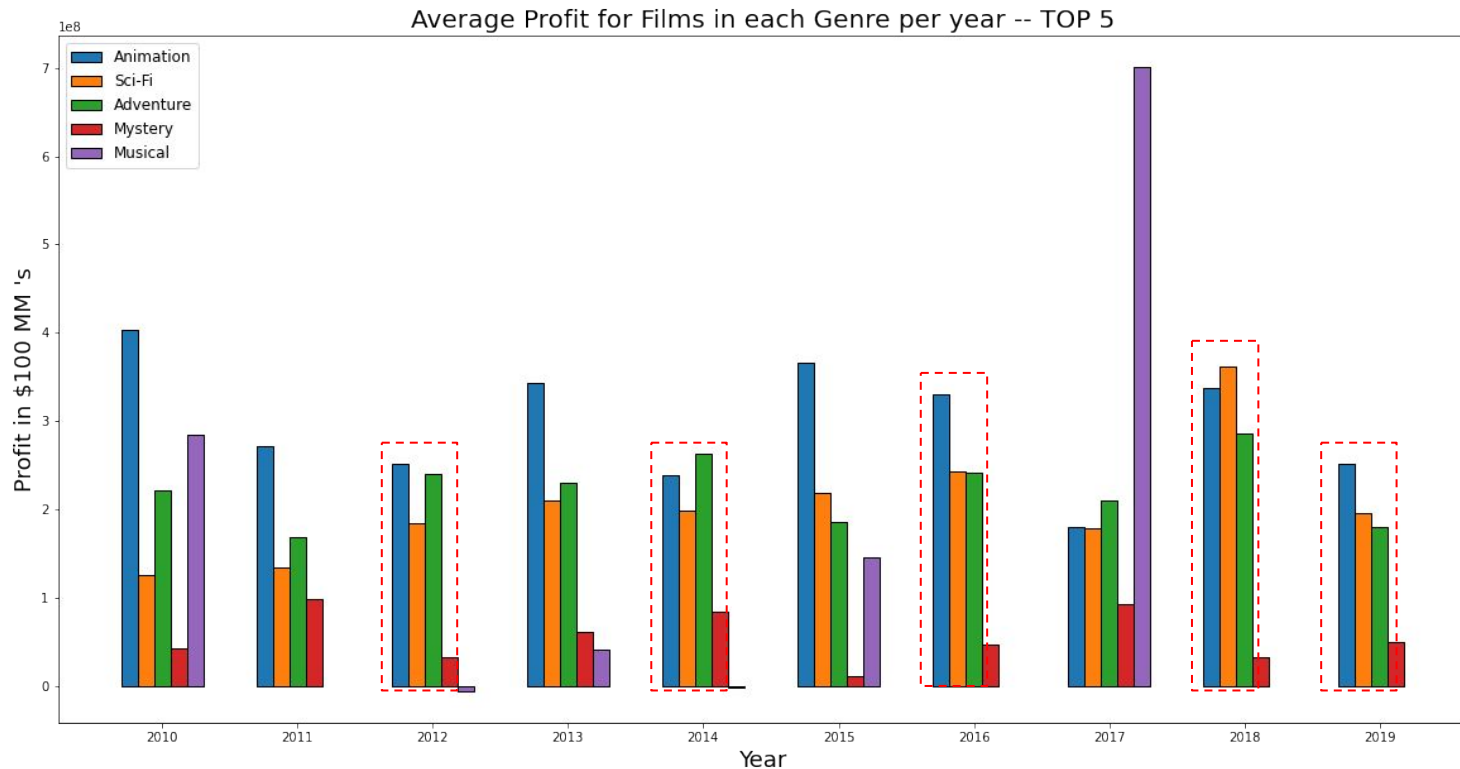
# Recommendation 2: Movie Release Month



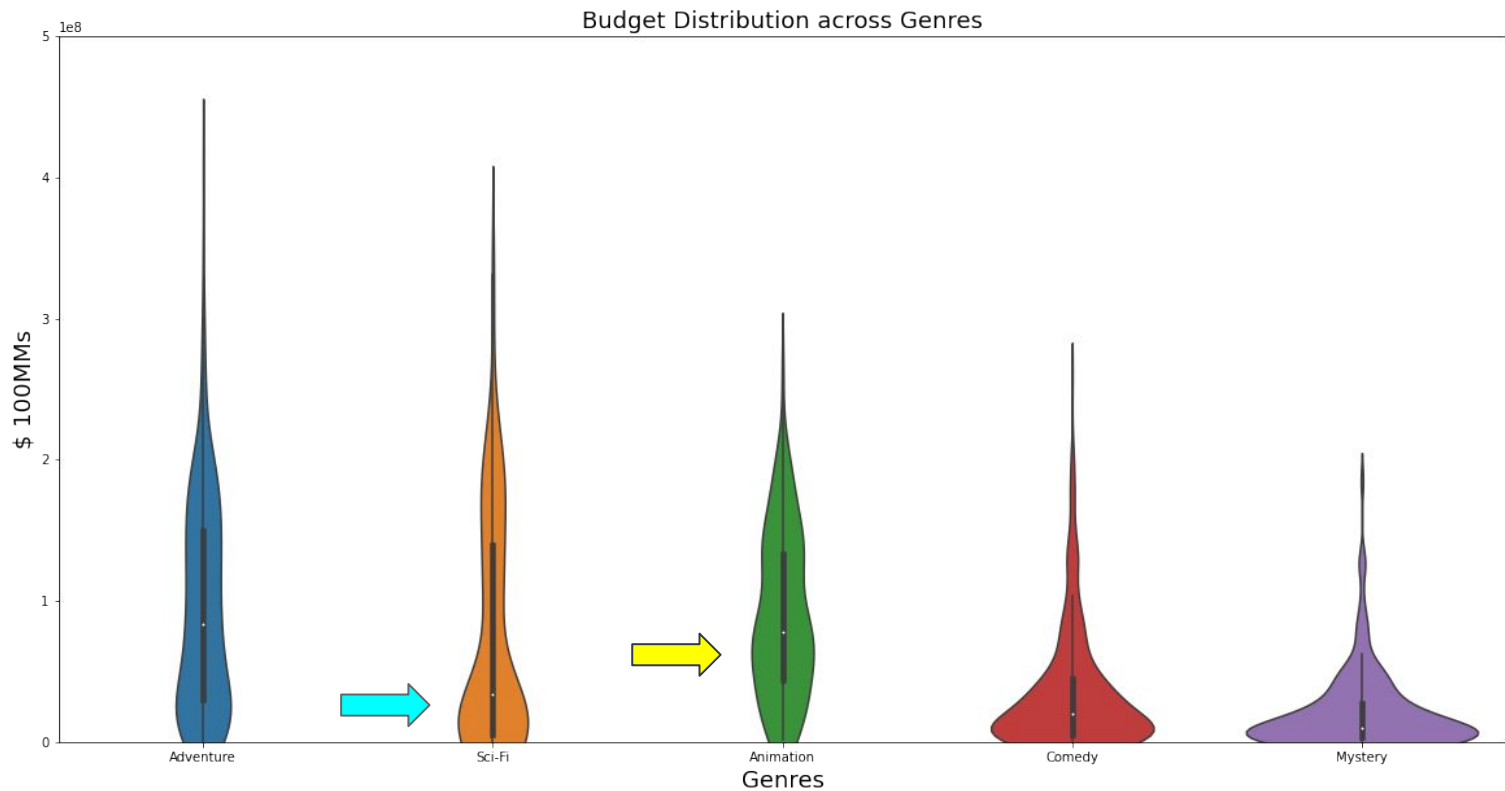
# Recommendation 3: Chance of Success by Genre



# Exploring Genres Further: Profits



# Exploring Genres Further: Budget



# What does that Mean?

**Expected ROI = Return on Investment × Probability of Success (Nov Release) × Probability of Success (By Genre)**

Genres	ROI
<i>Adventure</i>	0.804754
<i>Animation</i>	1.23558
<i>Sci-Fi</i>	1.737135



