MICROSOFT MOVIE STUDIO PROJECT

Microsoft

Business Problem

Microsoft studio has decided to open up a new studio and enter into the film business industry. Their main problem is they currently don`t know the movies that are doing well in the market in terms of popularity and even revenue generation. We have been provided with data from other studios like The Numbers, TMDB, Rotten Tomatoes, IMDb and Box Office Mojo to understand the teste of customers and recommend it to Microsoft Studio

Data Understanding

Since Microsoft wants to join the film making industry it doesn't have data of its own. We are using data that was collected from various locations. The data collected includes movie ratings and movie basics that are associated with movie ids. The datasets provides a lot of information that includes domestic and foreign gross, movie budgets and the genres of movies.

Each piece of data went through the data mining process:

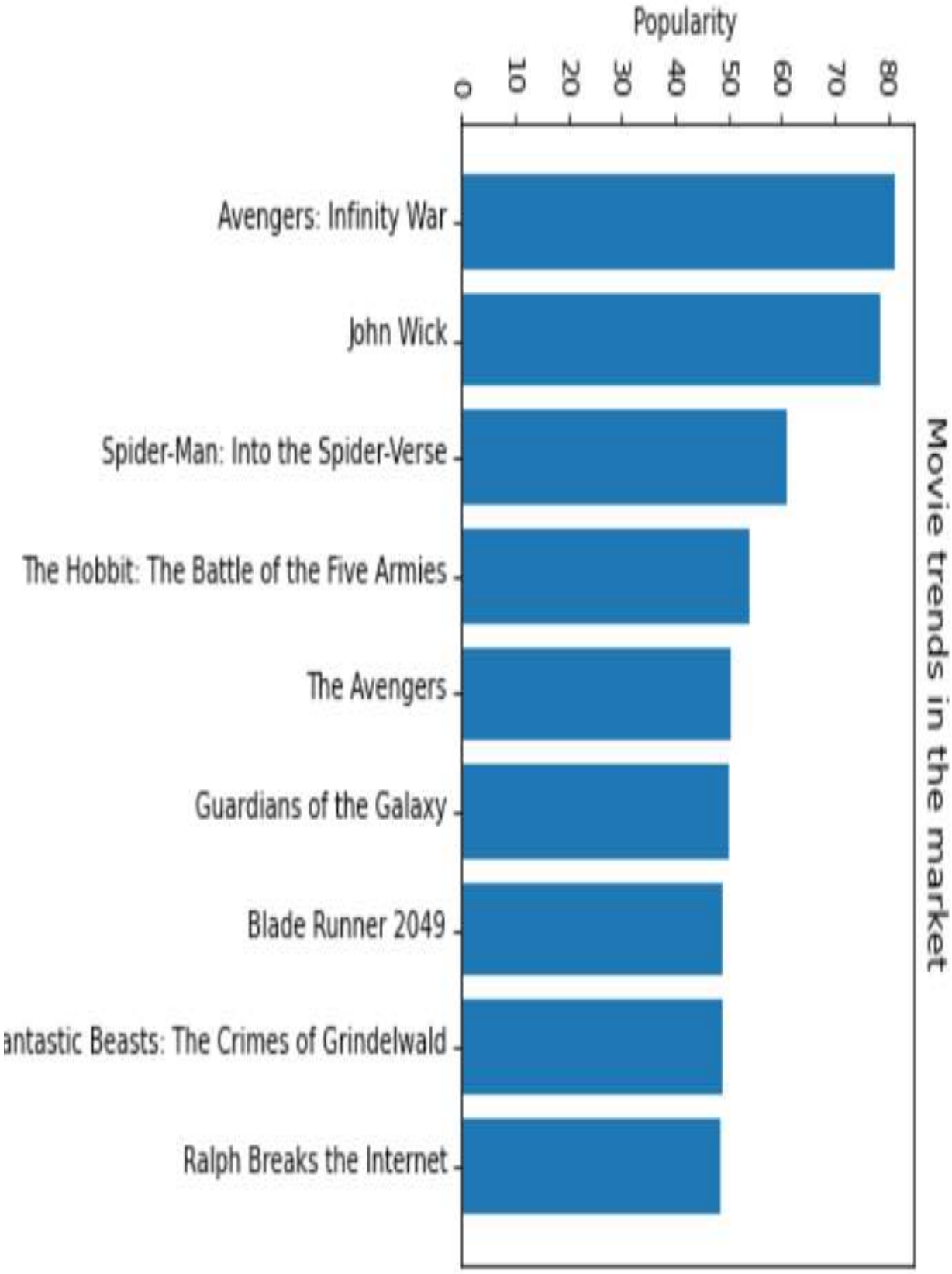
1. Data Understanding
2. Data Cleaning and Preparation
3. Data visualization
4. Recommendation

For this project I used the following data to arrive into a conclusion:

- IMDb DATA
- The Numbers
- Box Office Mojo

(a) IMDb Data

-From this data we were able to see the popularity of movies around the globe. And we Suggested that Microsoft considers the top 10 most popular movies


Popularity
0
10
20
30
40
50
60
70
80
Avengers: Infinity War
John Wick
Spider-Man: Into the Spider-Verse
The Hobbit: The Battle of the Five Armies
The Avengers
Guardians of the Galaxy
Blade Runner 2049
antastic Beasts: The Crimes of Grindelwald
Ralph Breaks the Internet
Movie trends in the market

RECOMMENDATIONS:
Based on popularity, the movie Avengers: Infinity war was the most popular among the viewers and therefore is expected to be a hit for Microsoft studio as well.

