

MICROSOFT MOVIE STUDIO — PROJECT —

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01. | Introduction

Business Problem

Microsoft wants to enter the thriving original video content market.

Microsoft would like to:

- Create a movie studio to create movies
- Know what types of films are currently doing the best at the box office.
- Identify types of Films to produce from the new movie studio

Objectives of the project

01. Identify genres performing well at the Box Office.
02. Identify genres with the highest production budget.
03. Analyse trends in audience preferences and genres
04. Estimate the best time to release a profitable movie.



02. | The Data

Data Understanding

Data Sources

- IMDB Database
- Box Office Mojo
- The MovieDB.org

Data Preparation

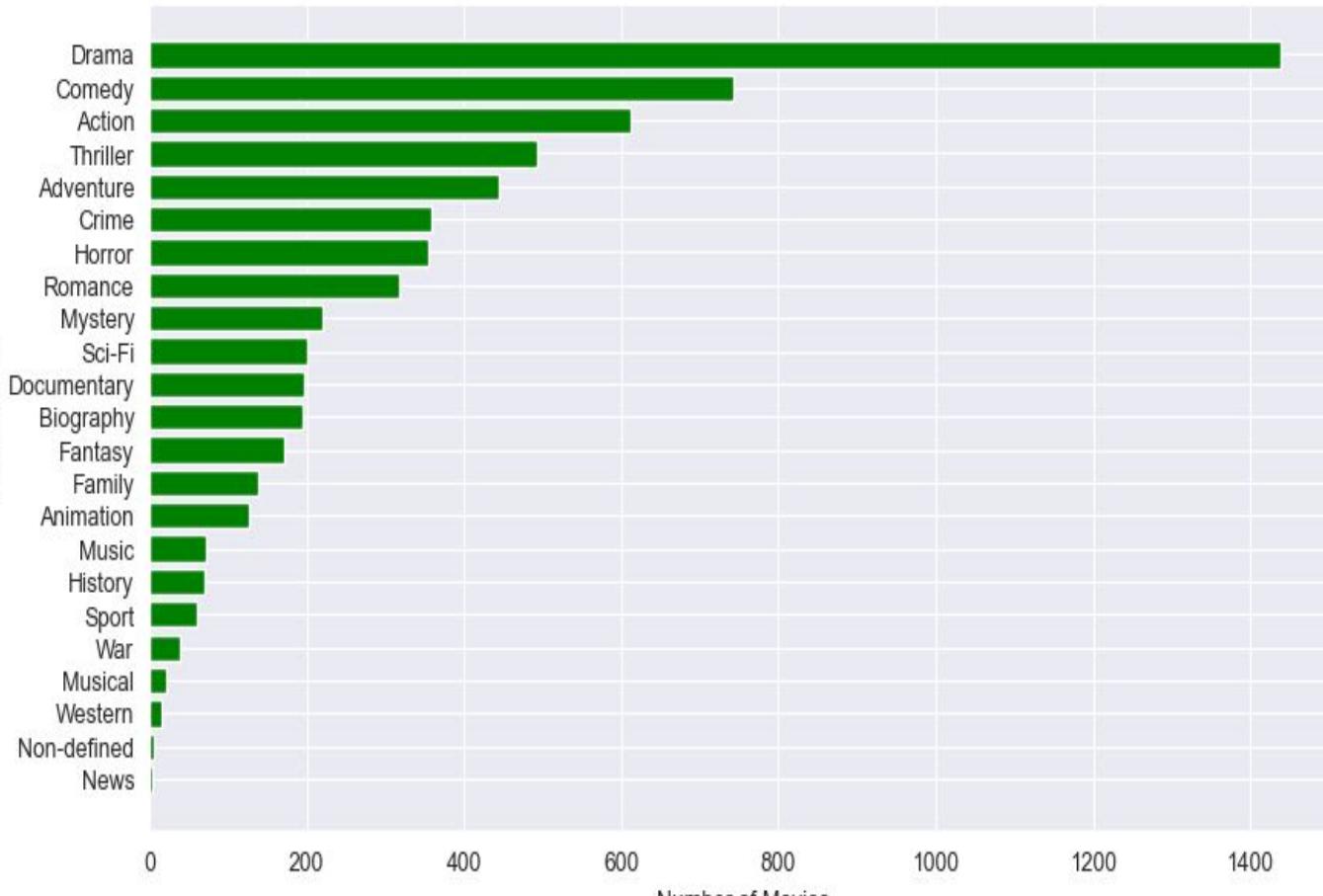
- Extracted Movie basics and movie rating tables from IMDB database.
- Created a new category called 'Non-defined' for movies with missing genres instead of dropping the records.
- Movies with multiple genres, the genres were splitted and list of genres expanded to create separate records.
- Merged movie budgets with movie basics and movie ratings table from the database to create final dataframe
- Final dataframe had 2000+ distinct movies.

