Improving Average Annual Rating for Comedy Movies

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Motivation

The IMDB's dataset was examined in order to found that drama and comedy were the most rated genres.

It's also noticed that increasing the number of ratings for comedy movies could attract more viewers and generate more traffic for other genres.

So the next presentation will propose an easy strategy to achieve the same annual's average rating (AAR) as drama movies that could help increase the audience appeal of other film types, which means a higher income for theaters and publicity.

Dataset(s)

The analysis comprehend the next dataset: IMDB Movie Dataset

Research Question(s)

What would be a low-cost strategy for comedy movies to reach the AAR of drama movies?

Considerations

It has set a minimum number of ratings for the movies to be considered on graphs and calculations. This number is 400 number of ratings.
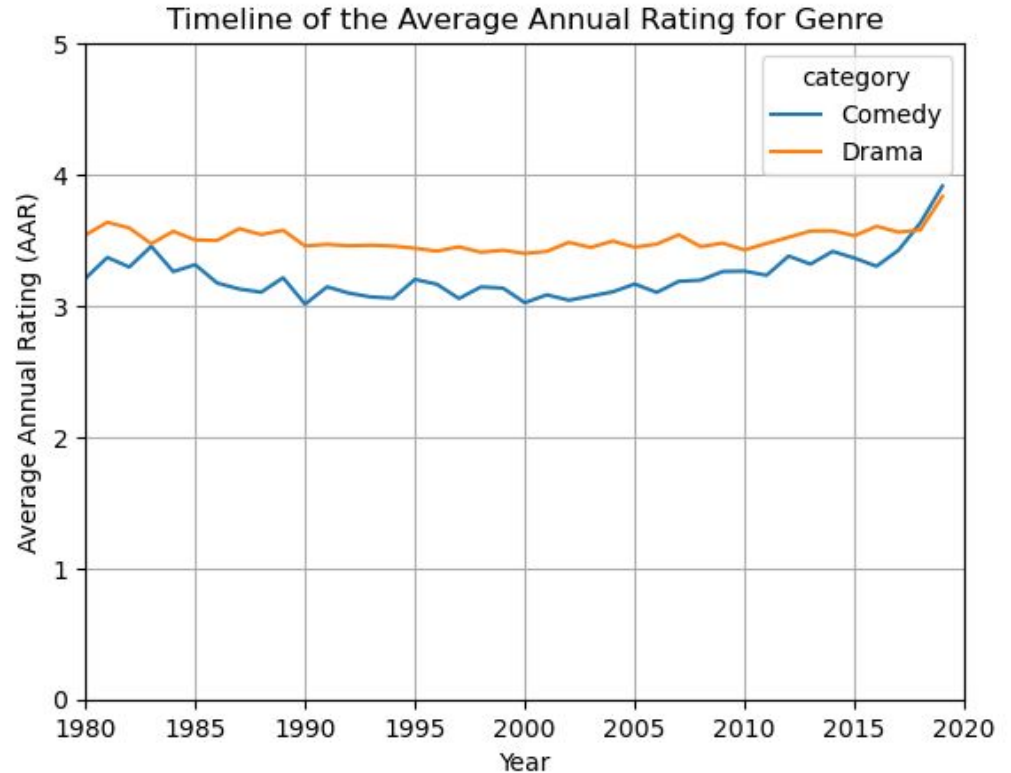
AAR's Timeline Across Two Genres

