MICROSOFT MOVIE STUDIO RESEARCH

INTRODUCTION

- Movie production involves the process of film creation

- Movies can be produced into different categories simply referred to as movie genres.example include fantasy,family action etc

- Movie success can be attributed to a number of factors mainly the rating, popularity, viewership and the income it generates.

OBJECTIVE

Explore the kind of movie currently doing well in the market and advise Microsoft on the best kind of movie to produce

DATA UNDERSTANDING

- Five data sources were available in this project namely BOM,IMDB,ROT,TMDB and The Numbers
- Among this data sets three proved to be more relevant to the research
  - BOM because it had financial records about the movies
  - TMDB as it contain both popularity and rating data
  - IMDB because it contain a very large data set while also containing important data on rating and runtime.

DATA PREPARATION

- Different data was analysed differently

- Data preparation was done before each analysis.

- Data preparation included;
  - merging of data from different sources
  - dealing with missing values
  - Removal of outliers

DATA ANALYSIS

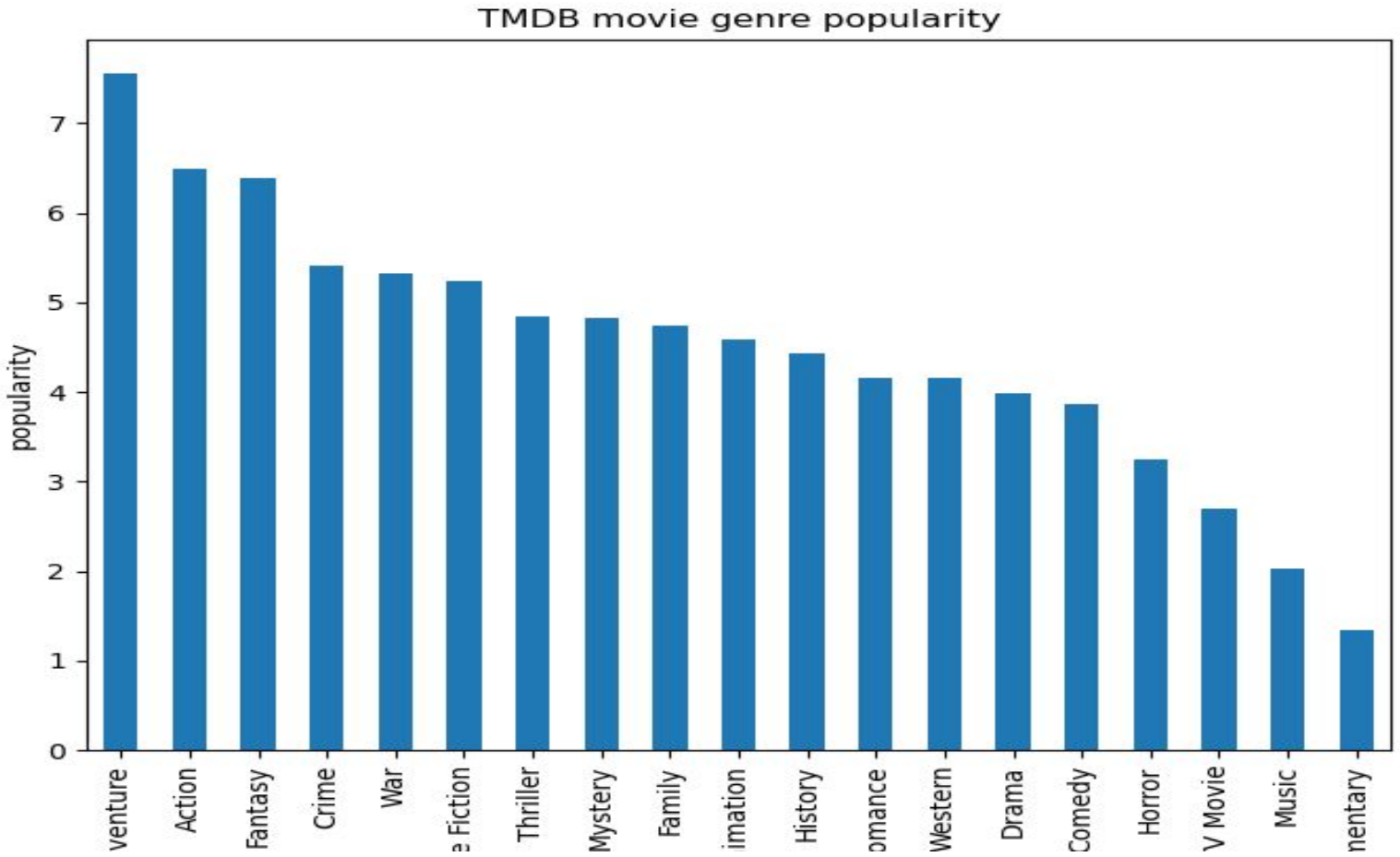
- The Movie Database (TMDB) was analysed for data on movie popularity

