Microsoft Movie Studio Project

Summary

The movie industry has grown and evolved over the years and has seen an influx of numerous innovative companies that have made their mark in the entertainment landscape.

Microsoft is keen on getting in on the fun and wants business recommendations on how to approach the new venture.To achieve this, data analysis was conducted on datasets from Imdb, The Numbers and Rotten Tomatoes.From the analysis done it was clear that the industry requires proper planning budget wise to make good profit, movie properties and features such as runtime are key factors to consider and who you work with in the industry is important.

The following are recommended:

- Ensure there is meticulous budgeting and preparation
- Identify popular genres and focus on them
- Collaborate with the best in the business

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

Exploring different datasets on trending types of films, film revenues and other key factors to obtain actionable insights that the head of Microsoft's new movie studio so as to decide on what types of films to make

Data

The data used came from the following sources:

1. The Numbers

A website that tracks box office revenue using algorithms to also forecast incomes of film projects. The specific dataset used contains information on movies, release dates, production budgets, domestic and worldwide income all of which were target variables.

2. Rotten Tomatoes

Contains aggregates of movie reviews from critics and audiences. Implements a Tomatometer system to rate movies thus giving people information on what different critics think of a movie. The data used includes movie reviews, genres, runtimes and studios.

3. Internet Movie Database(IMDb)

An online database that contains information about movies, tv shows, actors, directors and other aspects of the entertainment industry. The dataset used contained tables about movies, directors, writers and other personnel related to the movies. Also contained average movie ratings and number of votes received for the ratings.
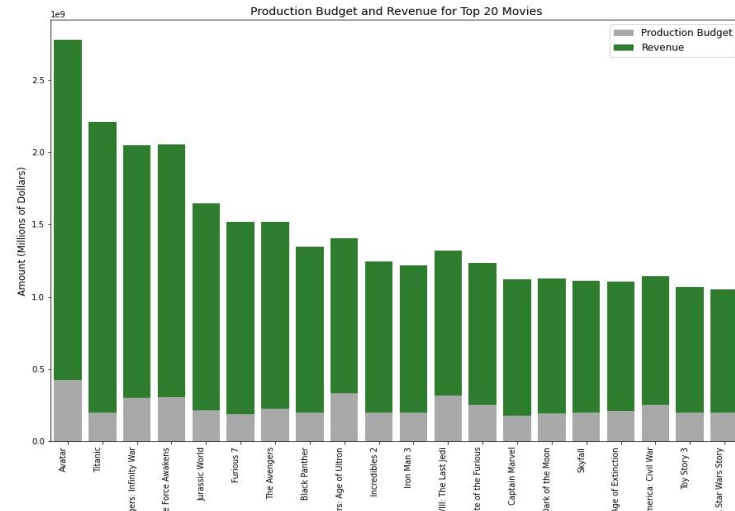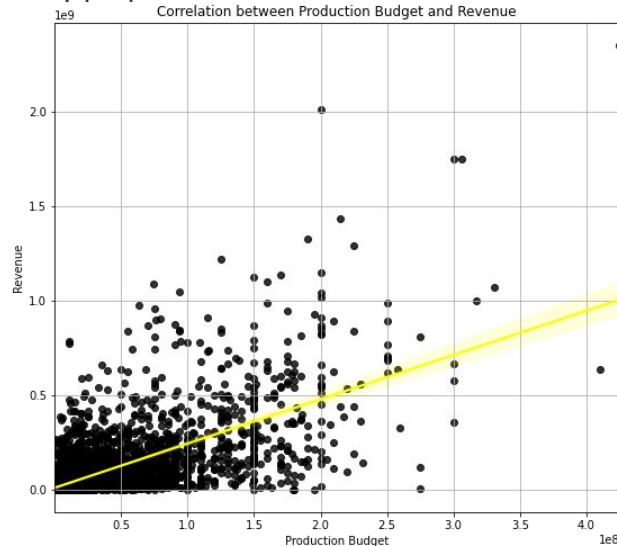
Methods

1. **Data Collection:** The data used was provided in csv form and as a sql database. The data was loaded using pandas into databases for easy analysis.

2. **Data cleaning:**

    a. Missing values were handled through exclusion and filling with estimates based on other data points

    b. Standardization of data formats and changing data types to enable further analysis

    c. Handling of inconsistencies such as duplicates by removing them

    d. Integration/joining of datasets for further analysis

3. **Exploratory Data Analysis:** To analyse and explore the data summary statistics and data visualization using line graphs, histograms, bar charts, etc.

Results

1.   Budgeting and Revenue

The analysis revealed that there is a positive correlation between high production budgets and profit. Movies that had high production budgets in turn had good profits.