The AAR is the measure that tell us how well a category was rated in a year

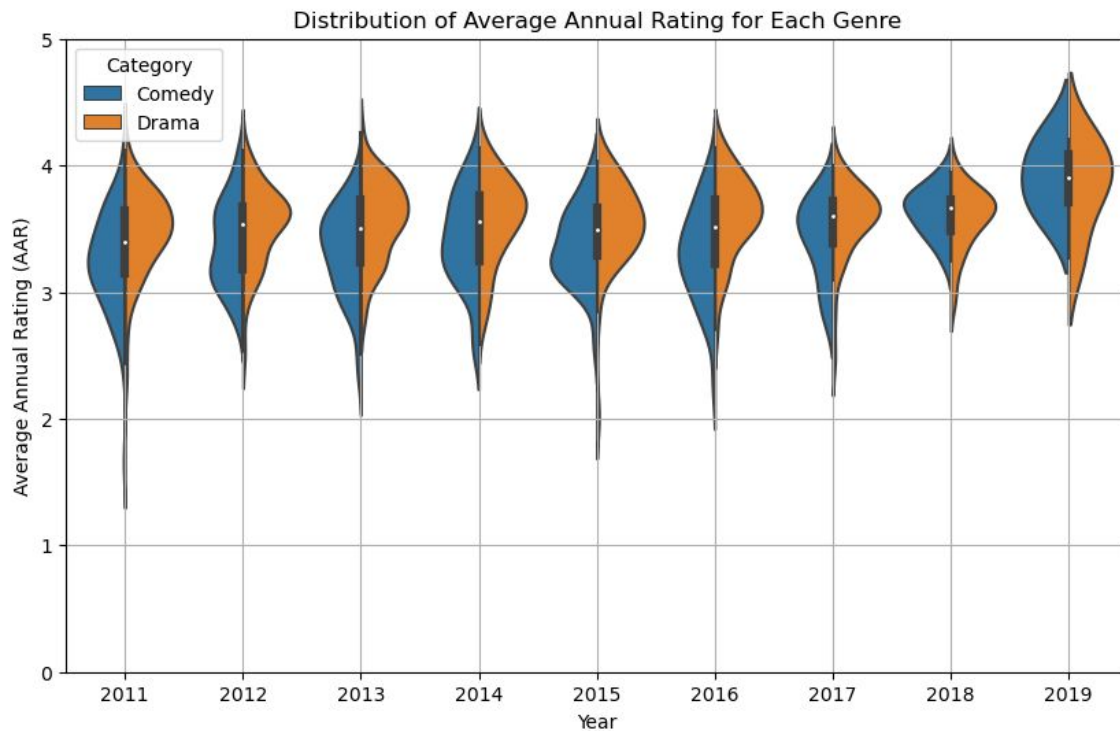According to the timeline, it's observed a raise in comedy's AAR.

This raise becomes more noticeable from year 2005 onwards.

NOTE: The AAR's scales goes from 1 to 5, with 5 being considered as the best and 1 as the worst.