03.

Exploratory Data Analysis And Conclusions

Genres Popularity

Distribution of Movie Genres



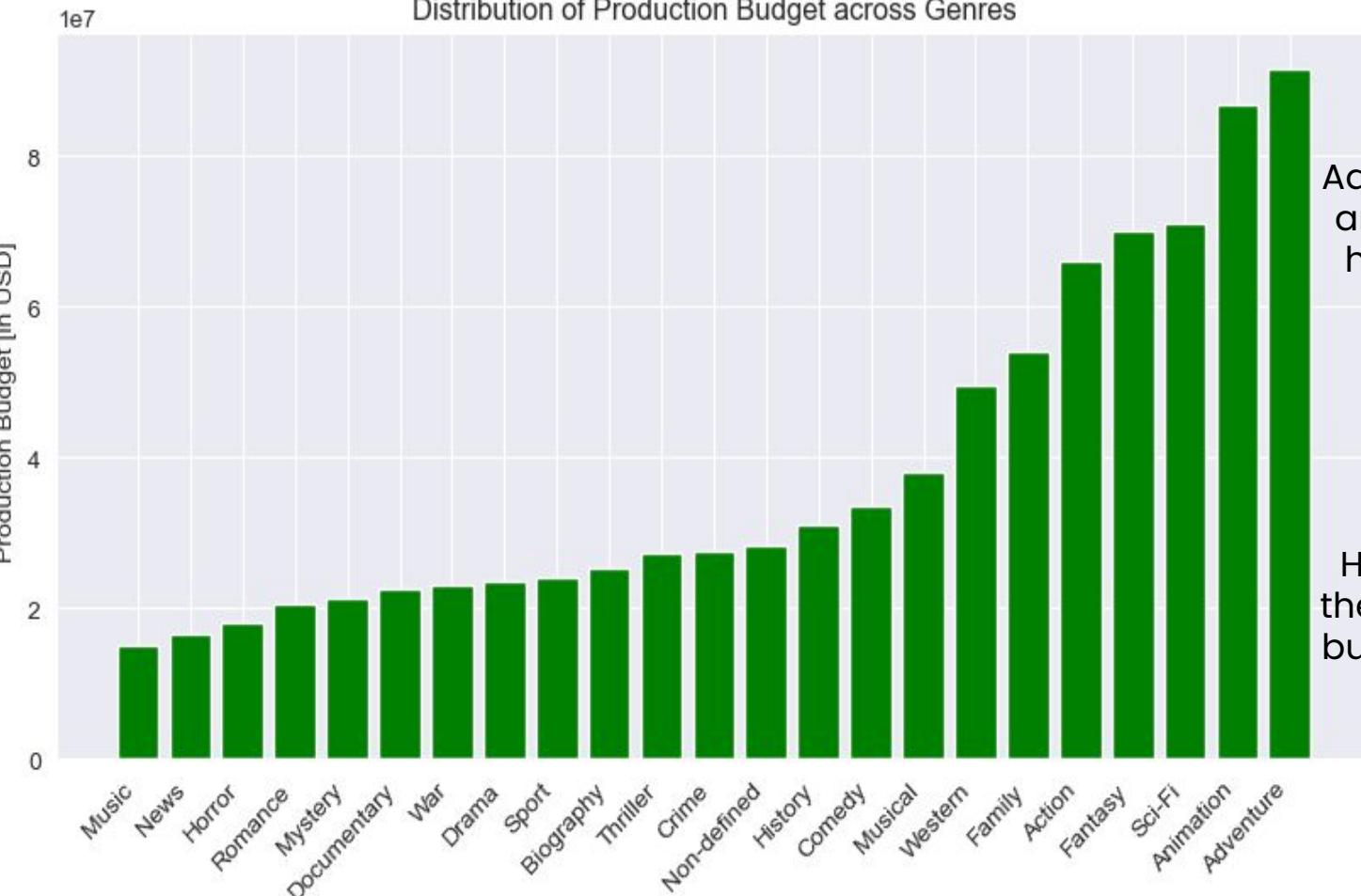
Insights

Drama, Comedy and action movies are the most common in the movie market

