



BOX OFFICE ANALYSIS FOR SUCCESSFUL VENTURES TO MOVIE PRODUCTION

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Summary

The Project is aimed to help Microsoft determine key success factors to venture into movie production. Data was retrieved from TMDB and The Numbers where after data cleaning, transformation and presentation, insights and recommendations were obtained. It was determined that films that would appeal to the audience and generate revenue would need consideration of a number of factors including but not limited to movie cast, storyline, target audience and budget. Among the recommendations was that Microsoft should strategize to use latest trends and techniques to combine popular genres and compelling storylines for success in the business



Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions



Business Problem

The company aims to create successful movies that can compete in the current box office market. Microsoft needs to identify critical elements that contribute to the current box office hits to implement them in their movies.

The questions to consider are: what are key success factors, what types of movies have been successful in recent years, what are top grossing films and genres, their patterns and trends and what strategies can produce successful films.

These factors from a business perspective inform decision making around what types of movies to produce and how to market them effectively.

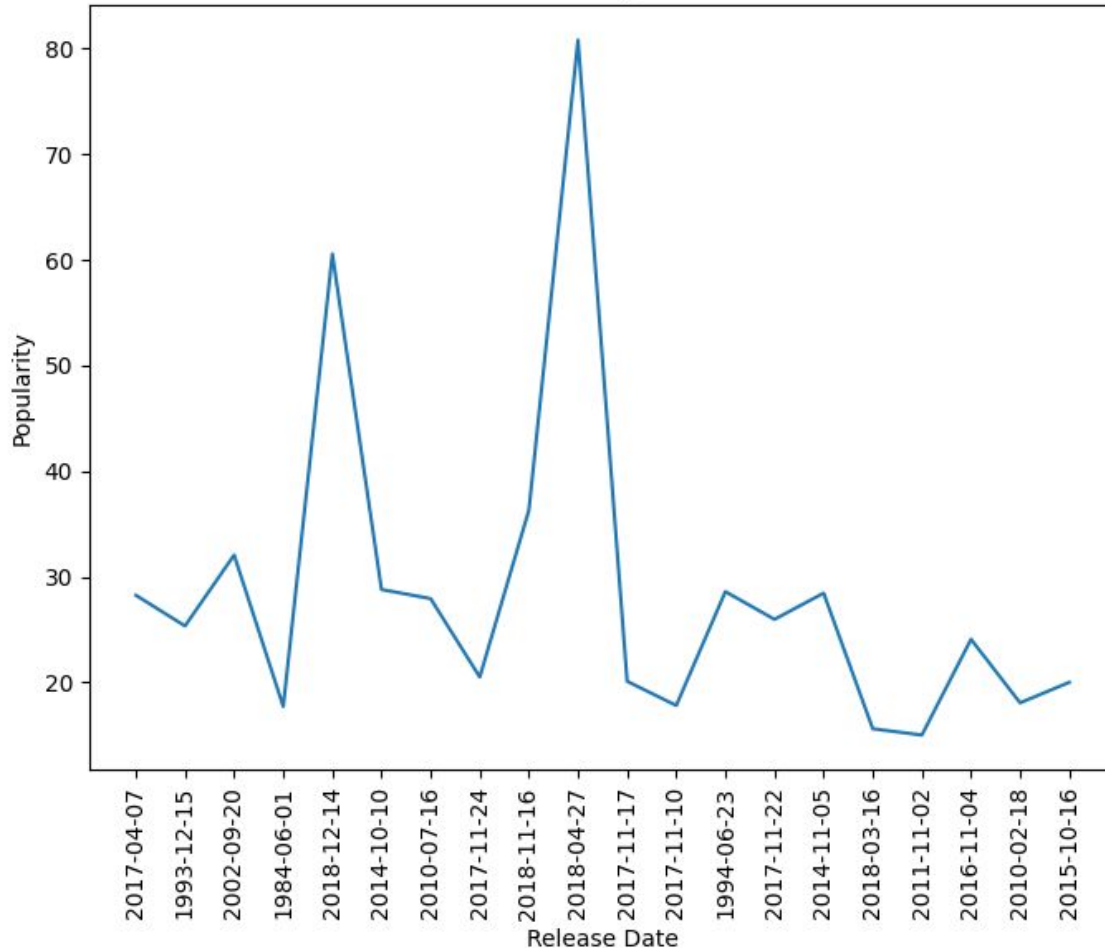


Data

A majority of the data contains a number of categorical data with frequency count characteristics such as title and genre ids. It also contains date/time data such as the release dates with seasonality characteristics as well as some like vote averages that show trends and variability characteristics.

