

An aerial photograph of the Hollywood sign on a hill. The sign is made of large white letters with blue outlines, set against a backdrop of a city and a radio tower. The hill is covered in dry, yellowish-brown vegetation. The city below is densely packed with buildings, and a large radio tower with many white satellite dishes is visible on the right side of the hill.

HOLLYWOOD

**MICROSOFT MOVIE PROJECT DONE BY:
STUDIO BUSINESS LEONARD
ANALYSIS GACHIMU**

Film Industry Overview

- ▶ 2019 box-office revenue for the USA and Canada => **\$11.4 billion**
- ▶ **14%** of American watch movies in cinema halls once a month
- ▶ **46%** of US adults watch a movie in a cinema hall at least once a year
- ▶ US cinema industry is expected to grow at a CAGR of **8.3%** by 2027
- ▶ Microsoft market capitalization as at 18th July, 2023 => **\$2.685 trillion**

Project Overview



- To extract, explore, clean, wrangle, visualize, and interpret data relevant to helping Microsoft set up a successful movie studio.

But wait a second ...



Let's zoom into our focus

Project Scope

- ▶ To find out the most popular genres.
- ▶ To evaluate content gaps between what every movie studio is producing and the genres that are winning the Top 250 rating.
- ▶ To find out the most profitable genres or genre groups.
- ▶ Competitor analysis of the most profitable movie studios in 2019.
- ▶ To find out the top 15 best-performing movie directors.
- ▶ To find out the top 15 most profitable movie directors.
- ▶ To find out the correlation between productivity and profitability of a movie director.

The Datasets Used



- 1) imdb.title.basics.csv – an IMDb dataset of all movies in 2019.
- 2) movies.csv - the IMDb Top 250 Movies in Jan. 2023
- 3) bom.movie_gross.csv – a BOM dataset of movie gross revenues
- 4) tn.movie_budgets.csv – movie budgets data from The Numbers
- 5) BOM_1000_movies_df - movie budgets and revenue from [Box Office Mojo](#)

Methodology

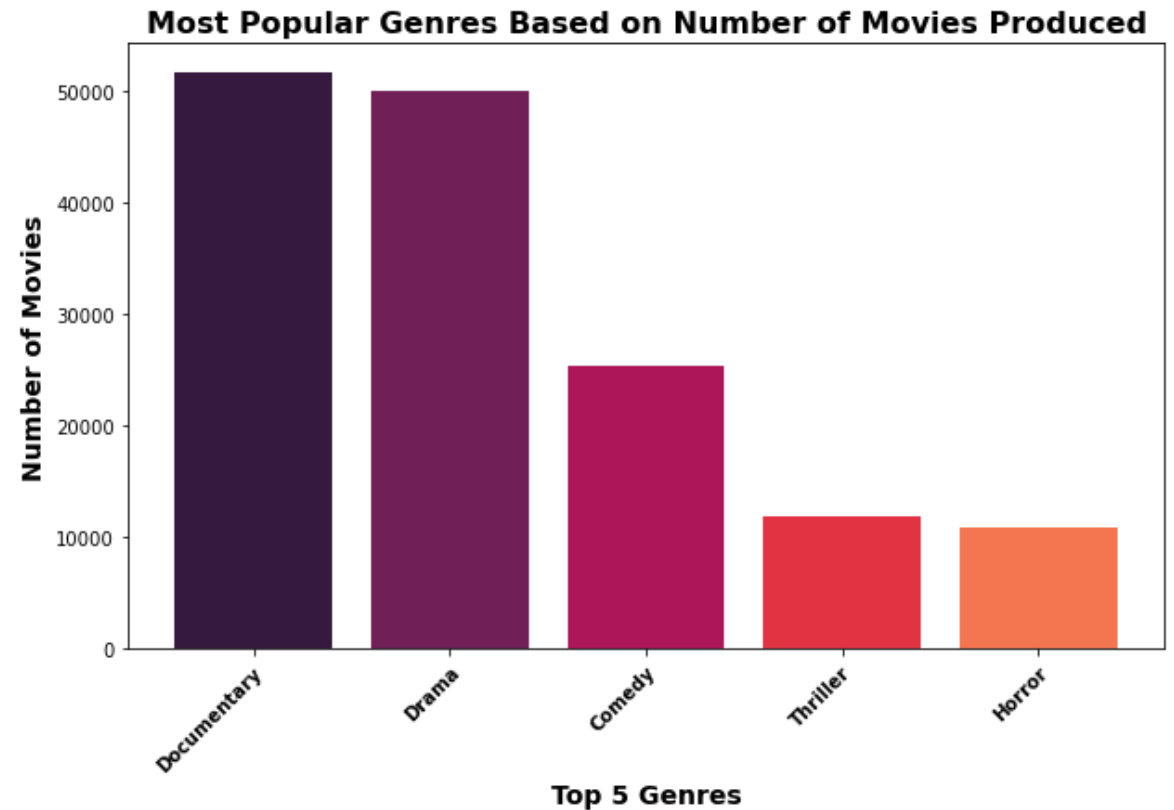
- 1. Data Understanding**
- 2. Data Analysis**
- 3. Data Visualization**
- 4. Data Interpretation**

