

# Microsoft Studio Movie Analysis

**David Adeola**

# Summary

Microsoft aims to enter the original video content market by establishing a new movie studio and needs to determine which film genres are currently most successful at the box office. Our analysis utilized three datasets encompassing ratings and votes, movie details, and box office gross revenues. After data cleaning, preparation, and exploratory data analysis, we identified that the genres Adventure, Animation, and Comedy have been the most successful in both domestic and foreign markets over the last five years. Additional promising genres include Action, Adventure, Sci-Fi, Action, Adventure, Fantasy, Action, Adventure, Comedy, and Action, Adventure, Thriller, which also demonstrate robust financial success and popularity.

## Summary

Based on these findings, it is recommended that Microsoft's new movie studio primarily focus on producing Adventure films, as they are the most successful genre. Additionally, leveraging combinations such as Adventure, Animation, Comedy and Action, Adventure, Sci-Fi can capitalize on strong audience interest and substantial box office revenues. This strategy aligns with current market trends and audience preferences, positioning the studio for success in the competitive movie industry.

# Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

## Business Problem

Microsoft sees all the big companies creating original video content and they want to get in on the fun. They have decided to create a new movie studio, but they don't know anything about creating movies. I am charged with exploring what types of films are currently doing the best at the box office. I have translated those findings into actionable insights that the head of Microsoft's new movie studio can use to help decide what type of films to create.

# Data

## Dataset 1: Ratings and Votes

Has over 73,000 entries and 3 columns (tconst, averagerating, numvotes). This dataset provides insights into the popularity and reception of movies, which can be useful to understand which genres have high average ratings and vote counts, indicating audience preference.

# Data

## Dataset 2: Movie Details

Has over 146,000 entries and 6 columns (tconst, primary\_title, original\_title, start\_year, runtime\_minutes, genres). This dataset provides detailed information about each movie, including its title, release year, runtime, and genre. It is crucial for understanding the distribution of movies across different genres and years, as well as their duration.

# Data

## Dataset 3: Box Office Gross

Has over 3,300 entries and 6 columns (studio, title, domestic\_gross, foreign\_gross, year). This dataset provides financial performance data for movies, including domestic and foreign gross revenues. It is essential for understanding the economic success of different genres and how they perform in different markets.



# Methods

## Data preparation

### 1. Merging Datasets

After analysing the data, basic and ratings have a 1:1 mapping compatibility as they share a common column tconst. I merged the two datasets by adding a reference 'tconst' which derives from basics if basics 'primary\_title' matches movie\_gross 'title'.

# Methods

## 2. Cleaning Data

I dropped unnecessary columns `primary_title`, `original title` as they were duplicates of `title`. I also dropped `studio` as it was not relevant to my analysis. I converted `domestic gross`, `foreign gross` to numerals and removed null values.

# Methods

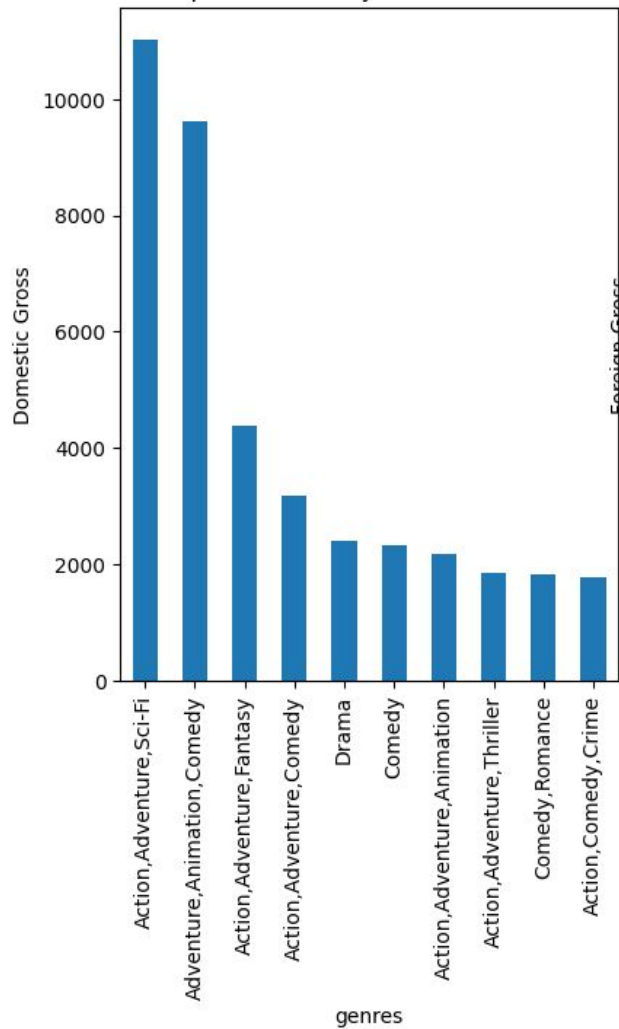
## Data Modeling

- I created a new dataframe of movies grouped by genres to analyze the distribution of different genres
- I plotted the genres by foreign gross, domestic gross and ratings to compare the performance of different genres
- Aggregated the movies by the top grossing genres and years. I narrowed it down to the most recent 5 years to gain the trending genres.

