



MOVIE INDUSTRY ANALYSIS FOR MICROSOFT STUDIOS

By Dennis Njogu



BACKGROUND



- Microsoft company wants to create original video content after seeing others do it. They created a studio but don't know anything about creating movies.
- With the provided data, we can explore and analyze what types of films are currently doing the best at box office.
- This will lead into insights that the head of Microsoft's new studios can use to decide what films to produce, which studios are suitable and what market to target.
- The analysis includes characteristics such as domestic gross, foreign gross, genre, popularity, vote count, and rating data."



Data Sources

- The Data for the analysis came from:
 - TMDB dataset
 - Movie_gross dataset
- The datasets contain information about the gross revenue generated by various studios across the years as well as the popularity of the movies based on the genres and the voting numbers by the viewers.
- This datasets help us to understand which genres are the best based on their average rating and popularity. The analysis depicts which studios are the best performing and why, and which studios need improvement."



Data Preparation



- For data preparation, some columns had missing values, which were filled either with the most common values, the mean, or the median.
- In the tmdb dataset, a new column was introduced to get the genre names by extracting them from the TMDB API.
- The genre_names is beneficial as it is easier to understand compared to the genre_ids which are number ids representing the genre names.

Data Understanding for the TMDB DATA

- The TMDB data provides information about the **movie popularity** based on factors highlighted below such as genres, vote_average, vote_count etc.

Unnamed: 0	genre_ids	id	original_language	original_title	popularity	release_date	title	vote_average	vote_count
0	[12, 14, 10751]	12444	en	Harry Potter and the Deathly Hallows: Part 1	33.533	2010-11-19	Harry Potter and the Deathly Hallows: Part 1	7.7	10788
1	[14, 12, 16, 10751]	10191	en	How to Train Your Dragon	28.734	2010-03-26	How to Train Your Dragon	7.7	7610
2	[12, 28, 878]	10138	en	Iron Man 2	28.515	2010-05-07	Iron Man 2	6.8	12368
3	[16, 35, 10751]	862	en	Toy Story	28.005	1995-11-22	Toy Story	7.9	10174
4	[28, 878, 12]	27205	en	Inception	27.920	2010-07-16	Inception	8.3	22186
5	[12, 14, 10751]	32657	en	Percy Jackson & the Olympians: The Lightning T...	26.691	2010-02-11	Percy Jackson & the Olympians: The Lightning T...	6.1	4229
6	[28, 12, 14, 10751]	19995	en	Avatar	26.526	2009-12-18	Avatar	7.4	18676

