Phase 2 Project Presentation

Business Problem.

The company decided to start a new movie studio to create original movie content.

Company doesn’t know anything about creating movies.

Company’s objective is to obtain actionable insights on current high-performing and trending movies.

These insights will help company decide on what movies to make.

Proposed Solution.

- Identify the most profitable movie genres.
- Identify key movie metrics that have impact on movie success.
- For each genre*, examine the effect of selected key metrics on movie's box office performance.
- Recommend metric values that would maximize the success for each genre*.

**In the context of available box office data for a genre*

Datasets.

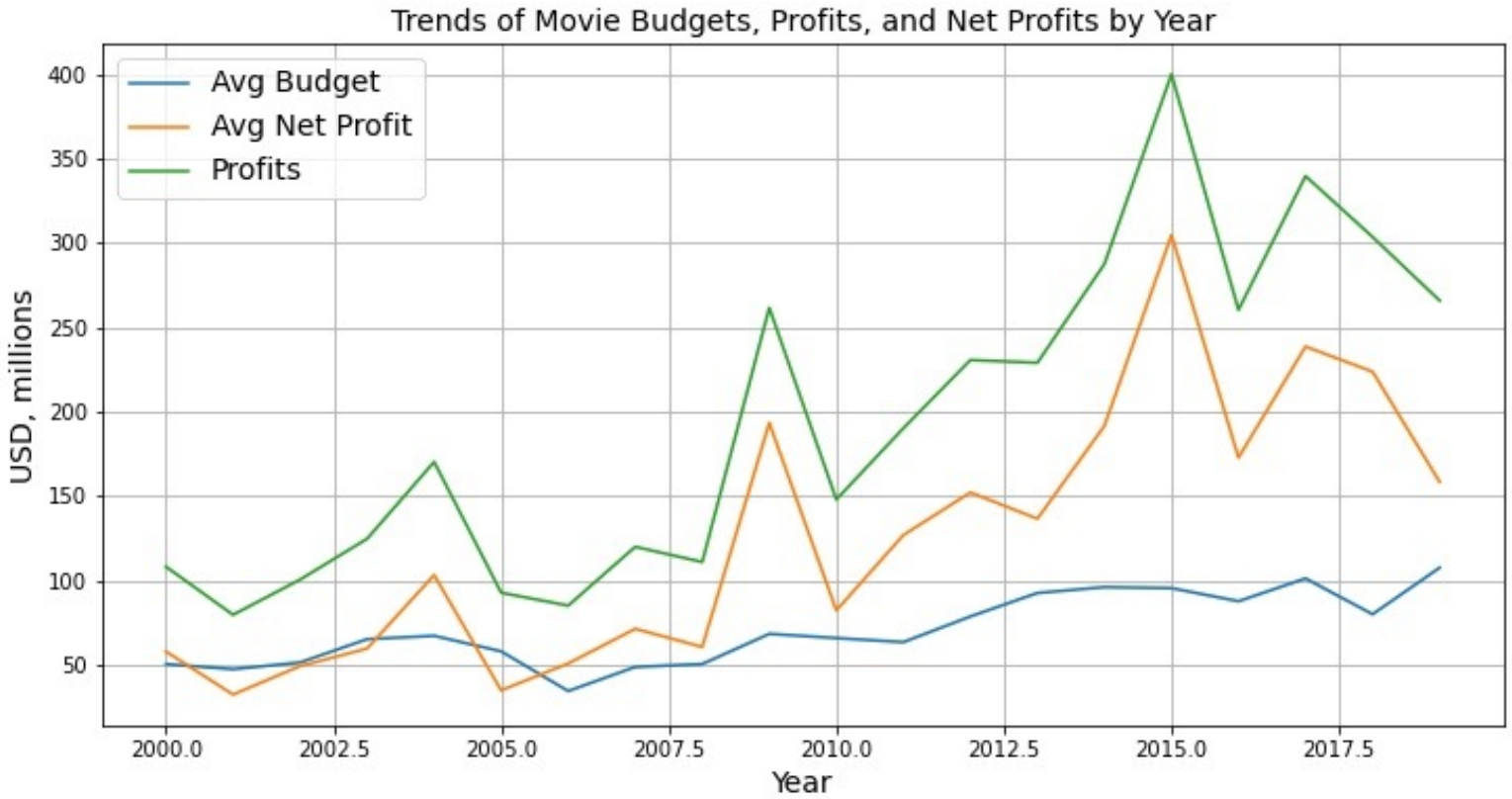
- Kaggle:
  - Oscar Awards.
  - Golden Globe Awards.
  - TMDB Dataset*.
  - Movies with Content Ratings*.
- IMDB Dataset.
- The Movie Dataset*.

**Dataset has Budget/Gross data.*

Data Manipulation.

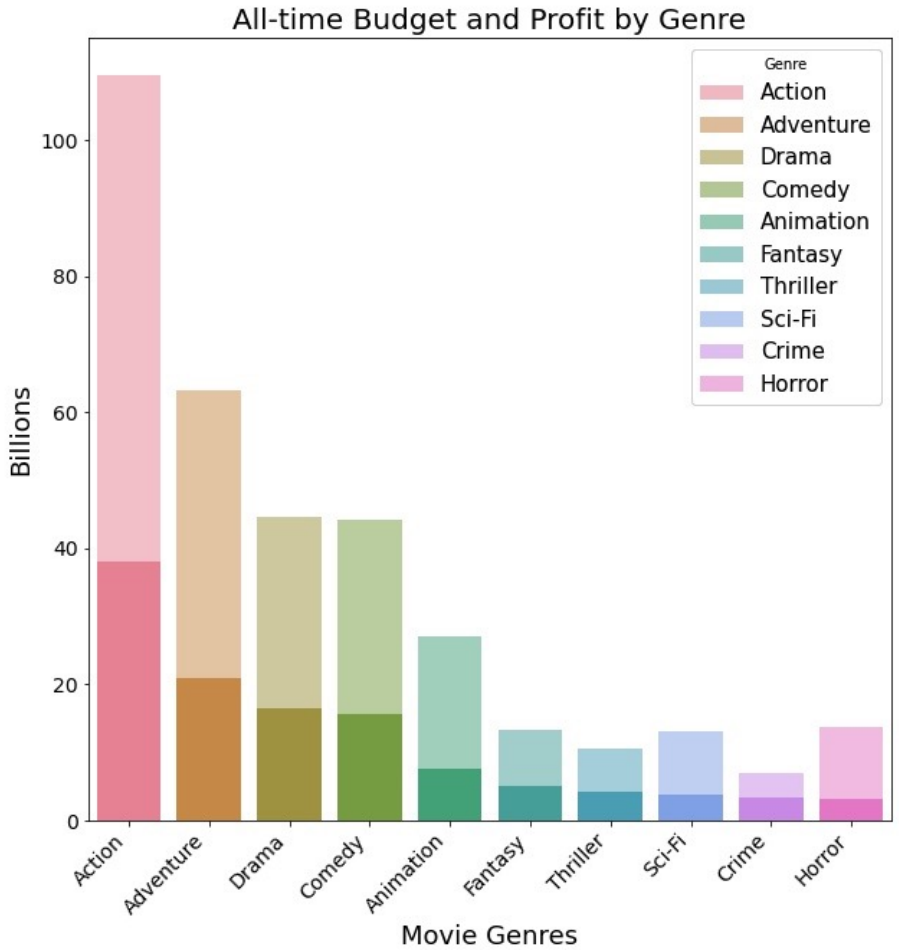
- For all datasets, we performed standard data cleaning.
- We added cast and crew data to IMDB and TMDB movies datasets.
- We added budget data to IMDB dataset.
- We added data on critically acclaimed cast and crew to IMDB, TMDB.
- We merged IMDB dataset with TMDB dataset.

Historic Trends of Movies Budgets and Profits.



Average budget increase is 100%, gross increase is 300%.

Identifying Top 10 Most Profitable Genres.



Action is the most expensive and most profitable genre.

