

MICROSOFT DIVERSIFICATION STRATEGY

EXPLORATORY DATA ANALYSIS ON THE MOVIE PRODUCTION VENTURE

Problem Statement

- Microsoft aims to enter the movie industry by establishing a new movie studio. However, lacking experience in creating films, Microsoft seeks to understand the current landscape of successful movies at the box office.
- The goal is to identify trends and patterns in film genres, audience preferences, and box office performance.
- The insights derived from this analysis will inform Microsoft's decision-making process in selecting the types of films to produce, ensuring that their new movie studio creates content that resonates with audiences and maximizes profitability.
- This Exploration Data Analysis (EDA) is therefore to provide insights and recommendations that would justify the roll-out of this strategy.
- The EDA is based on the data from established players in the industry and the data available on various databases such as the IMDB.
- Given that this is a new business field, the EDA was based on datasets that have invaluable insights on title basics, title ratings and revenue performance.
- Due to the size of the final datasets after cleaning and data preparation, top 20 movies with the highest ratings were selected for the purposes of this EDA

Exploratory Data Analysis

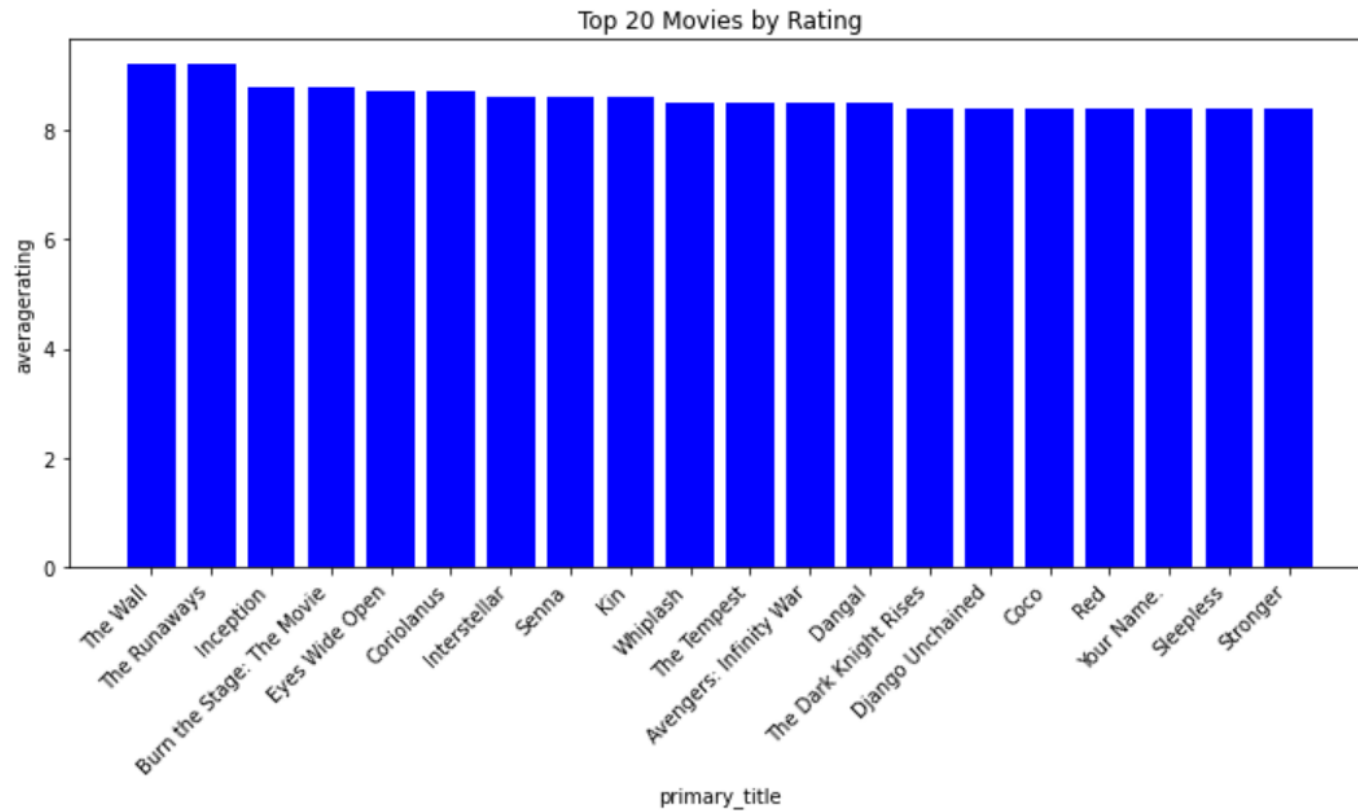
► Descriptive Statistics of the top 20 movies