- The Internet Movie Database(IMDB) was analysed for data on movie rating and correlation between runtime and moving rating

- Box Office Mojo data(BOM) was merged with IMDB data for better analysis of financial records per movie genre

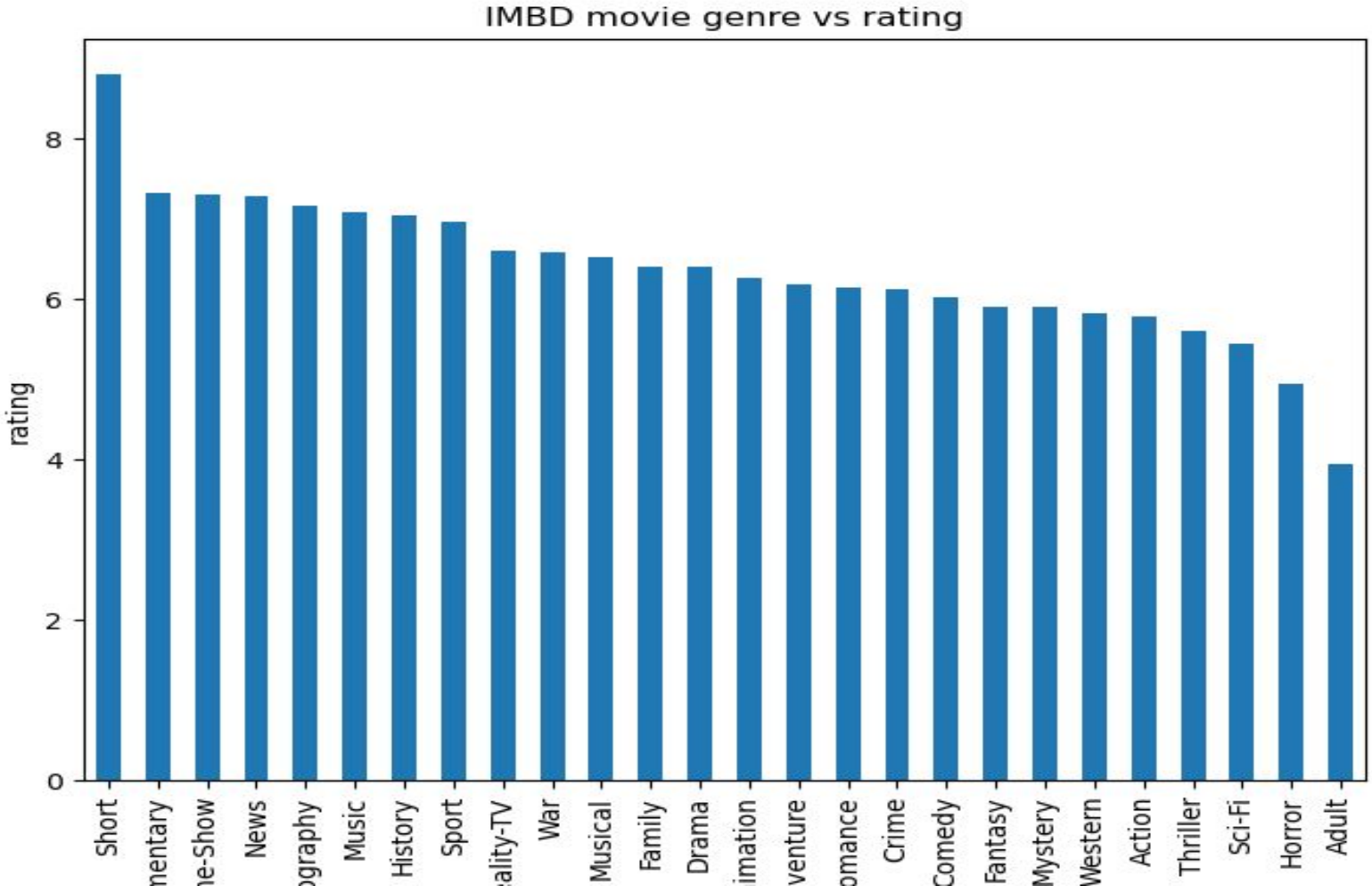
Analysing Data from The Movie Database (TMDB)