These have been used to perform iterations for ranking and enable visualizations that shed light on behaviours that would prove to be insightful leading to generation of recommendations.

Preference Changes Over Time

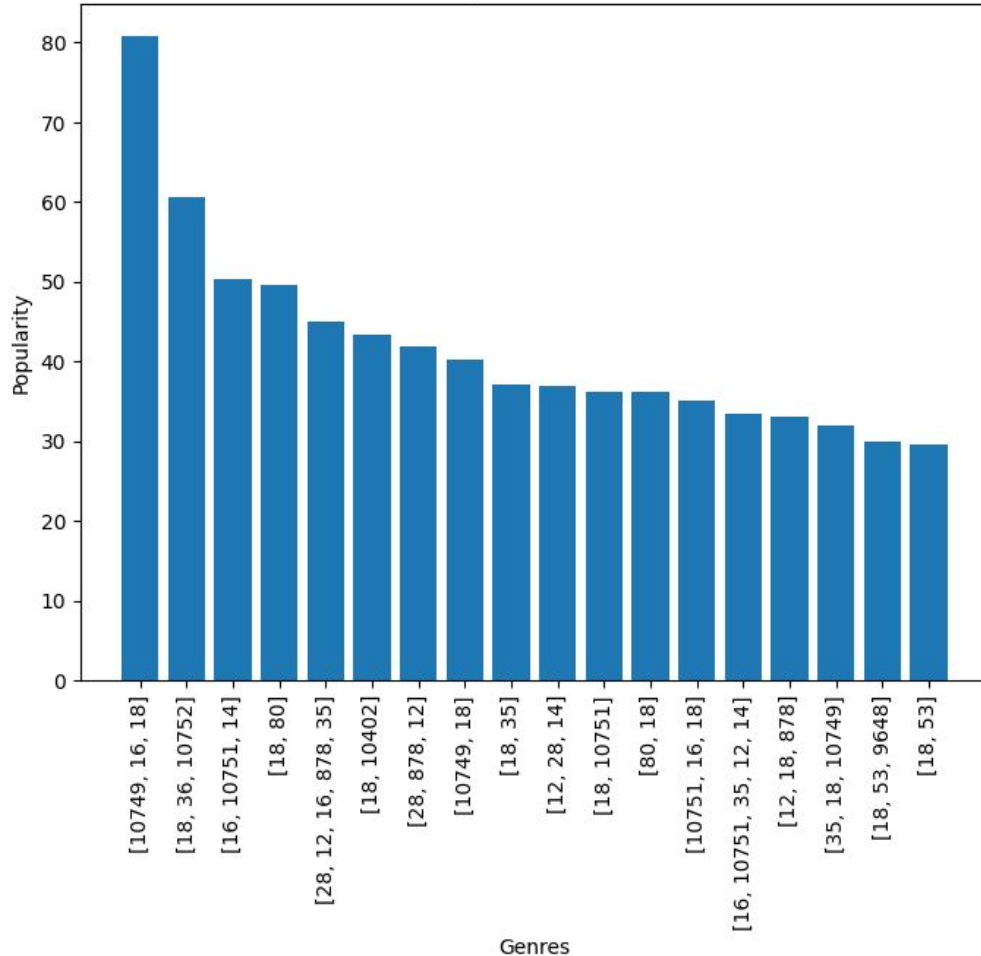


POPULARITY AGAINST TIME ANALYSIS

This visualization shows most peaks a during recent years as this indicate that the big companies do most of their marketing for newer movies.

It also shows how recent movies are more popular than older ones. Following current trends and creating movies with better visual quality will increase its reception by the audience.

