A Movie Success Story

An In-Depth Analysis on Successful Movies by Budgets & Genres

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Summary

- Microsoft creating a new movie studio
- Defining a successful movie
- Discover the right budget and genres to best position Microsoft Studios for success on their first movie production

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

- Competitors have gone to create their own original video content
- Lack of knowledge of the movie industry
- Where to start when creating a new movie studio

Data

- Data pulled from
  - Rotten Tomatoes
  - IMDB
  - TheMovieDB
  - Box Office Mojo
- Procured metrics on movie **profits** from data points on
  - Production budget
  - Domestic & worldwide gross ($)
- Genre Labels
- Directors
- Authors

Methods

Prepare & Join Data

1. Explore and confirm main tables to use
2. Set up key to join disparate data sources
3. Validate for data retention or loss

Clean Data

1. Examine data quality
2. Observe skewed distributions that may affect overall analysis
3. Remove outliers

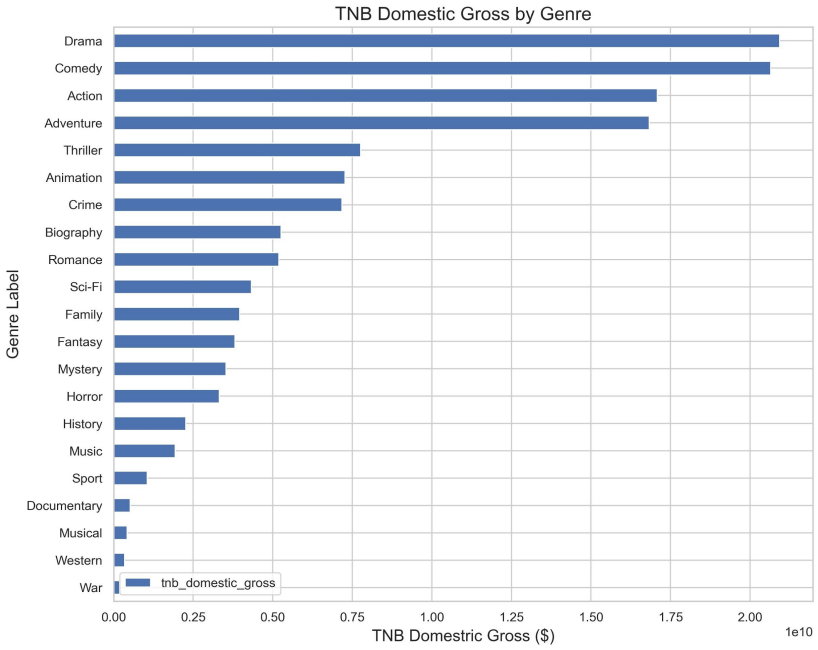
Create Budget Classes + Metrics

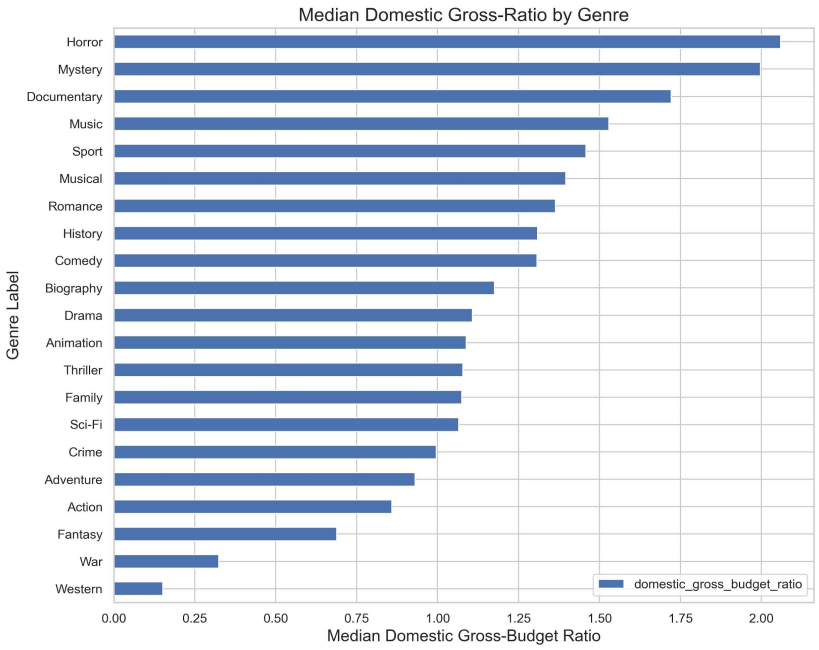
1. Separate production budget distribution into 3 classes: Low, Medium, and High
2. Create profits metric --
3. Profits = Gross revenue / production budget