News, Non-defined genres and western genres are the least popular in the market

Production Budget By Genres

Distribution of Production Budget across Genres

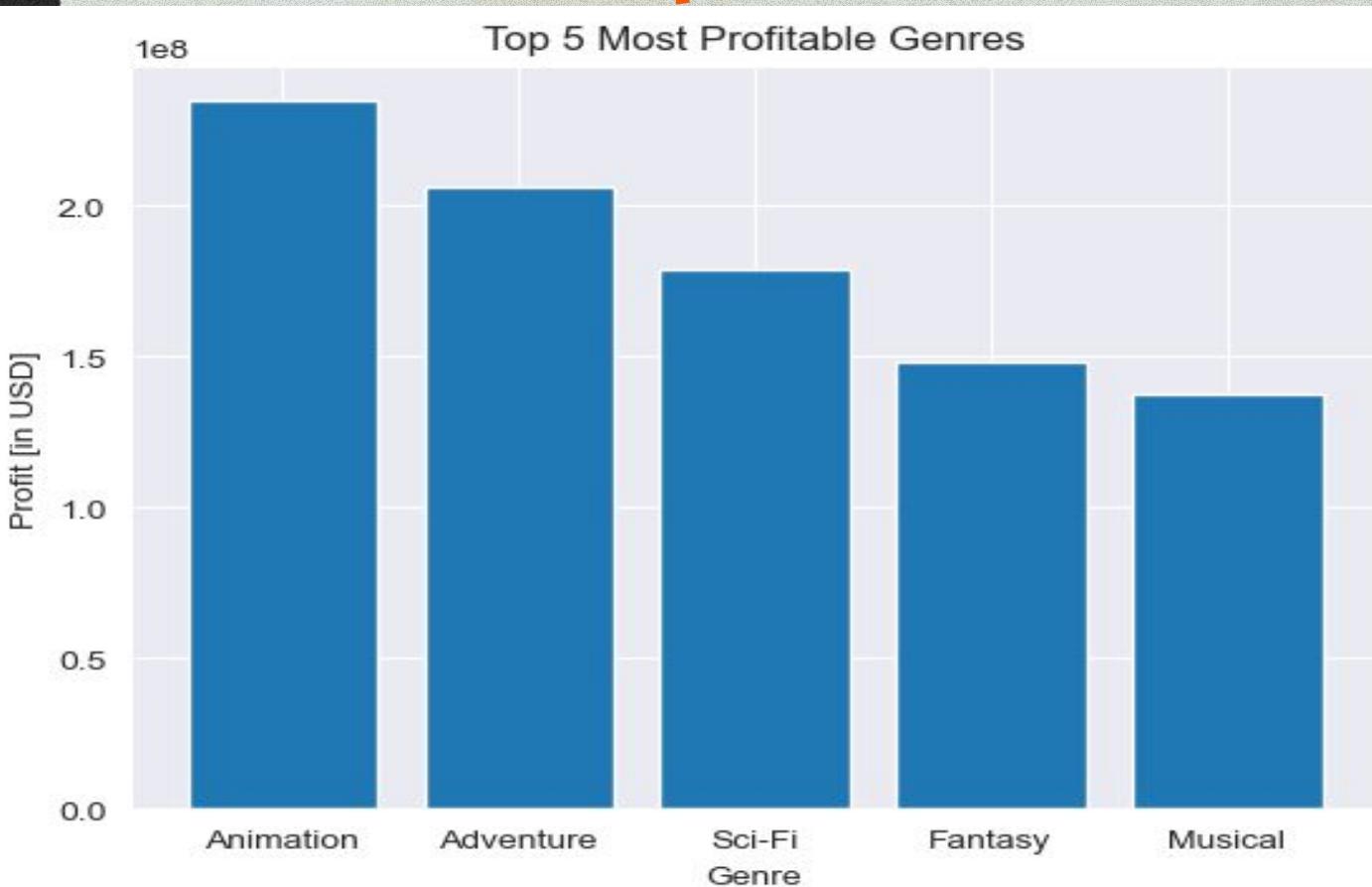


Insights

Adventure, Animation and Sci-Fi boast the highest production budget.

