MOVIE DATA ANALYSIS FOR PRODUCERS

Group 10

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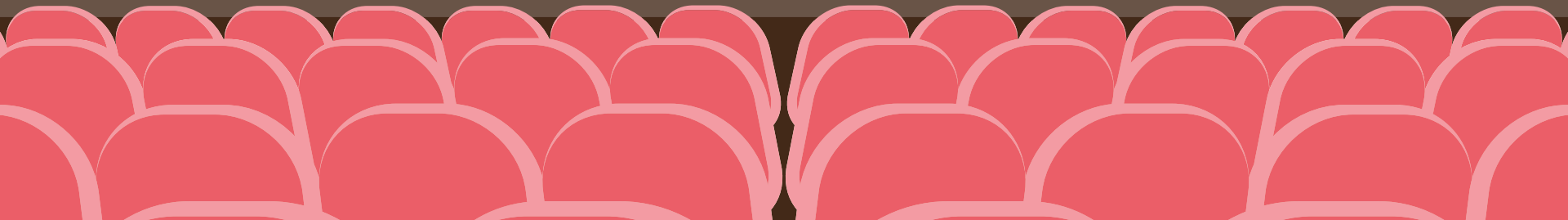
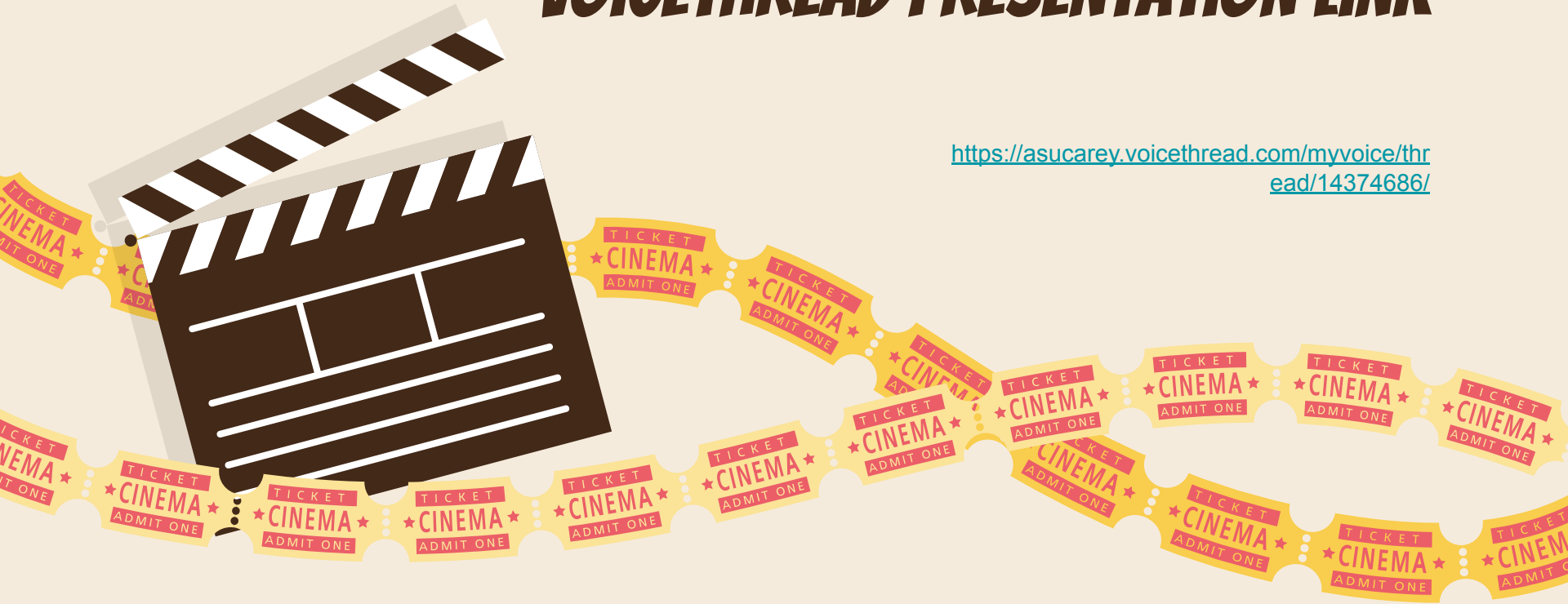