Timeline of the Average Annual Rating for Genre

category
— Comedy
— Drama

Comparing the AAR's Density Over the Decade

If we focus the data on the last decade (2011 - 2019), we can observe that the comedy's AAR distribution is increasing along the decade, implying an improvement due to certain factors.
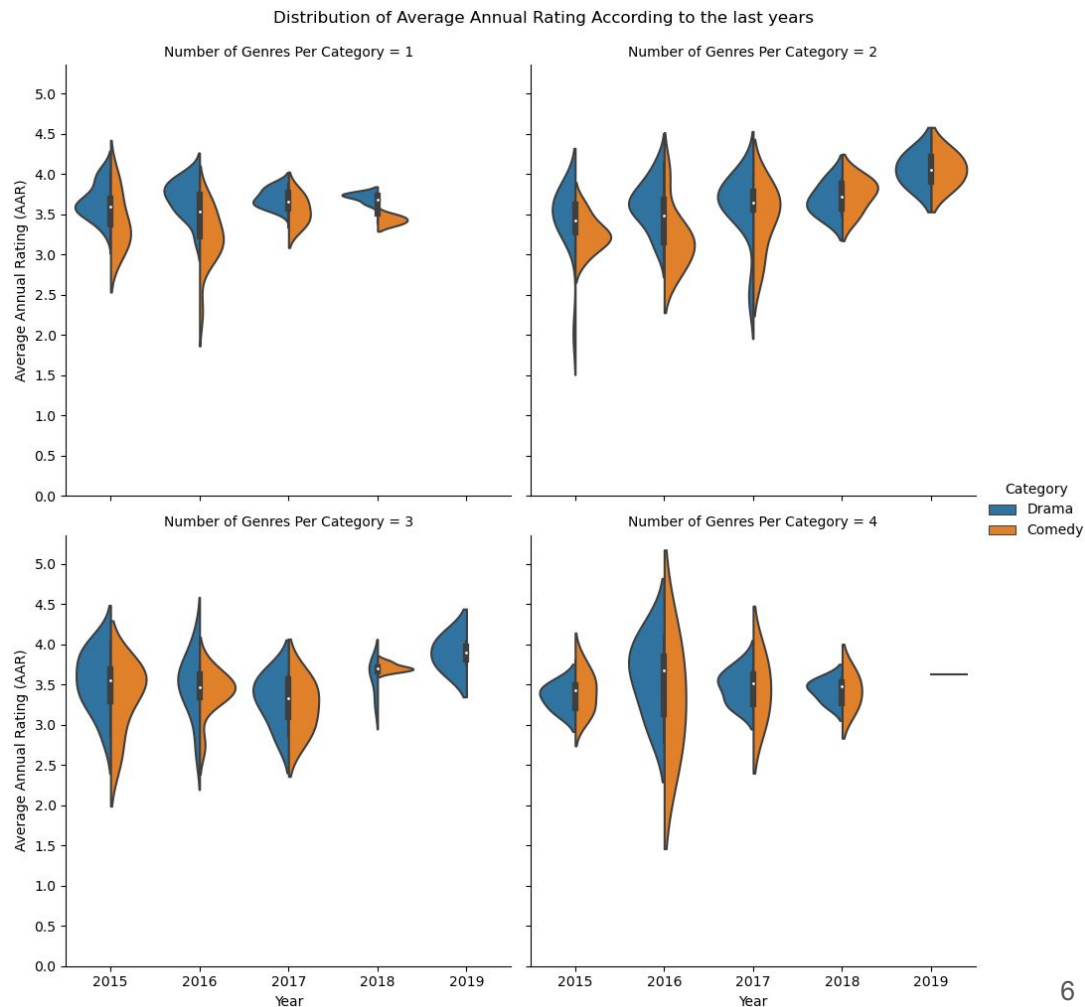

Distribution of Average Annual Rating for Each Genre

AAR's Distribution for Diverse Number of Genres

If we divide the graphs according to the number of genres, we would observe the higher the genre's number, the higher the AAR.

