

Business Understanding

The Data Science department is tasked with the decision making process of identifying the gap in the market when it comes to video content and film production. The department should provide a basis for Microsoft studio to start producing video content and come up with channels Microsoft should explore in order to enter the video content creation.

Problem Statement

The department should determine the best performing movies at the box office, what makes them have and maintain their success. It ought to explore the types of movies and film genres Microsoft will undertake in their quest to join the video content market.

Objectives and Project Requirements

- ❖ Analyze the best performing films and movie genres at the box office.
- ❖ Determine what type of films and movies Microsoft should create.
- ❖ Analyze the markets Microsoft Studios should focus on marketing their video content..

Approach to Solving the Problem

The department will explore a few sources of data, collect and draw insights from data to solve the challenges at hand.

Dataset and the Features

The department was provided with the following data sets to draw insights from in trying to solve the problem at hand.

- [Box Office Mojo](#)
- [IMDB](#)
- [Rotten Tomatoes](#)
- [TheMovieDB](#)
- [The Numbers](#)

After careful examination of the data sets at hand, we chose to work with two data sets i.e [IMDB](#) and [The Numbers](#) as they met the requirements of the objectives of our project.

Data Understanding

The data sets we are working with have the following composition characteristics(description, info on data and shape) as shown in the table below:

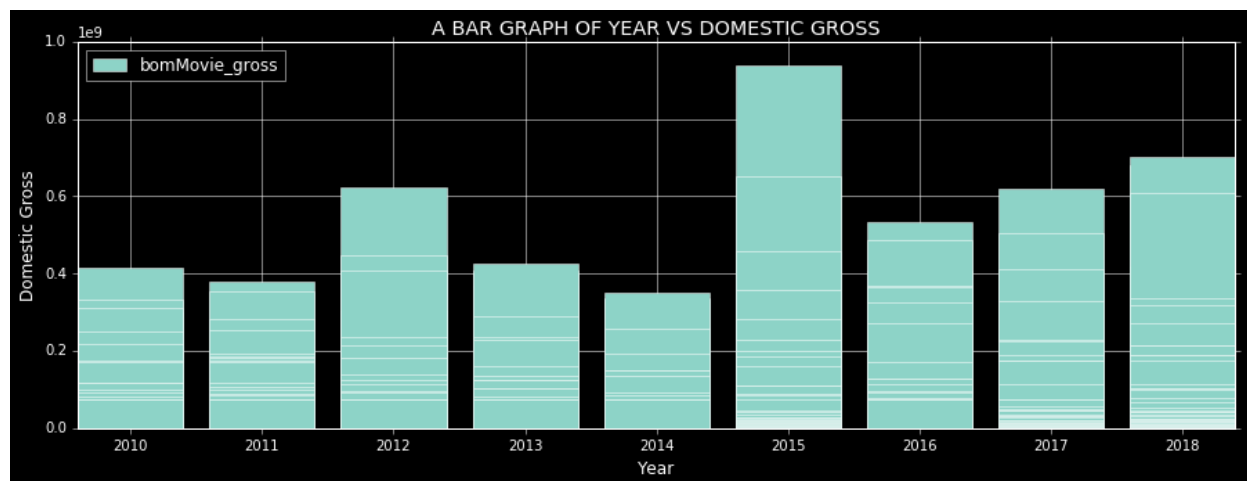
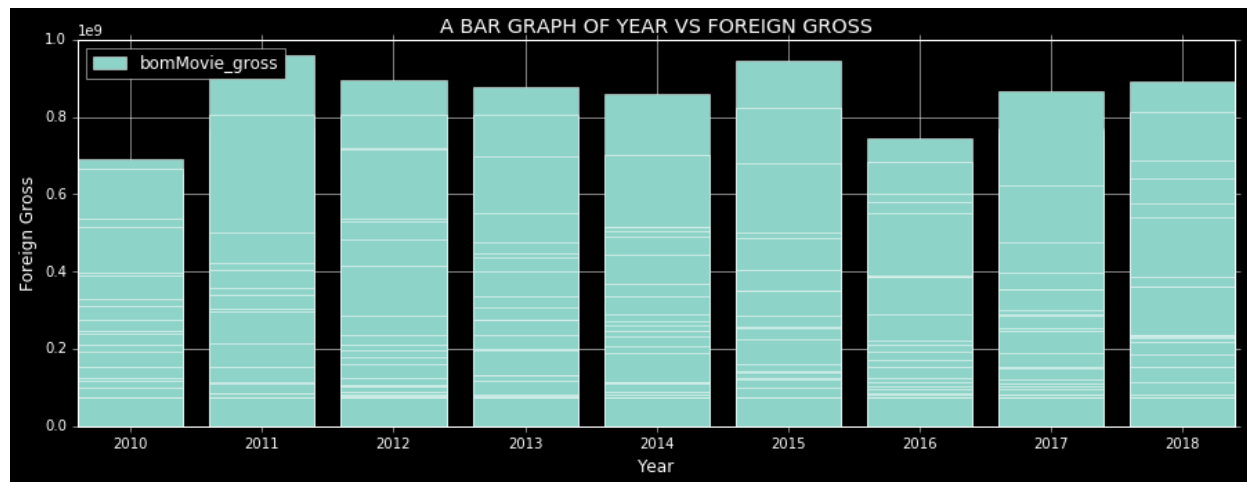
DataFrames	Data Types.	The Shape
bomMovie_gross	dtypes: float64(2), object(3)	(3387, 5)
mov_bas_subset	dtypes: float64(1), int64(1), object(2)	(112233, 4)
mov_rat	dtypes: float64(1), int64(1), object(1)	(73856, 3)
mov_bas_rat	dtypes: float64(2), int64(2), object(4)	(65720, 8)

Data Preparation

During the preparation process of our data, these were the ways in which we dealt with null. missing, duplicates and outliers.