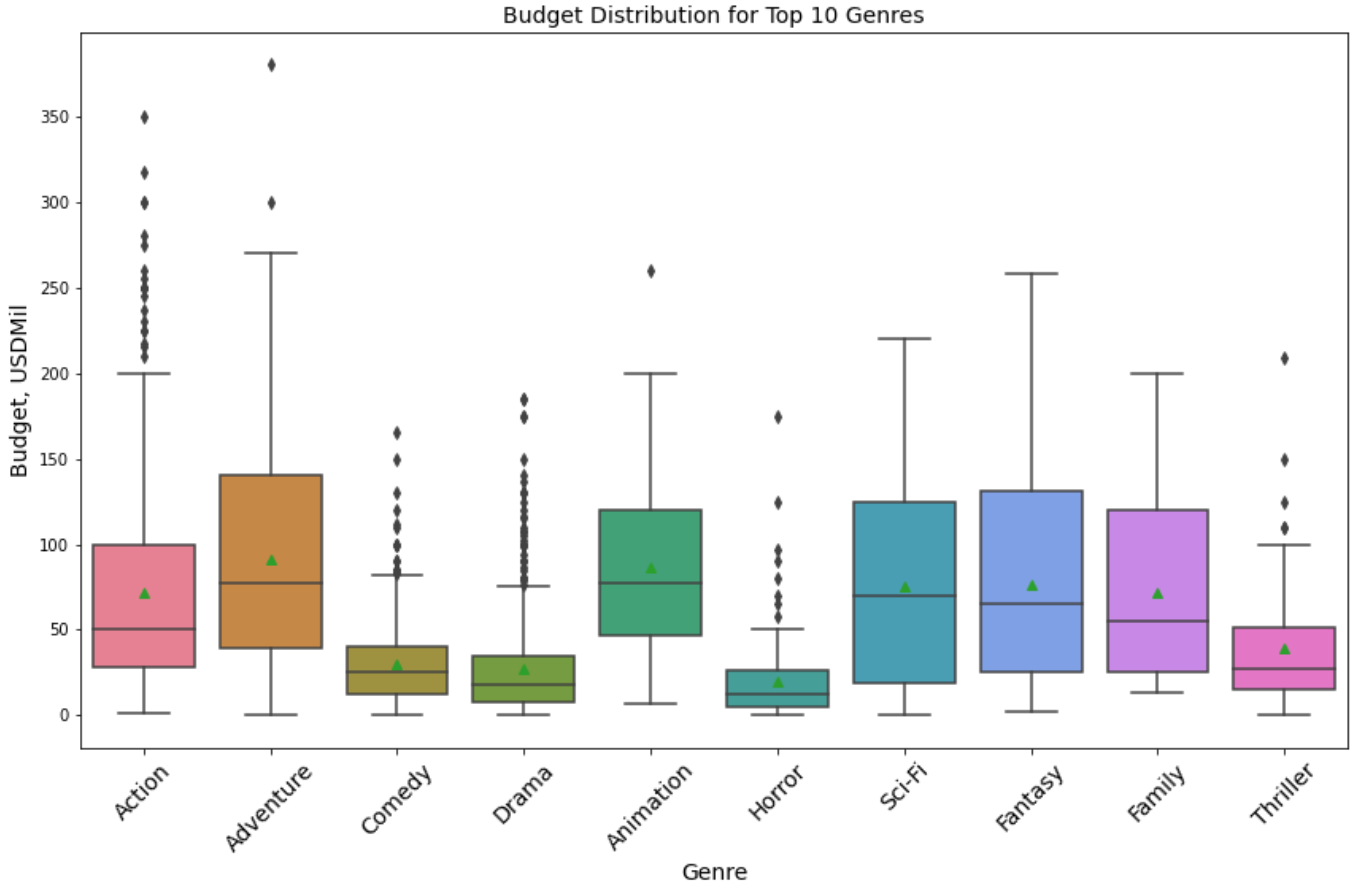
Introducing Key Profit Analysis Metrics.

Movie Budget

Movie Profit

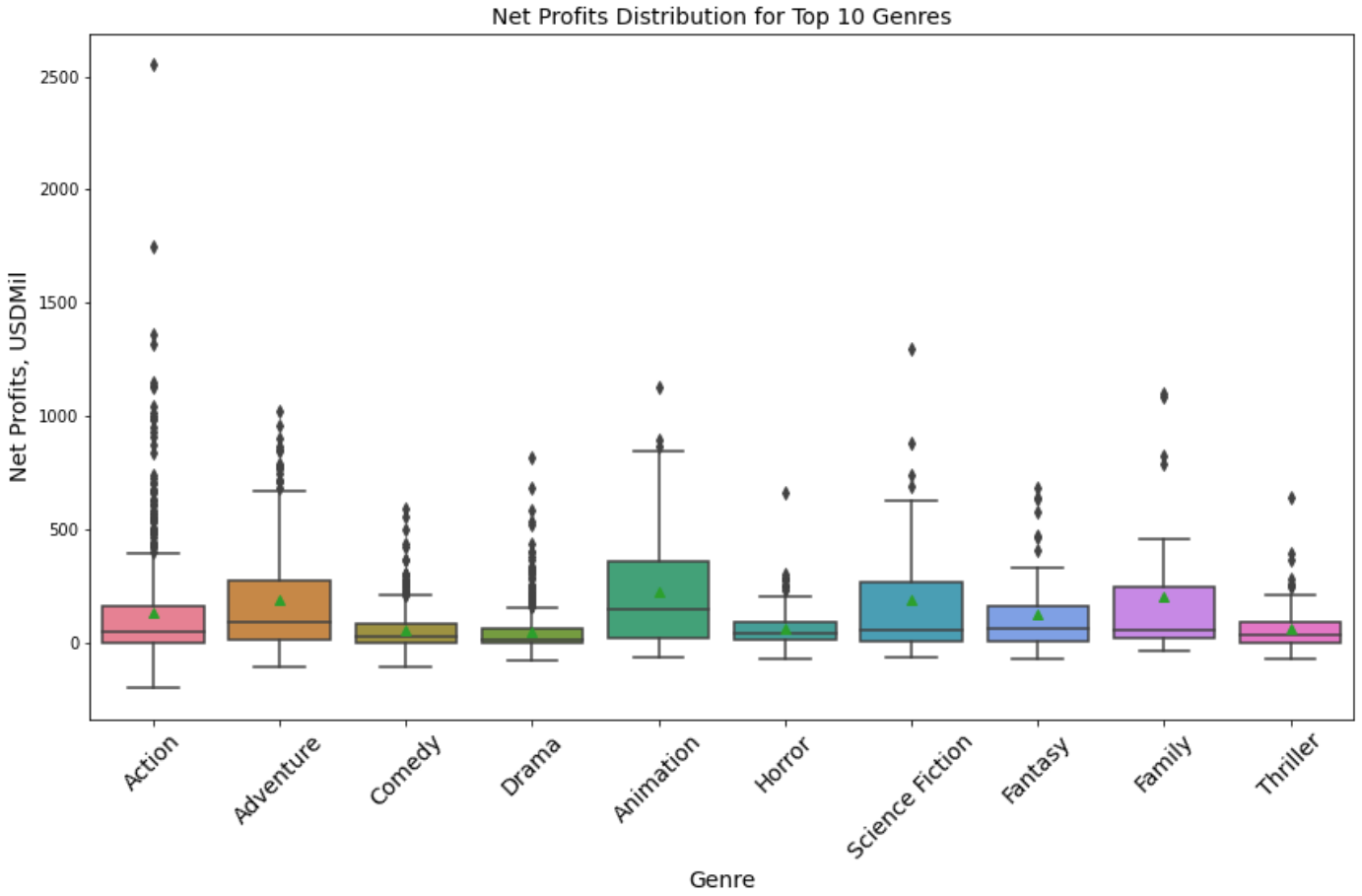
- Movie Genre.
- Release Time.
- Movie Duration.
- Content Rating.
- Cast and Crew.
- Accolades.

Average Budget Distribution for Top-10 Genres.



Budgets are spread out for all genres except Comedy, Drama, Horror.

Average Profit Distribution for Top-10 Genres.



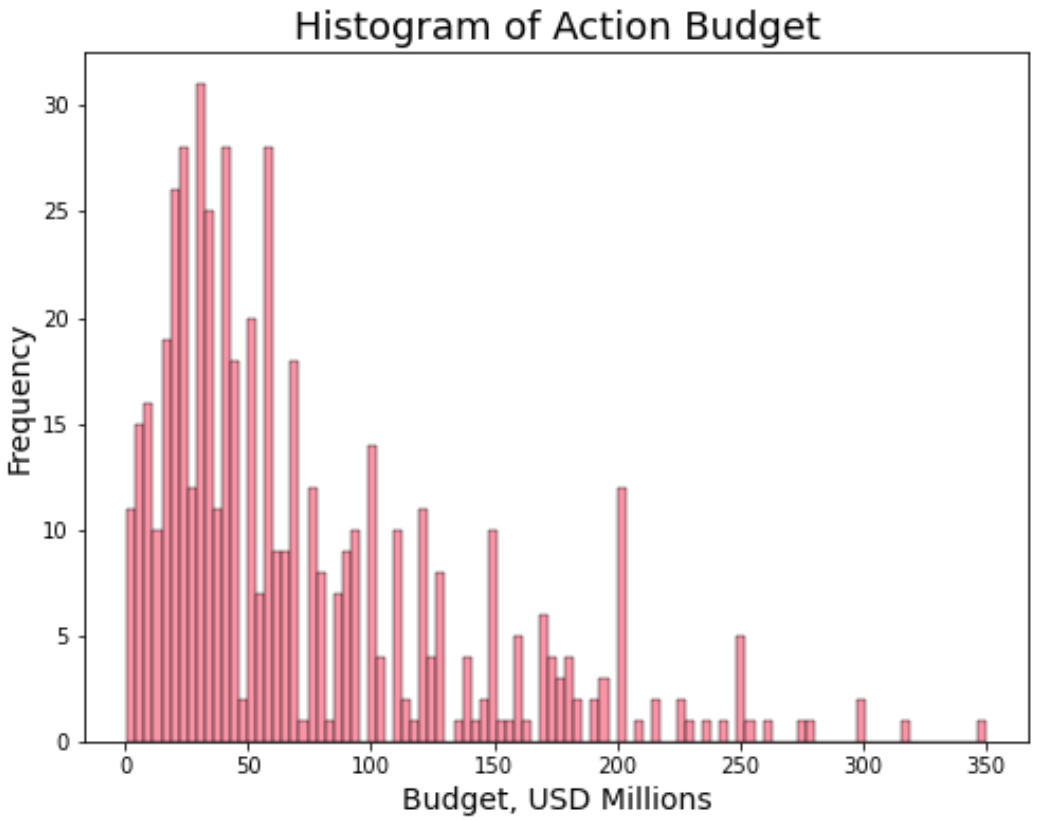
Profits follow the budget trend.

Adventure has the biggest number of movies with zero or negative net profit.