Break Down into Genres

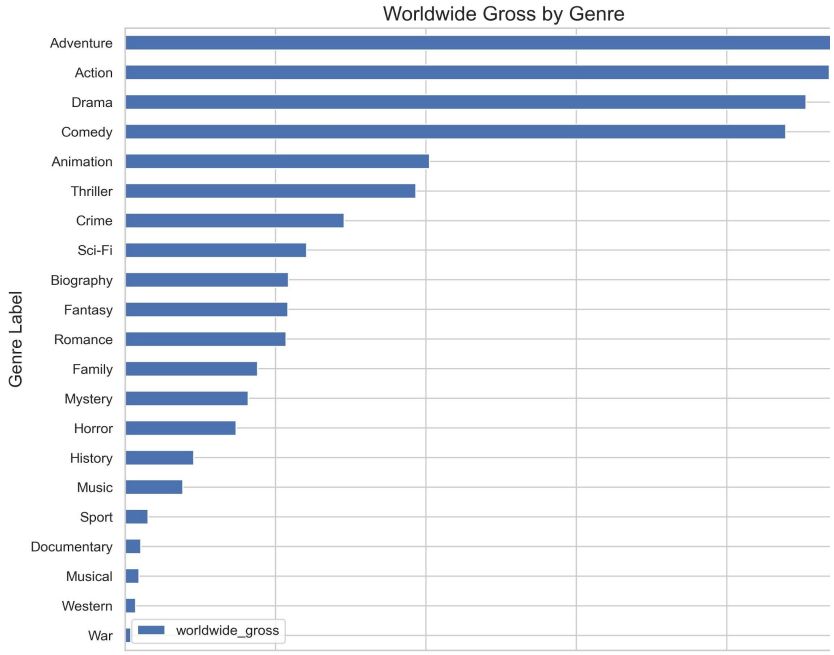
1. Compare genres by budget class
2. Determine top performing genres by budget class
3. Examine directors & authors to reach out according to the of their movies