Music, News and Horror movies have the lowest production budget on average in the market.

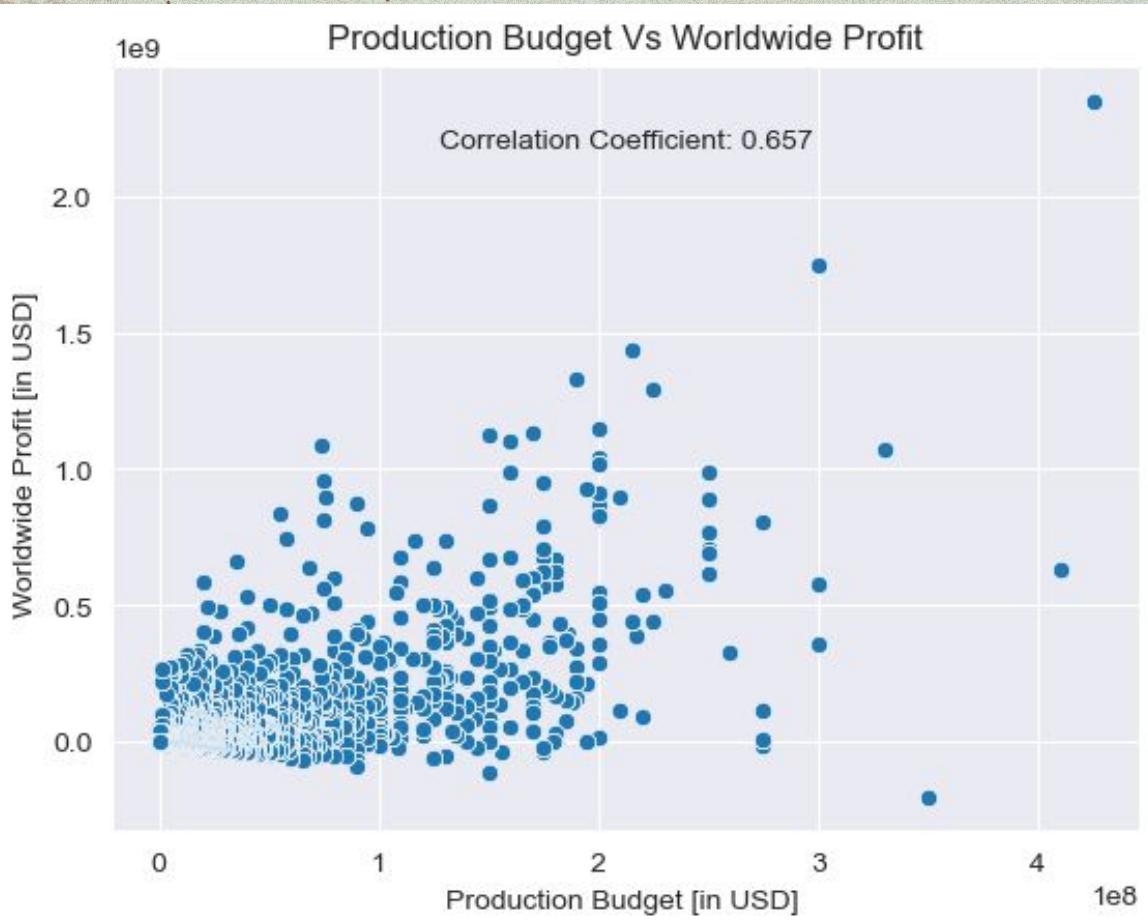
Most profitable Genres



Insights

Animation, Adventure and Sci-Fi are among the most profitable genres in the Market.