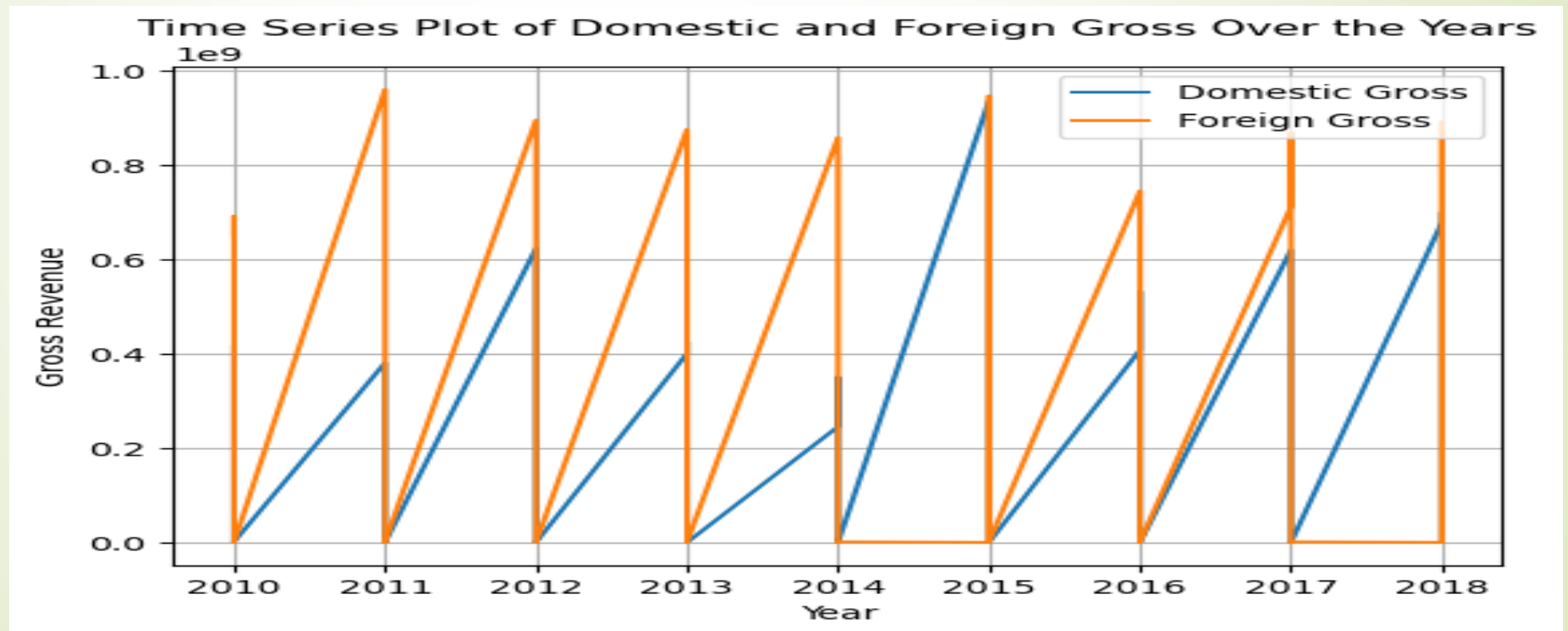
Data Understanding for the Movie_gross DATA

- ▶ The movie_gross data shows the **revenue** generated by the various studios over the years. The main columns for analysis are highlighted below

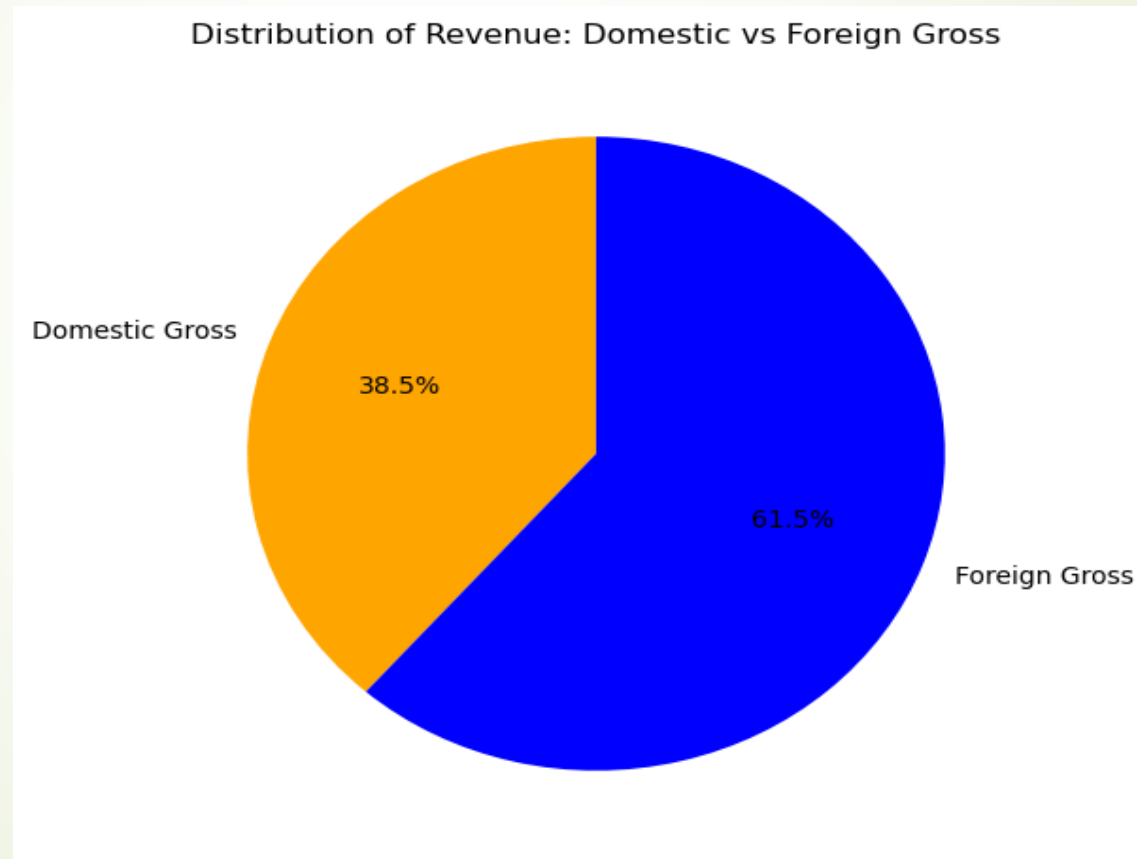
	title	studio	domestic_gross	foreign_gross	year
0	Toy Story 3	BV	415000000.0	652000000	2010
1	Alice in Wonderland (2010)	BV	334200000.0	691300000	2010
2	Harry Potter and the Deathly Hallows Part 1	WB	296000000.0	664300000	2010
3	Inception	WB	292600000.0	535700000	2010
4	Shrek Forever After	P/DW	238700000.0	513900000	2010
5	The Twilight Saga: Eclipse	Sum.	300500000.0	398000000	2010
6	Iron Man 2	Par.	312400000.0	311500000	2010
7	Tangled	BV	200800000.0	391000000	2010
8	Despicable Me	Uni.	251500000.0	291600000	2010
9	How to Train Your Dragon	P/DW	217600000.0	277300000	2010