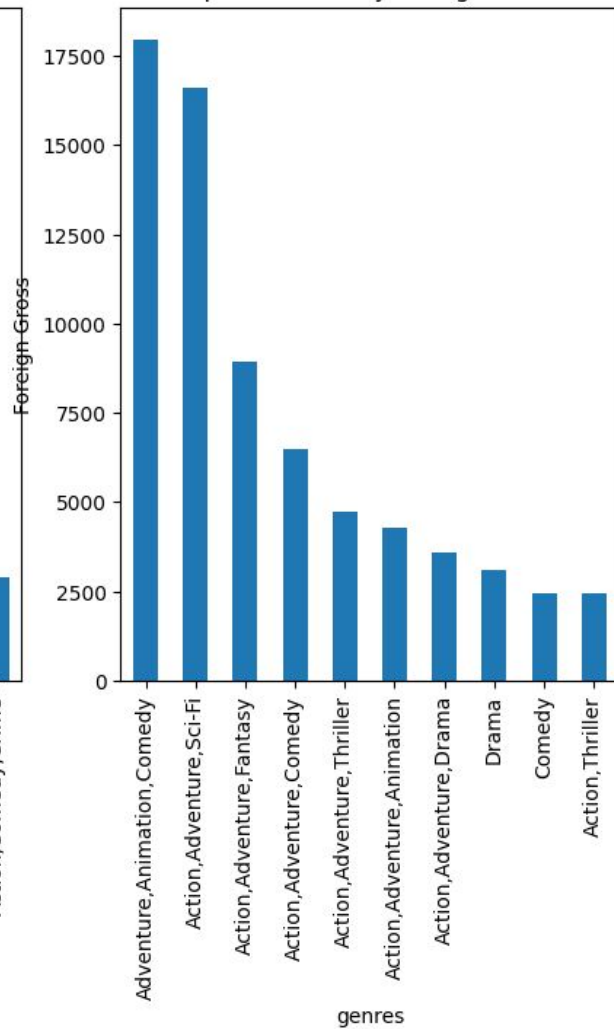
# Results

- 2 of the above graphs, Domestic Gross Sales, Foreign Gross Sales clearly show that Adventure, Action and Sci-Fi combination are most successful in Domestic and Foreign Gross Sales. It's clear also to see that the adventure genre is popular across the board especially when elements of animation, action and or comedy are also included.
- It also shows that the Adventure, Animation, Comedy has been the most grossing combination in recent years.
- The ratings graph also supports that out of the top rated movies, Animation, Adventure and Comedy was among the top rated

