

An Analysis of the Film Industry

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Data Science, Module 1 – Final Project





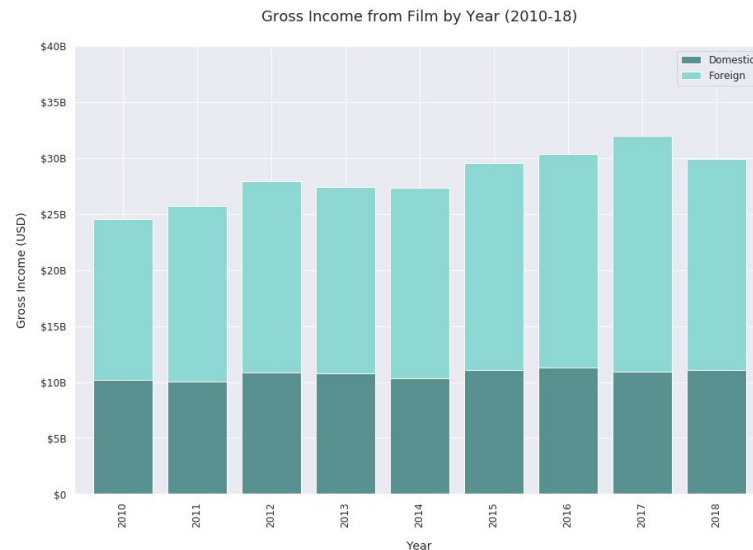
The Opportunity and Risk



The Opportunity and Risk – 1

Why, in an already crowded field, should Microsoft consider entering into the film industry?

- Industry accounts for a mean gross annual income of over \$28B since 2010 and increasing.
- The easily accessible US domestic market accounts for almost 40% of that gross annual income.



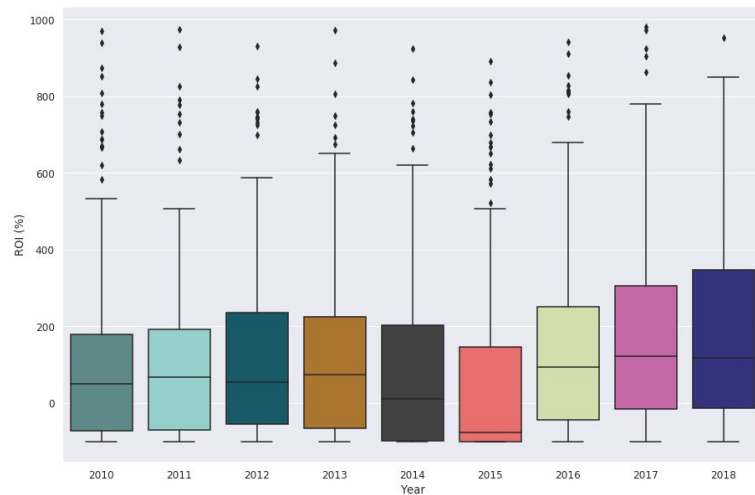


The Opportunity and Risk – 2

What is the potential return (and risk) on the investment?

- Year-on-year a greater proportion of films make a profit than a loss.
- The average film makes a 113% return on the initial investment - the production budget.
- A film with the average production budget of \$37M, making the average profit of \$71M would almost double the initial investment.
- The top 25% of films make between 150% and 800% return on investment.

Profitability of Film Production by Year (2010-18)

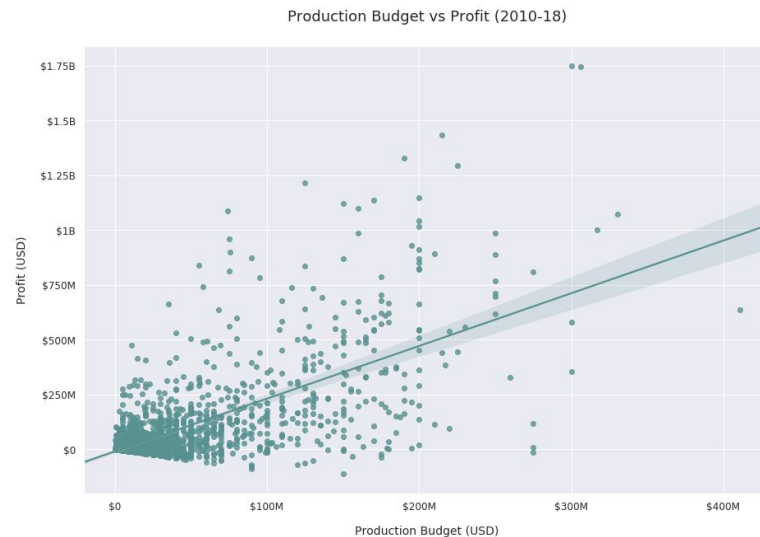




The Opportunity and Risk – 3

What is the relationship between production budget and profit, does spending more make more?

- In general, the higher the production budget, the greater the profit made BUT...
- Most films have a production budget below \$100M and still generate a significant profit.
- The reward is not without risk, with the average loss being \$7.5M and the largest loss being \$110M.