	start_year	runtime_minutes	averagerating	numvotes	domestic_gross	year
count	20.00	20.00	20.00	20.00	20.00	20.00
mean	2015.05	124.80	7.22	473962.70	485555000.00	2015.40
std	2.61	26.98	0.94	325397.60	105038521.63	2.41
min	2010.00	60.00	4.20	13.00	400700000.00	2010.00
25%	2013.00	114.25	7.00	217729.25	411700000.00	2013.00
50%	2016.00	131.50	7.30	501837.50	421200000.00	2016.00
75%	2017.00	143.00	7.73	666927.00	551300000.00	2017.00
max	2018.00	164.00	8.50	1387769.00	700100000.00	2018.00

Findings

The average run-time minutes of the top-20 selected movies by rating is 124 minutes.
The maximum domestic gross is 700,100,000
The minimum domestic gross is 400,700,000

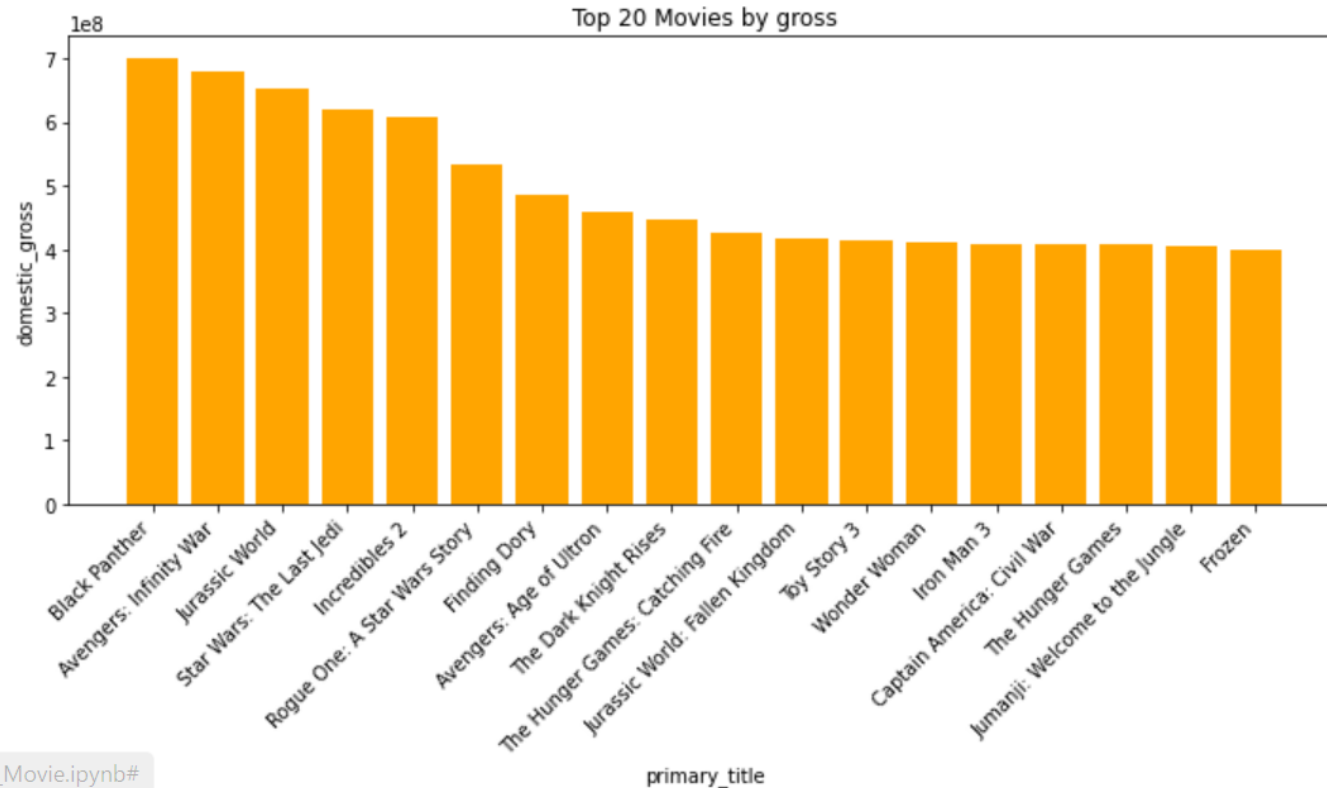
Top 20 Movies by Ratings



Findings:

- The Wall and the Runaways movies titles are the highly rated movies.
- This is an indication that these movies are highly watched going by the ratings.