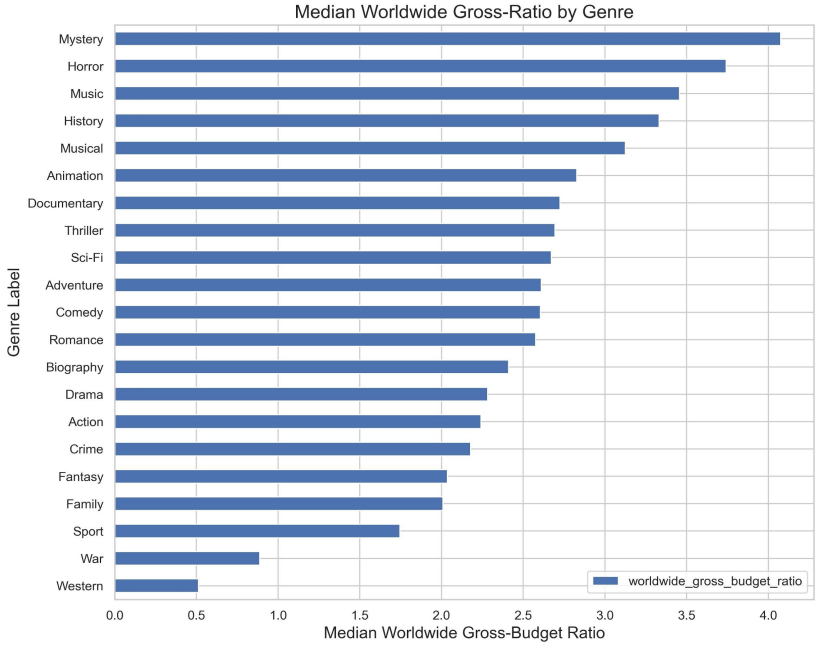
Results - Domestic Gross versus Profits



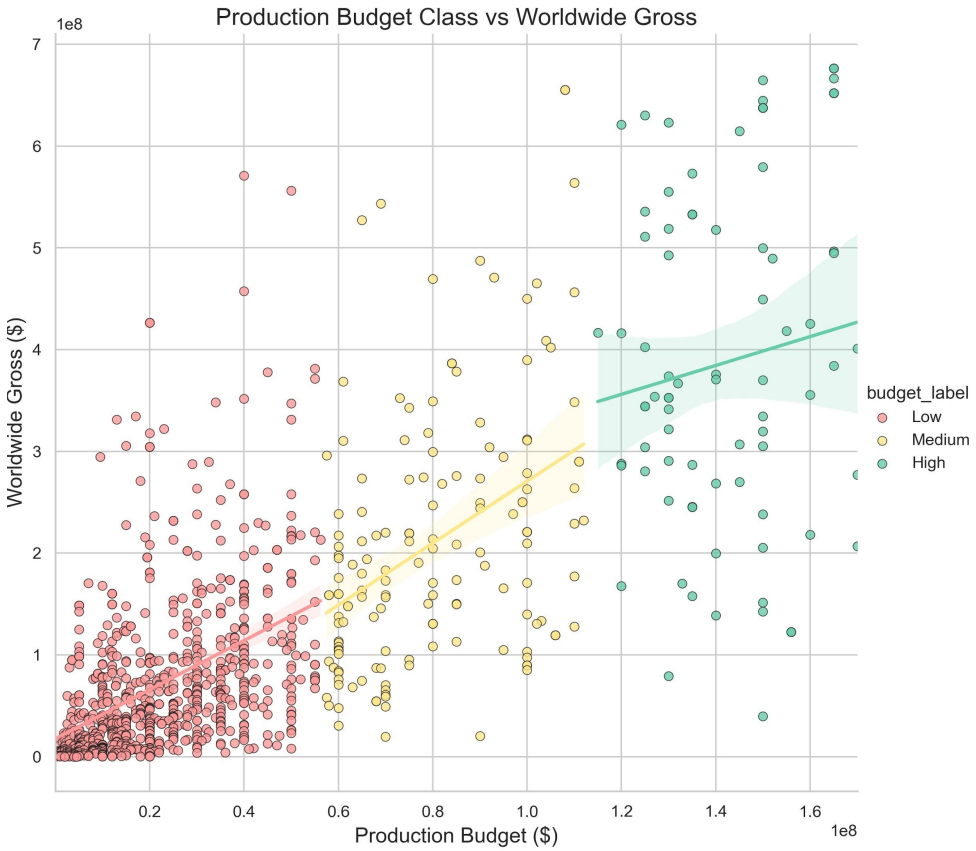


Results - Worldwide Gross versus Profits