(b) The Numbers

We also looked at the data from The Numbers studio to come to a decision. We based our decision on the profit generated from movies globally.

Profit = Worldwide gross – Production cost

We used worldwide data because we are targeting viewers around the globe and not just locally.

The result was the top 10 movies that generated the most profit which I believe Microsoft studio should look into.

Below we have profit against movie title.

Movie against Profit generated
1e9
Gross profit generated
2.0
1.5
1.0
0.5
0.0
Avatar
Titanic
Avengers: Infinity War
Wars Ep. VII: The Force Awakens
Jurassic World
Furious 7
The Avengers
r and the Deathly Hallows: Part II
Black Panther
Jurassic World: Fallen Kingdom

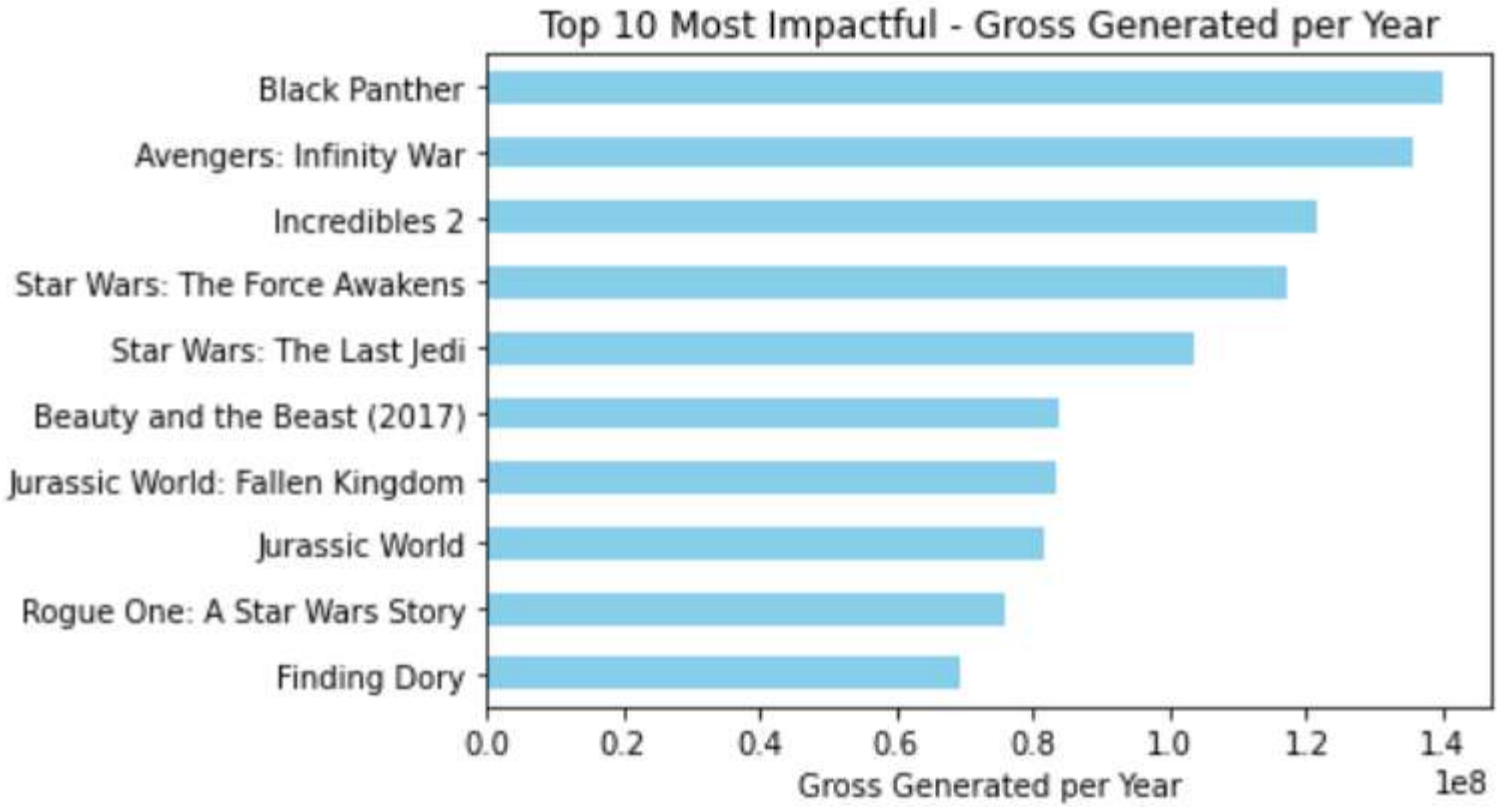
RECOMMENDATIONS:
The movie avatar has done exceptionally well since it has generated nearly 2.5m usd for the company and I would recommend Microsoft studio to look into, not forgetting the others as well like the titanic.

(c) **Box Office Mojo**

Data from the BOM contained both Domestic gross and Worldwide gross showing the amounts generated.
we avoided the worldwide data since it had so many missing data and would have resulted a miscalculation of resulst.
So we decided to use the domestic gross in the calculation of gross generated per year since it had a correlation of 0.79 with the worldwide gross.
The 0.79 shows that a positive change in the domestic gross results in significantyly propotionate change in the worldwide gross hence safe to use in representing the worldwide gross.
We also based our year to 2023.

Gross generated per year = domestic gross/number of years

Number of years = (2023-release year)



RECOMMENDATION:
From this we were able to see how much every movie is generating per year. The movie that stood out was Black Panther generating nearly 1.5m per year.