The Findings

1.

Top 5 most popular genres based on the number of movies:

- 1) Documentary - 51,640 movies
- 2) Drama - 49,883 movies
- 3) Comedy - 25,312 movies
- 4) Thriller - 11,883 movies
- 5) Horror - 10,805 movies

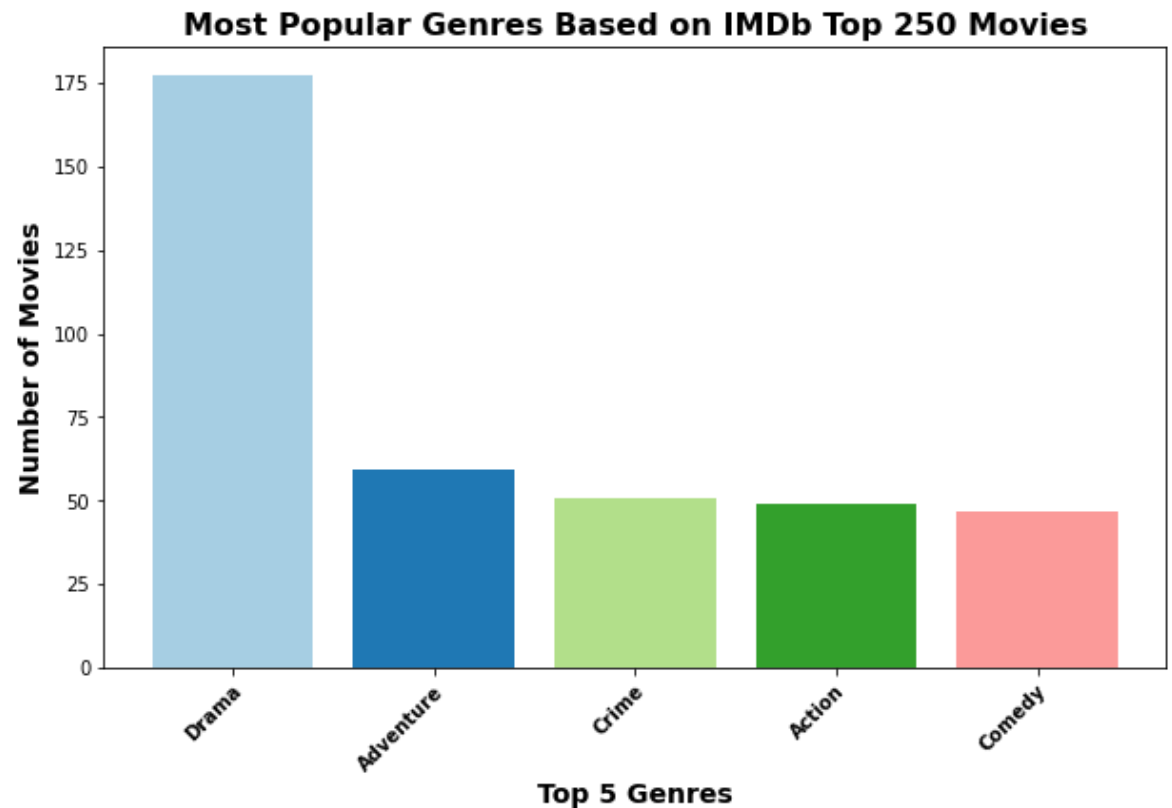


The Findings

2.