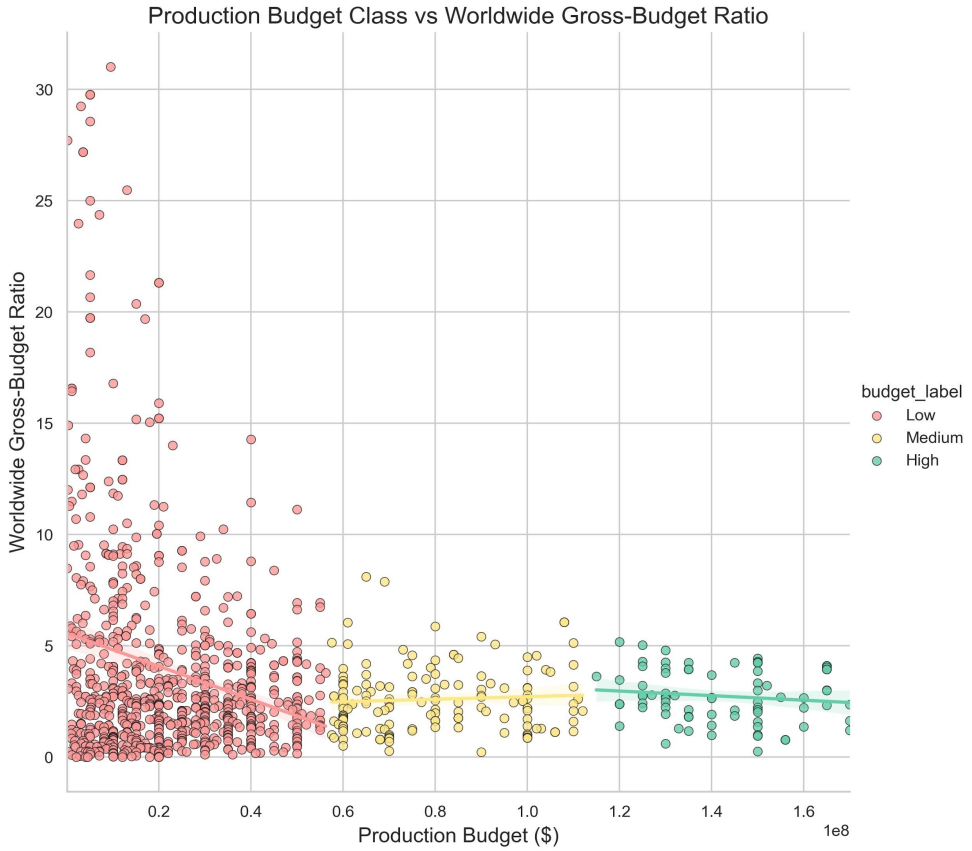




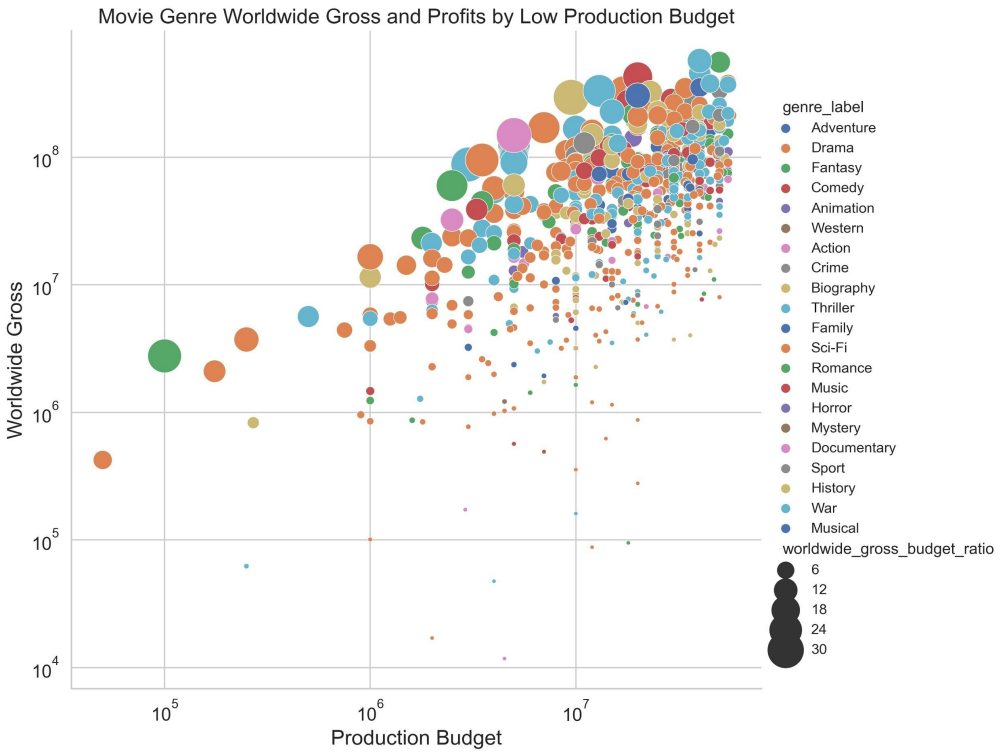
Results - Production Budget vs Worldwide Gross ($)