- Data from TMDB was analysed to show popularity per genre.
- Adventure, Action, Fantasy, Crime, War had the highest popularity as shown in the bar graph below.
- Horror, TV Movie, Music, Documentary had the lowest popularity


TMDB movie genre popularity
popularity
0
1
2
3
4
5
6
7
venture
Action
Fantasy
Crime
War
a Fiction
Thriller
Mystery
Family
imation
History
omance
Western
Drama
Comedy
Horror
V Movie
Music
nentary

Analysis of The Internet Movie Database(IMDB)

- This data was analysed to show rating per movie genre and relationship between movie runtime and rating
- Short, Documentary, Game-Show, News, Biography, Music had best ratings while horror and adult had the least average rating
- Movie average rating and runtime showed a positive correlation of about 0.6 showing longer movie were more liked


IMBD movie genre vs rating
rating
0
2
4
6
8
Short
mentary
e-Show
News
ography
Music
History
Sport
ality-TV
War
Musical
Family
Drama
imation
venture
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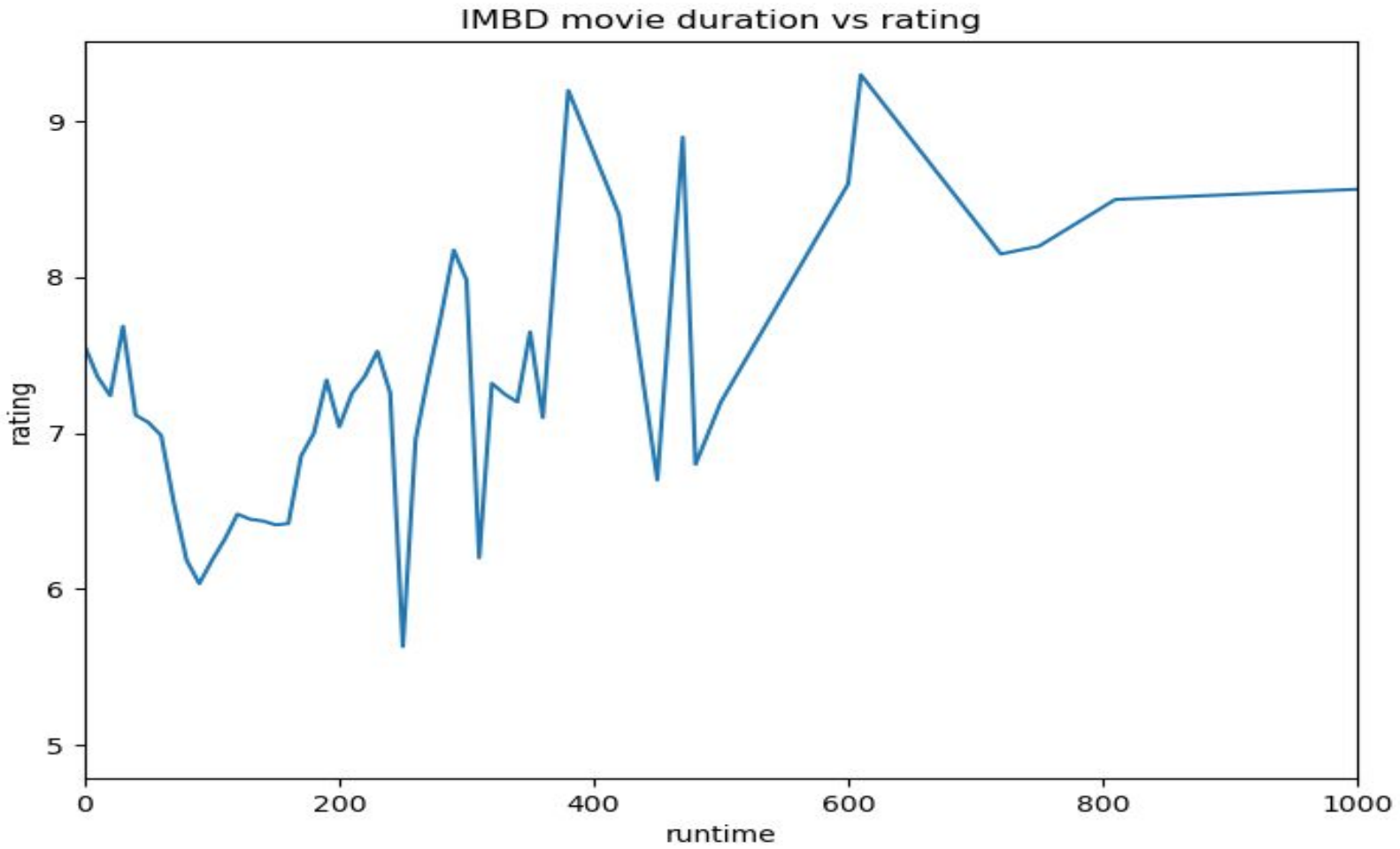
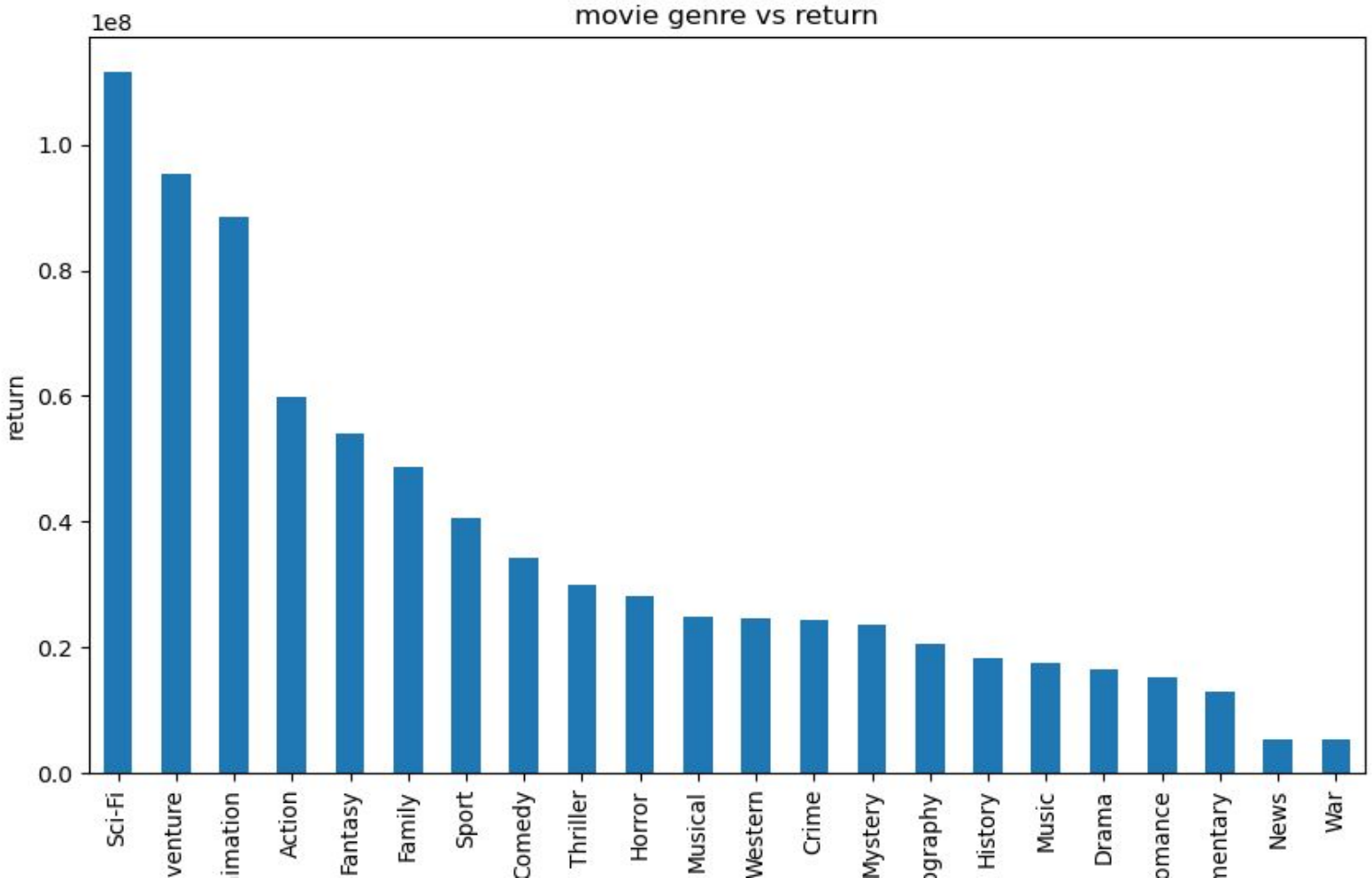
Crime
Comedy
Fantasy
Mystery
Western
Action
Thriller
Sci-Fi
Horror
Adult


IMBD movie duration vs rating
rating
runtime
9
8
7
6
5
0
200
400
600
800
1000

Analysis of Box Office Mojo data(BOM)

- This data was merged by IMDB data for analysis of financial record against specific movie genre
- Sci-Fi, Adventure, Animation, Action, Fantasy showed better returns while news and war showed poorest returns


movie genre vs return
1e8
return
1.0
0.8
0.6
0.4
0.2
0.0
Sci-Fi
Action
Fantasy
Family
Sport
Comedy
Thriller
Horror
Musical
Western
Crime
Mystery
History
Music
Drama
News
War

CONCLUSION

- Science fiction and adventure had some of the best returns followed by adventure as shown by the graph above.
- IMDB data as it had a wider data range therefore more likely to have a better accuracy for rating compared to TMDB
- TMDB data contained movie popularity which is also a very important instinct for recommendations
- Runtime vs rating showed a positive correlation of about 0.63294

RECOMMENDATIONS

- Microsoft new studio should give a priority to the following genres adventure,action,animation,fantasy and sci-fiction which showed better returns,popularity and ratings
- Microsoft new studio should avoid Horror movies
- Microsoft new studio should consider longer movies