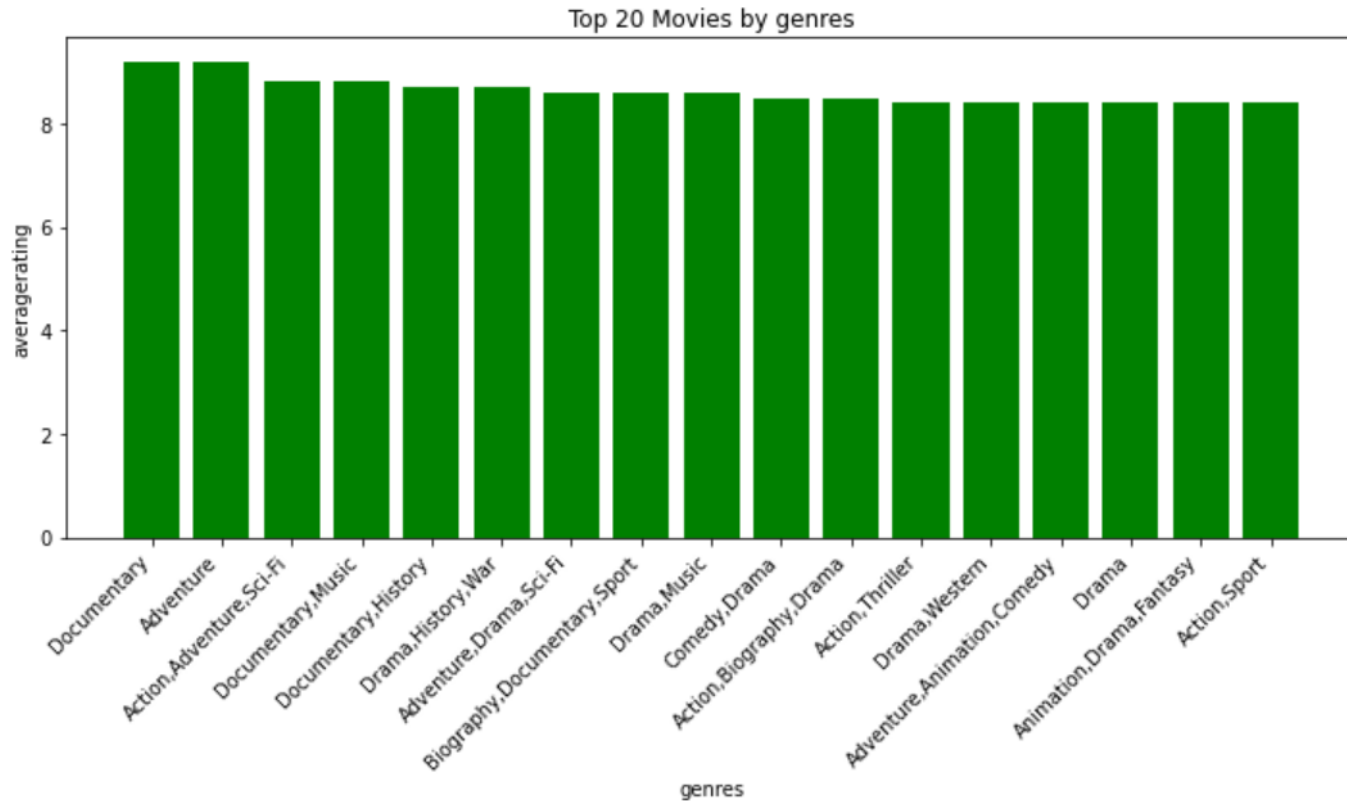
Top 20 Movies based domestic gross revenue



Findings:

- Black Panther movie generates the most revenue from the local market.
- Other movie titles that deserve consideration going by the revenue performance include:
 - Avengers: infinity
 - Jurassic Word
 - Star Wars: The Last Jedi respectively