Time series plot for Domestic vs Foreign revenue

- Over the years, there has been more revenue generated by the foreign market compared to the domestic market.

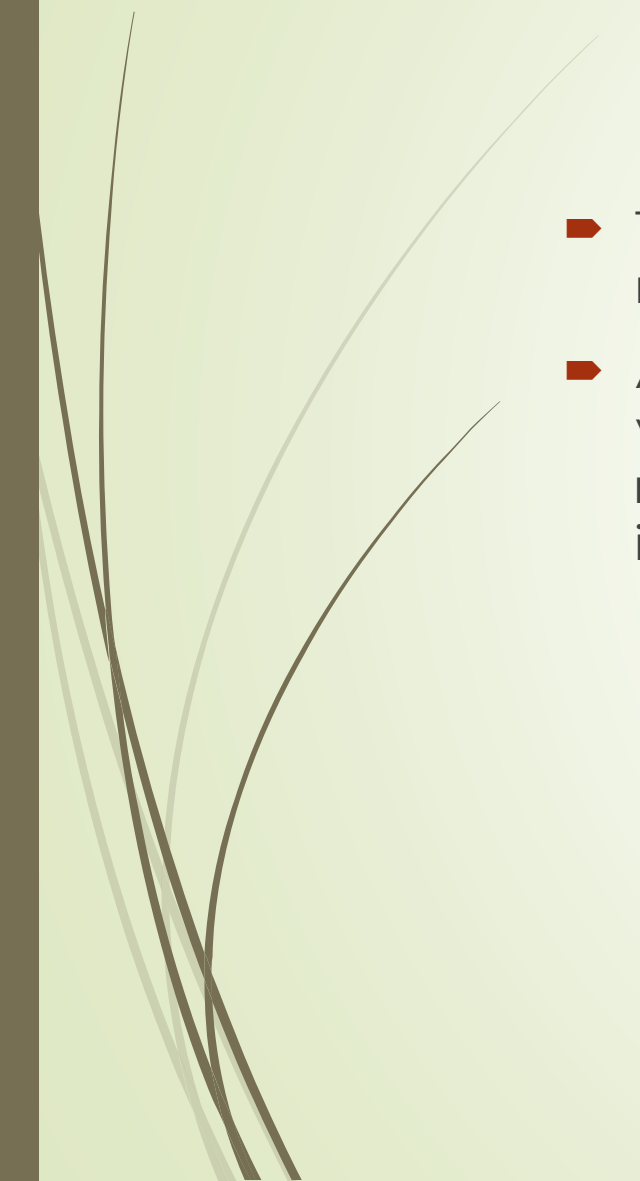


