Microsoft - Movie Analysis

What makes a successful movie?

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Summary and Findings

Movies are an important part of our everyday life and we seek them out for enjoyment and fulfillment, but what makes a successful movie? The business problems is that Microsoft needs us to help familiarize them with the film industry, and provide recommendations to get them started in creating successful movies. We take a deeper look into the highest average ratings per movie, the top rated movies overall and the number of ratings to see if there are any correlations or comparisons we can obtain. This analysis will give Microsoft a better picture into what movies are doing well and draw insights into potential reason why.

Business problem: What company strategy/ies should Microsoft focus on to create successful movies?

Findings: The analysis provides some insight into potential strategies and angles Microsoft can take in its approach. Furthermore, making a successful movies depends on many variables, and some are more correlated to one another than others. The company must focus on a strong enter the market strategy, a competitor analysis ranging from earlier benchmarks until 2019. Furthermore, regardless whether a movies is the best or not realistically, it will become successful and profitable if there are more people talking about it, critics rating it and a larger number of votes. It is key to have a solid promotional strategy that targets not only the audience of the movie but critics. These insights would benefit the business when analyzed and put to use.

Outline

- Business problem
- Data
- Methods
- Results
- Conclusions

Business problem

1. What company strategy/ies should Microsoft focus on to create successful movies?

If Microsoft can focus on the most important strategy from the beginning in creating a successful movie, this will set the company up in a more profitable position now and moving forward.

In order to solve this problem we will look into the most critical variables in determining the success of a movie: average ratings, number of votes and gross income (domestic and international).

What makes a movie most profitable?

How important are critic ratings to the success of a movie?

What are some comparisons that can be made between top rating movies?

Data

The data came from the specific files:

1.df = pd.read_csv('data/zippedData/imdb.title.basics.csv.gz

2.df2 = pd.read_csv('data/zippedData/imdb.title.ratings.csv.gz

3.df3 = pd.read_csv('data/zippedData/bom.movie_gross.csv.gz

Methods

- Data preparation
- Data modeling

The methods used are importing pandas and required data frames used for analysis, merging of data frames on common and unique identifiers (tconst and primary_title), as well as visual representations of histograms, descriptive statistics and correlation plots for insight.

Data Preparation

I prepared the data by importing it with pandas. Then I decided to look for unique identifiers in the data such as tconst and primary_title that could be used to merge the data frames. I merged all three data frames I used for this analysis. As I began to merge the data frames, it became apparent that there was missing information and Nan values in some areas of the datasets. In order to make sure that the data had less outliers and missing data, I deleted a few columns that were showing high Nan values to keep the data cleaner, and did this by utilizing the dropna function. I dropped runtimes due to a great number of Nan values in the data set. I did not create any new variables.

Data Modeling

Once the data was clean, I modeled the data by merging data sets, ensuring that non-null count was in similar range, I began to analyze the merged data sets and pull specific columns with functions such as booelan_ array and .loc. Visualizing key data and columns in order pull insights and make comparisons between certain variables.

This approach is appropriate given the data and the business problem: What core strategy/ies should Microsoft focus on to make a successful movie? We are looking into the most important indicators of a successful movie and the most appropriate data, any huge outliers or missing data will misconstrue the data. Therefore, they were removed or disregarded in the analysis. Once this was complete, the variables left in the finalized data model were primary_title, averagerating, numvotes and gross.

Results

I believe that my work solves the stated problem: What company strategy/ies should Microsoft focus on to create successful movies?

The analysis provides some insight into potential strategies and angles Microsoft can take in its approach. Furthermore, making a successful movies depends on many variables, and some are more correlated to one another than others. The company must focus on a strong enter the market strategy, a competitor analysis ranging from earlier benchmarks until 2019. Furthermore, regardless whether a movies is the best or not realistically, it will become successful and profitable if there are more people talking about it, critics rating it and a larger number of votes. It is key to have a solid promotional strategy that targets not only the audience of the movie but critics. These insights would benefit the business when analyzed and put to use.

Conclusion

I recommend the business hire the best marketing and business professionals. Along with the data scientist, the company will be able to strategize and create a strong footprint and mark in film industry from early on. By focusing on the strategies that ultimately lead to a successful movies. Despite other potential factors and influences, those variables are average rating, num votes, and start time. They have an impact on a movies ability to succeed and make strong domestic and foreign gross income. My analysis might not fully answer the problem because there are many other variables to consider to answer this business problem/question. In order to improve this inthe future we would have to explore more variables and more year by year data.

Thank you!

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