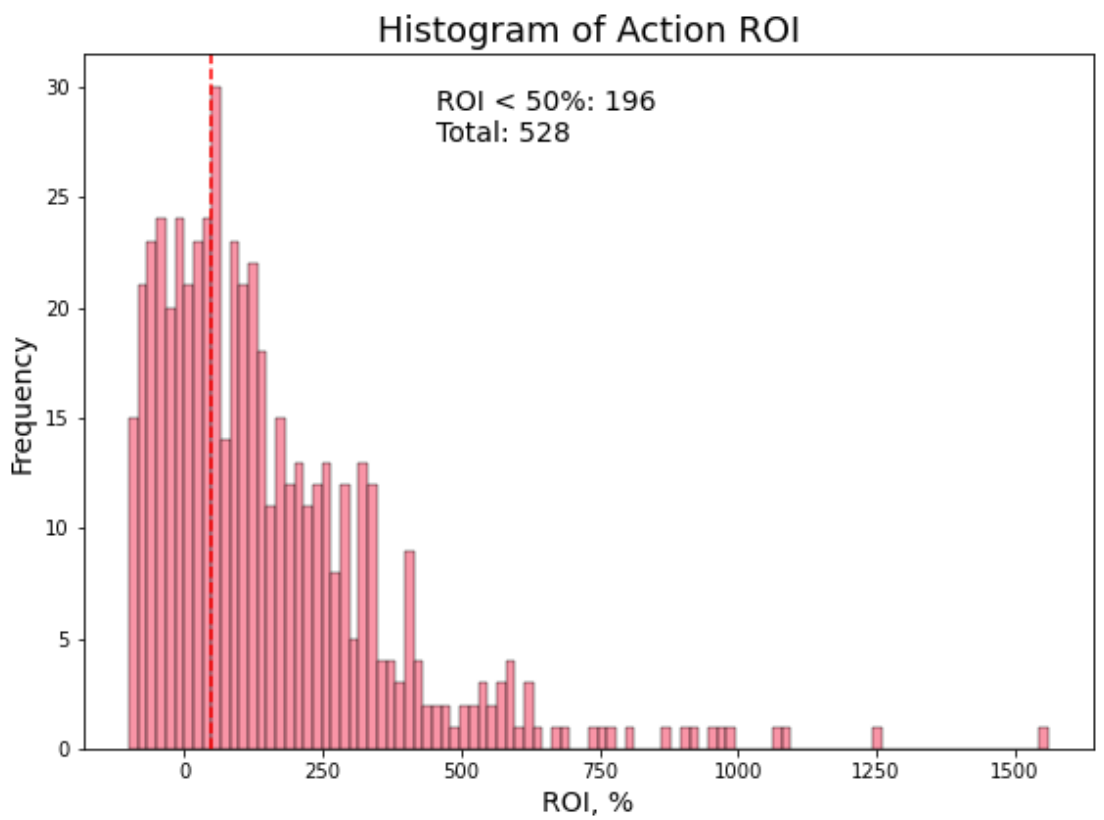
Action: Profit Analysis using Key Metrics.

- Sub-Genre.
- Release Time.
- Movie Duration.
- Content Rating.
- Cast and Crew.
- Accolades.

Action: Budget and ROI.

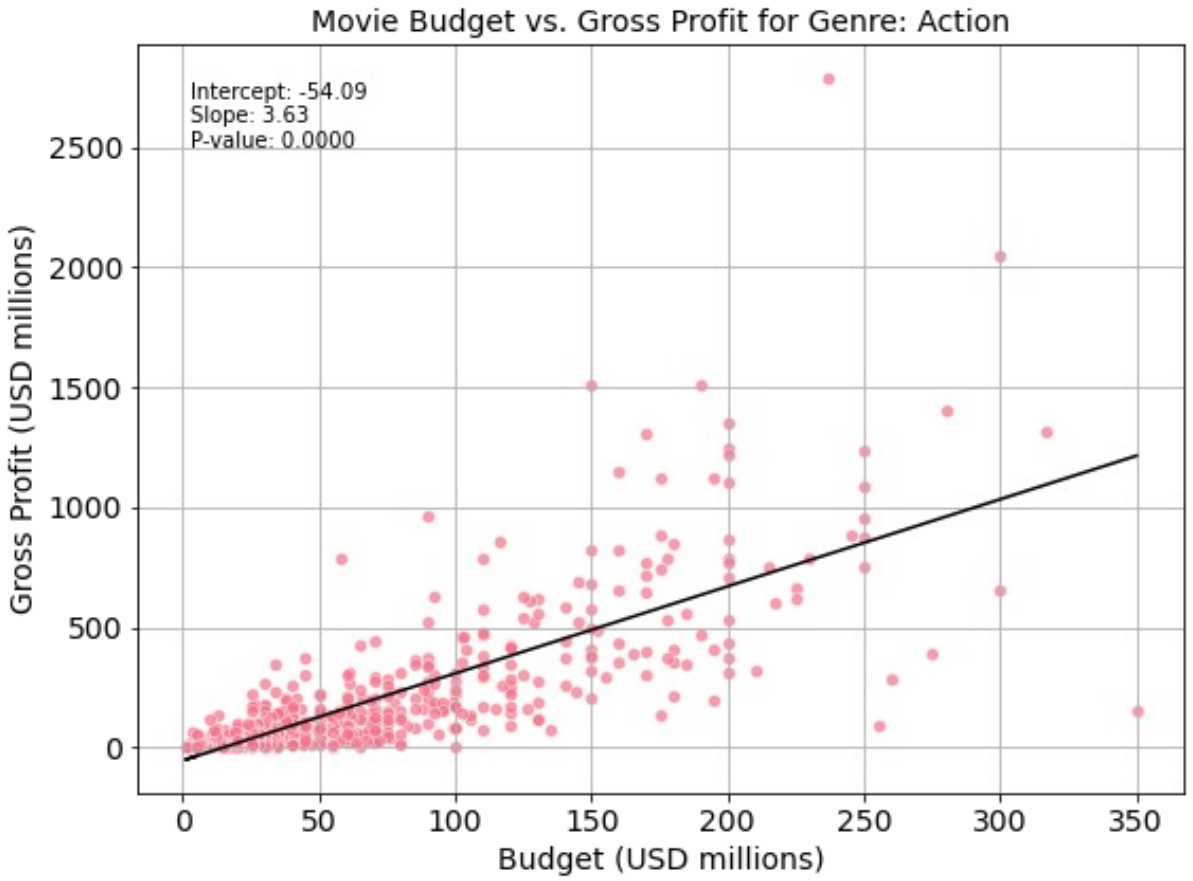


Median Action Budget is 50-100 millions.



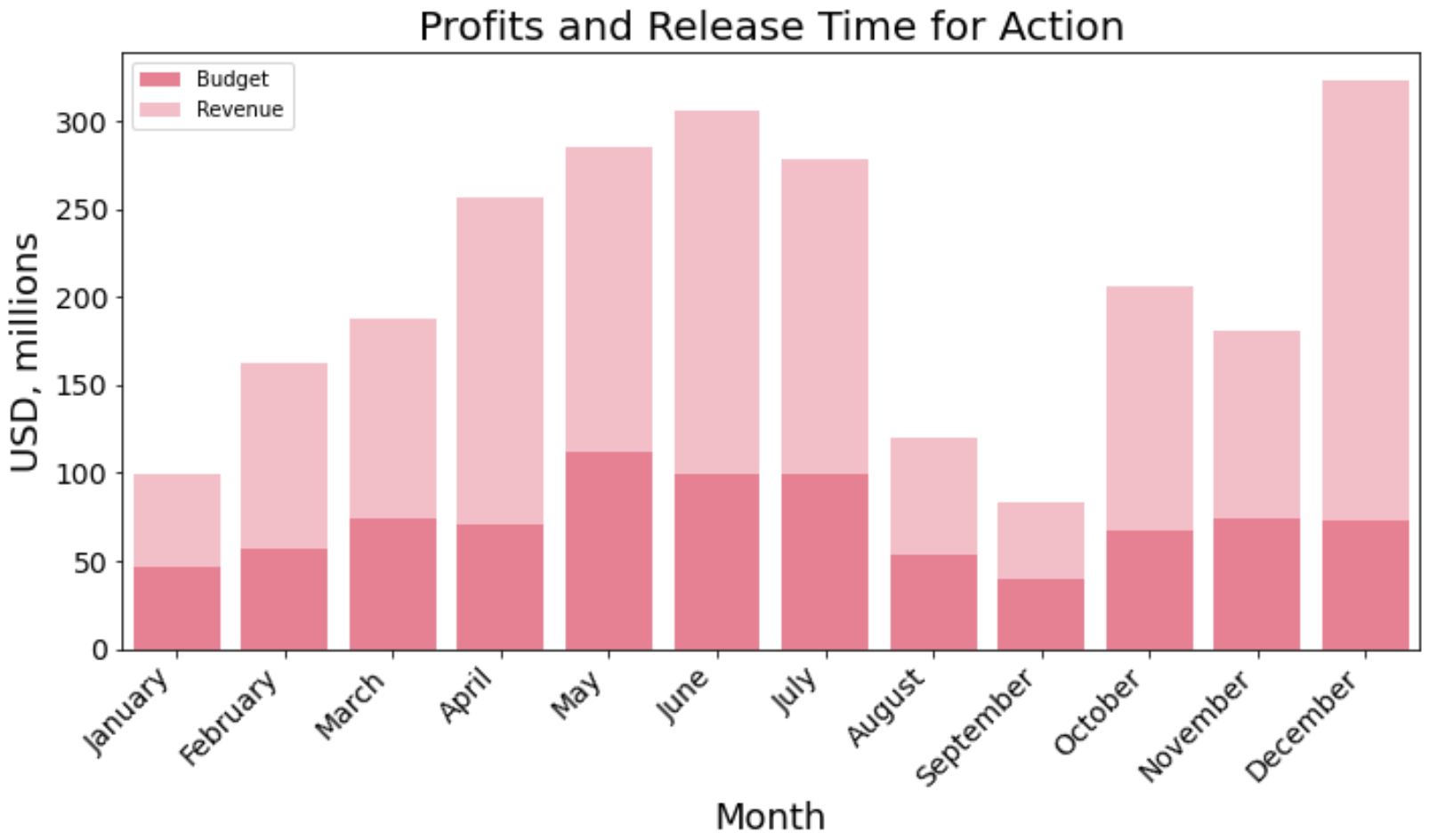
Action genre has 37% of movies with ROI<50%.