VOICETHREAD PRESENTATION LINK



https://asucarey.voicethread.com/myvoice/thread/14374686/

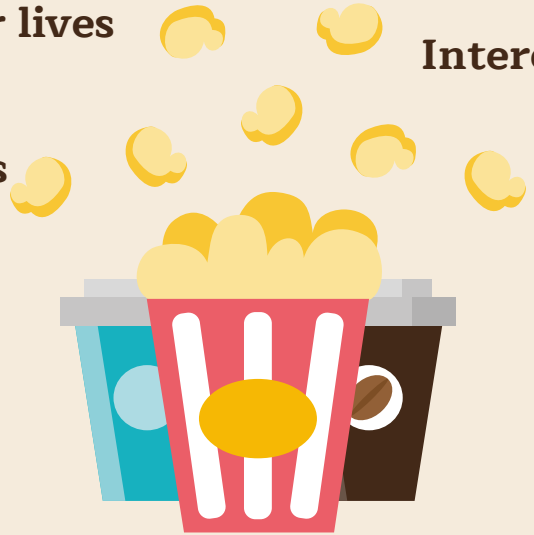
CONTEXT? MOVIE DATA

Why Did We Choose this Data?

Movies are prevalent in our lives

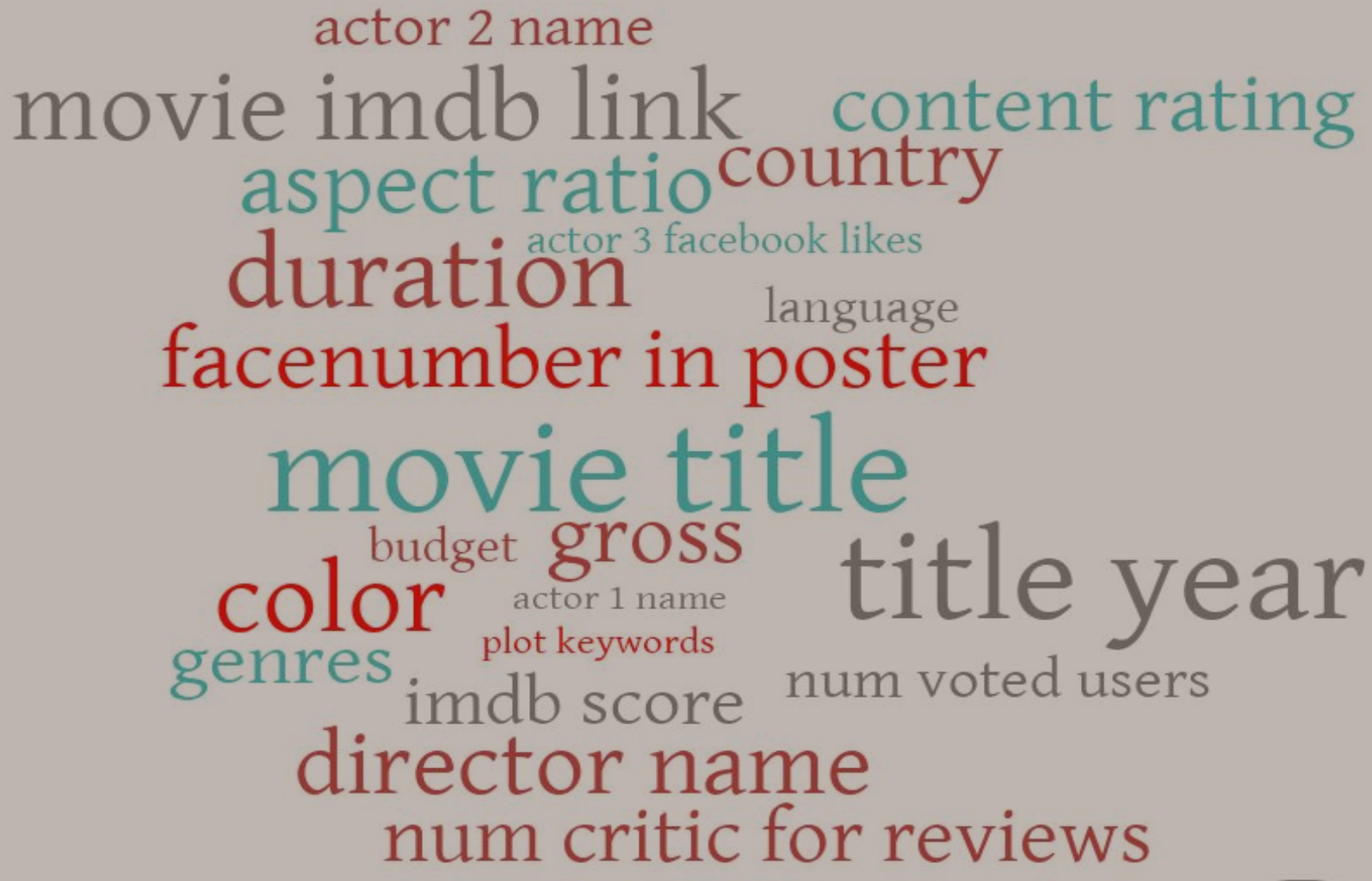
Interest in industry trends

Interested in how decisions are made to make a movie



Understanding of the process behind the scenes

The goal of this proposal is to create and present recommendations for movie producer companies based on the movie data set with the skills we've acquired in WPC300


actor 2 name
movie imdb link
content rating
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actor 3 facebook likes
duration
language
facenumber in poster
movie title
budget
gross
title year
color
actor 1 name
plot keywords
genres
num voted users
imdb score
director name
num critic for reviews

ANALYTICAL CHOICES

1. Regression tests
    a. To find the correlation between several variables, based on the r squared value (higher value = higher correlation).
2. ANOVA test
    a. Find variable significance to answer our questions
3. Excel Visualizations
    a. To explore data trends visually that were not as obvious when just looking at the data file.