As we see, a category that comprehends 2 or 3 genres increase the AAR distribution.
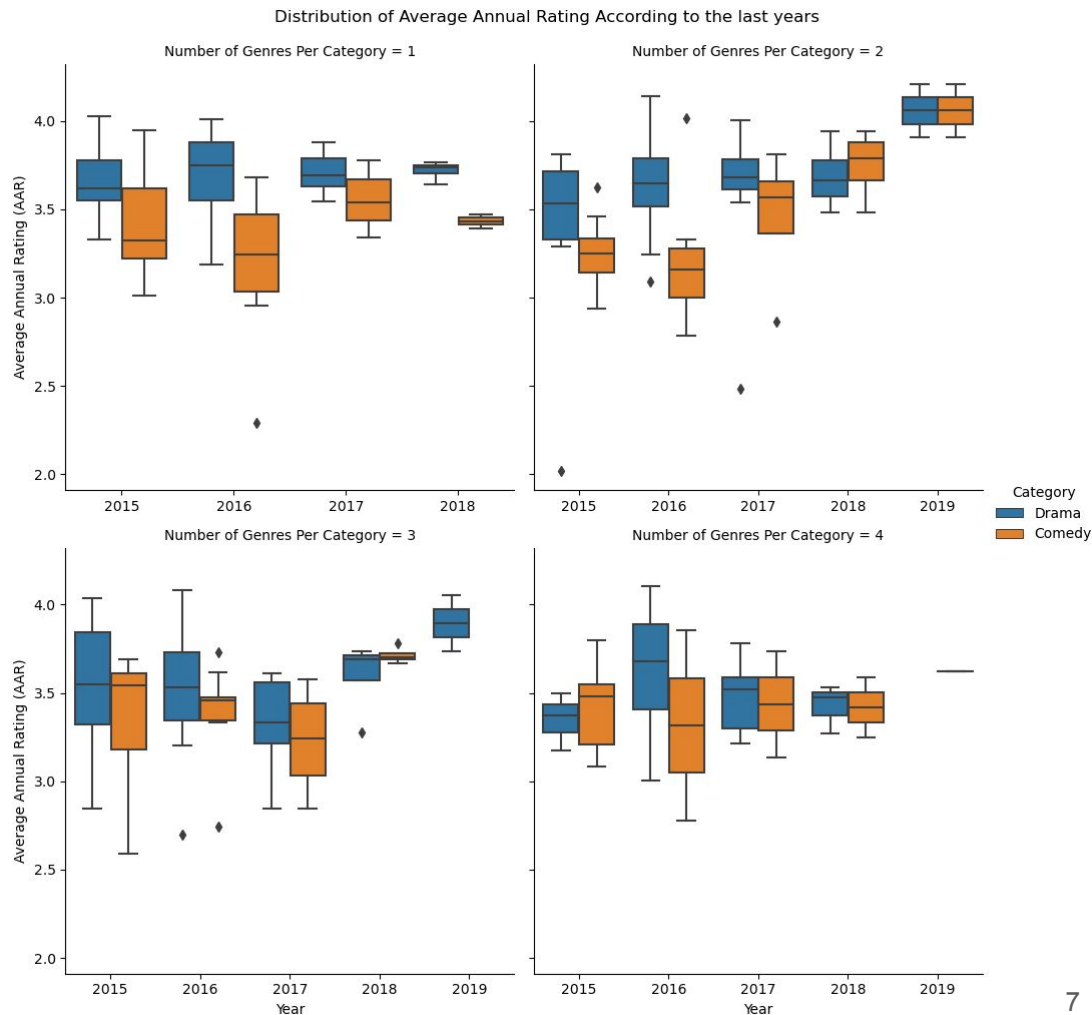
NOTE: A category can include multiple genres, such as the romantic comedy film "Grumpier Old Men," which falls into 2 genres.

Distribution of Average Annual Rating According to the last years

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AAR's Distribution Boxplot

The boxplot show us that this strategy only works for 2 or 3 ranges, which shows raise in AAR's average, which is located nearer to 4 during 2019.

When a movie falls into 4 or more genres, its popularity tends to decrease. It might be caused by higher consumer expectations that may not be met.

Distribution of Average Annual Rating According to the last years

Correlation Coefficient

The correlation coefficient indicates the mathematical relationship and its strength between two variables. In the given frame, there is little correlation according to the ρ value, but it becomes stronger as the number of ratings per films increases.

Minimum number of ratings per films from 2010 - 2019	Category	Number of movies involved in correlation coefficient calculations	Correlation Coefficient (ρ)
400	Comedy	276	0.3900
	Drama	357	0.3483
1000	Comedy	135	0.4655
	Drama	173	0.3450

Conclusions

A combination of 2 or 3 different genres in a category is more likely to receive higher ratings and attract more viewership from users.

However, if a category mixes 4 or more genres, the Average Audience Rating (AAR) tends to decrease. This could be because viewers have higher expectations for a movie that attempts to satisfy multiple genres and are often left disappointed when the movie cannot fulfill all the expectations associated with each genre.

Therefore, while mixing multiple genres can be effective in attracting viewers, it is important to strike a balance and not overwhelm the audience with too many different expectations.

Next Steps

It is important to conduct these analyses on different categories to establish a stronger relationship denoted by ρ.

Additionally, the associated error of ρ should be calculated for various categories to ensure the reliability of this approach.

Finally, future analyses should incorporate updated datasets to extrapolate the results to 2023 and beyond.