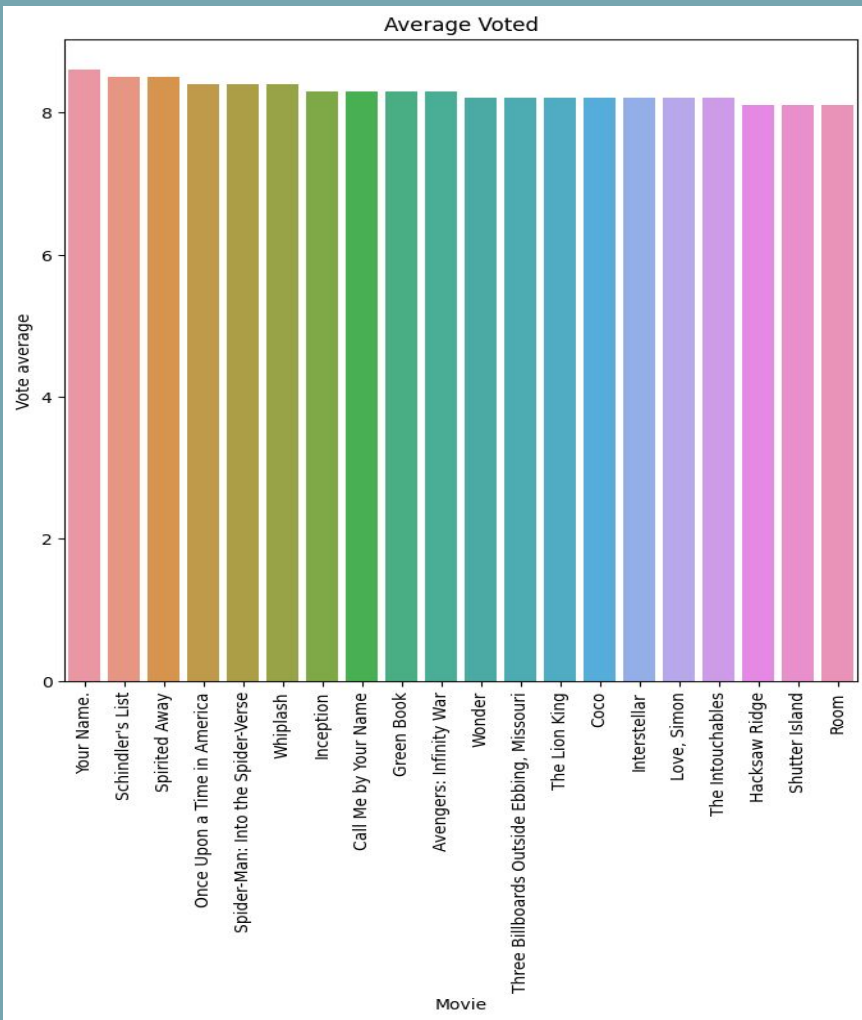
Popular Genres



POPULAR GENRES ANALYSIS

The data here shows a ranking of genres determined by popularity. It is seen that the genre [10749,19,8] is most popular while the least popular one is [18,53]

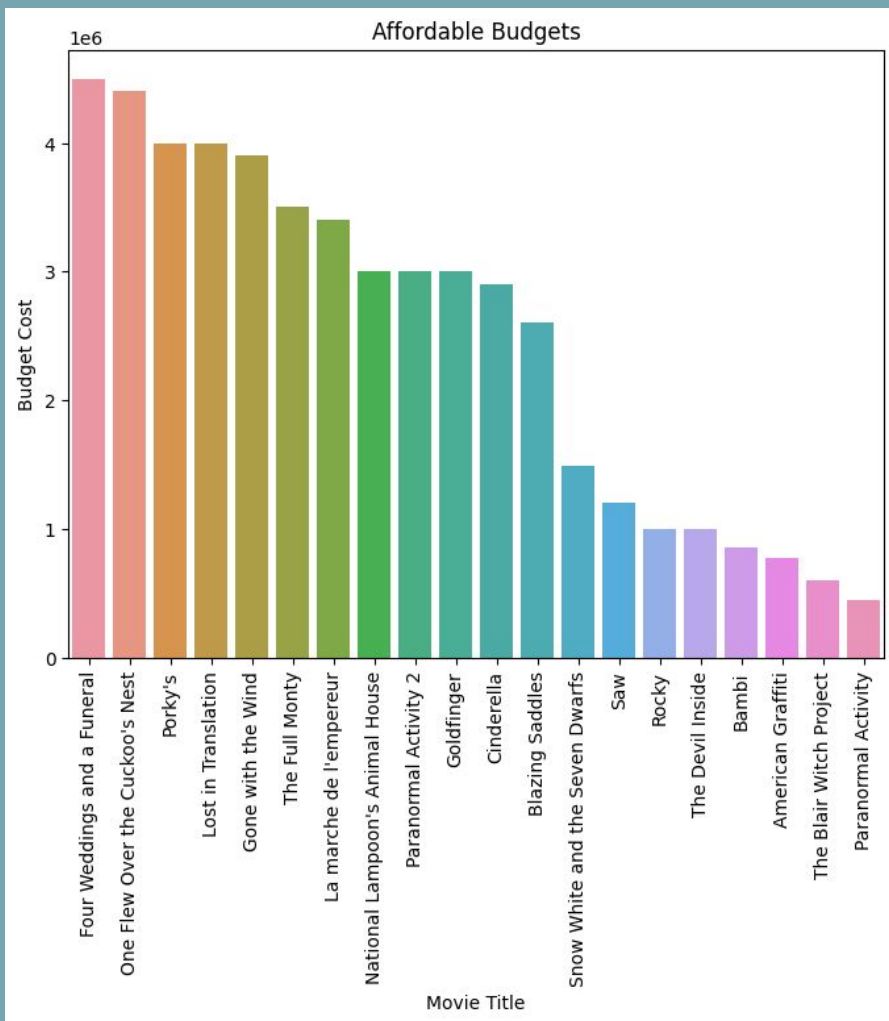
Microsoft can base the movies in their movie studio using the top genres available in this list