Production Budget Vs Profit



Interpretation

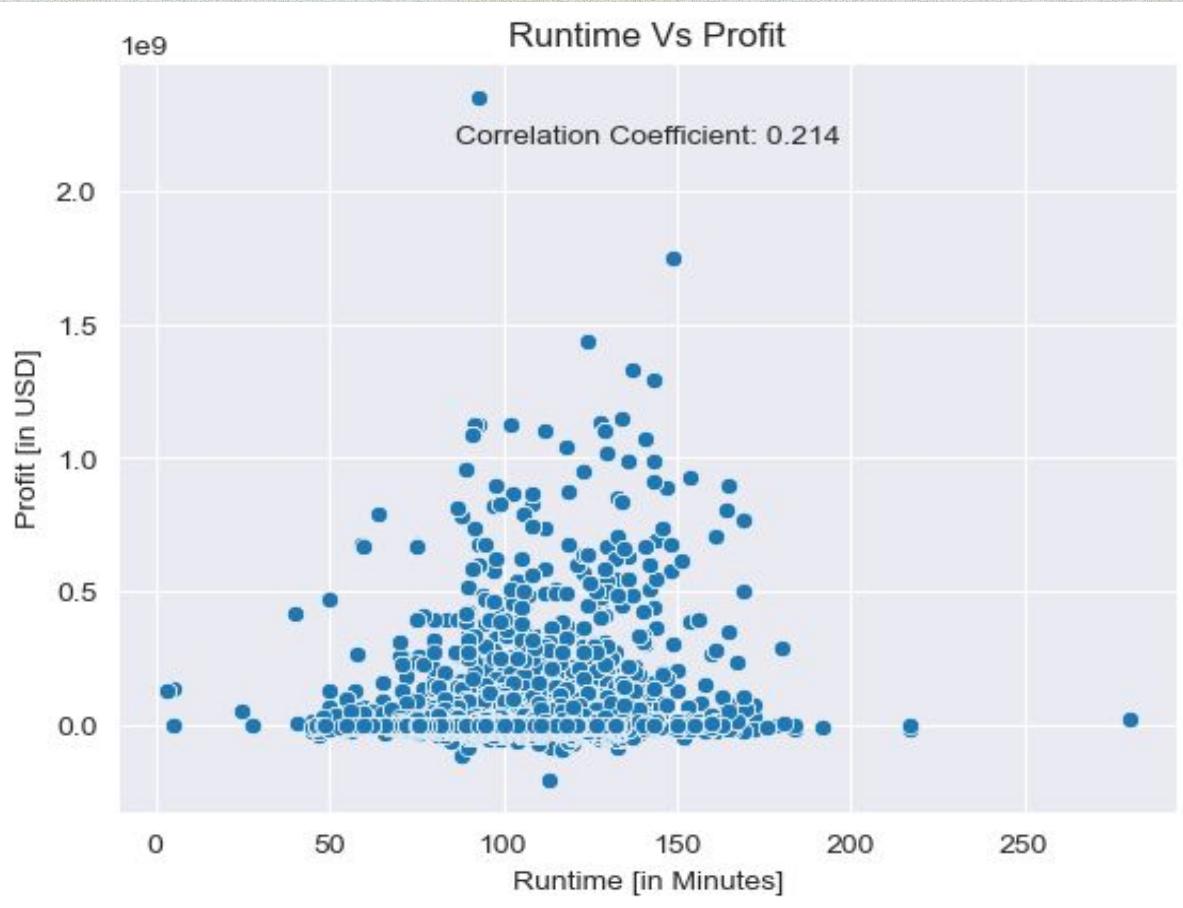
Positive Correlation: As the production budget increases, the worldwide profit tends to increase.

Strength: Strong correlation (0.657), indicating a significant positive relationship between production budget and profit.

Key Insight

Investing more in production budgets is likely to positively impact worldwide profit.

Runtime on Movie Profit



Interpretation

Correlation: The correlation coefficient of 0.214 indicates a modest positive relationship between movie runtime and worldwide profit.

Impact: The evidence suggests that longer runtimes do not strongly contribute to higher profit margins.

Key Insight

Optimize runtime between 90–110 minutes for audience engagement without relying heavily on extended durations for increased profitability.