Distribution revenue of the Foreign vs Domestic market

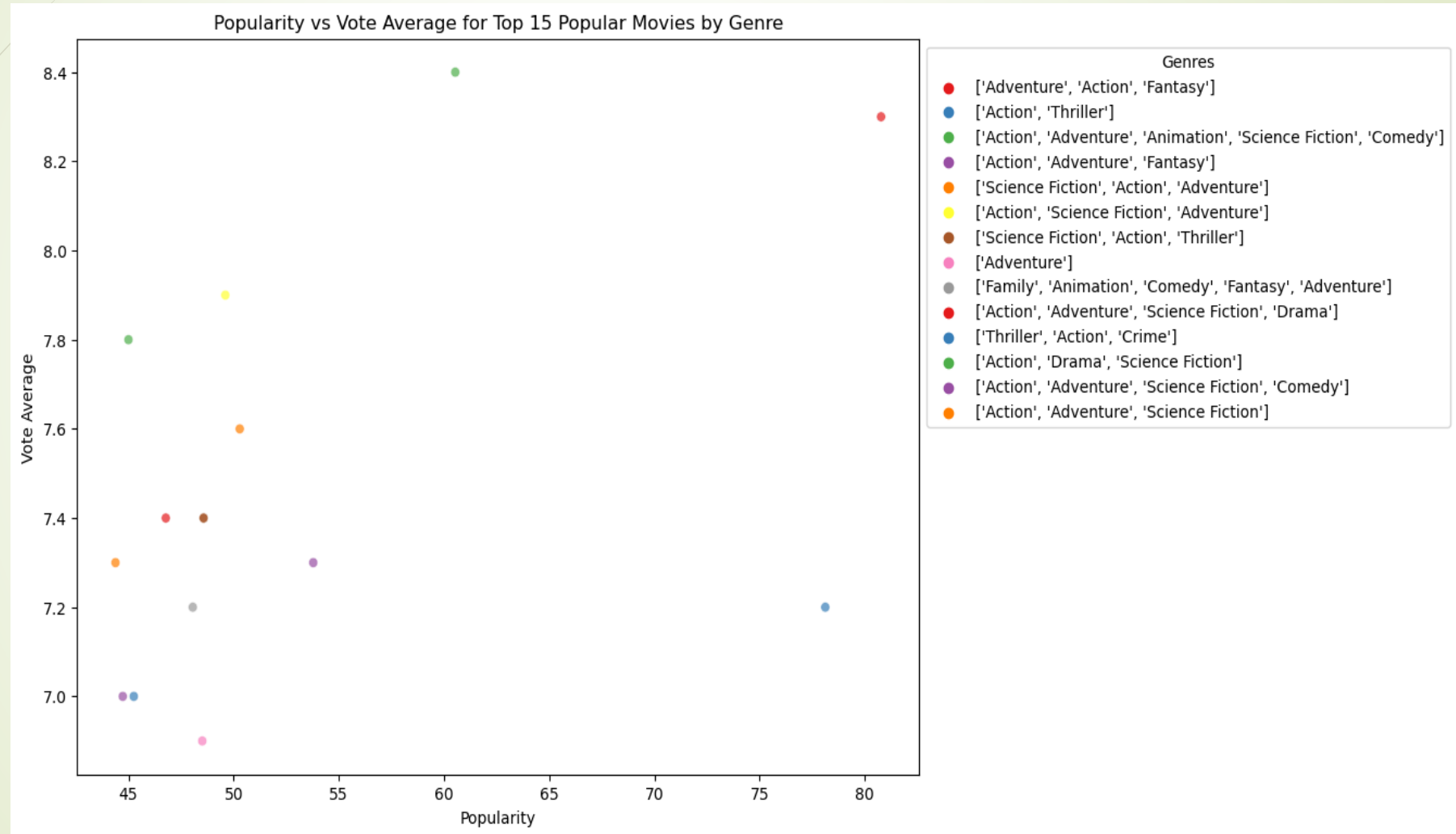




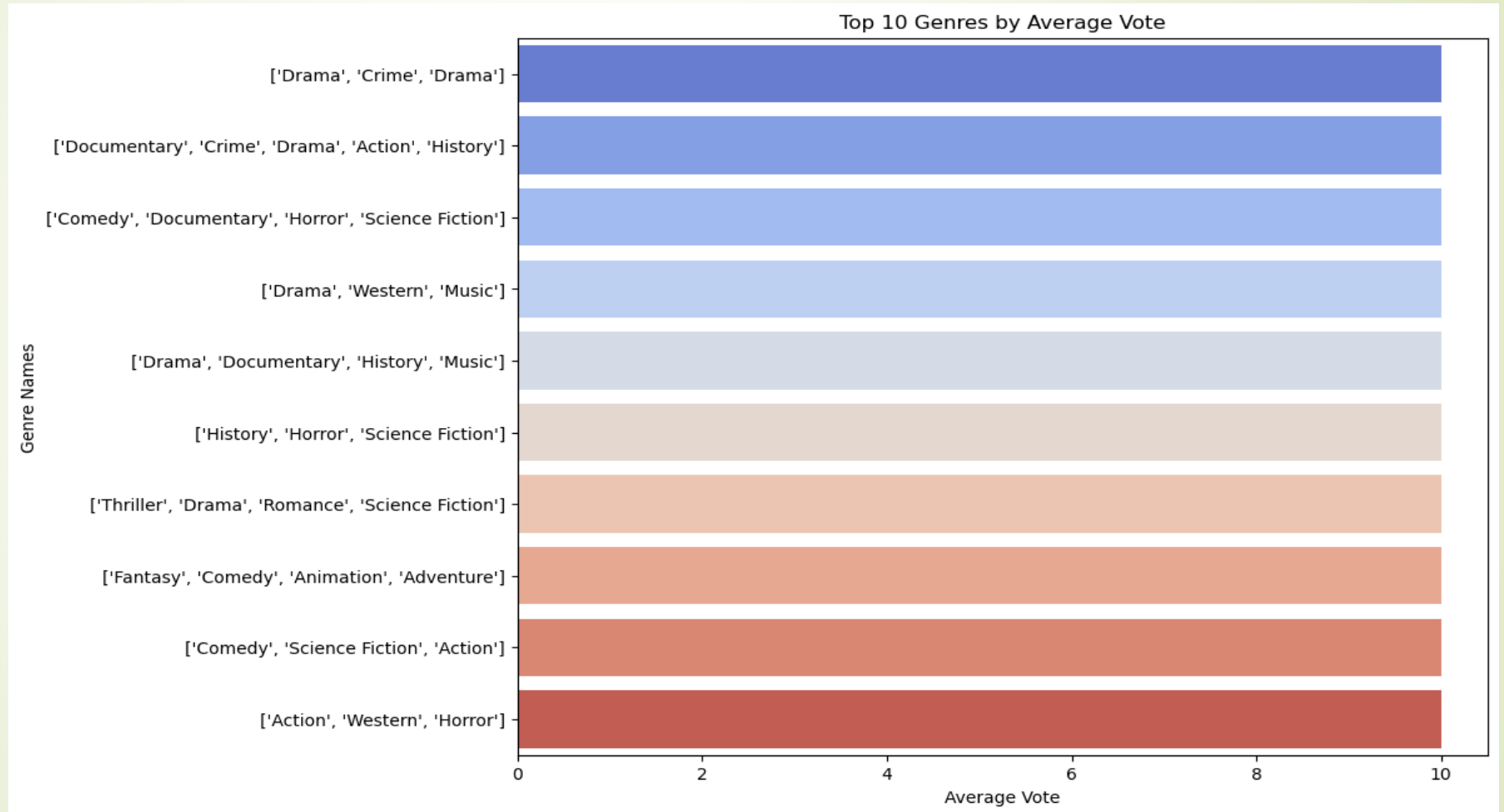
Movie market analysis.