Top 5 most popular genres based on the IMDb Top 250 Movies:

- 1) Drama - 177 movies
- 2) Adventure - 59 movies
- 3) Crime - 51 movies
- 4) Action - 49 movies
- 5) Comedy - 47 movies



The Findings

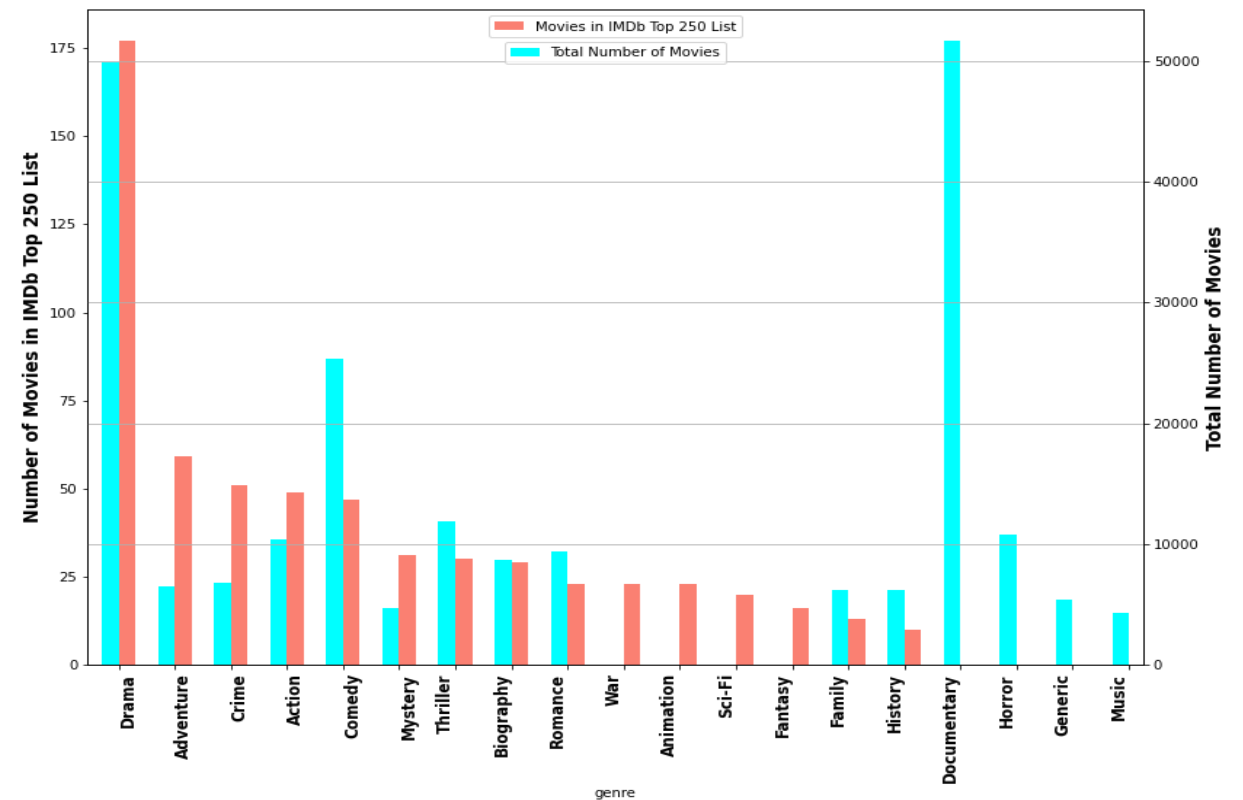
3.

CONTENT GAP

Drama is by far the most popular genre but also one of the most crowded.

Adventure, Crime, and Action are also popular but are not as crowded as Drama in terms of content.