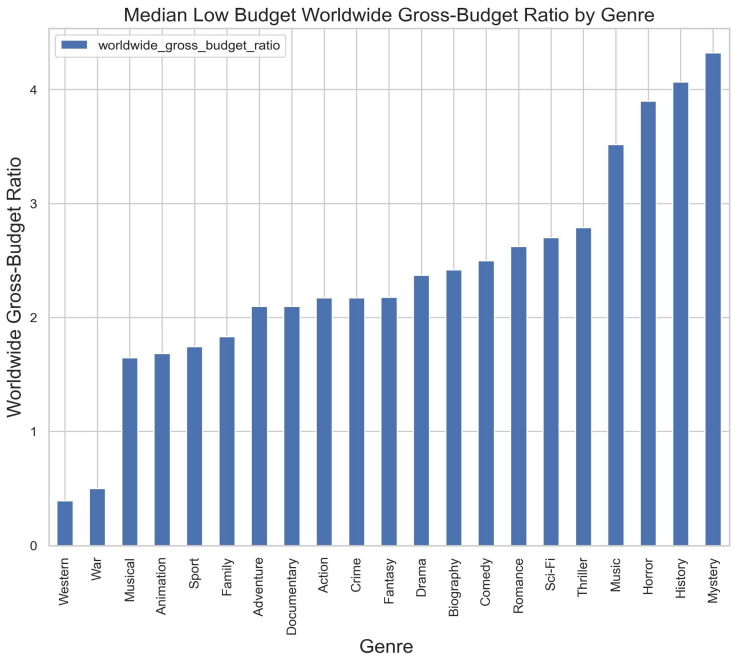


Results - Production Budget vs Worldwide Gross-Budget Ratio

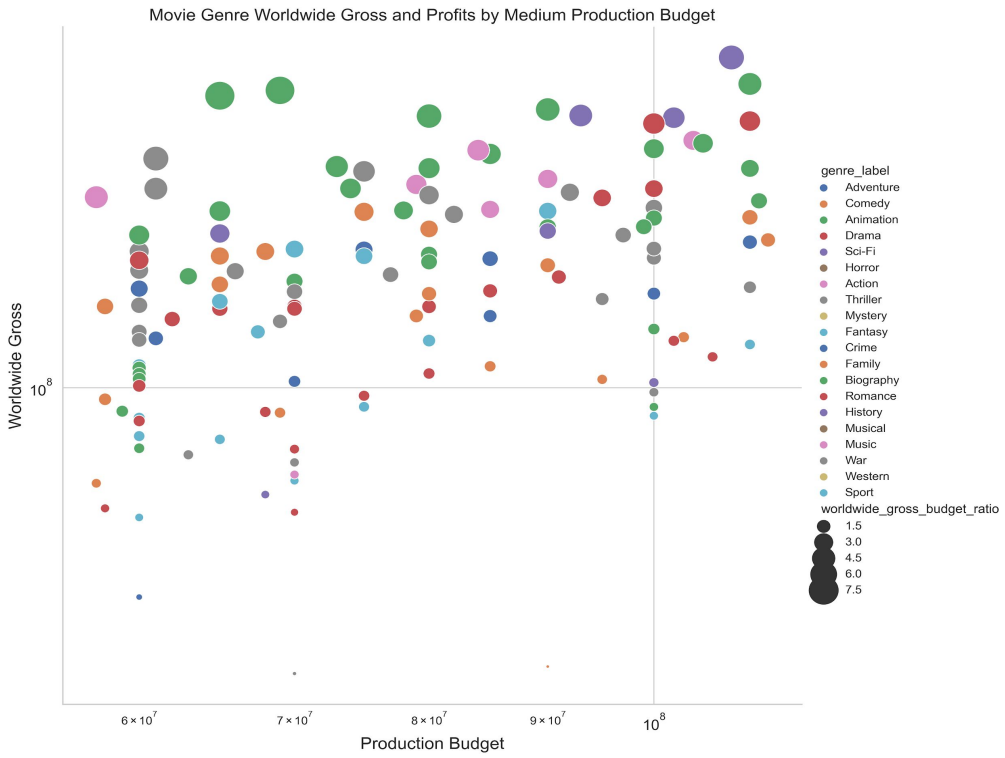


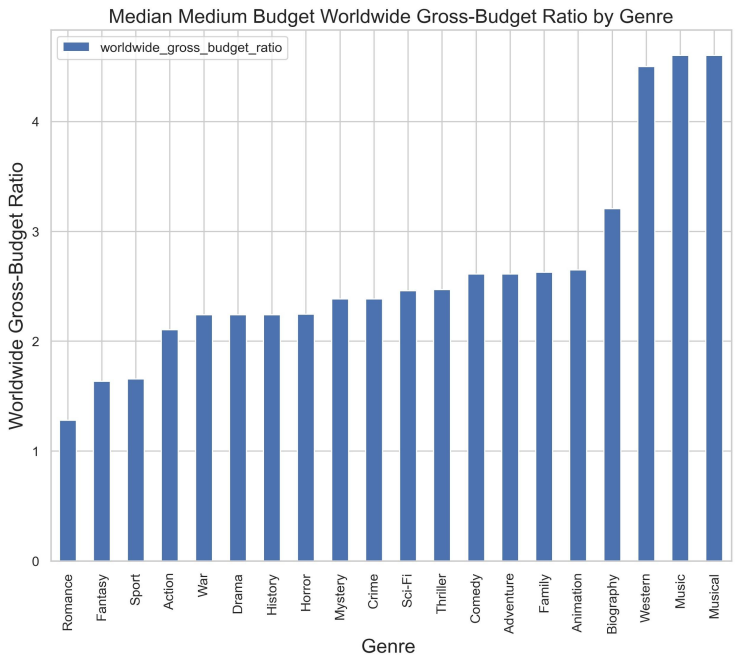
Results - Low Budget Production Genre Breakdown