Genre	Expected ROI in November
<i>Adventure</i>	0.19572422
<i>Animation</i>	0.232506749
<i>Sci-Fi</i>	0.311663907

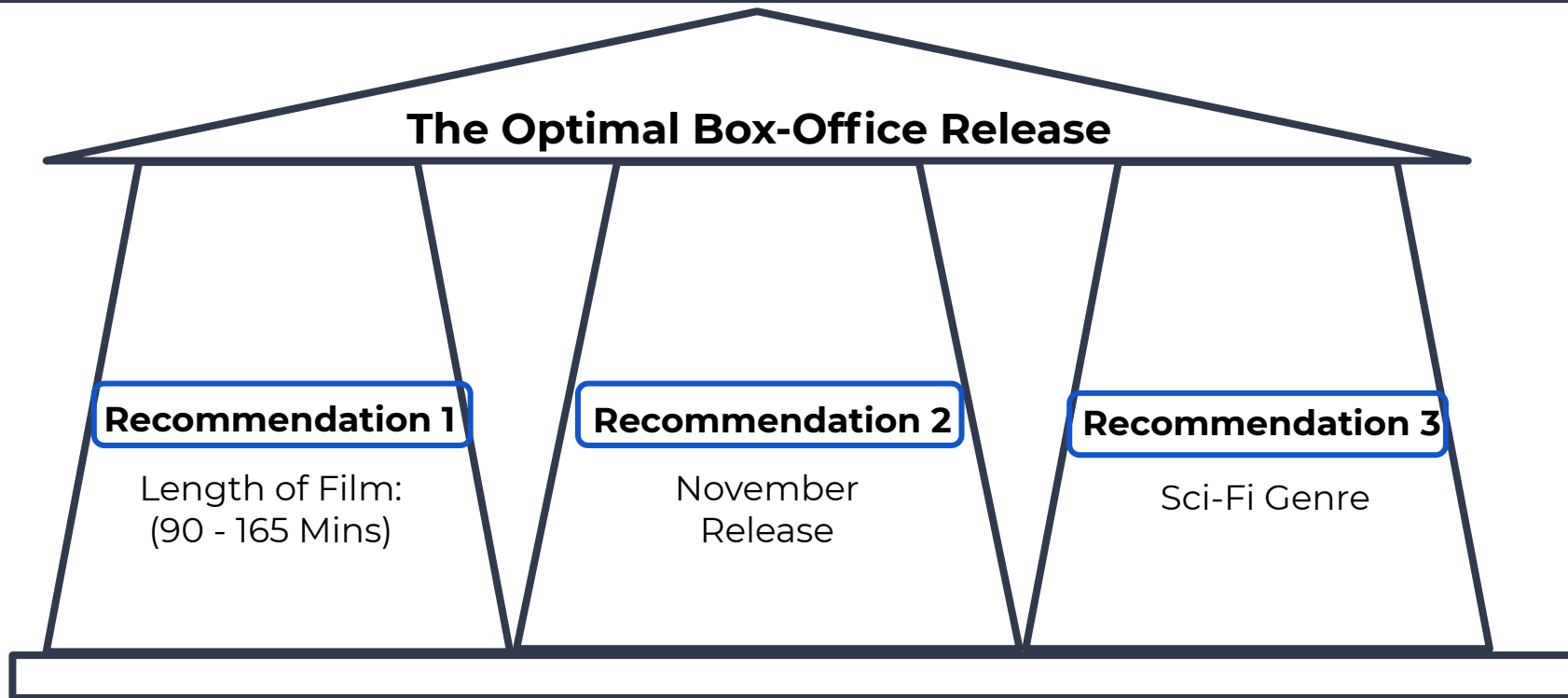
# Limitations and Next Steps

## 1. Model Limitations

- a. Data/Sample Size (Ex: musicals)
- b. Definition of Success
- c. Single-Genre Modeling

## 2. Movies Are an Art Form

# Conclusion



# Thank You

## Questions and Answers