Top Genres Based on Number of Movies

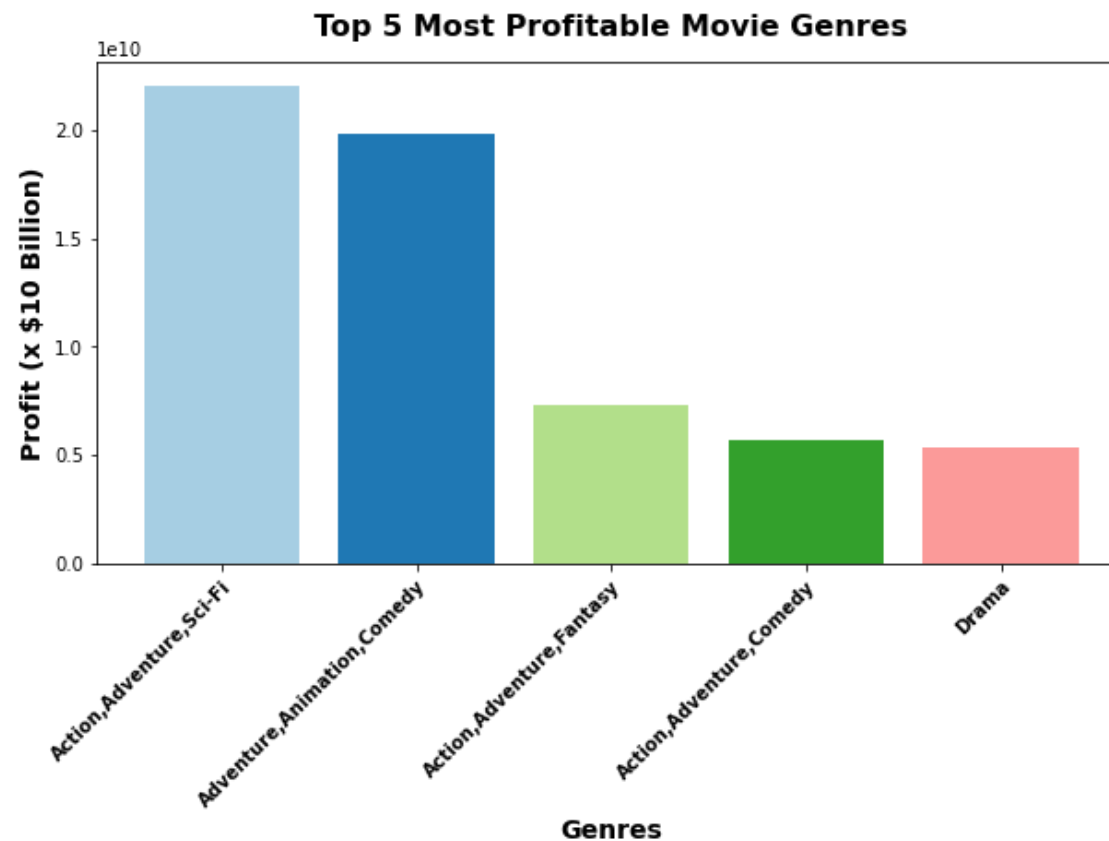


The Findings

4.

Top 5 most profitable genres or genre groups:

- 1) Action, Adventure & Sci-Fi - approx. **\$22.05 B**
- 2) Adventure, Animation & Comedy - approx. **\$19.842 B**
- 3) Action, Adventure & Fantasy - approx. **\$7.264 B**
- 4) Action, Adventure & Comedy - approx. **\$5.662 B**
- 5) Drama - approx. **\$5.307 B**