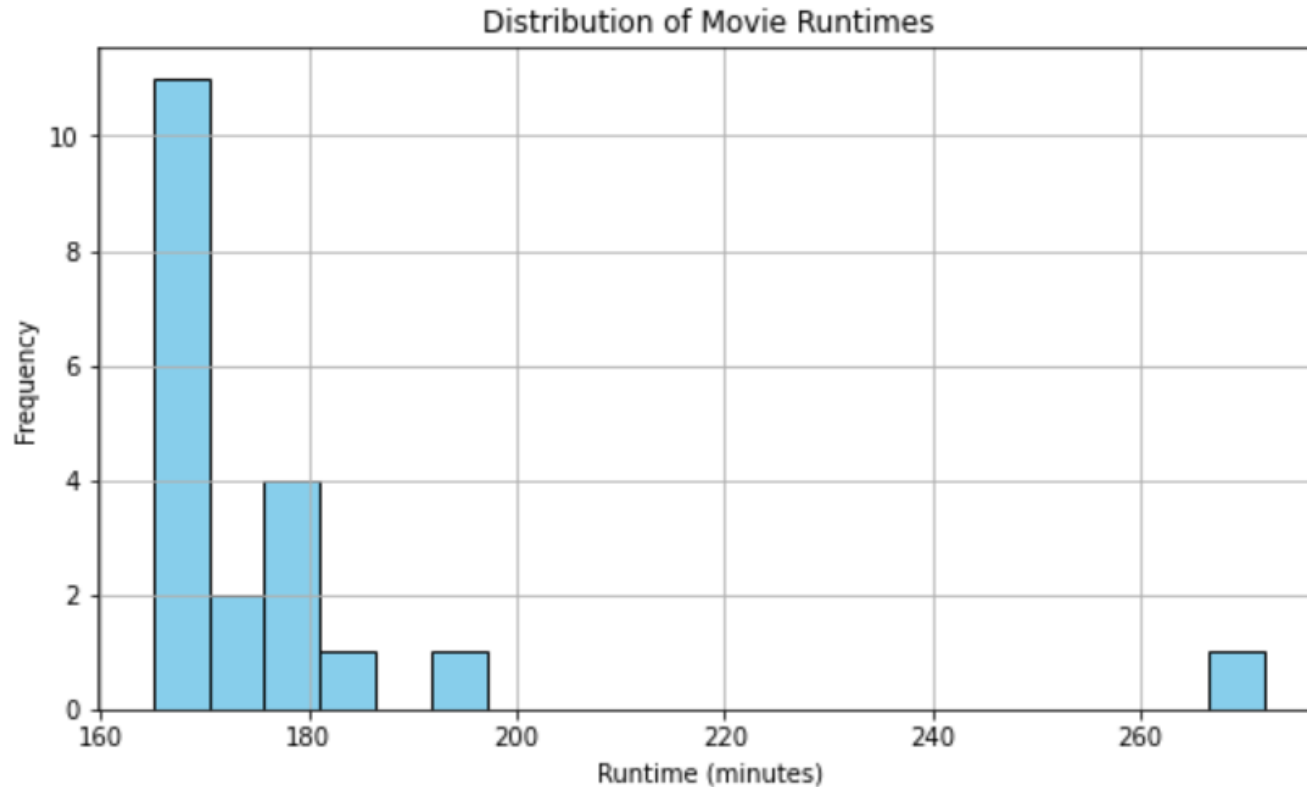
Top 20 movies by genres



Findings:

- Documentary and Adventure are the top movies genres based on the average ratings.
- Other remaining 18 movies genres are nearly equally rated