Action: Modelling Expected Profits.



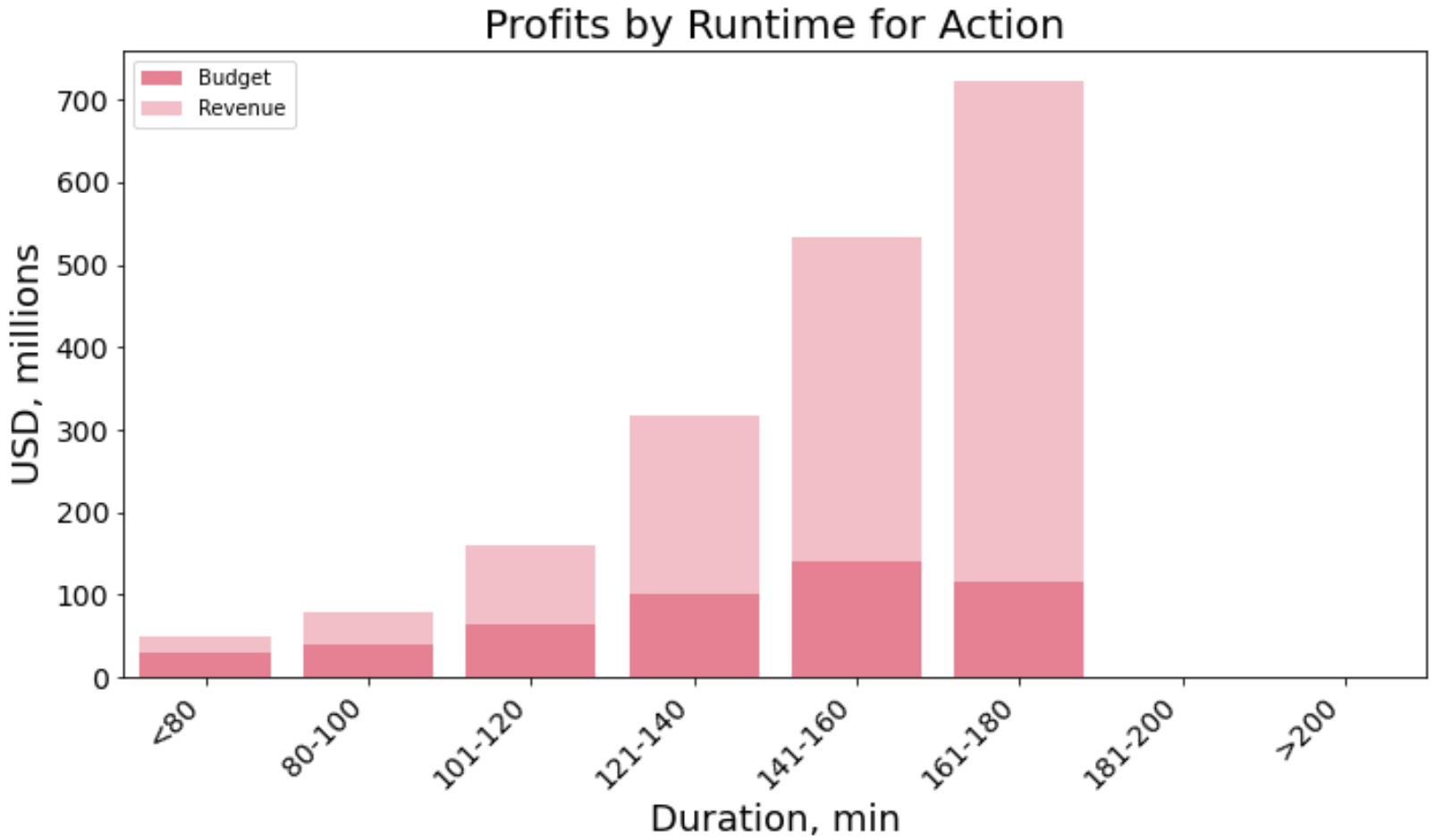
For every million invested, expected return is 3.63 millions.

Action: Recommended Release Time.



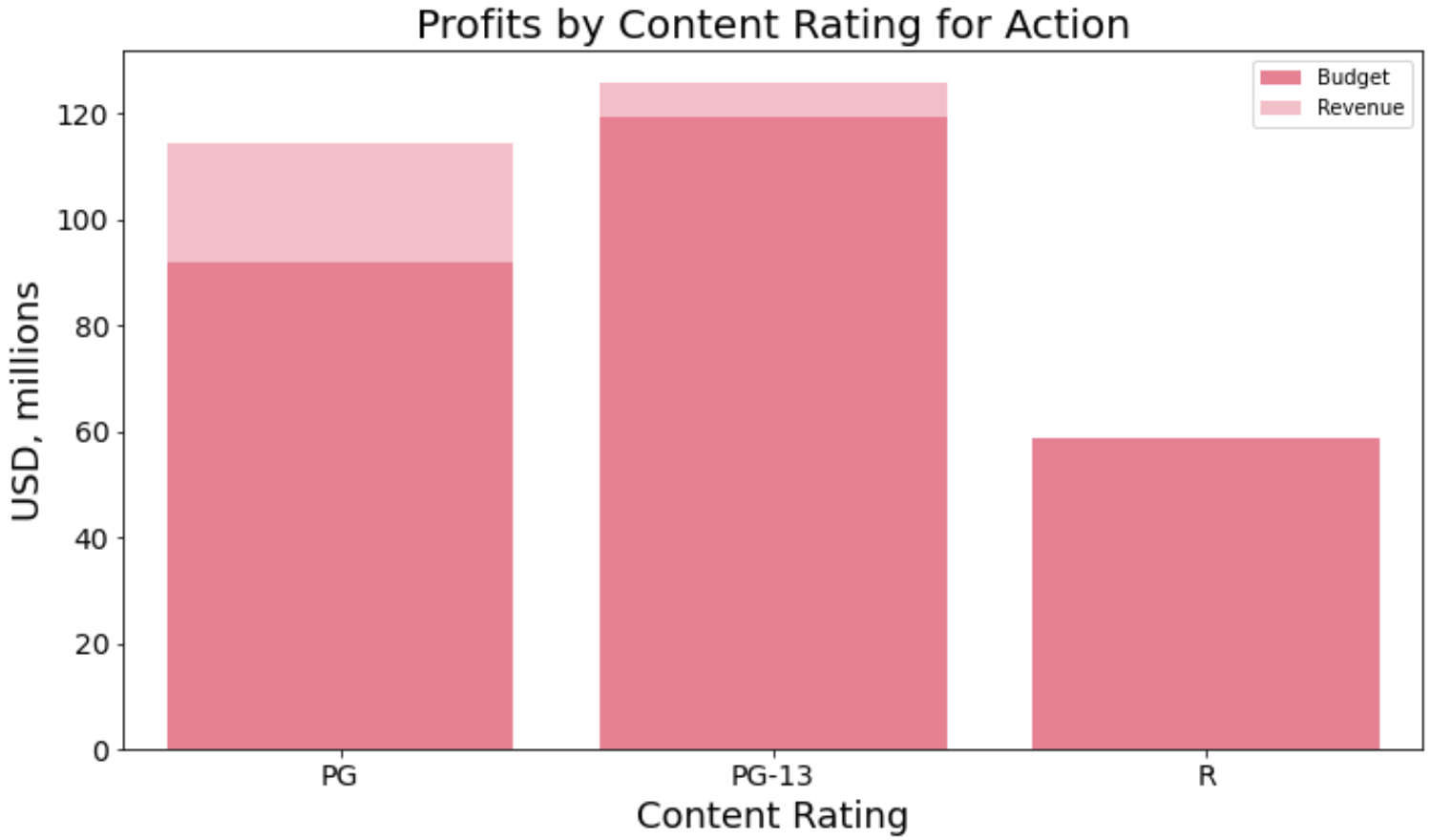
Movies released in summer and holiday season have the largest gross.

Action: Recommended Movie Duration.