TOP AVERAGE VOTED ANALYSIS

This data shows how the top voted 20 movies have relatively the same bar height. This shows the differences in average votes for them was similar.

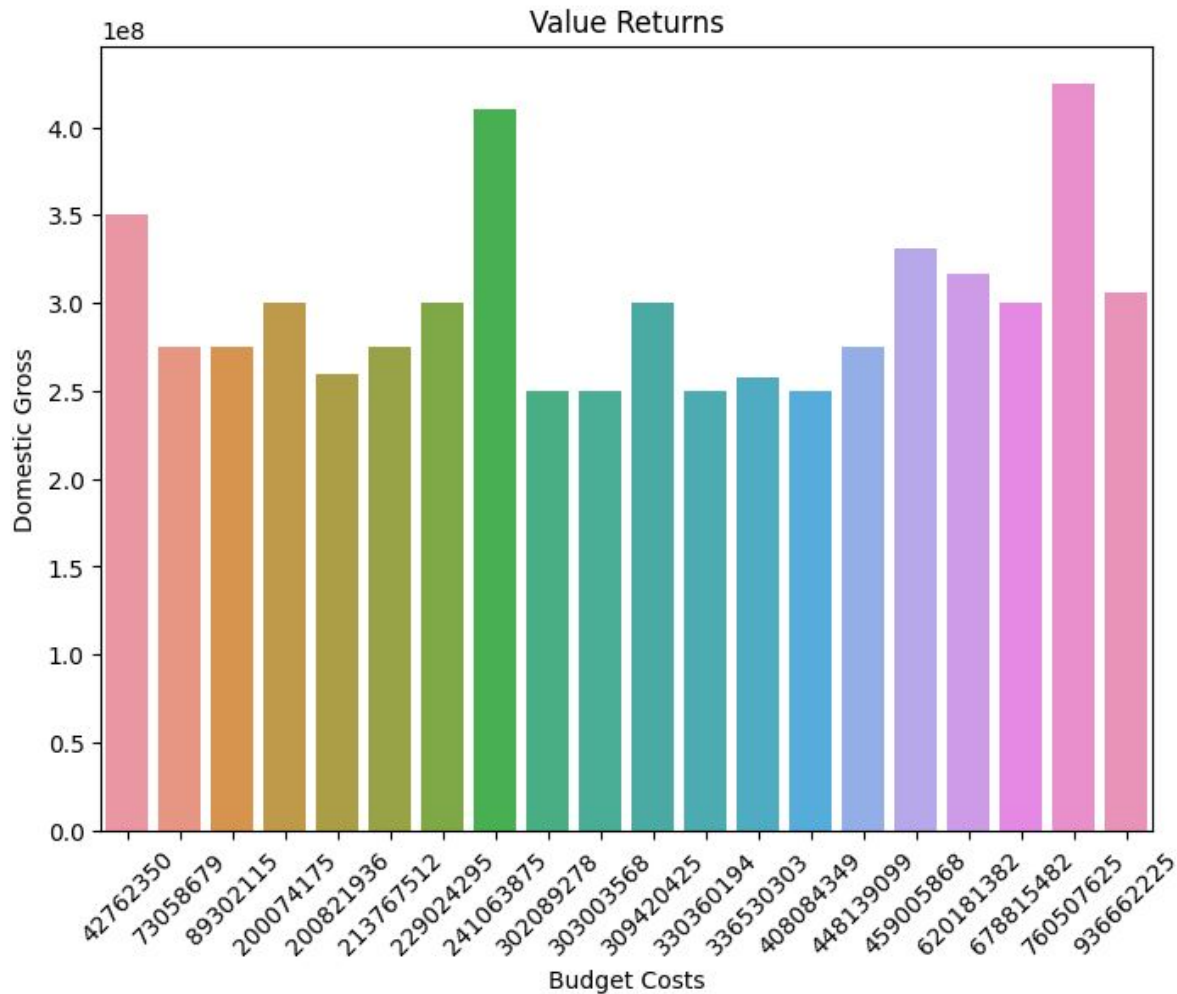
This bar chart is the same as one using movie genres for x-axis. It illustrates how genre alone may not be a success factor for movies in the movie industry.