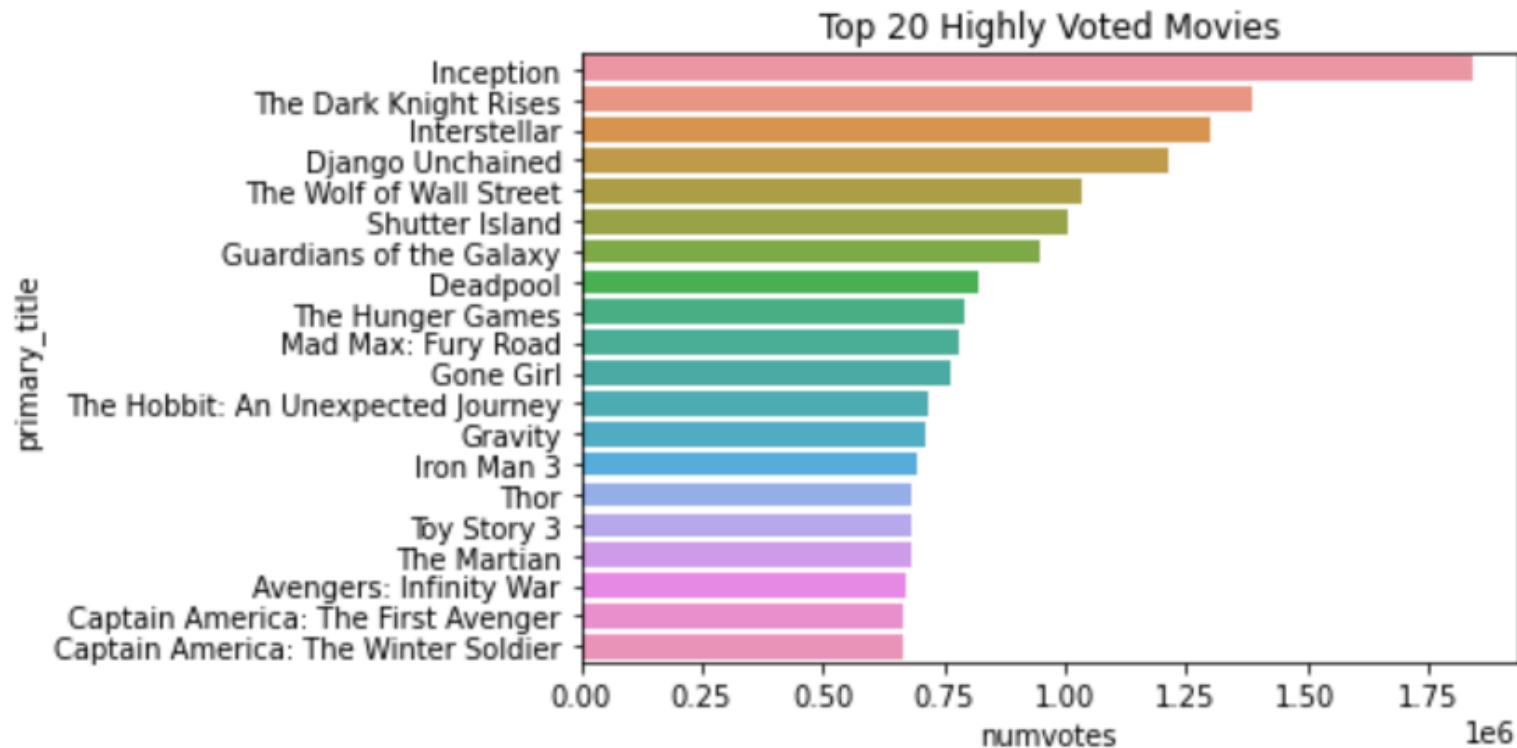
Distribution of top 20 Movie Runtimes



Findings:

- 11 movies of the top 20 movies reviewed have the highest runtime minutes of about 165 minutes. An indication that most of the top movies have a runtime of 165 movies.
- Only 1 movie has a runtime of 260 minutes.