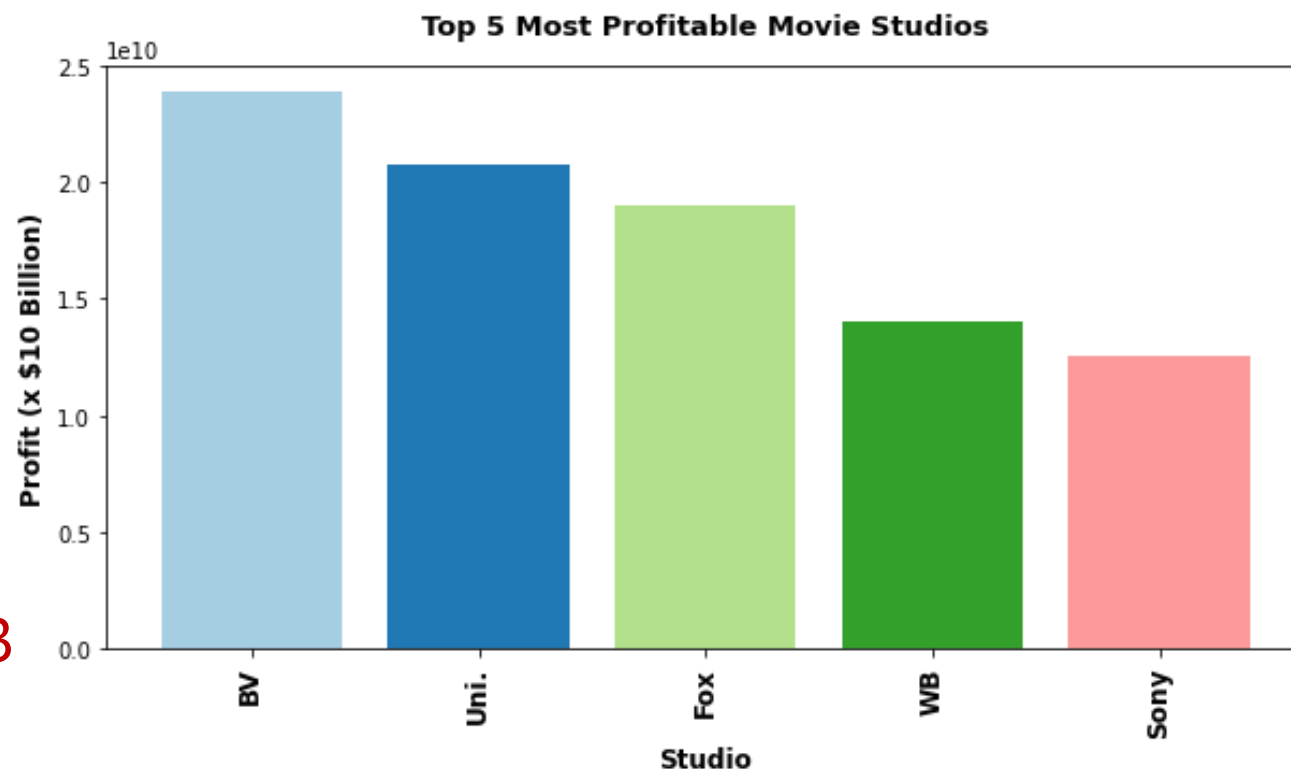


The Findings

5.

Top 5 most profitable movie studios:

- 1) BV (Buena Vista Studios) - approx. **\$23.835 B**
- 2) Universal Studios - approx. **\$20.732 B**
- 3) Fox Studios - **\$19.040 B**
- 4) WB (Warners Bros) - **\$13.996 B**
- 5) Sony - **\$12.551 B**