4. Tableau Visualizations
    a. To explore data trends through visualizations based on filters and creative visual techniques.

QUESTIONS ASKED

Question 1: Best predictors of a movie's success based on gross income?

Question 2: External Reception vs. Internal Production

Question 3: Marketing team considerations

Question 4: Question 4: Most Common Genres

The goal of this proposal is to create and present recommendations for movie producer companies based on the movie data set with the skills we've acquired in WPC300

Question 1:
Best predictors of a movie's success based on gross income?

- To measure the success of the Gross Income of movies, the predictors we used versus gross income are listed as: Budget, Facebook Likes, IMDB Score and Director Name.

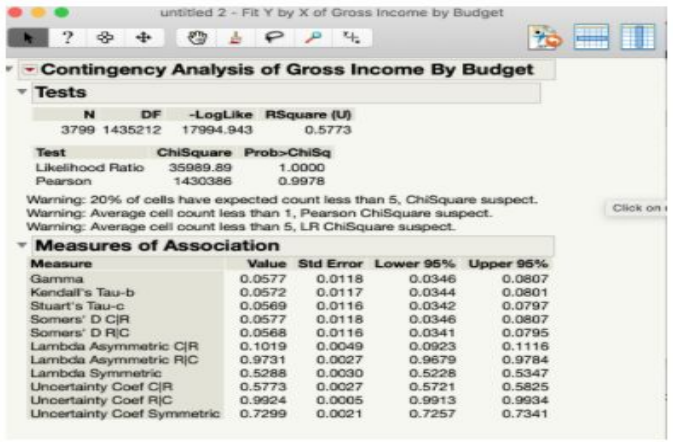
- We used regression analysis and anova tests to find if the predictors were significant in a movie's success based on the gross income.

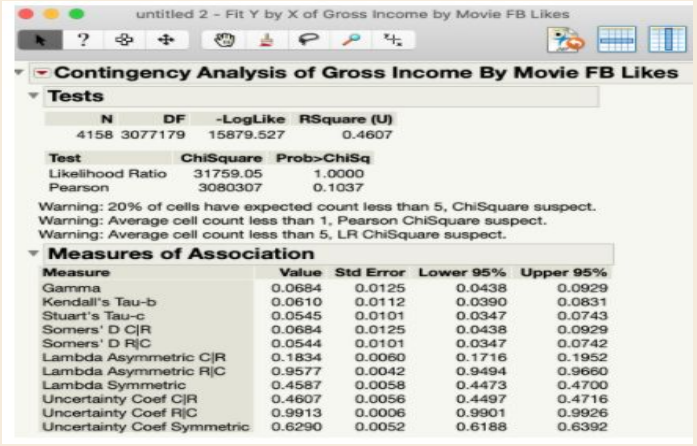
- We tested the significance by testing what the strengths of the p-value and the r-squared values.
  - Budget r squared was highest at 0.5773 (correlated but not the only factor)