Microsoft needs to ensure they do meticulous budgeting and financial preparation so as to get into the movie industry prepared.
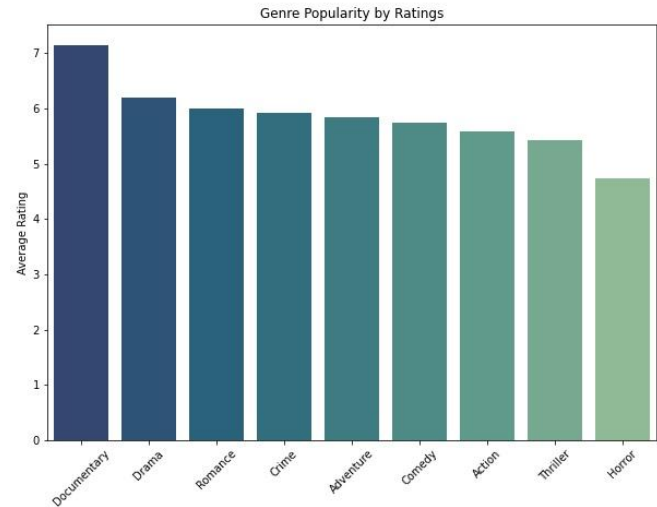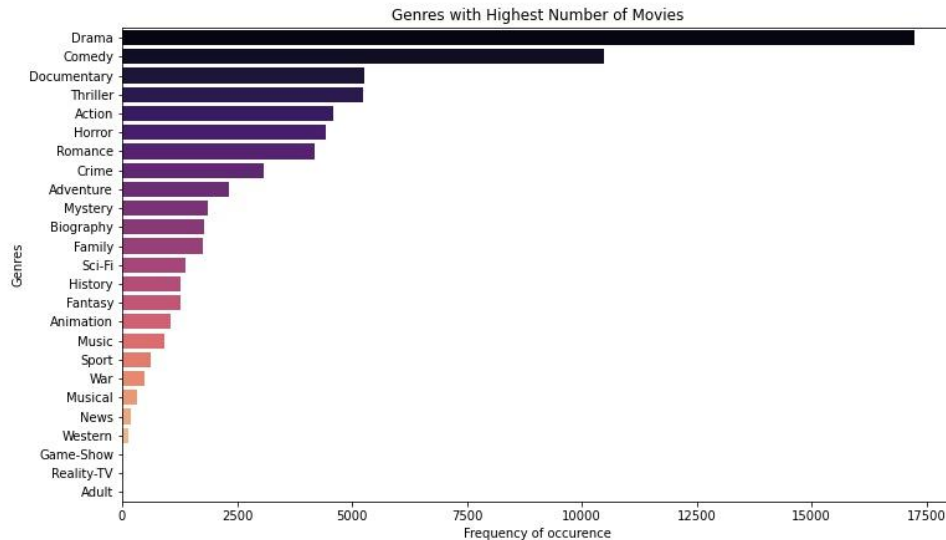
Results

2. Key features to consider when making movies

To answer the question what types of movies to make, I analysed the movies by genre and their runtimes.

From this analysis the most popular genres turned out to be Drama, Action, Documentary, Thriller and Comedy.
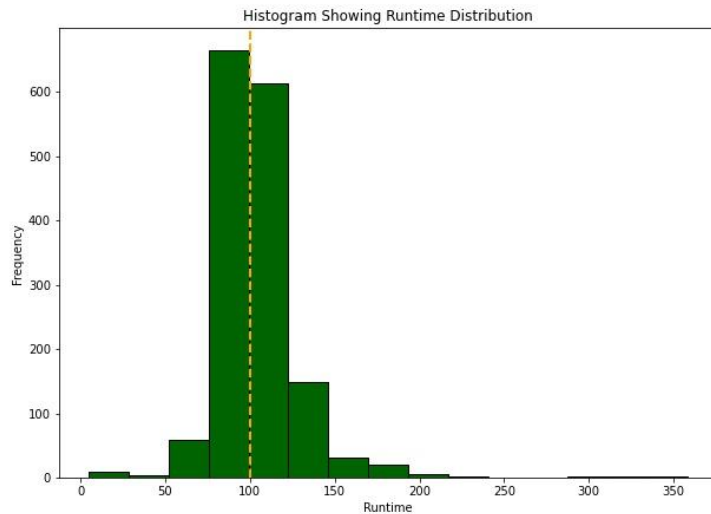