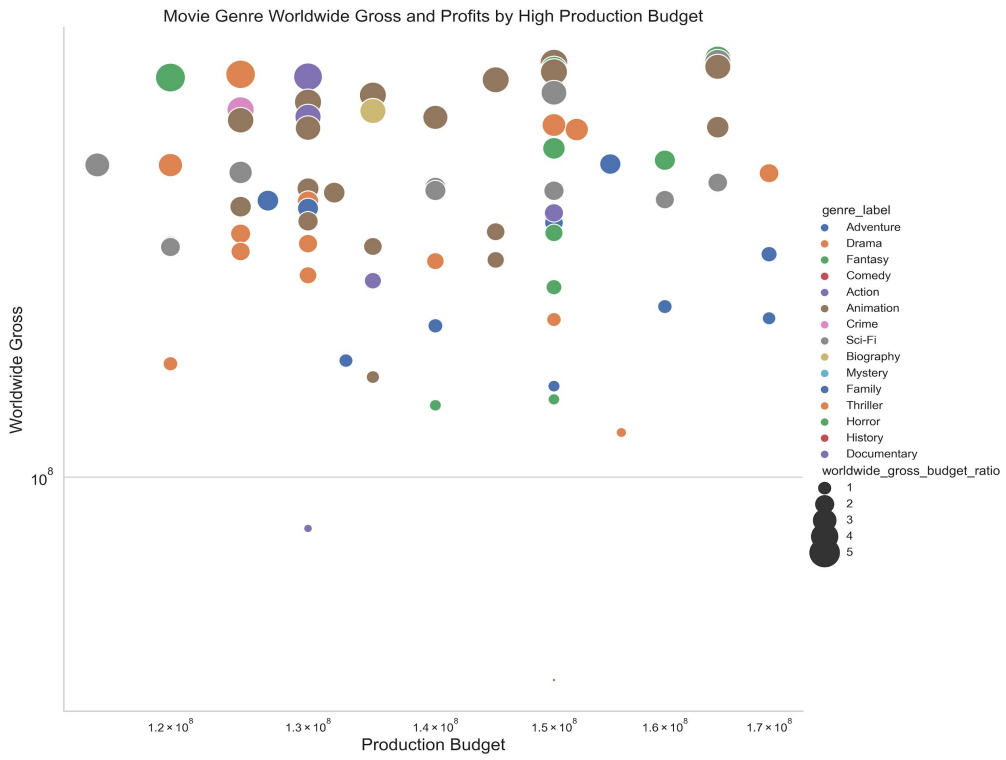


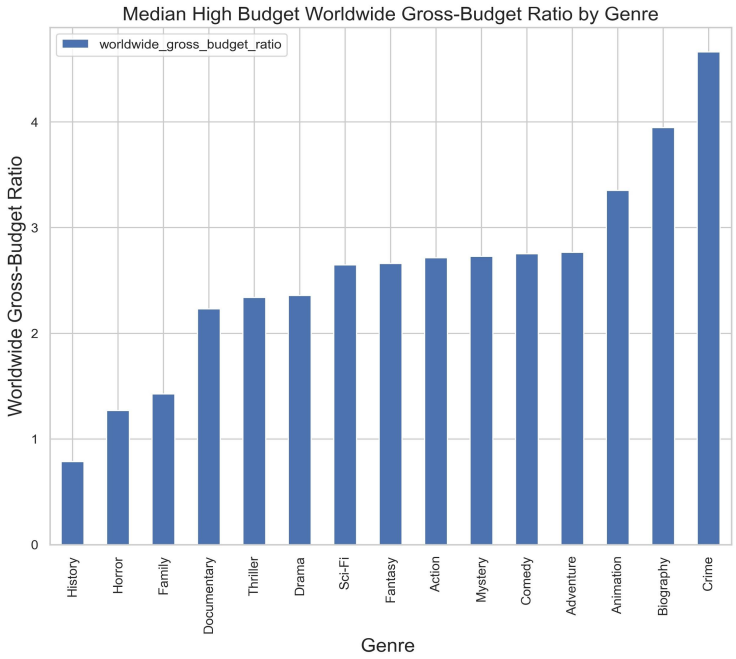
Results - Medium Budget Production Genre Breakdown