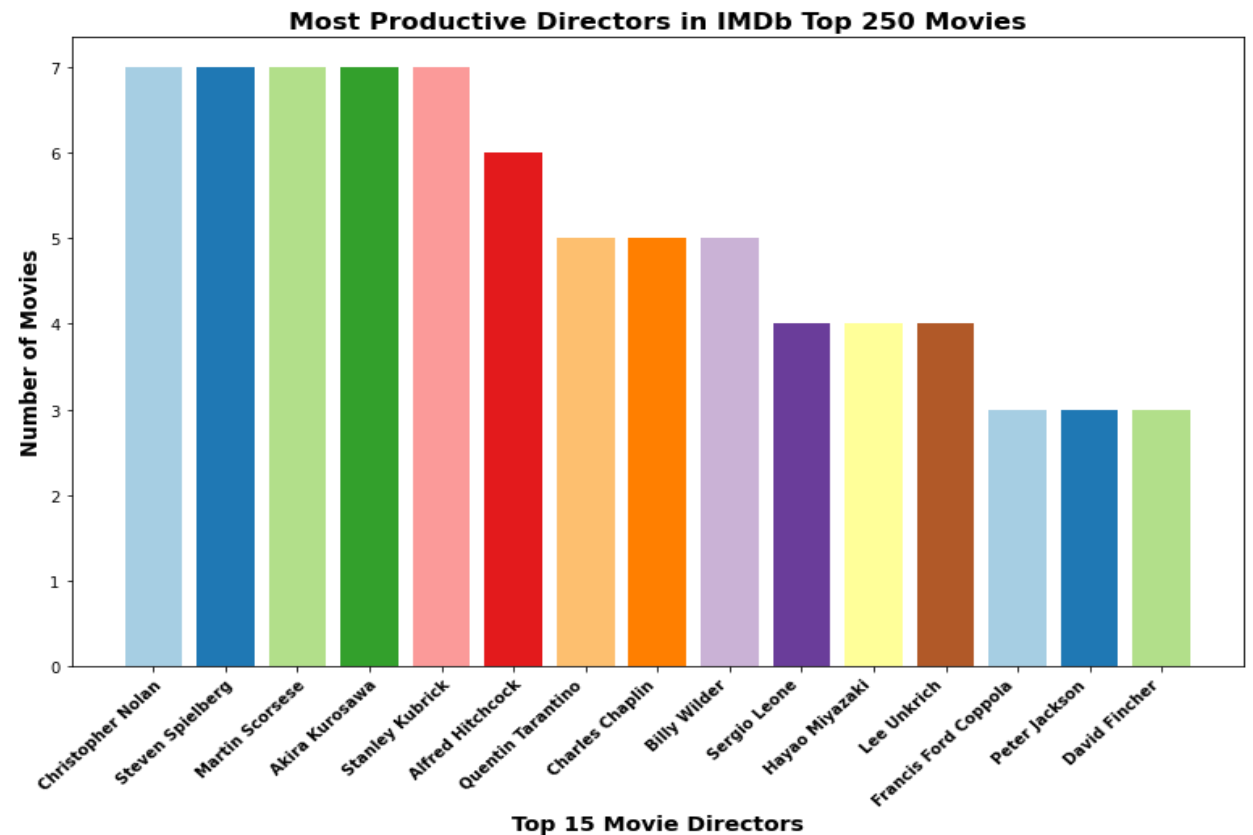


The Findings

6.

Top 5 most productive movie directors:

- 1) Christopher Nolan - 7 top-rated movies
- 2) Steven Spielberg - 7 top-rated movies
- 3) Martin Scorsese - 7 top-rated movies
- 4) Akira Kurosawa - 7 top-rated movies
- 5) Stanley Kubrick - 7 top-rated movies