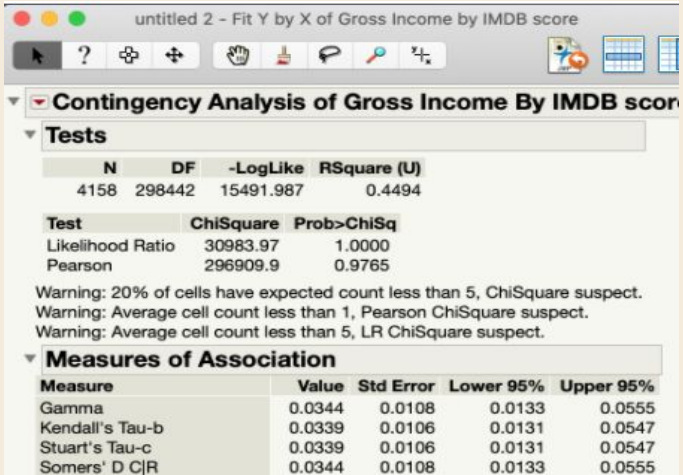
- We rejected the null hypothesis that budget is not significant in predicting a movie's success based on gross profit-- due to a strong p value that was less than 0.01
  - Budget is a factor that contributes most to movie success out of those tested!

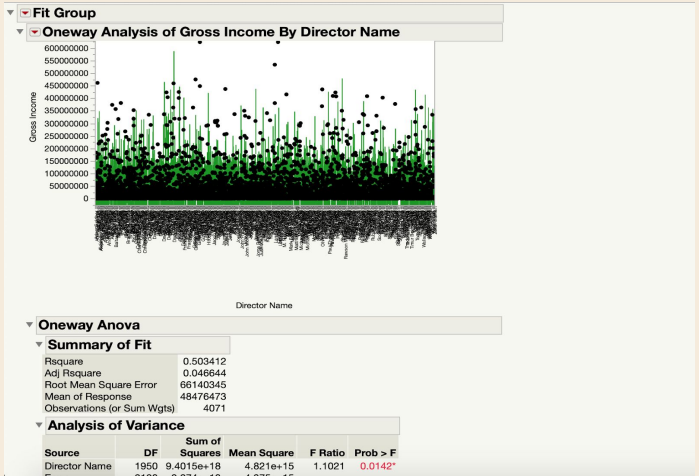
QUESTION 1:

BEST PREDICTORS OF A MOVIE'S SUCCESS BASED ON GROSS INCOME?