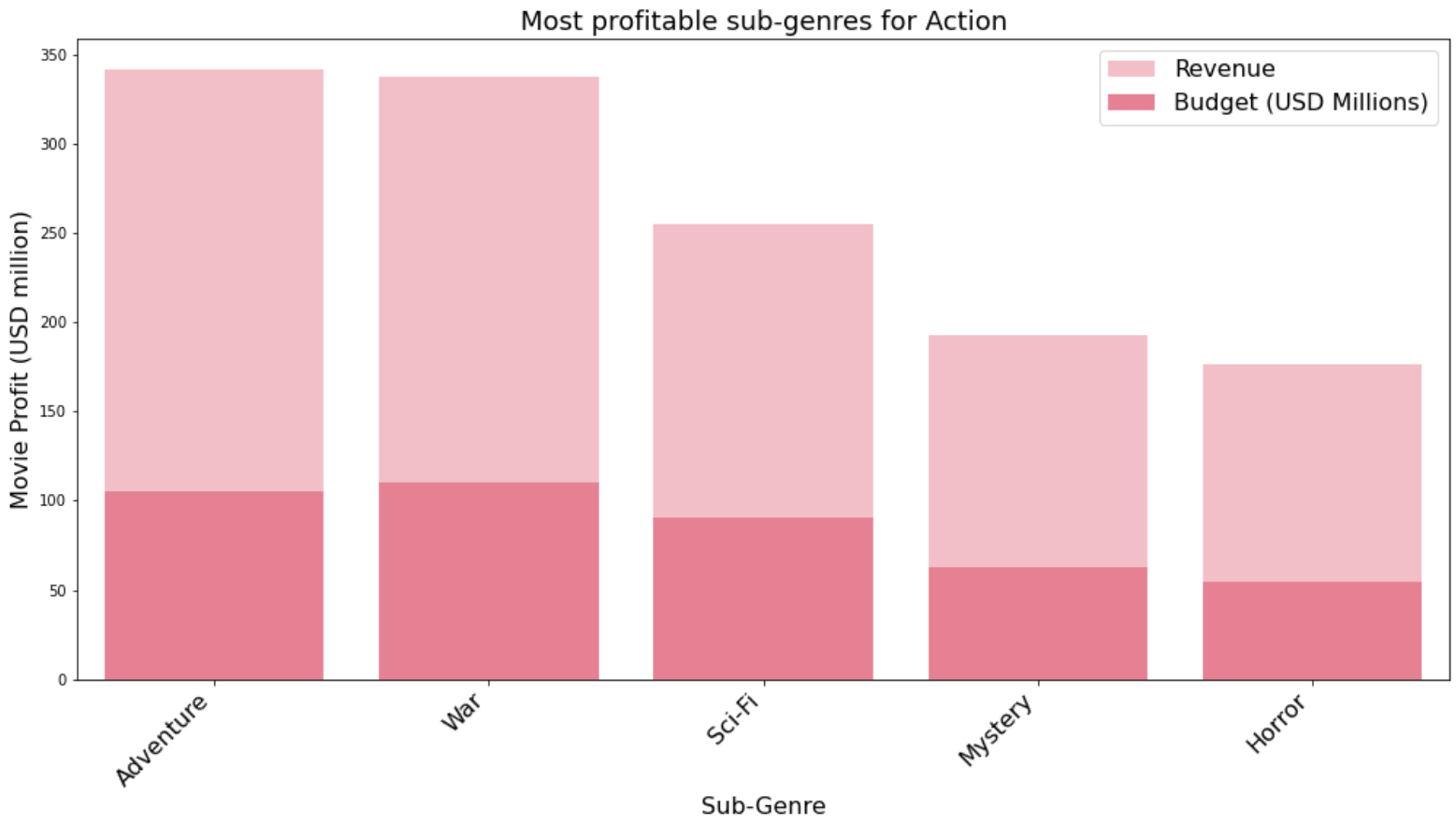
Longer movies have biggest gross.

Action: Recommended Content Rating.



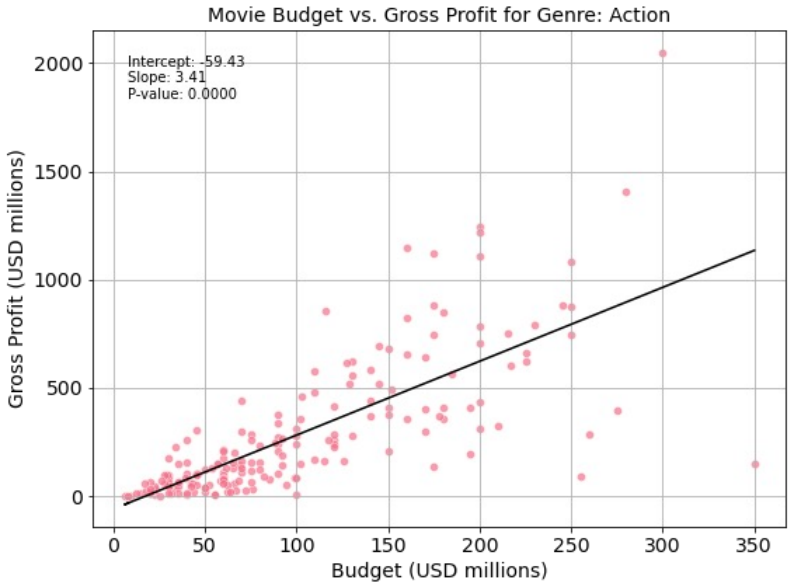
Family-Friendly movies have bigger revenue.

Action: Recommended Sub-Genres.



Subgenres Adventure, War, Sci-Fi have largest gross.

