Microsoft Movie Studios

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Summary

This project analyzes the best performing films in the box office to give insights into what types of movies Microsoft Movie Studios should create.

Exploratory data analysis of the data provides actionable insights on the target audience, genre and performance indicators which guide a film's success.

Microsoft Movie Studios can use this analysis to create content and further considerations to achieve long-term success.

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

Microsoft would like to create a movie studio and begin making films, however they have never made any films before. A movie studio's success depends on its ability to produce films that not only resonate with audiences but generates revenue.

This project will allow stakeholders and Microsoft Movie Studios insights into what type of films are performing well in the box office in order to try and replicate that success. Analysing box office data provides the necessary insights to make informed decisions, minimise risks and increase the likelihood of financial success.

Data

Box Office Mojo

IMDB

This data was collected from these websites via studio reports, user reviews, box office reports and a combination of the above.

We've isolated the following datasets from the websites above to use in our analysis.

- imdb.title.basics
- imdb.title.ratings
- bom.movie_gross

The dataset represents records for each individual movie including the title, release date, genre, budget, box office gross, and ratings which we will use to understand and create business insights from.

Methods

1. We **created** three basic dataframes (df_basicinfo, df_imdb_ratings, df_movie_gross) with the isolated datasets.
2. We then **merged** these databases on *tconst* between df_basic info and df_imdb_ratings and then on *title* with df_movie_gross to create a final table.
3. The final table had over 14000 entries, so a **Top 50 Grossing Movies** dataframe was created so our analysis was more manageable.

This project uses **exploratory data analysis for the target variables of movie title, genre, ratings and box office performance.**
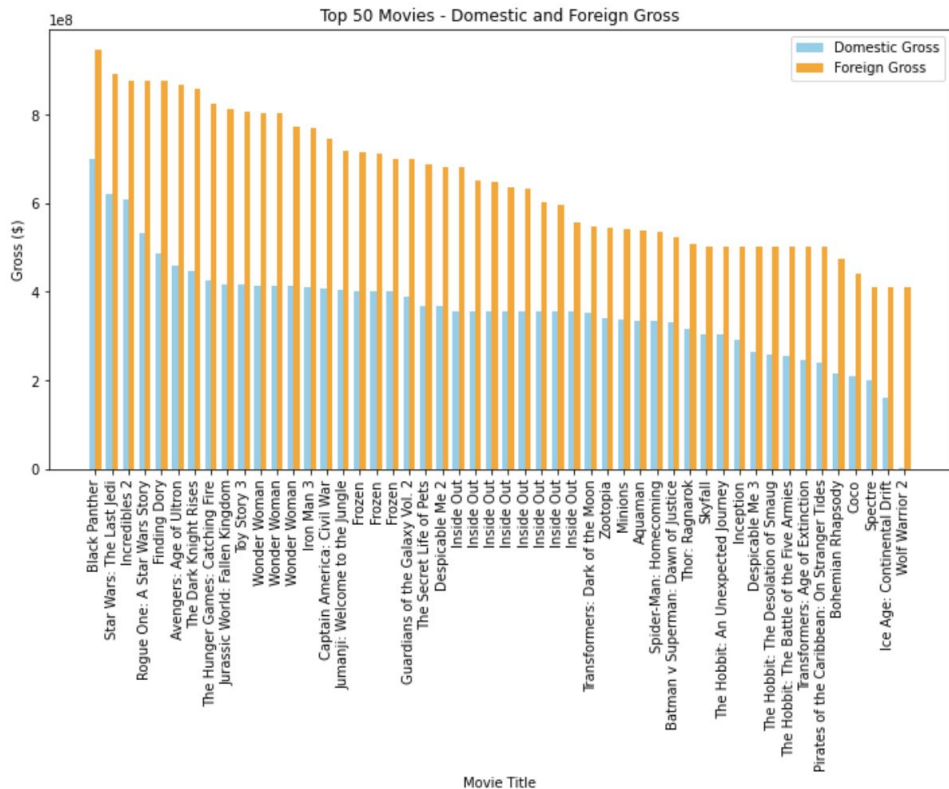
Results

Foreign audiences bring in **most** of the Top 50 **total gross revenue**.

The **Adventure genre is the most common** genre in the top 50 grossing films.