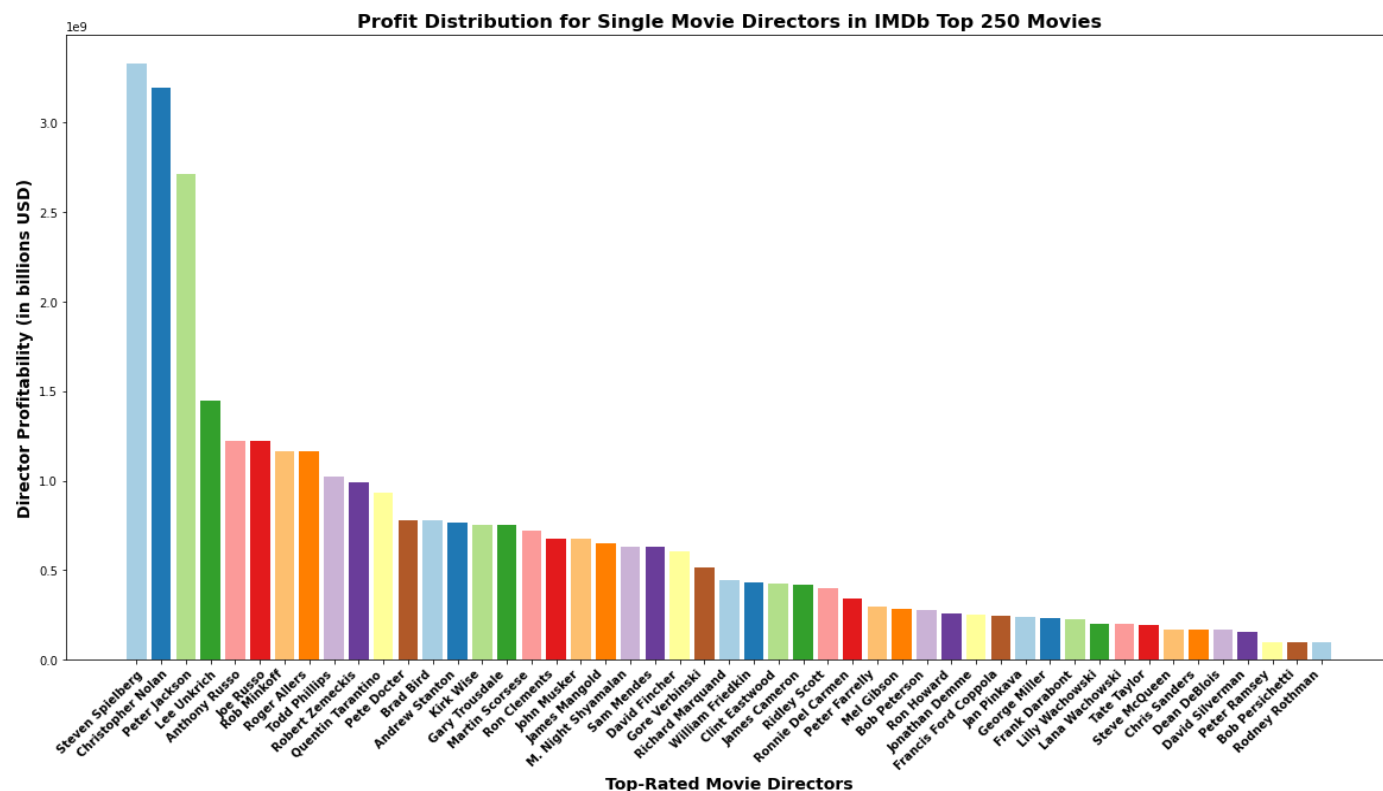


The Findings

7.

Top 5 most profitable movie directors:

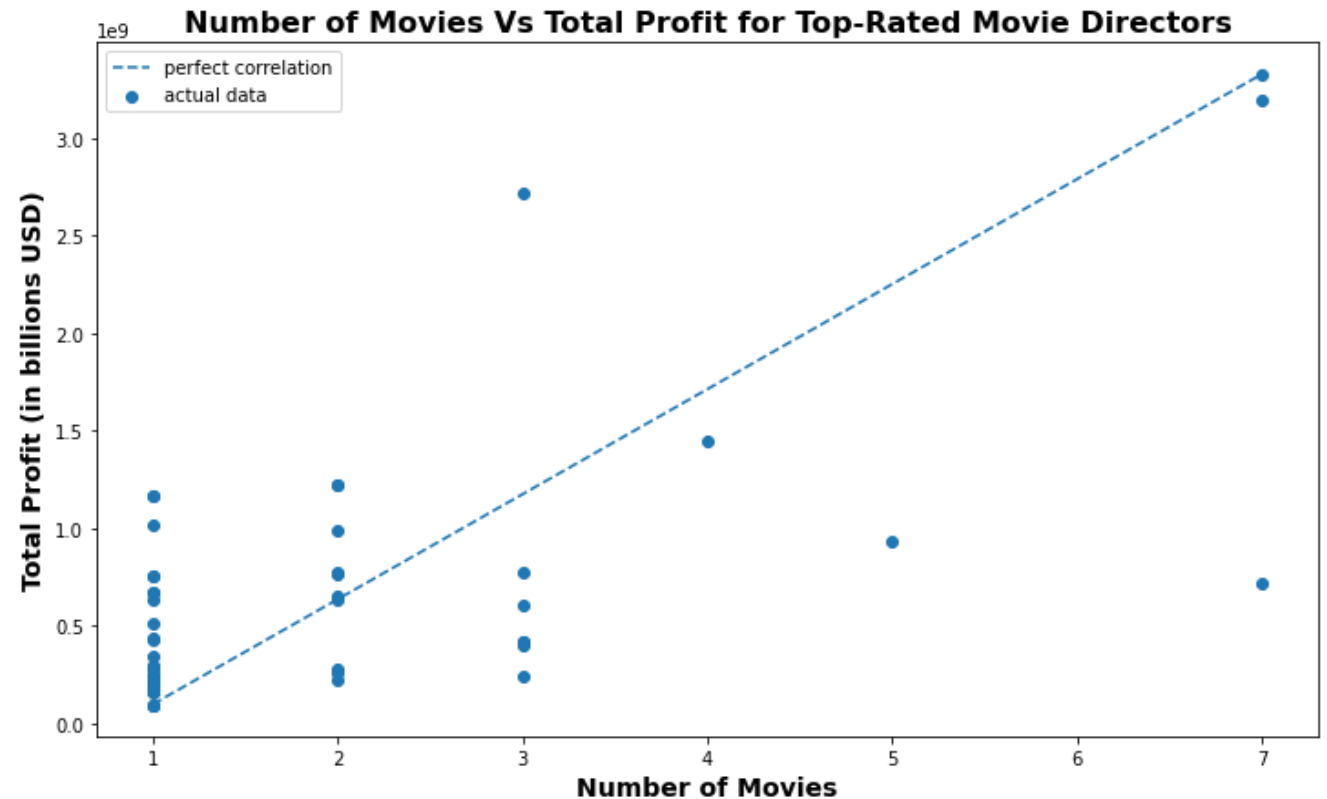
- 1) Steven Spielberg - approx. \$3.327 B
- 2) Christopher Nolan- approx. \$3.195 B
- 3) Peter Jackson - approx. \$2.713 B
- 4) Lee Unkrich - approx. \$1.446 B
- 5) Anthony Russo - approx. \$1.222 B