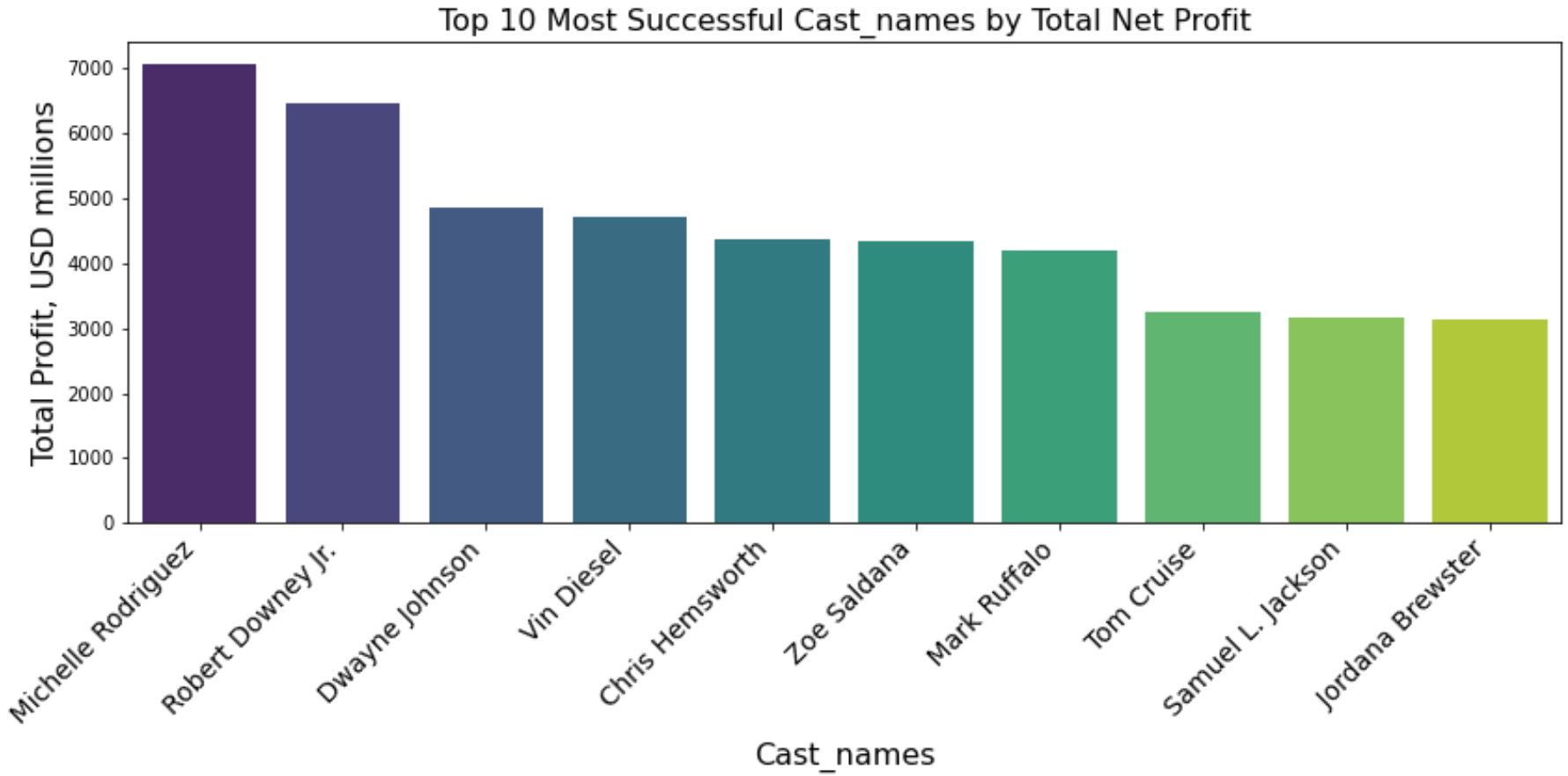
Action: Critically Acclaimed Cast/Crew



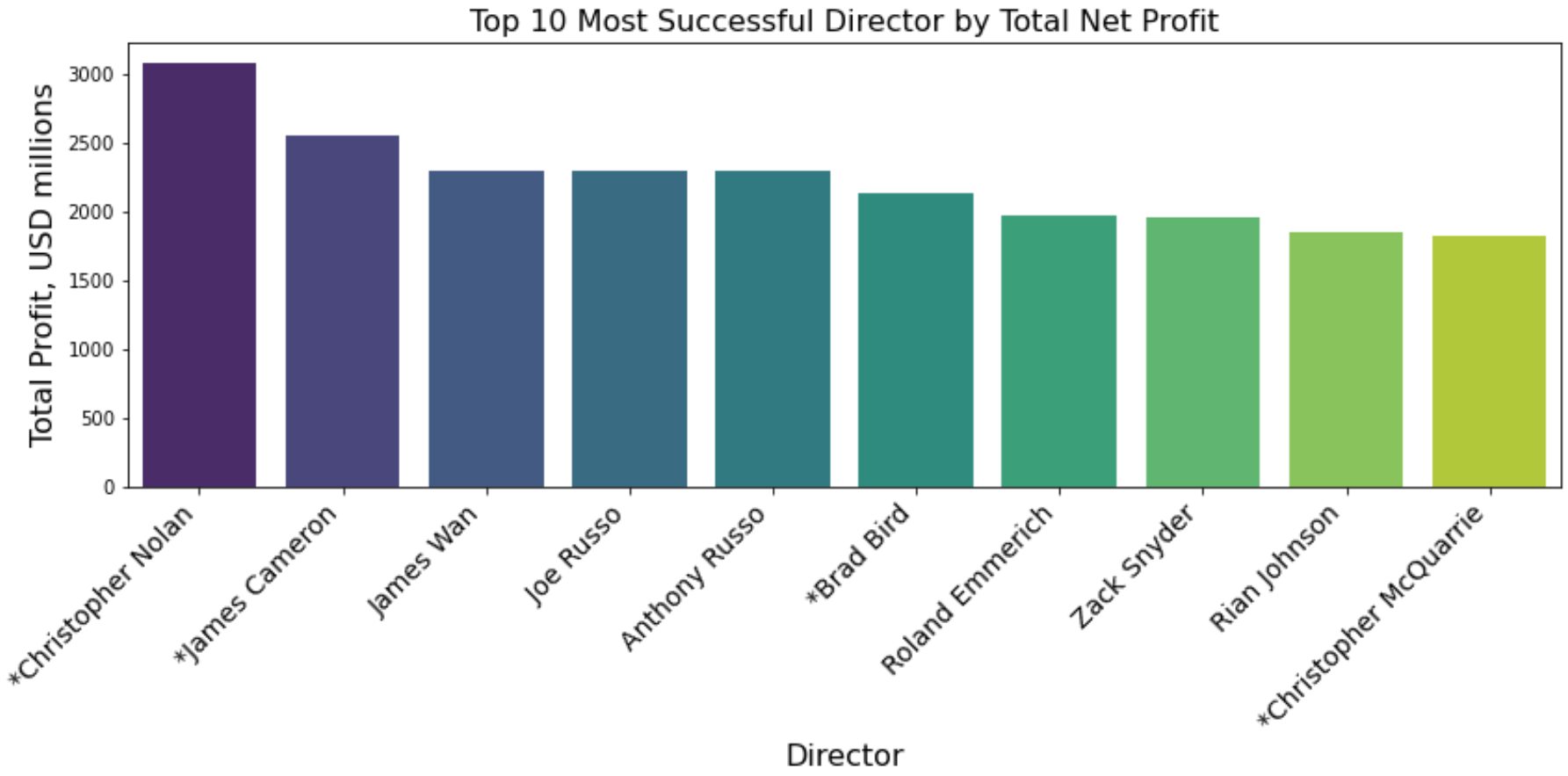
Expected return coefficient for $1 with critically acclaimed cast: ***3.41.***

Expected return coefficient for $1 with critically acclaimed cast: ***7.3.***

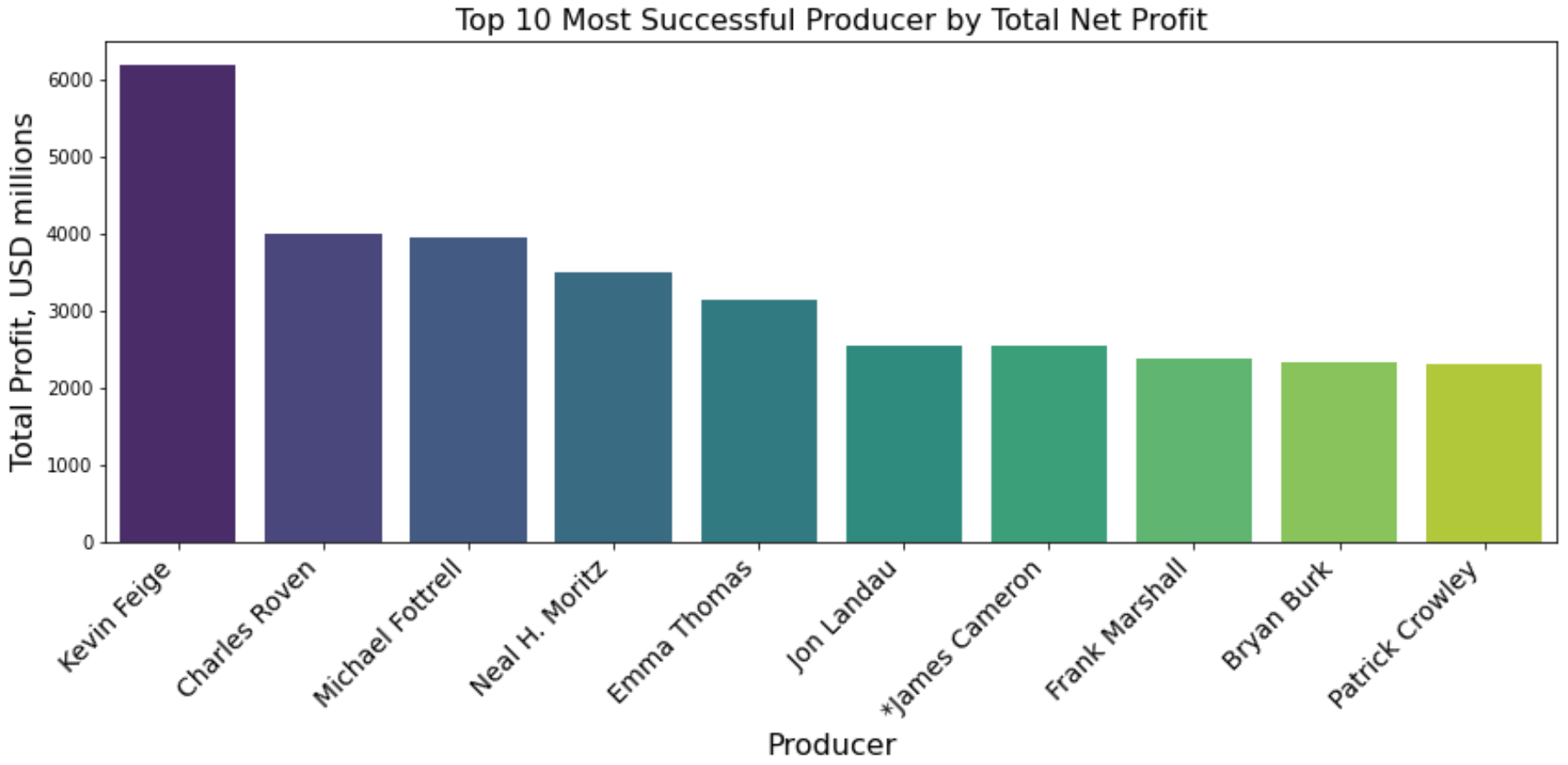
Action: Recommended Cast.



Action: Recommended Crew (Directors).



Action: Recommended Crew (Producers).

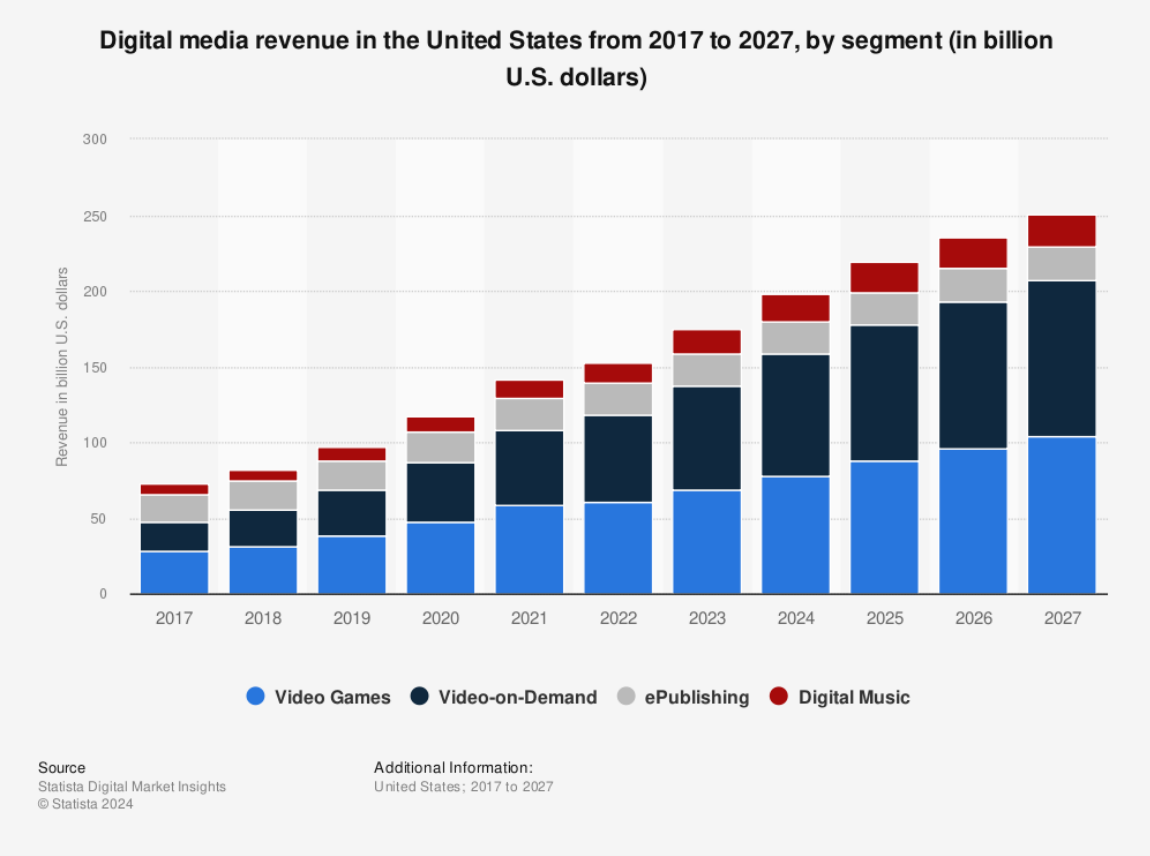


Action: Conclusion.