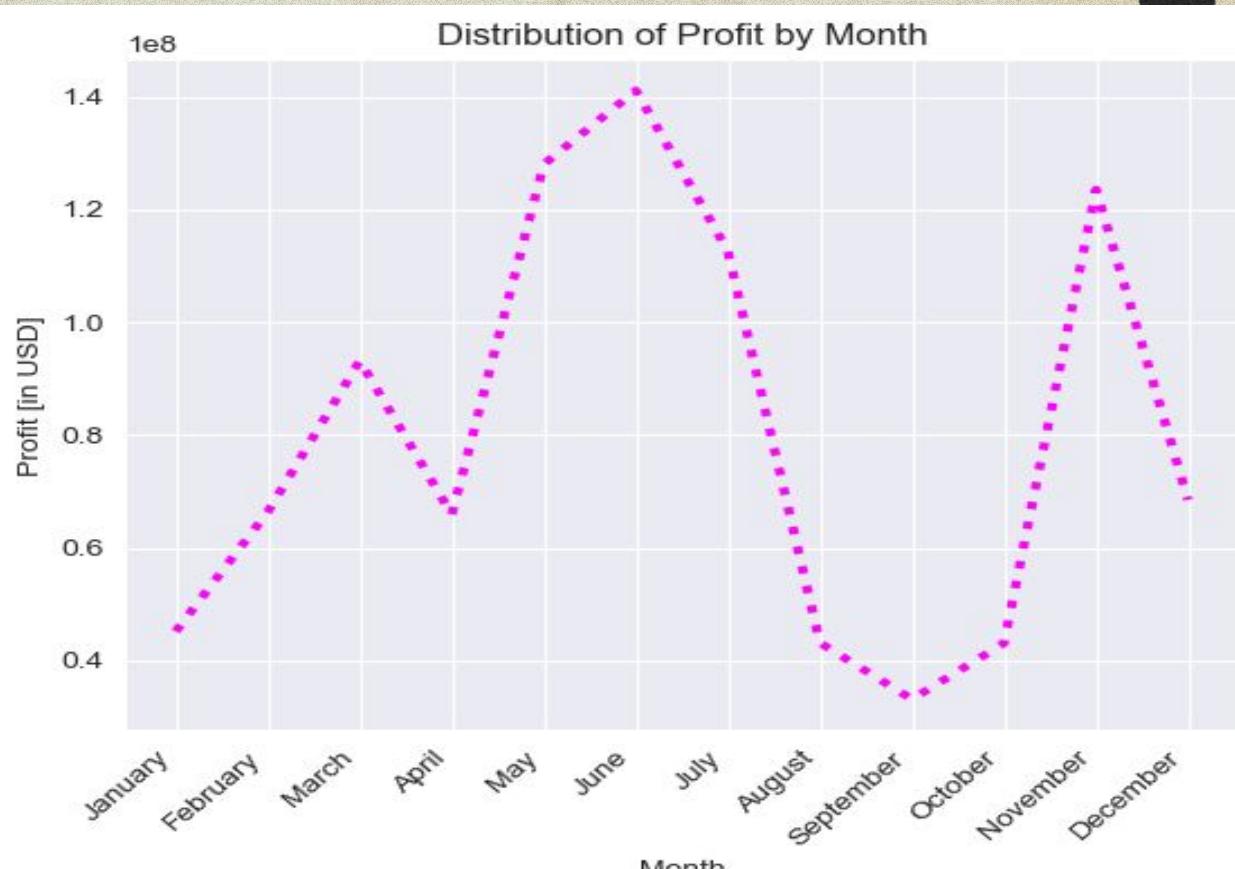
Average Movie profitability by Months

April – July

Movies released over this period record high profit

Aug – Sep

Movies produced hit lowest peak in profit average



04.

Recommendations

Recommendations

Focus on Animation, Sci-Fi, and Adventure genres; they have demonstrated a robust track record of higher profitability in the film industry

Target a runtime range of 90 to 110 minutes as there is limited evidence that extended runtimes significantly contribute to higher profit margins.

Plan movie releases between April and August.

Research on the role played by actors, directors on the profitability of the movie.

Thanks

Do you have any
questions?

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