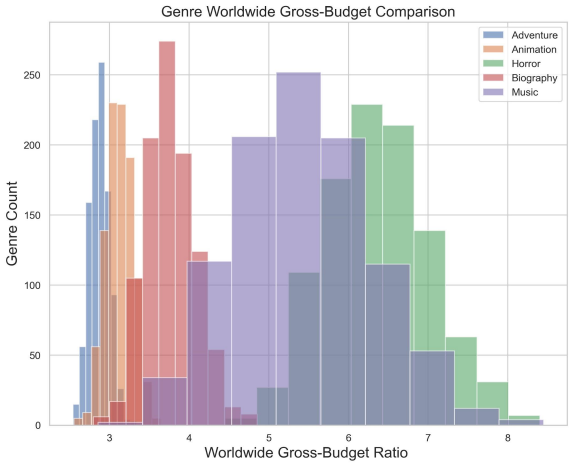


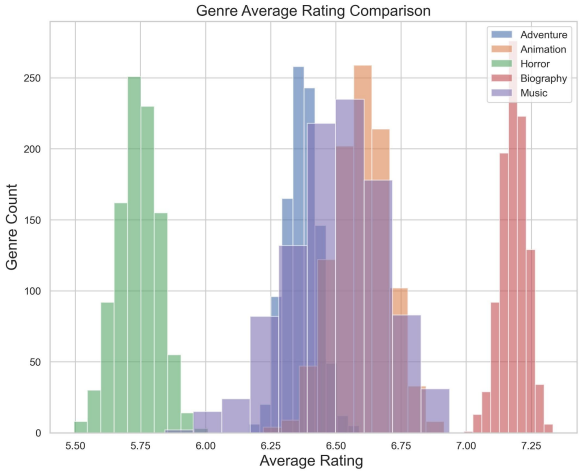
Results - High Budget Production Genre Breakdown

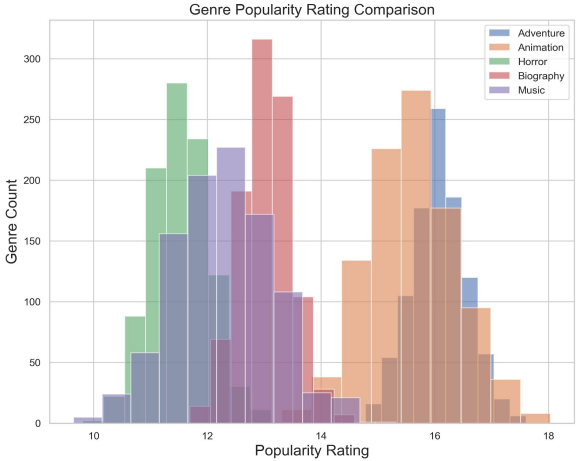




Results - Top Performing Genres Breakdown







Results - Directors and Authors

	directors	movie_count	avg_tomatometer_rating
0	Steven Spielberg	16	79.625000
1	Brian DePalma	13	70.153846
2	Roger Corman	12	70.916667
3	David Cronenberg	12	78.833333
4	Robert Zemeckis	11	74.000000
5	Peter Jackson	11	73.818182
6	Hayao Miyazaki	11	92.600000
7	Takashi Miike	10	71.000000
8	Sam Raimi	10	80.000000
9	John Sturges	10	72.300000

	authors	movie_count	avg_tomatometer_rating
0	Werner Herzog	6	90.166667
1	Quentin Tarantino	6	84.500000
2	Takeshi Kitano	5	73.200000
3	Steve Kloves	5	85.200000
4	Romeo Muller	5	78.600000
5	Richard Matheson	5	72.000000
6	Hayao Miyazaki	5	91.000000
7	David Koepp	5	70.000000
8	Christopher Markus, Stephen McFeely	5	80.000000
9	Charles M. Schulz	5	95.500000

Conclusions

- Based on the budget range and trends, consider:
  - $600k - $1.8M returns 1X - 2X investment
  - < $600k possible to 2X - 4X investment
- Consider Horror, Biography, Animation or Adventure genres as a first
- Once decided on a genre, reach out to the appropriate directors and authors whom seen most success in these genres

Thank You!

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