Key Feature	Recommended Value
Budget	$50-100 million
Content Rating	PG-13
Release Time	Early Summer, Holiday Season
Duration	2-3 hours
Subgenres	Adventure, Sci-Fi.
Expected Return Coefficient	3.6
Acclaimed Cast	No
Acclaimed Crew	Yes

Future work.

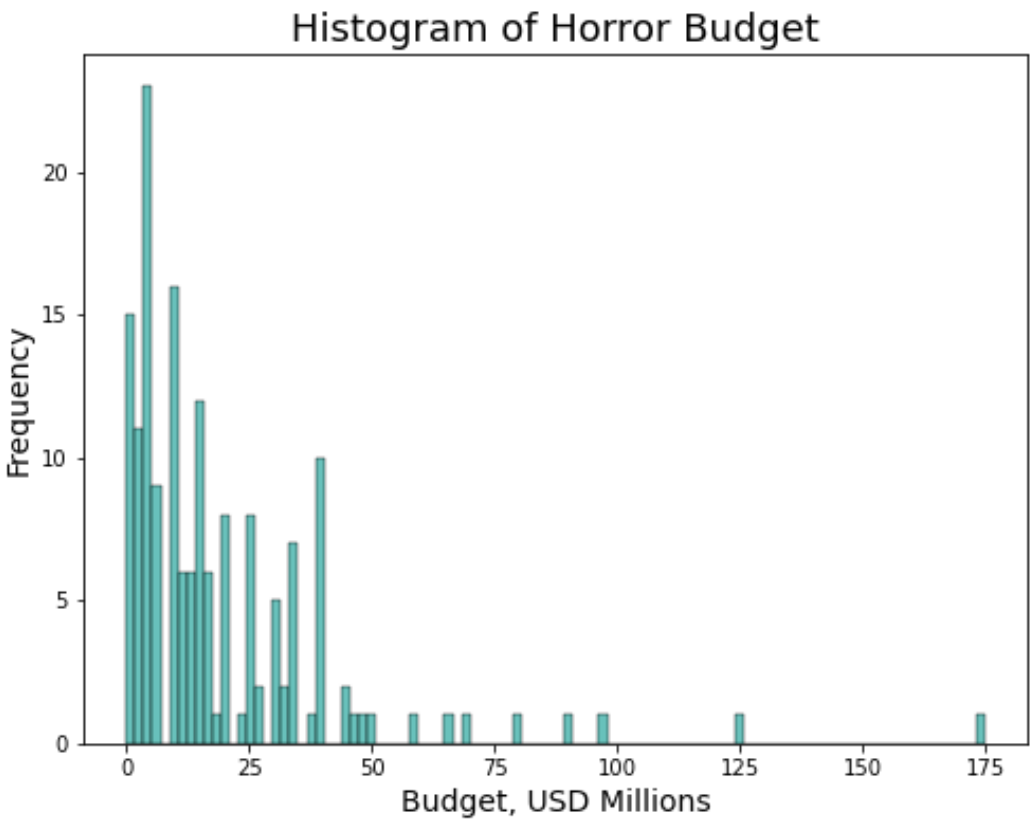
- Source Better Data.
- Consider Franchise Revenue.
- Consider Movie Streaming Revenue.

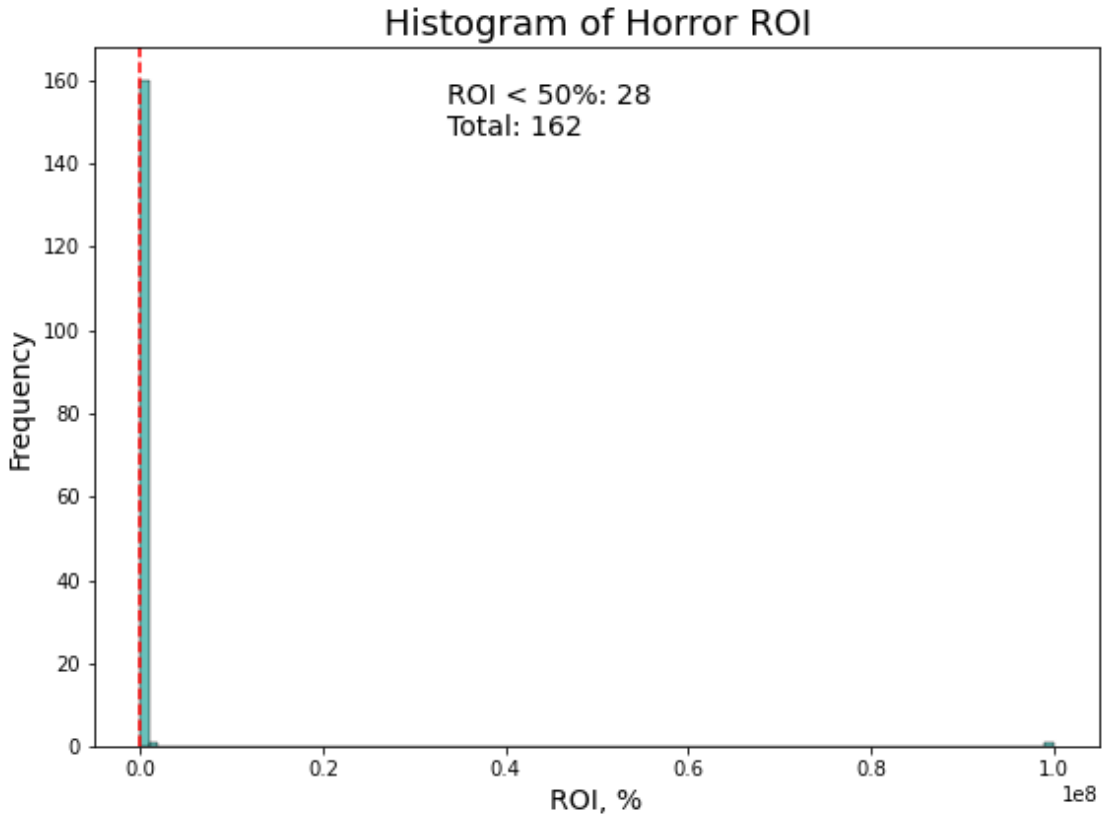


Thank you!

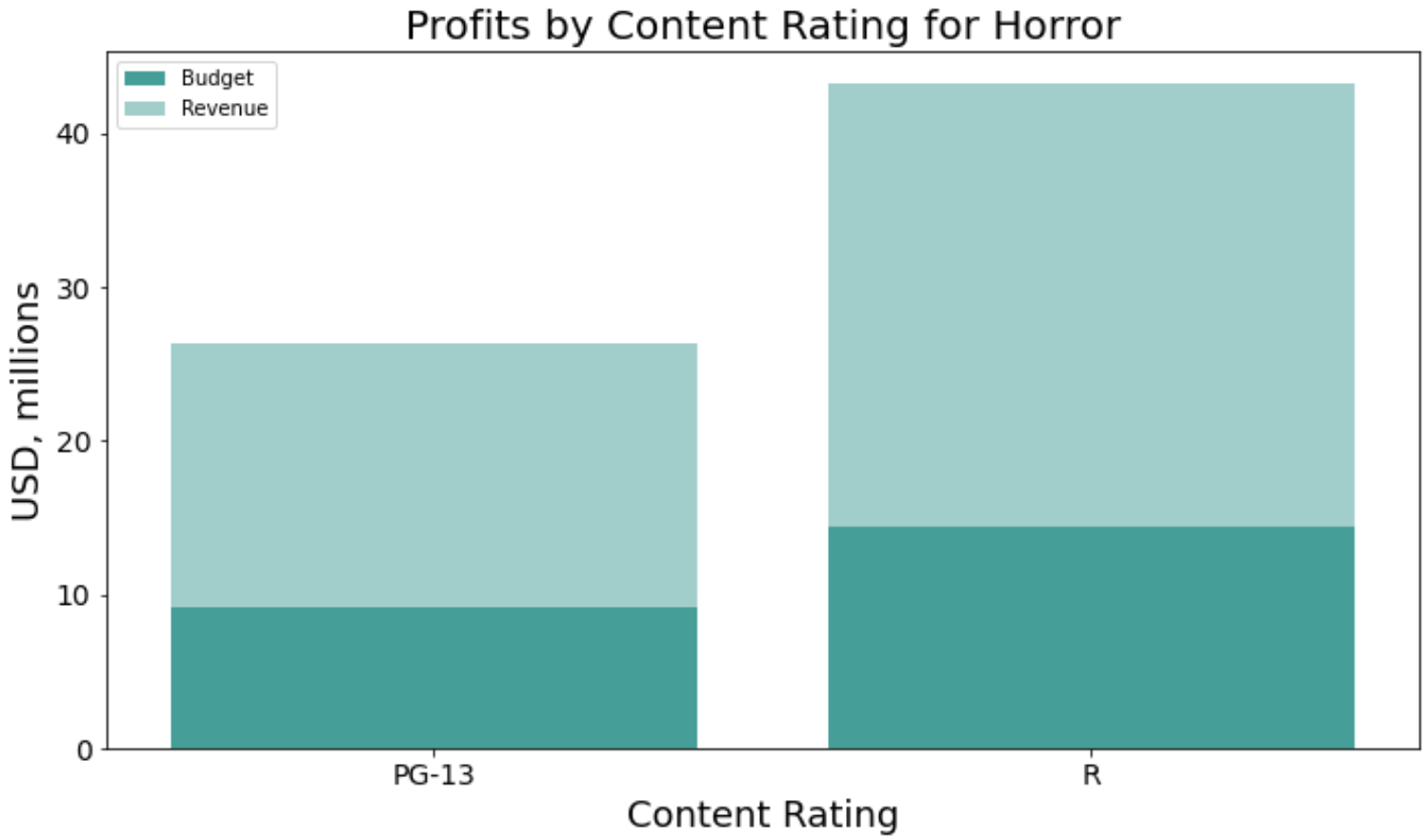
Extra slides (Horror)