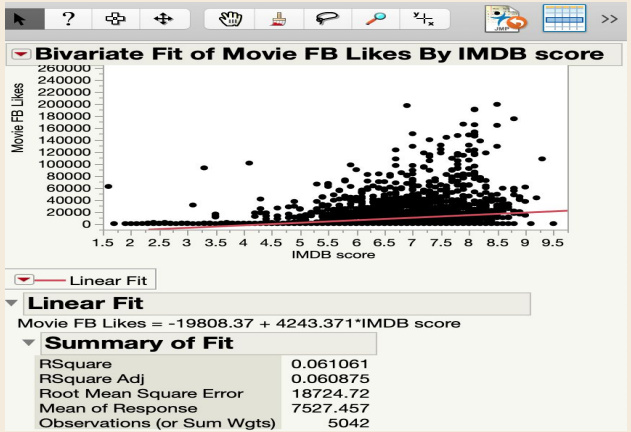


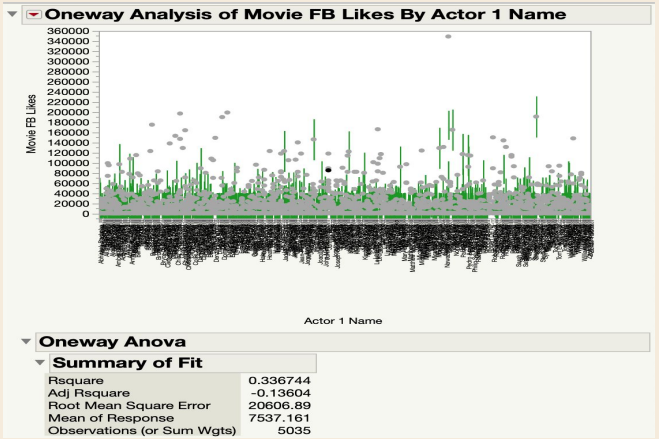


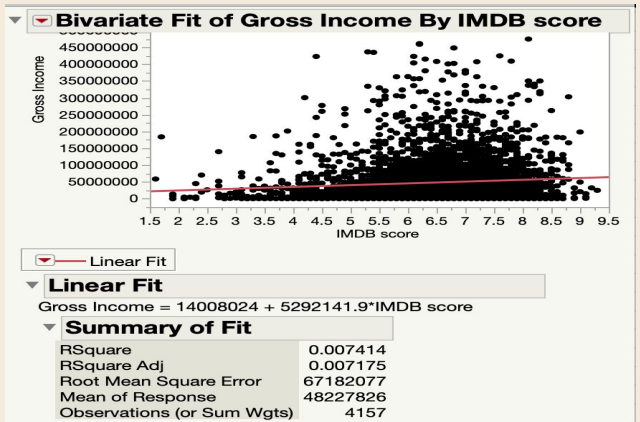
QUESTION 2: EXTERNAL RECEPTION VS INTERNAL PRODUCTION

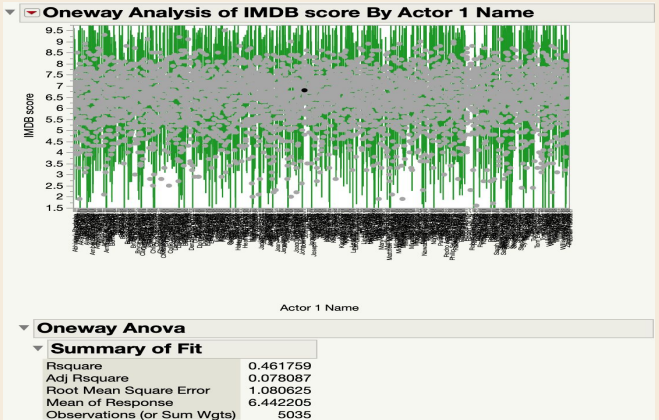
- To measure the effect that internal production has with external reception of the movies, we tested the relationship between many internal and external factors.
- We used anova tests to find if the relationships were significant in comparing the internal versus the external factors.
- We tested the significance by analyzing the strengths of the r-squared values.
- In all the relationships we chose to compare, there was little to no significance when it came to many of the factors having an effect on the outcome of each other. However, the relationship with the greatest effect was found to be the actors chosen versus the IMDB scores of the movie.

QUESTION 2: EXTERNAL RECEPTION VS INTERNAL PRODUCTION









QUESTION 3: MARKETING TEAM CONSIDERATIONS

- To measure what the audience wants to see, we used previous tests from question 1-2 where we compared Gross Income to Budget, Facebook Likes, IMDB Score and Director Name.

- We used anova tests to find if the relationships were significant in comparing the internal versus the external factors.

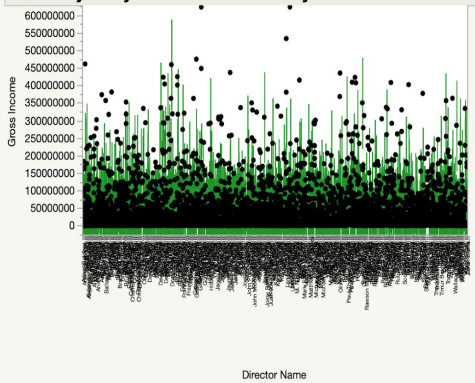
- We tested the significance by analyzing the strengths of the r-squared values.

- In the results, we came to the conclusion that a movie actor name does not necessarily have a strong correlation with movie success. However director's name does have a higher correlation with movie success based on gross profit, meaning the audience cares most about the director's name.

QUESTION 3: MARKETING TEAM CONSIDERATIONS

Fit Group

Oneway Analysis of Gross Income By Director Name



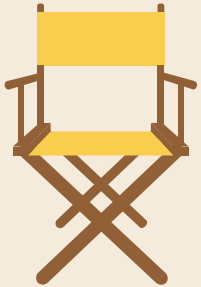
Oneway Anova

Summary of Fit

Rsquare	0.503412
Adj Rsquare	0.046644
Root Mean Square Error	66140345
Mean of Response	48476473
Observations (or Sum Wgts)	4071