Genres with Highest Number of Movies

Genre Popularity by Ratings

Results

2. Key features to consider when making movies

For movie runtimes the analysis showed that the most preferred runtime for movies is between 90 - 150 minutes.
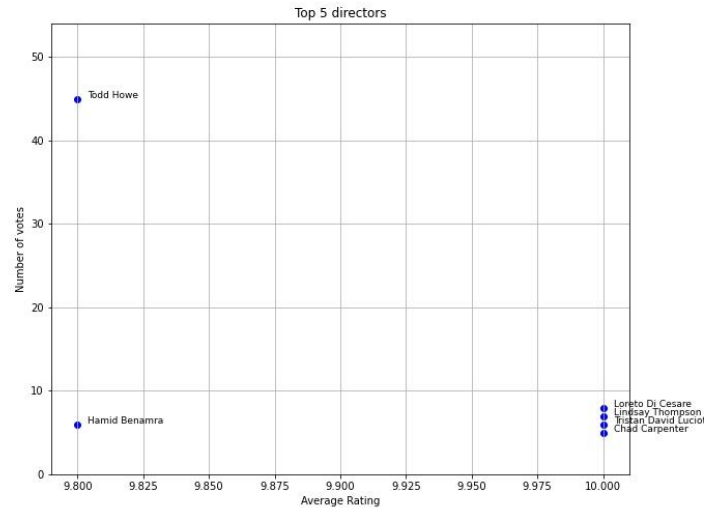

Histogram Showing Runtime Distribution

Results

3. Collaborators and Competition

An analysis of top directors as per their ratings showed that the directors to work with are Chad Carpenter, Loreto Di Cesare, Tristan David Luciotti, Lindsay Thompson, Hamid Benamra, Todd Howe, Bill Suchy, J.M. Berrios, Steve Wystrach and Tobias Frindt

Selecting who to work with will of course depend on the types of movies Microsoft chooses to produce
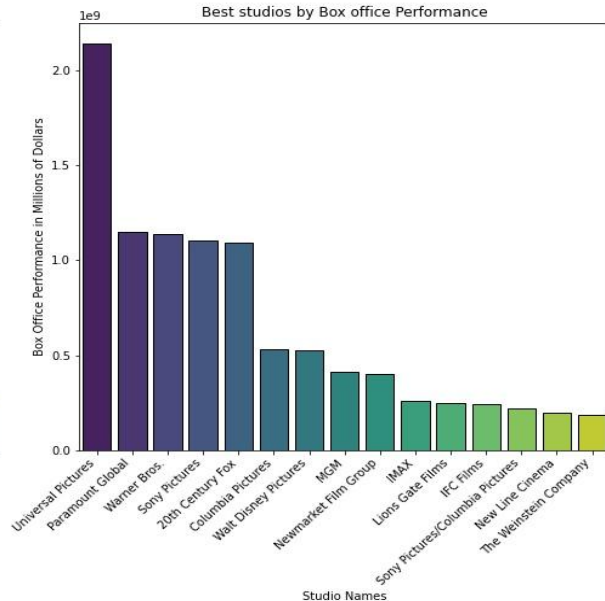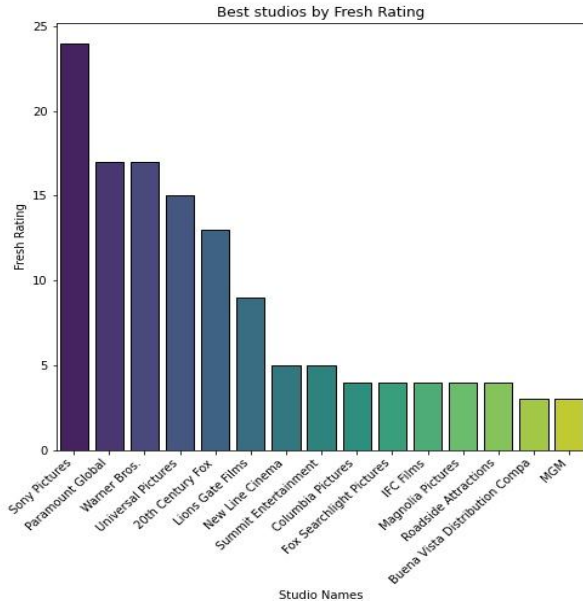
Results

3. Collaborators and Competition

As is with any business it is also important to know who your competition is. These are other studios that have made some of the best movies in the industry.

Knowing the competitors will help Microsoft enhance their strategies and better understand the specifics of the industry

Conclusions

In conclusion, from the analysis done, I recommend that Microsoft:

1. **Allocate substantial funds for high quality productions**
   To maximize profitability, Microsoft should consider making significant investments in ts film projects. A larger budget allows for the creation of superior films that can attract a wider audience and generate higher returns

2. **Focus on popular genres such as Drama, Action, Comedy, Thriller and Documentary and produce movies with optimal runtimes**
   Based on the analysis, Microsoft should concentrate its efforts on producing films within these genres. Additionally, it is essential to ensure that the movie runtimes fall within the preferred 90 - 100 minute range as this aligns with viewer preferences

3. **Collaborate with industry=leading talent and closely monitor competitors**
   To create exceptional content and compete effectively with other movie studios, Microsoft needs to partner with accomplished directors and other professionals in the film industry. This will ensure that they produce movies that resonate with the audiences
   Keeping an eye on competitor studios and aiming for an average RT(Rotten Tomatoes) rating of 10 will put them in a position for success.

Further analysis is of course required to gain deeper insights into the movie industry.

Thank You!