

# Microsoft Movie Analysis

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# Summary

This analysis was performed with the intent to give recommendations to Microsoft on key characteristics their new movie should have to be successful. The descriptive analysis found:

- The movie should last approximately 117 to 119 minutes
- The movie should be released in June
- It is expected the higher the production budget the higher the net profit will be. I recommend Microsoft spend around \$188,000,000 which is the median production budget of the top 50 movies.



# Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

# Business Problem

Microsoft has entered the movie industry and wants to make a movie that has the highest chance of success.

Improve chance of success by determining and mimicking the most successful movies' key characteristics of:

- Runtime
- Release Month
- Budget

# Data

The data for this analysis is from IMDb and The Numbers (TN), two reputable online movie database websites.

Overlapping of the two data frames allowed for the databases to be combined for powerful analysis.



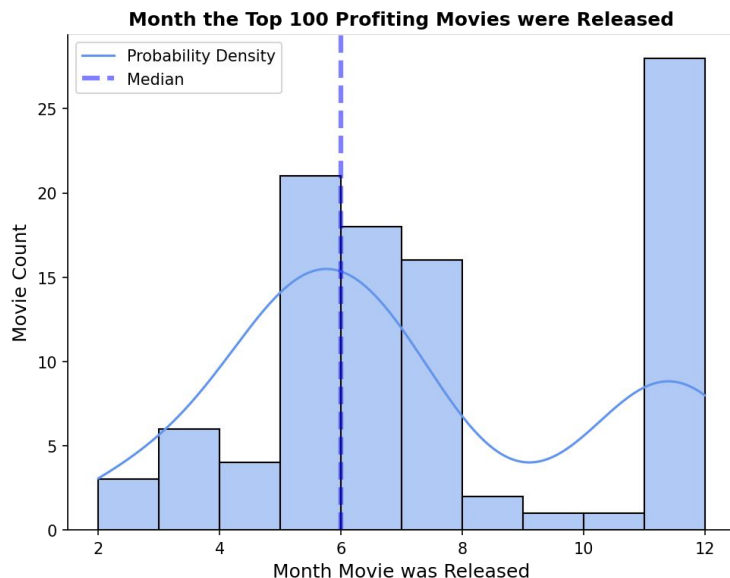
# Methods

This project compared specific data to find trends among the top net profiting movies. The IMDb & TN data was normalized, adjusted for inflation, merged, and cleaned of unnecessary columns to prepare for data modeling.

The methods of analysis helped pinpoint common trends among the most successful movies.

# Results

The probability density shows that most successful movies are released around May and June even though there is a higher count for December.



A closer look into only the top 50 movies confirms that a release in June has a high chance of success.

Although the highest profiting movies were released in December, it is safer to pick a release month where the count of successful movies is higher.

Mean of Net Profit by Release Month for the Top 50 Movies

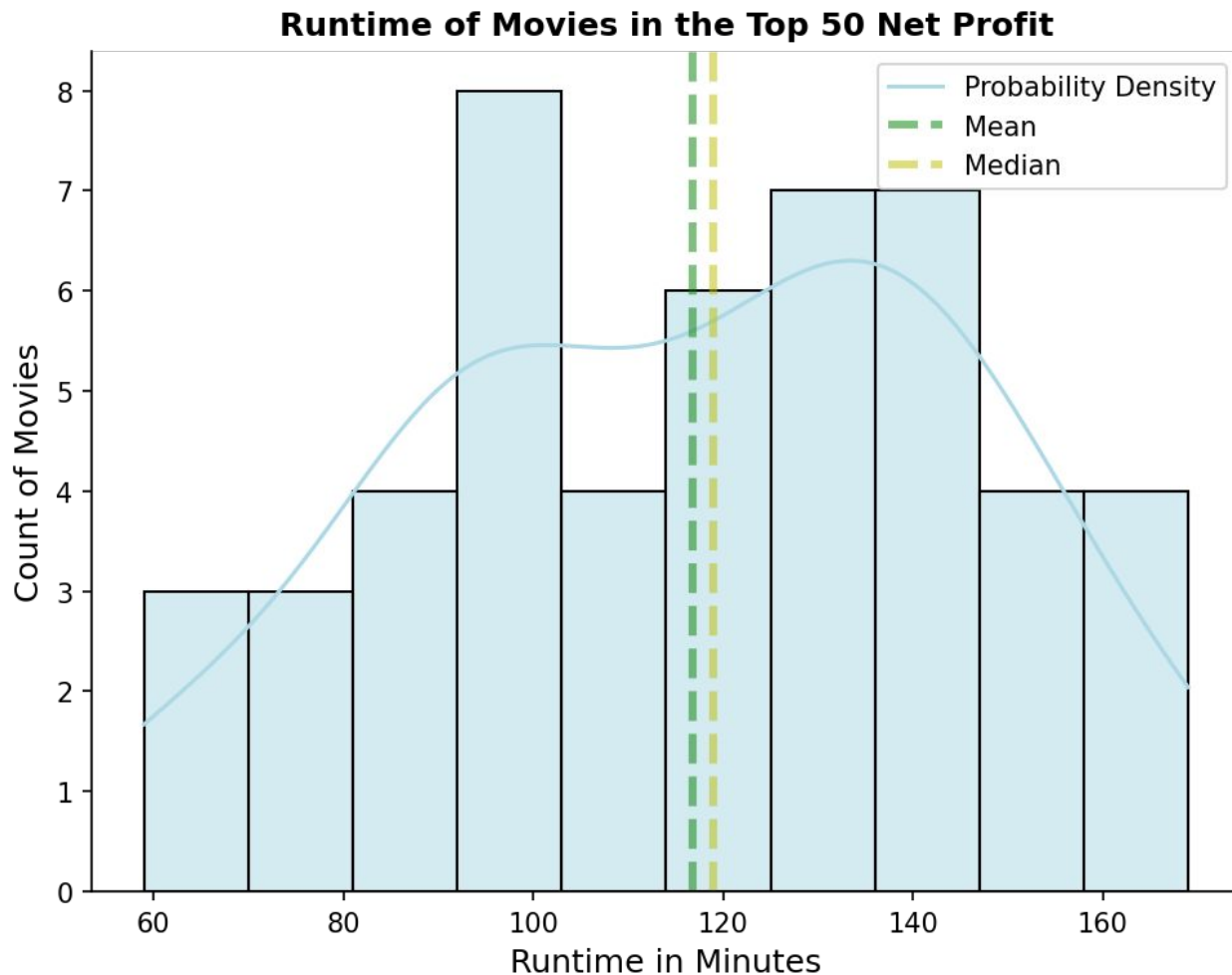
release_month	Number of Movies	Mean of Net Profits (\$)
2	1	1148258224.00
3	4	935545495.50
4	4	1212389452.00
5	7	984613389.14
6	11	977272112.36
7	9	895498823.44
11	5	911692281.40
12	9	1300575924.00