The Findings

8.

Correlation between productivity (number of top-rated movies directed) and profitability of a movie director is about **0.6630** which is a moderate correlation.





aaah...

It's getting clearer now. It's getting clearer.

Conclusion

- ✓ Box office revenue runs into the billions of dollars and is expected to continue growing.
- ✓ Documentary, Drama, and Comedy genres each has more than twice the number of movies in any of the other genres.
- ✓ IMDb's Top 250 movies list shows that genres such as Adventure, Crime, and Action are popular but not crowded by producers.
- ✓ The genre group of Action, Adventure & Sci-Fi leads the pack with a total profit of about \$22.05 billion.
- ✓ The 3 most profitable movie studios are BV (Buena Vista Studios), Universal Studios, and Fox Studios, each raking in about 20 billion dollars in profits.
- ✓ Some movie directors are more productive and/or profitable than others, but the correlation between productivity and profitability is about 0.6630, indicating a moderate correlation.

Business Recommendations

- 1) Microsoft shouldn't jump into what everyone is doing, whether they're succeeding or not.
- 2) I recommend Drama, Adventure, Crime, Action, and Comedy as the best 5 genres for Microsoft as a beginner studio.
- 3) Competitor analysis reveals that the market has a few dominant studios. I therefore urge Microsoft to conduct further analysis of these top studios, including their technology, marketing strategies, and SWOT analysis.
- 4) Further analysis of BV Studio shows that it made an average profit of about \$567 million per genre. Microsoft should target at least \$600 million per genre.

Business Recommendations

- 5) When it comes to hiring the best talent, Microsoft should focus more on hunting down the best director the world can offer and seek their advice on hiring the rest of the team.
- 6) The correlation between productivity and profitability of a movie is moderate. Microsoft should engage any of the most profitable directors, regardless of the number of movies they have directed.
- 7) I recommend the following movie directors: Steven Spielberg, Christopher Nolan, Peter Jackson, Lee Unkrich, Anthony Russo, and Joe Russo.

Study Limitations

- 1) I could not determine statistically, the correlation between a genre's popularity and its profitability.
- 2) Data about exhibitor rates and distributor rentals was not available, so I computed a movie's profit by simply subtracting the production budget from the worldwide gross revenue.
- 3) I could not scrape the most up-to-date data from some websites because they required costly subscription plans.
- 4) The home and mobile video entertainment revenue has by far surpassed the box office revenue. However, I could not afford the Statistica data about home/mobile video entertainment.

Recommendations for Future Analysis

- 1) Future studies should come up with a criterion or data for computing a list of the most profitable single genres.
- 2) Analysis should be done on the latest data on home/mobile video entertainment (Over-the -Top Platforms) market.
- 3) Accurate data about exhibitor rates and distributor rentals should be sought, to enable computation of the accurate profit per movie, genre, studio, or director.
- 4) To find correlation between a movie's rating on IMDb and other ranking websites such as Rotten Tomatoes and The Numbers.



*Thank you for
your time.*