MOST AFFORDABLE MOVIE BUDGETS

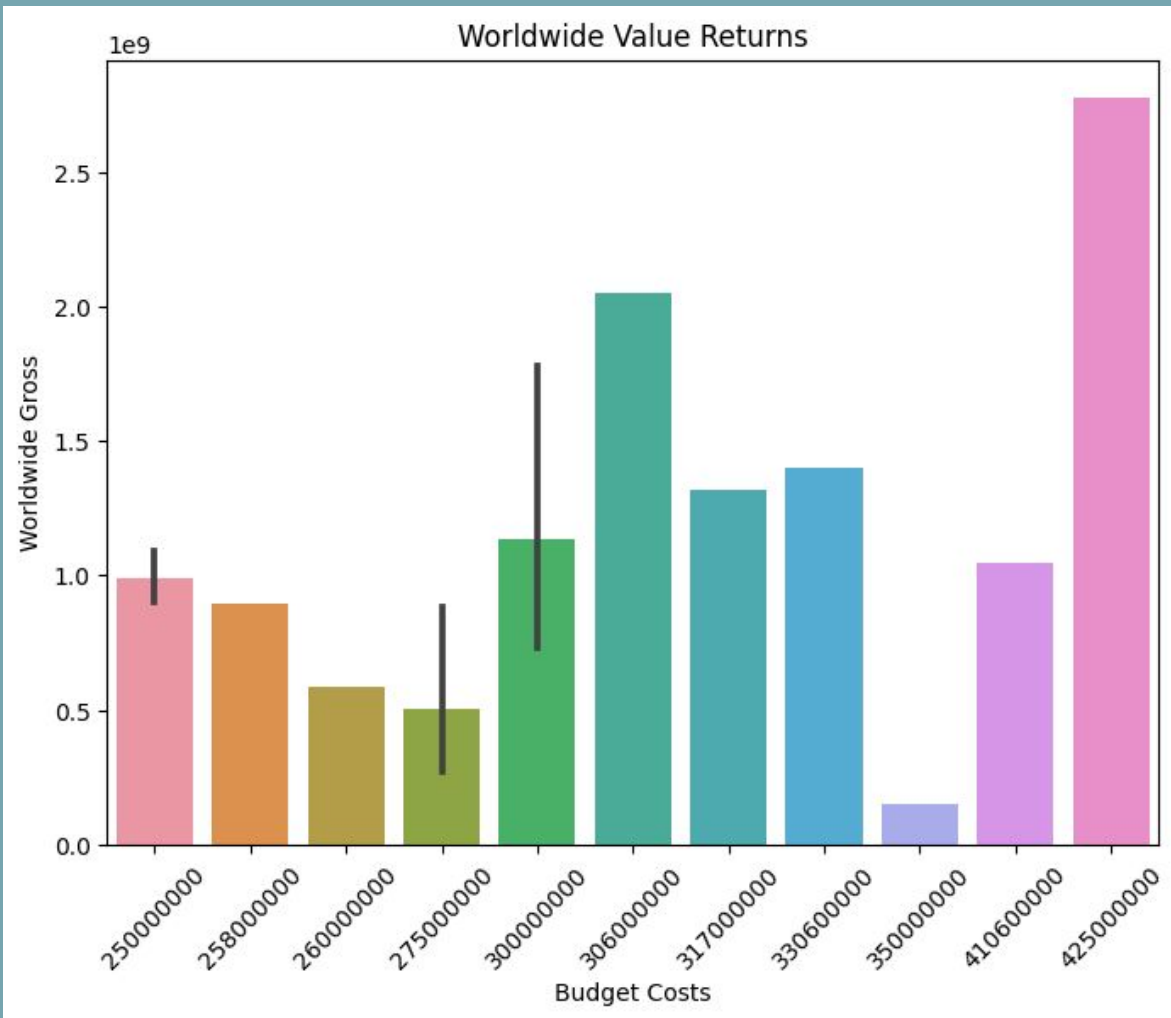
This bar chart shows us the names of movies that have the least budget costs.