- ▶ The Foreign market proves to generate more revenue than the Domestic market.
 - ▶ A higher emphasis should be placed on the Foreign market in order for viewership retention. The Domestic market also plays a huge role in movie revenue, it should not be neglected rather the two markets should be included in production and marketing.
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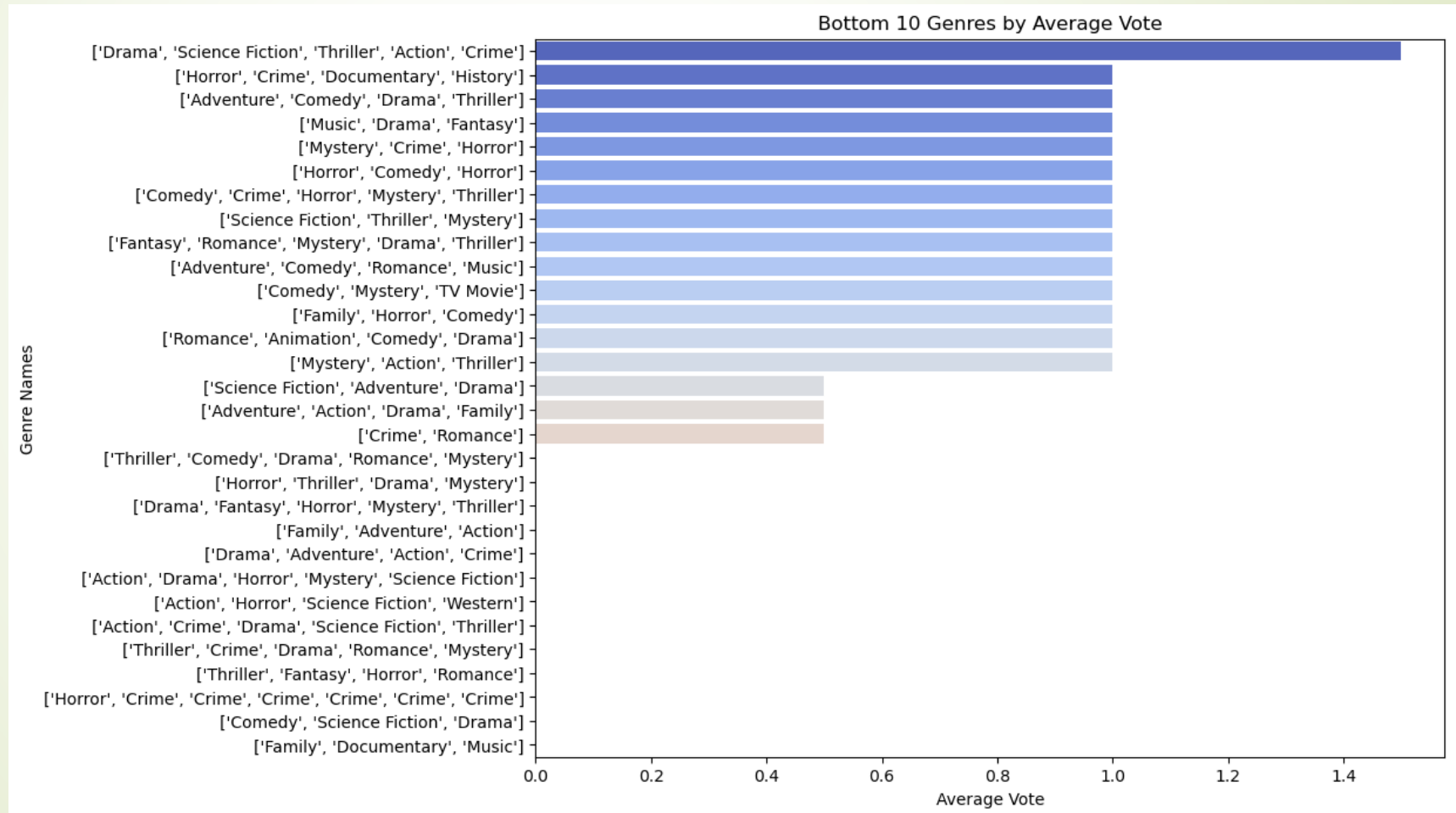
Popular Genres