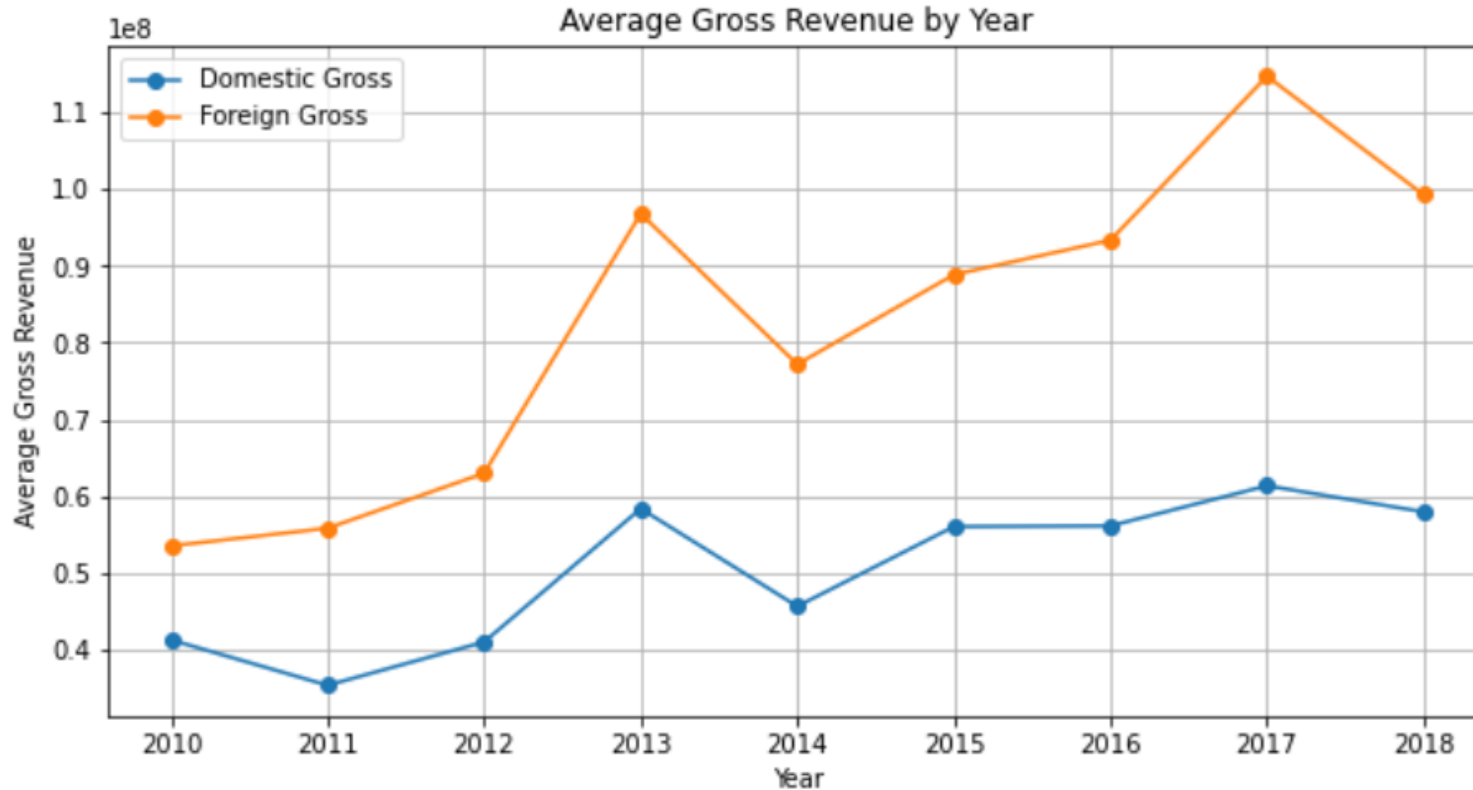
Top 20 Highly Voted Movies



Findings:

Inception movie was the highly voted movie. This depicts the movie to be highly liked. Majority of other movies received near number of voted between 0.5 to 0.75 number of votes.

Average Gross Revenue by All Movies



Findings:

- Over the years (2010-2018), all reviewed movies indicates foreign revenues are higher than domestic revenues.
- Revenue incomes have been on an increasing trend for the period analysed with a spike in 2013 and 2017 in both domestic and foreign markets. However, a sharp decrease was noticed in 2014 and 2018 respectively. This decline can be investigated further to derive possible reasons.
- 2017 recorded the highest revenue performance in both markets

Recommendations

- Microsoft to consider investing in movies that target foreign audience/market as they generate high revenues than domestic market.
- Microsoft to consider venturing into The Wall and The Runaways movies as they are highly rated movies, an indicated that they could be enjoying high viewers.
- Consider producing Black Panther movie as it generates the most revenue from the local market thus may have a higher return on investment going by the revenue income.
- Consider producing the Inception movie as it received the highest number of votes from the selected top_20. Also further analysis on the possible reasons behind the voting.
- Other movie titles that deserve consideration going by the revenue performance include: Avengers: infinity, Jurassic World, Star Wars: The Last Jedi respectively
- Consider producing documentary movie genre as they have an appealing market going by the analysis.

■ Conclusion

- The movie venture seems a justified venture for Microsoft, however the EDA was based on data between 2010 and 2018. There is need to conduct further analysis based on the current data 2019-2024 to establish latest trends and insights to make a more current data driven decision.