<u>Data Sets</u>	<u>Missing Values</u>	<u>Duplicates</u>
bomMovie_gross	Filled in using the mean.	No duplicates
mov_bas	Dropped the missing values.	No duplicates
mov_rat	There were none	No duplicates
mov_bas_rat	No missing values	No duplicates

Analysis of The Project



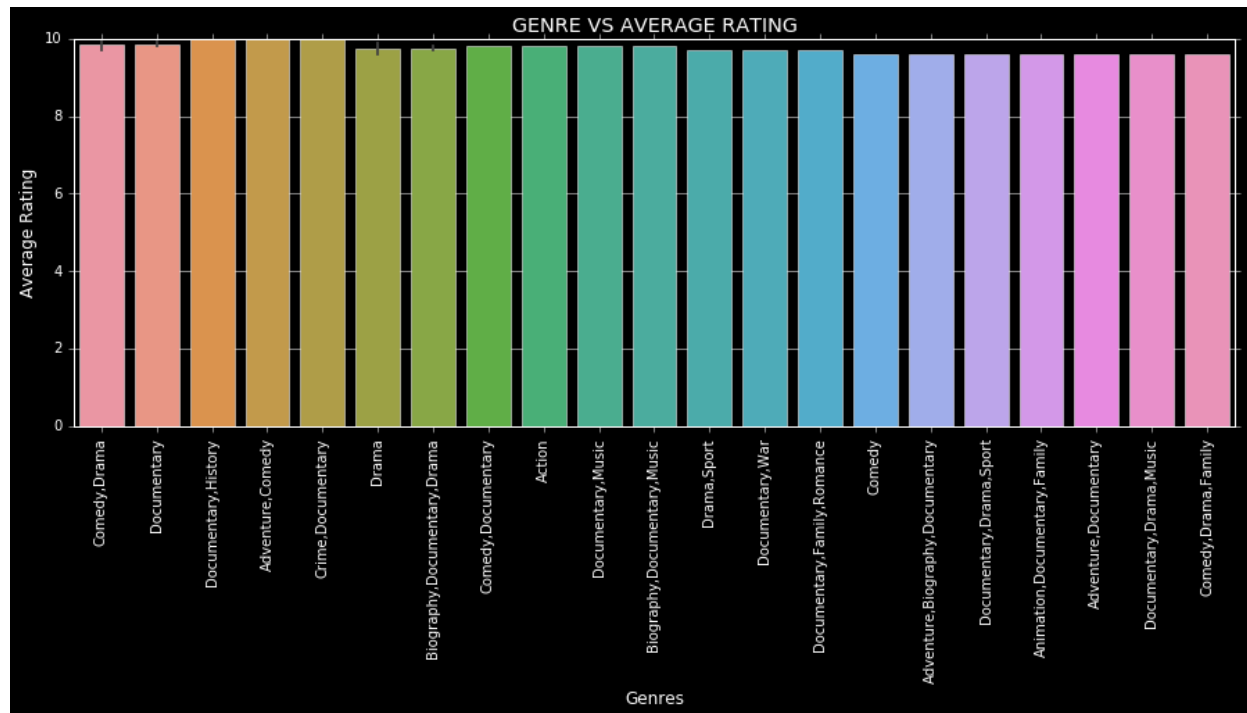
Comparing the two graphs above

The first graph shows the relationship between foreign gross and years 2010 to 2018. The gross income from foreign has been relatively high over the years. This means that tapping into the foreign markets would assure Microsoft of great returns.

The second graph shows the relationship between domestic gross and the years 2010 to 2018. The income from the domestic market has been relatively below average. However, there is notable relative increase from the year 2016 to 2018 which may give a clear indication of video content acceptability domestically.

Microsoft Studios ought to create and put in more effort in marketing their video content globally compared to the marketing efforts in the domestic market. There is a clear distinct in

terms of returns on investment in the foreign market as evidenced by the graphs. Once they position themselves on the global front, tapping domestically will be easier than if they started by going creating for the domestic market.



From the graph above, it is evident that there are many genres that video studios are currently creating and are performing so well in the market based on the viewers ratings. The different genres with very high rating are viable business opportunities for Microsoft Studios to pursue.

Conclusion

The department was tasked with exploring the best performing genres and what types Microsoft Studios would start producing. There is a clear indication that there is an avenue for Microsoft Studios to join in creating video and film content. The revenue from the industry, both domestically and internationally, serve as an indicator on the potential of video creation. We strongly urge Microsoft Studios to produce video content.

Recommendations

1. The best performing movies and film genres based on ratings are comedy, documentaries and drama genres as they rank among the highest top 20 rated genres.
2. Microsoft should produce Comedy(Drama), Documentary and Documentary(History).
3. Microsoft should focus more on marketing in the foreign markets as they are assured of higher returns than in the domestic market.