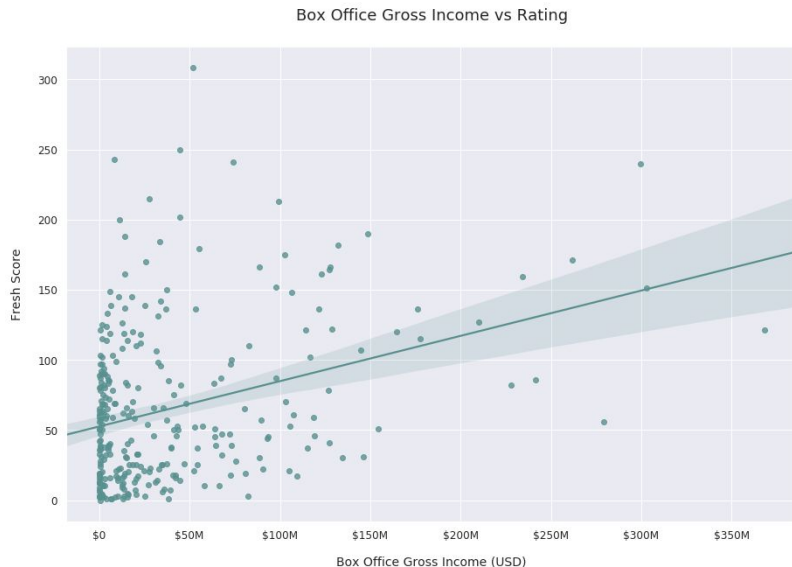




Achieving Success



Achieving Success – 1

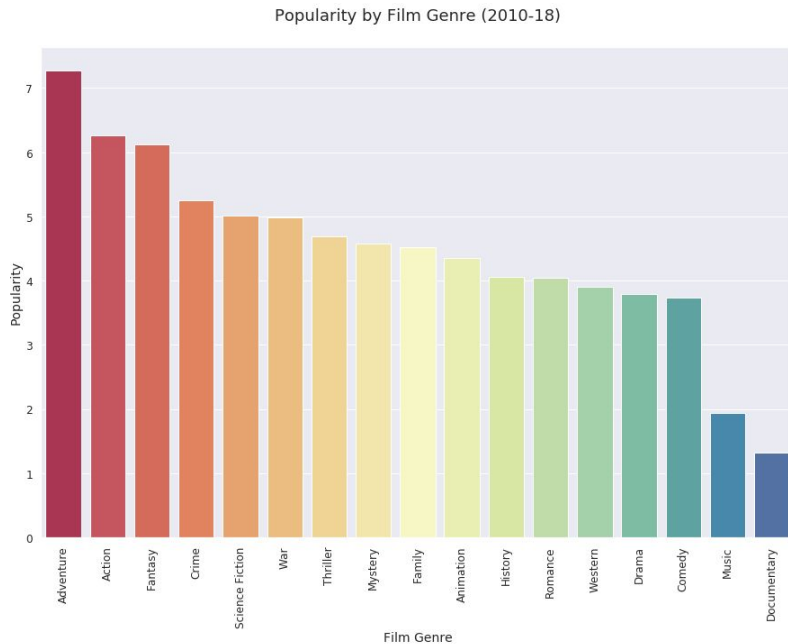


Source: Rotten Tomatoes

What is the relationship between audience ratings and box office income?

- Rather obviously, there is a correlation between audience ratings and box office income, the higher the rating, the larger the gross income achieved at the box office, BUT...
- The two are not directly correlated, so it is possible to generate large returns at the box office without the audience scoring the film that highly.

Achieving Success – 2



Source: TheMovieDB.org

What genre of films are more popular than others?

- Adventure, Action and Fantasy films are the most popular film genres.
- This reflects recent trends with an emphasis on multi-release film series with an Action / Adventure / Fantasy theme, e.g. The Avengers, Star Wars, X-Men, The Hobbit, Transformers etc.
- Romance and Comedy films are surprisingly less popular with Music and Documentary films the least popular.



Achieving Success – 3

Rank	Director	Avg. Rating	No. of Films since 2010
1	Paul Dugdale	7.93	6
2	Denis Villeneuve	7.80	6
3	Martin Scorsese	7.66	7
4	Keitarô Motonaga	7.64	5
5	Shoojit Sircar	7.64	5
6	Kaushik Ganguly	7.63	9
7	Morgan Neville	7.62	6
8	Mahesh Manjrekar	7.58	5
9	Danny Boyle	7.58	5
10	Jeff Zimbalist	7.56	5
11	Shiboprosad Mukherjee	7.51	8
12	Nandita Roy	7.51	9

Which experienced but current directors are the most popular, who should we work with (in the right genres)?

1. [Denis Villeneuve](#) (Dune, Blade Runner 2049, Arrival, Sicario, Enemy, Prisoners).
2. [Martin Scorsese](#) (The Irishman, Silence, The Wolf of Wall Street, Hugo).
3. [Danny Boyle](#) (T2 Trainspotting, Slumdog Millionaire, Yesterday, Steve Jobs)