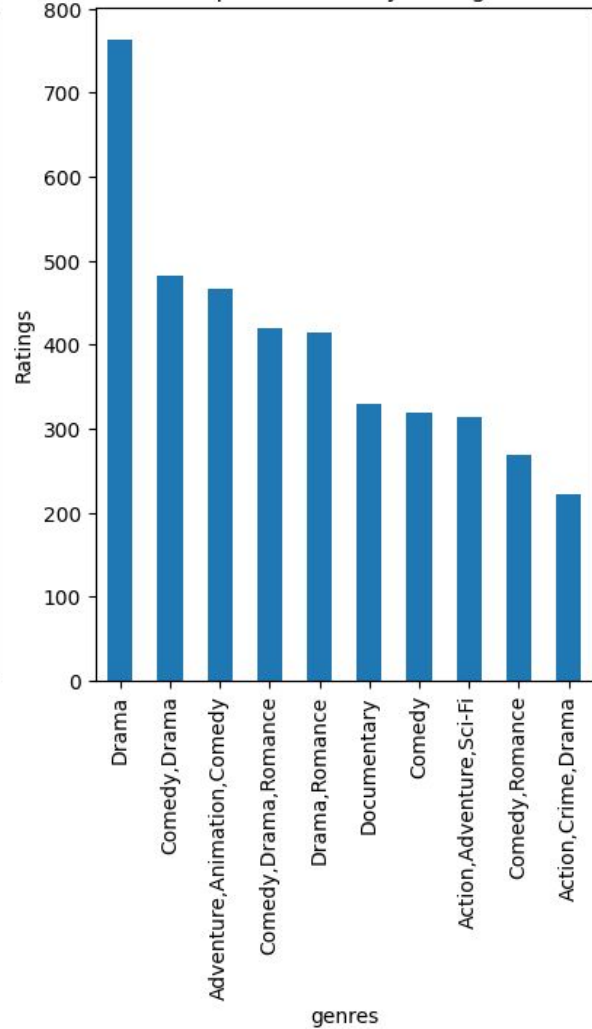
Top 10 Genres by Domestic Gross



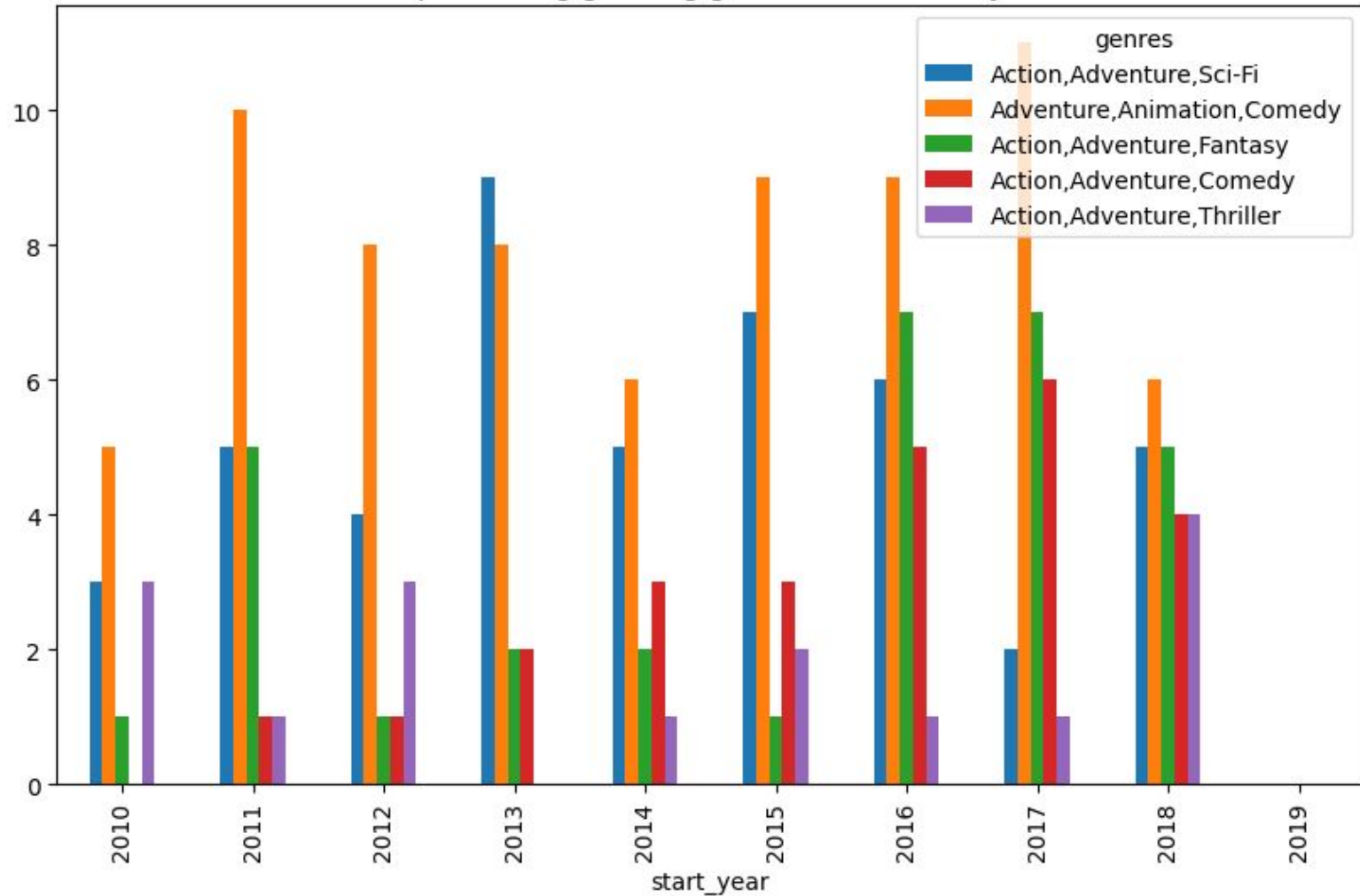
Top 10 Genres by Foreign Gross



Top 10 Genres by Ratings



Best performing grossing genres in the last 5 years



# Conclusions

My recommendation for which type of Movie to produce would be Adventure, Animation, Comedy as it is the most successful genre in both domestic and foreign markets in the last 5 years.

Additionally, I also would recommend these based off their recent performances:

1. Action, Adventure, Sci-Fi,
2. Action, Adventure, Fantasy
3. Action, Adventure, Comedy or Action, Adventure, Thriller

Conclusively, I would recommend making Adventure films which are the most successful

# Thank You!

**Email:** [david.adeola@student.moringaschool.com](mailto:david.adeola@student.moringaschool.com)

**GitHub:** [@davadeola](https://github.com/davadeola)