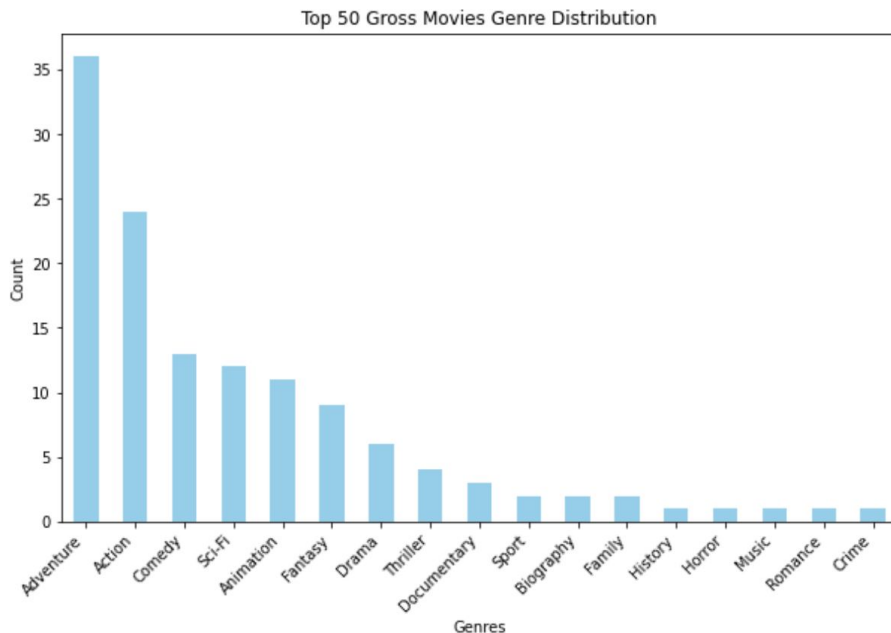The **highest rated films are not necessarily the highest grossing.**

Foreign audiences bring in **most** of the Top 50 **total gross revenue**.

Top 50 Movies - Domestic and Foreign Gross

The **Adventure genre is the most common** genre in the Top 50 grossing films.

Action, Adventure, Sci-Fi is the most combination of genres in the Top 50 grossing films.

Top 50 Gross Movies Genre Distribution

In [34]:

```
top50_gross['genres'].value_counts()
```

Out[34]:

```
Action,Adventure,Sci-Fi          11
Adventure,Animation,Comedy       10
Action,Adventure,Fantasy          5
Action,Adventure,Comedy           3
Adventure,Fantasy                 2
Action,Adventure,Thriller         2
Documentary,Drama,Sport           1
Documentary                       1
Horror                            1
Crime,Drama                       1
Action,Adventure,Animation        1
Biography,Drama,Music             1
Biography,Documentary,History     1
Adventure,Drama,Sport             1
Fantasy,Romance                   1
Action,Drama,Thriller             1
Action,Thriller                   1
Family                            1
Sci-Fi                            1
Drama                             1
Adventure,Family,Fantasy          1
Name: genres, dtype: int64
```

Conclusions

Capitalise on the foreign market: The box office gross is a direct indicator of a movie's financial success. Microsoft should capitalize on this area and allocate more promotional and marketing materials to incentivise more audiences to watch the film.

Ratings drive decision-making: Ratings provide valuable feedback on how well a film has received and the overall quality of a film. Microsoft should endeavour to create films of high quality as positive ratings help establish a studio's credibility and create a loyal audience base. Continuously monitoring ratings provides valuable insights for tailoring future content.

Create films in the Adventure genre; ideally start with an Adventure, Action and Sci-Fi film: The top 50 grossing films have a combination of genres that include Adventure. Not only do audiences find entertainment value in the Adventure genre, these types of films are among the most profitable, so the Microsoft should start by creating films which include this genre to have the best chance of success.

Next Steps and Limitations

Limitations:

Audience preferences evolve over time and the success of a particular set of films may not accurately predict future success.

Next Steps:

Further analyses could bring additional insights to further improve Microsoft Movie Studios long-term success:

- **Budget vs Gross:** Compare the film's production budget with it's gross revenue helps assess profitability and return on investment. The film would be considered not only successful to its audiences but to stakeholders if revenue significantly exceeds its budget.
- **Budget vs Ratings:** Consider whether a high-budget production receives higher ratings and vice versa.
- **Genre Diversification:** Understanding the performance of different genres enables studios to diversity their portfolios. Investing in a range of genres can lessen the risk associated with any change in popularity of a certain genre. Once established, capitalizing on less-explored genres can provide a competitive edge and offer unique content to audiences.

Thank you !