Analysis of Variance

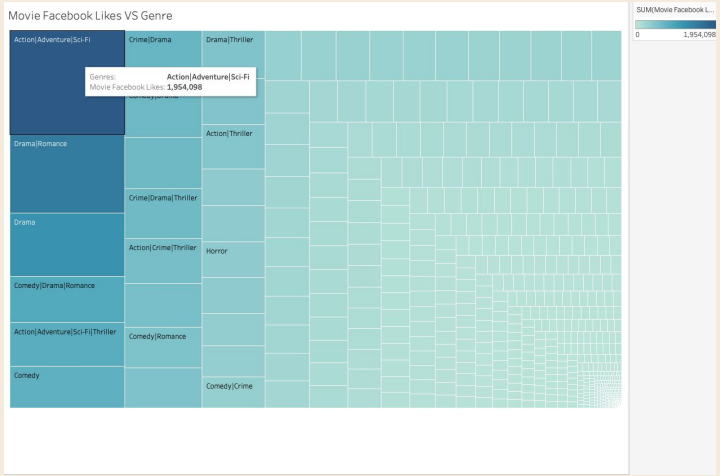
Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Director Name	1950	9.4015e+18	4.821e+15	1.1021	0.0142*

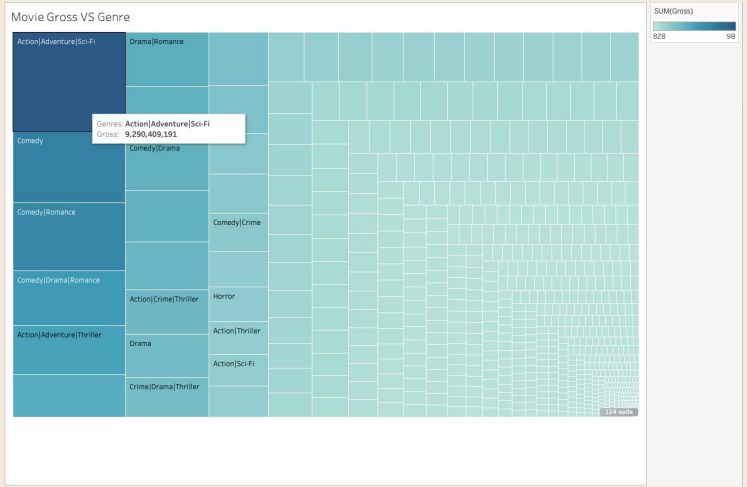


QUESTION 4: MOST COMMON GENRES

- To measure what the most common genres are, we ran two tests where we compared Genres with Facebook likes and Gross Income.
- We used tableau to show visual aids when comparing genres to both of the variables.
- We used a map that used size/color of box to indicate what are the most popular genres for when compared to each variable.
- Our results, show that Action, adventure, and sci-fi movies are the most popular genres when compared to either Facebook Likes or Gross income

QUESTION 4: MOST COMMON GENRES



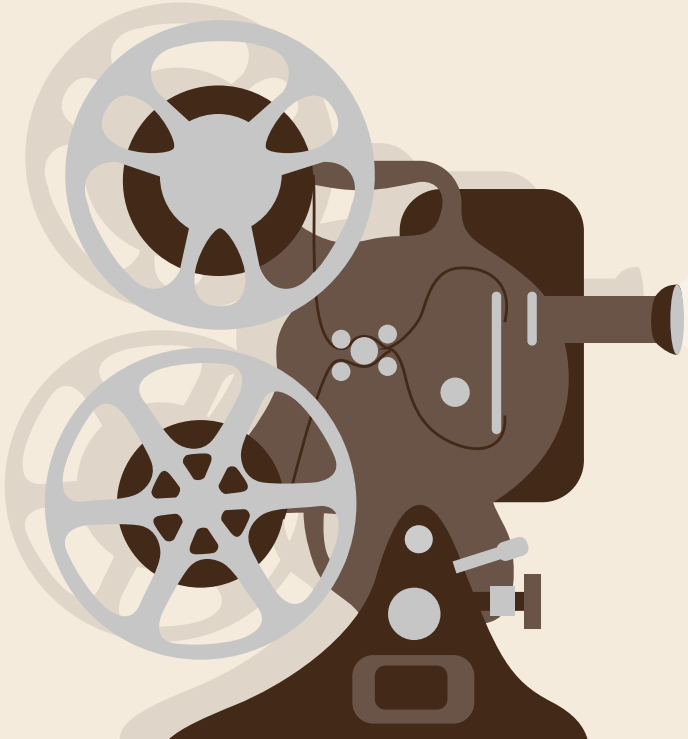


OVERALL RECOMMENDATIONS

1. Movie production groups should ensure they have a strong budget to create a high quality movie. This is what consumers will enjoy.

2. Include the director name in big letters on an advertisement. This can include main/lead actor name and IMBD score

3. Generate movies that are action, adventure, or sci-fi. They get more facebook likes and the majority of gross income compared to other genres



THANK YOU FOR WATCHING