Basing this alone as a success factor would prove unwise as it does not directly translate to higher revenue generation and profitability.



DOMESTIC VALUE RETURNS ANALYSIS

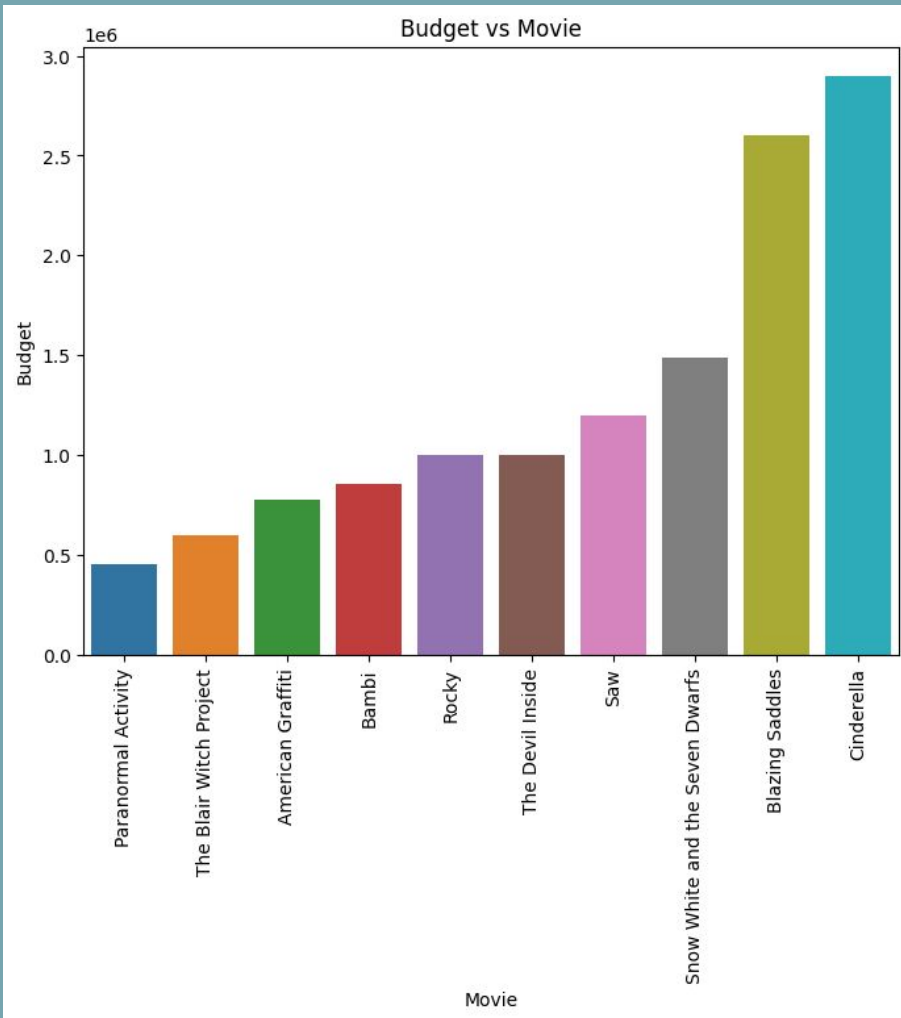
This visualization shows how returns are not directly correlated with budget costs as some with little initial investment have brought higher returns while others with high budget costs have not fared well



WORLDWIDE RETURN VALUE ANALYSIS

Similar to the visualization above, we see the same observation where returns are not directly dependent on the initial investment.