Horror: Budget and ROI.



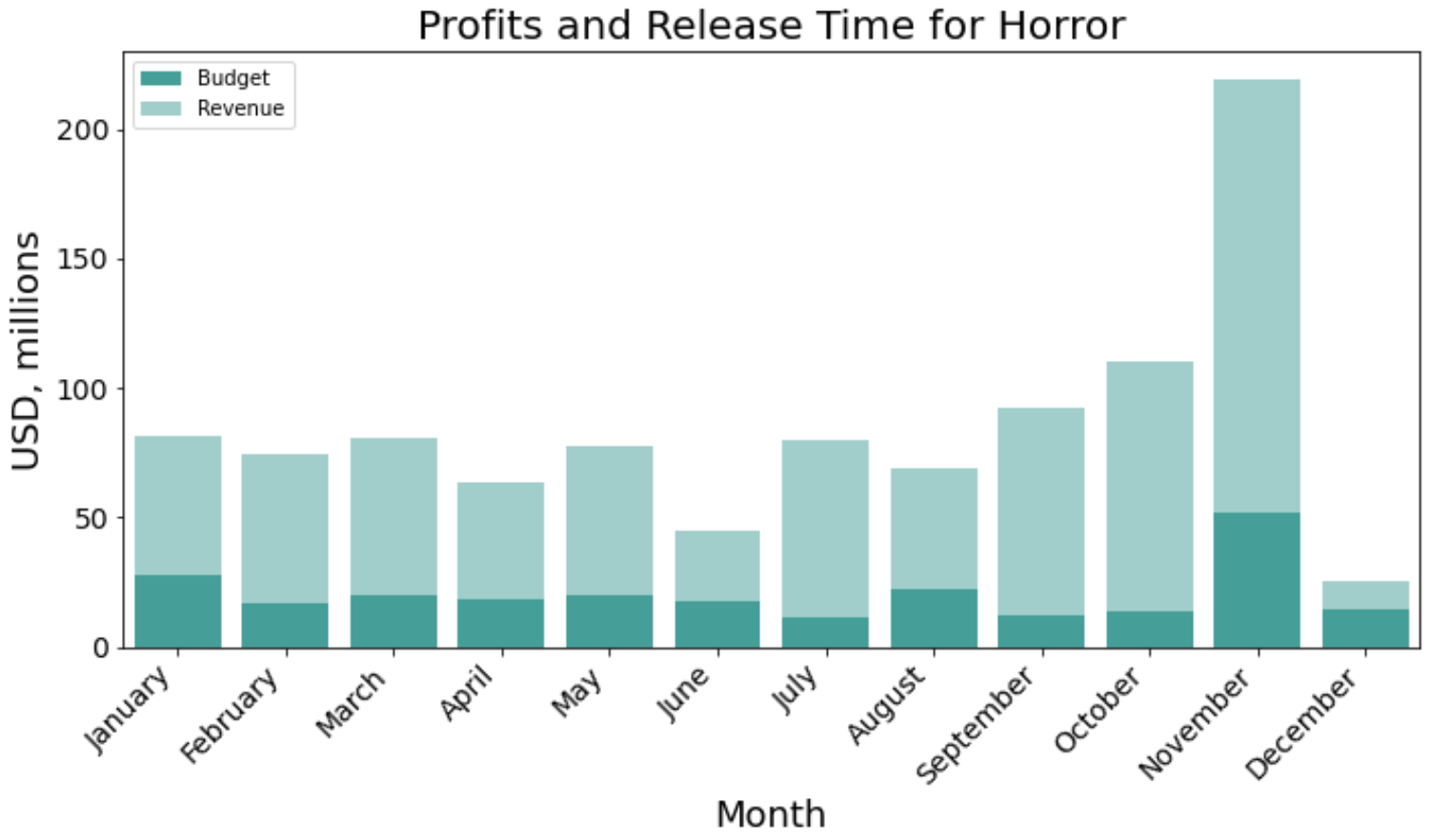


Horror: Content Rating.

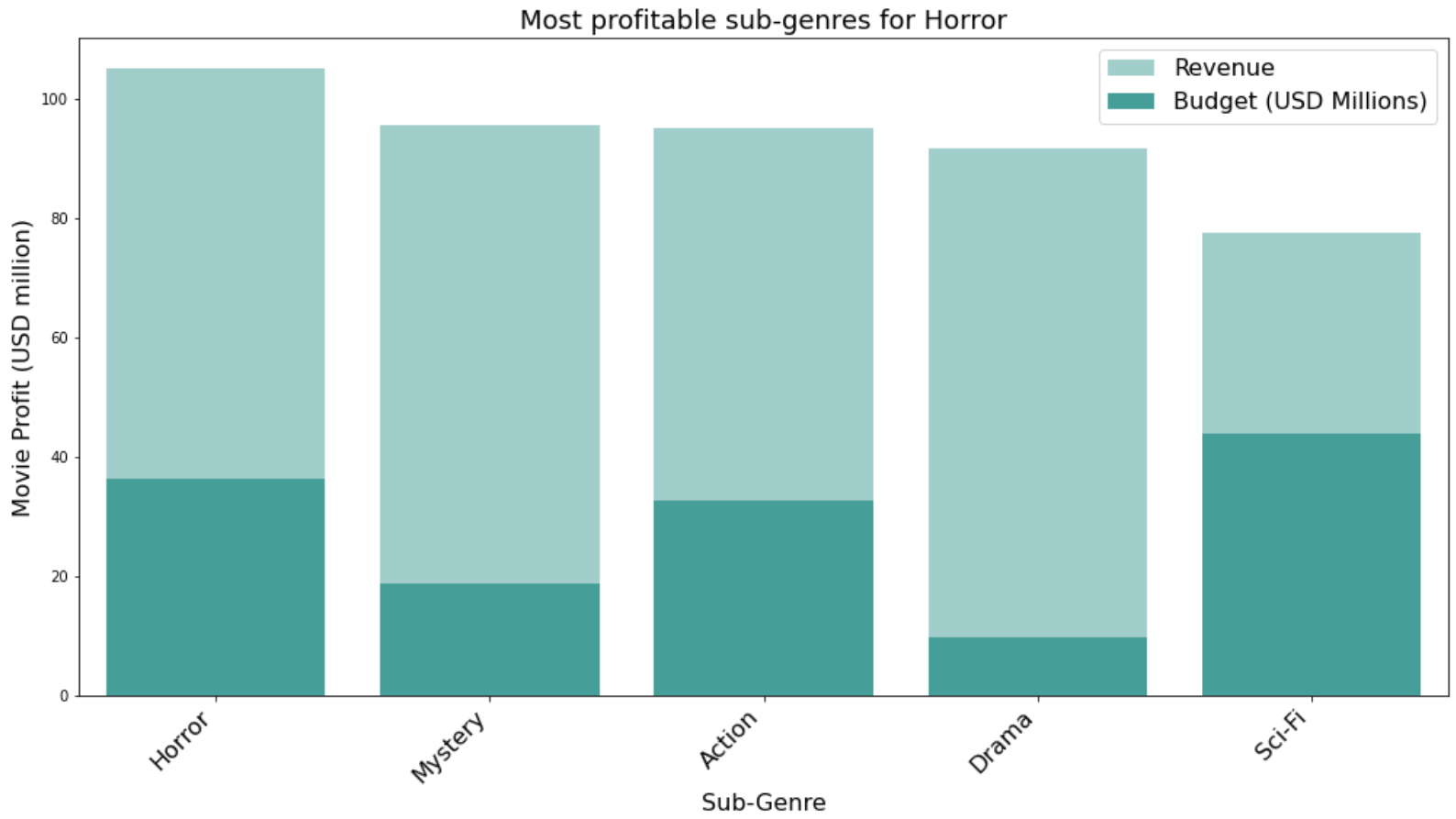


Horror: Duration.

Horror: Release Time.



Horror: Subgenres.



Horror: Critically Acclaimed Cast/Crew.