Top Genres by viewer's vote

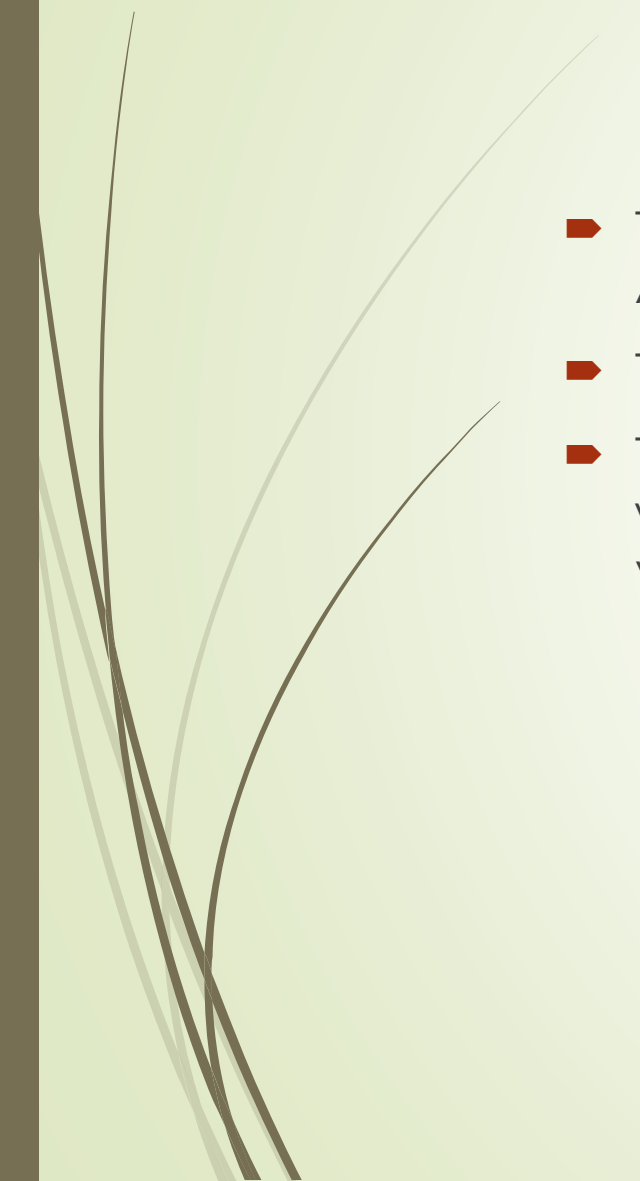


Bottom 30 Genres by viewer's vote

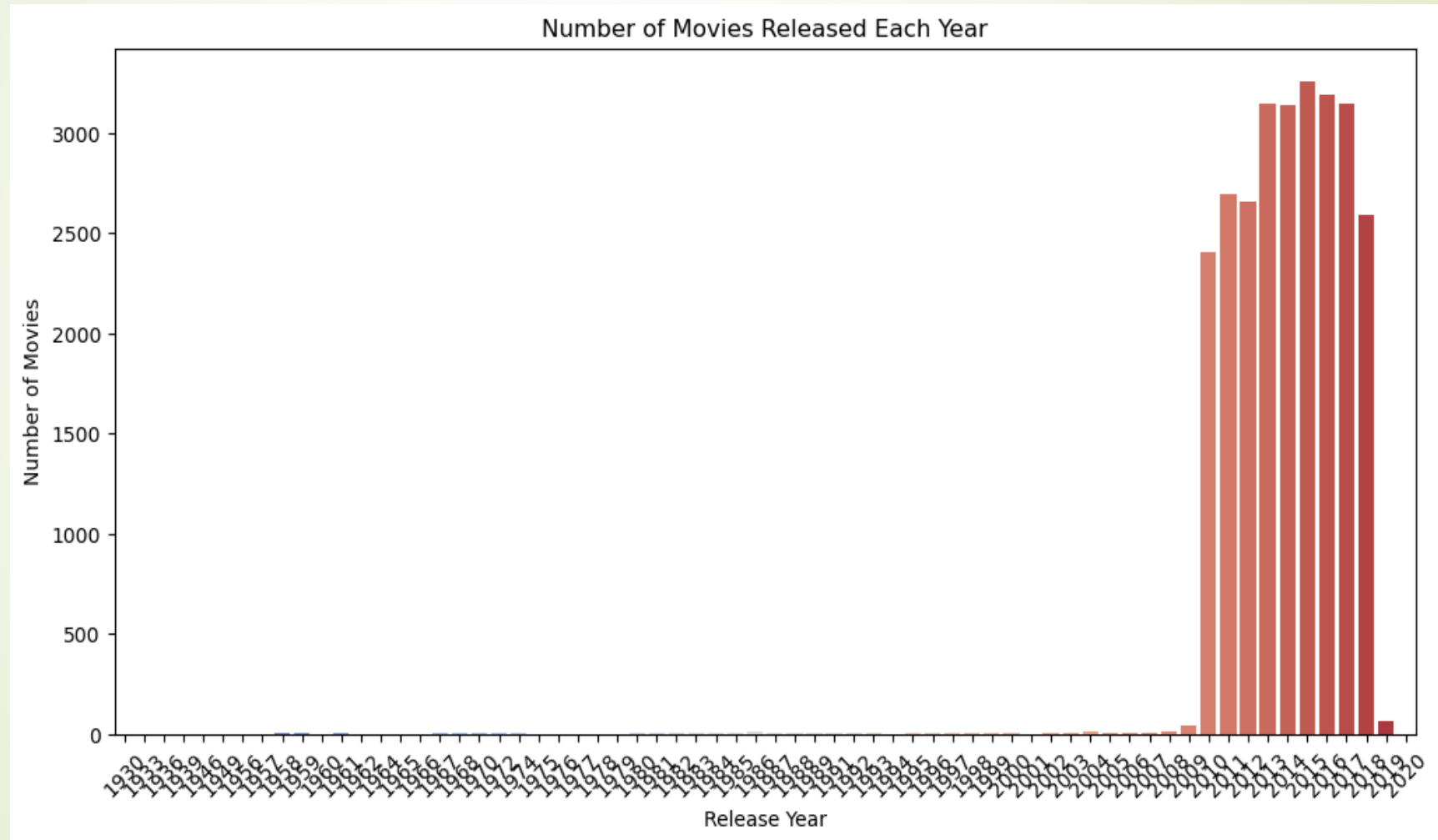




Genre analysis

- The viewers tend to love Action, Drama, Comedy, Science Fiction and Animation.
 - The least preferred genres are Horror, Thrillers and Crime.
 - The top genres are likely to generate more revenue for Microsoft Studios while the bottom genres are likely to be made for a niche population of viewers to cater to their interest.
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Movies released per year





Conclusions

1. **Genre Investment Strategy:** Microsoft should focus on genres like Action, Science Fiction, Animation, Drama, and Comedy, as they have proven to be popular among viewers.
2. **Global Audience:** Foreign gross surpasses domestic gross, suggesting a significant global audience. Microsoft should tailor its content to appeal to diverse international markets.
3. **Movie Release Strategy:** The current number of movies released per year is relatively slow. Microsoft could explore automation strategies to increase the frequency of releases, keeping the content fresh and engaging.
4. **Studio Performance:** Certain studios outperform others. Microsoft should consider strategic investments in high-performing studios and explore ways to enhance the performance of struggling studios.



Future Considerations



1. **Viewer Rating Analysis:** Conduct additional research into genres based on viewer ratings. Analyze viewer preferences to understand which genres consistently receive high ratings.
2. **Budget vs. Viewer Rating:** Explore the relationship between production budget and viewer ratings. Determine whether higher production values correlate with higher viewer satisfaction.
3. **Net Profit Analysis:** Conduct analysis on net profit generated from each film compared to the movie's runtime. Identify trends that indicate profitable films and their runtime characteristics.
4. **Explore New Revenue Streams:** Consider exploring new revenue streams, such as partnerships, merchandising, or exclusive content offerings. Diversifying revenue sources can contribute to overall business growth



THANK YOU

- Email: dennis.njogu1@student.moringaschool.com
 - Github: <https://github.com/Mashnjogu>
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