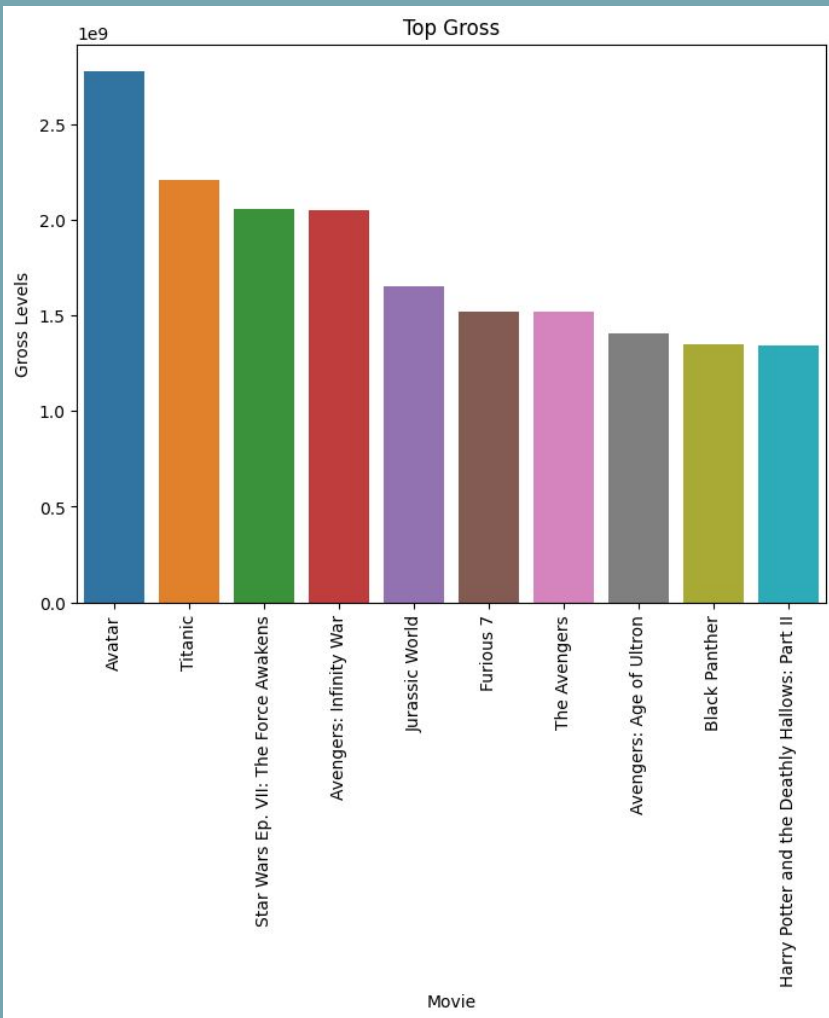
This goes to stress the inclusion of other factors such as a captivating storyline, engaging cast and trending genres.



TOP PERFORMING MOVIE BUDGETS

This is another presentation that involves budgeting. These are movies that had made good revenue in relation to their initial budgets.

An examination of the investment decisions made would help in reducing the risk associated with investments for movie production.



TOP EARNING MOVIES

This shows the top revenue generating movies. Looking through these movies and their genres along with release dates will shed more light on the keys to their success.

Another factor to consider may be the target audience for the movies and the current trends related to said genre types.



Methods

The methods used were data cleaning, data transformation and data visualization. The data was cleaned through the dropping of rows with duplicates that were found as well as irrelevant data for the analysis.

The transformation involved transforming a few columns of data so that iterations can be done. This allowed them to exemplify characteristics of variability and frequency count.

Visualization methods used involved python libraries that could plot graphs for analysis.



Results

The results showed that success factors such as revenue generation and popularity do not solely depend on one factor or the other but a combination of them. It was found out that in order to produce successful films that generate revenue it is important to monitor trends and what genres appeal to the audience. It is also advisable to figure out what combination of factors such as storyline, cast and even movie budget would blend well for assured success.

My results have thus shown a step in the right direction that the business could take in order to succeed in it's venture



Conclusions

Present your conclusions about the project here. Can include business recommendations, project limitations, and/or future improvement ideas

Microsoft should focus on engaging storylines, production quality and marketing of their movies. They should also look at trending genres and target audience preferences before starting off on production.

The strategy of combining all these key factors together with diligent execution should do well to help Microsoft do well in the movie industry after the creation of their studio. It would enable them to compete with big companies in due time.



Thank You!

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