# Results

Runtime Mean:  
117 minutes

Runtime Median:  
120 minutes

75% of the top movies  
are longer than 93  
minutes



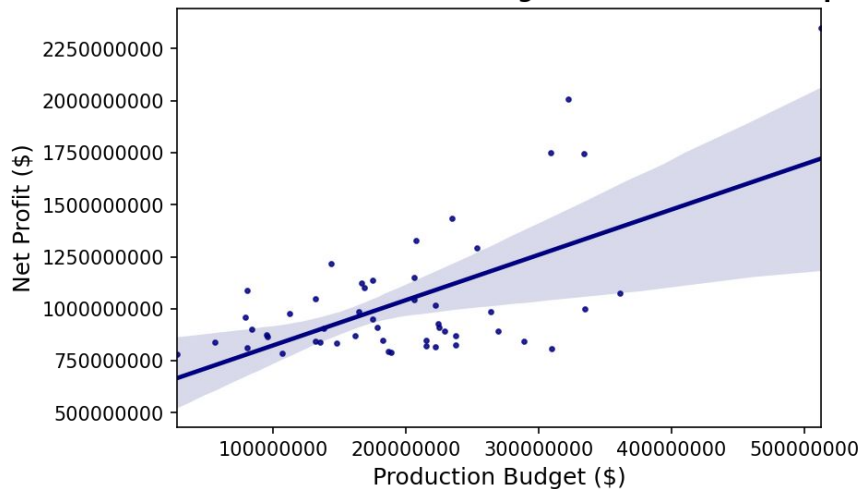


# Results

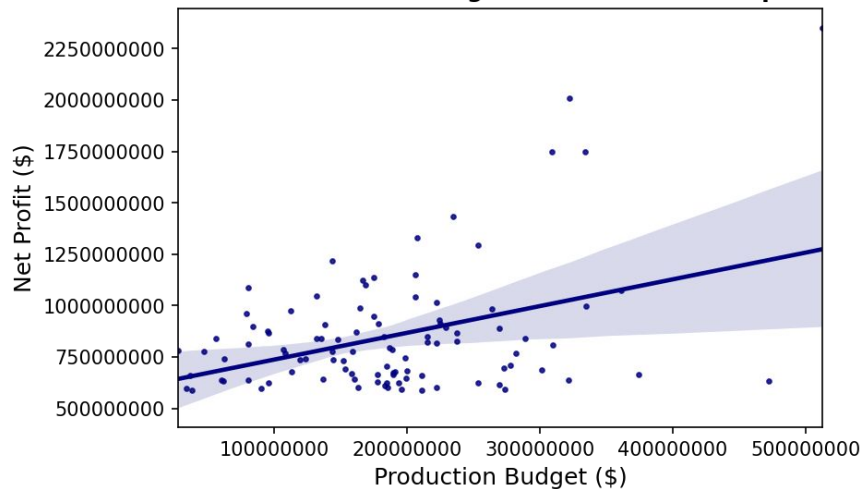
The median budget for the top 50 movies was \$180,000,000

When including more data, the line of regression shows a lower prediction for the net profit. This plot suggests that the correlation between budget and profit is not that concrete and further analysis into budget would benefit Microsoft.

**Distribution of Production Budget vs. Net Profit for Top 50**



**Distribution of Production Budget vs. Net Profit of Top 100 Movies**



# Conclusions

1. The movie should last approximately 117 to 119 minutes
2. The movie should be released in June
3. It is expected the higher the production budget the higher the net profit will be.  
I recommend Microsoft spend around \$188,000,000 which is the median production budget of the top 50 movies.

## Next steps:

- Deeper analysis into the production budget
- Analysis of genre

# Thank You!

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