THE ODDS OF WINNIG THE ACADEMY AWARD

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Introduction

The season of winter festivities and holidays is usually accompanied by visits to cinema which is not surprising since people are avid to add more joy to their holidays, and a pinch of saucy thriller or a long-awaited drama can be a perfection. Meanwhile, cinematography world starts to rev as the season of nominations is on. Winds rise and blow through the offices of Academy and these winds lead directly to bookmaker offices. People love watching movies, and love it even more when movies pay back, so placing bets on lucrative award nominations is not something uncommon. This essay will try to shed a light on chances of winning the Academy Award for Best Picture in the last 10 years.

Cinematography has a huge impact on the global economy, in terms of numbers. Production studios serve as a means of fighting unemployment and, at the same time making significant contributions worth of billions to world economies. Movies they produce within a calendar year are judged by experts of the field at the end of the year, or, in other words, become nominated. The nomination for prestigious awards is conducted for different categories and by different institutions. Ultimately, they all lead to the most prestigious and lucrative one - The Academy Award, or, loosely speaking, Oscar. This award consists of 24 separate award categories and is given for the excellence in the corresponding category (e.g. Best actress in a leading role; Best original screenplay etc.). The voting process of Academy of Motion Picture Arts and Sciences is held in two rounds: First, members of the AMPAS select nominates in the category they represent. By contrast, in the second round members of the Academy are not restricted with their categories, that is, everybody votes for every category from the list of nominates, (usually movies of one year receive their awards in the beginning of the next calendar year). However, for one category voting is conducted by all the members both times - Best Picture.

Best Picture statuette can be considered the core of the whole ceremony, hence, it requires more effort to recognize the winner.

My initial assumptions derive from the experience I underwent two years ago, trying to predict the winner for the Oscar 2017. Back then I looked only at two major award show results, namely Golden Globe and BAFTA, however ended up betting on Best Adapted Screenplay for Manchester by the Sea. That is, the foregoing two award shows have booked themselves places in the spreadsheet. One thing worth attention in Golden Globe Best Picture is that it is handled in two separate categories – Comedy/Musical and Drama. In other words, movies have better chances to win this award compared to the Oscar.

Data

The cross-sectional dataset used in this project is comprised of movies (N=86) nominated for Best Picture category in the last 10 years (2009-2018). The data is sorted to one dependent variable and 16 explanatory variables among which both qualitative and quantitative data are presented. The dependent variable represents **odds of winning the Oscar statuette** and set as a binary variable, so that it may vary from 0 to 1. Explanatory variables include;

- *Four movie genres*: **Biography, Comedy, Science-fiction, Action**. Binary variables.
- **Golden Globe Awards for best picture, both Drama and Comedy/Musical**. Binary variables.
- *To measure how audience reacted to the nominated movies*: **IMDb** and **Metascore**. Non-dummy variables.
- **British Academy of Film and Television Arts (BAFTA) award for Best Picture**. Binary variable.
- *Guild awards which can point to best picture***: Producers Guild Award, Screen Actors Guild** (Outstanding Performance by a Cast in a Motion Picture), **Directors Guild of America, Writers Guild of America** (both for original and adapted screenplay). Binary variables.
- **Critics' Choice Award.** Binary variable.

An average movie nominated in the given period lasted two hours and four minutes, with 7.7 IMDb score and 82 points from Metacritic. and the least time-consuming movie lasted 91 minutes – Gravity (2013). Christopher Nolan's Inception (2010) has been the highest rated on IMDb (8.8), while another film starring Leo DiCaprio, Wolf of the Wall Street (2013) holds the title for the longest nominee within those years.

Interpretation

	Best Picture Oscar statuette?	R^2
Best Picture Oscar statuette?	1	1
Biography	-0.001836796	3.37E-06
Comedy	0.01300665	0.000169
Science-fiction	-0.116169173	0.013495
Action	0.024680311	0.000609
Golden Globe (Drama)	0.321052632	0.103075
Golden globe(Comedy)	0.008712688	7.59E-05
Metacritic	0.291288866	0.084849
BAFTA	0.547368421	0.299612
PGA	0.773684211	0.598587
SAG	0.434210526	0.188539
DGA	0.660526316	0.436295
WGA(adapted)	0.094736842	0.008975
WGA(original)	0.207894737	0.04322
Critics' Choice Award	0.660526316	0.436295
Runtime	-0.078481801	0.006159
IMDb	0.061399074	0.00377

The table on the left presents the correlation of the explanatory variables with the dependent one. Variables with the highest correlation are highlighted in green.

To begin with, Y is highly correlated with PGA, 0.77. That is, 60 percent of the movies-laureates of the Oscar for Best Picture were also winners of Producers Guild Award for the corresponding nomination. Next, DGA and Critics' Choice Awards' laureates predicted 44 percent of the Academy Award winners, BAFTA 30 percent, and SAG 19%. Ultimately, Golden Globe for Best Picture in the genre of Drama predicted the winner of Oscar 10% of the time.

After running regression with initial 16 independent variables, only seven of them managed to have significant explanatory power at the 5% level. The following table is the final regression model, which allows to reject the null-hypothesis on a 5% level, in other words, where all the X variables have significant explanatory power for Y.

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-0.01007702	0.023711562	-0.42498	0.67199	-0.057264534	0.037110492
SAG	0.18048025	0.062743394	2.876482	0.005153	0.055616914	0.305343582
Comedy	-0.1131637	0.049394791	-2.291	0.024595	-0.21146247	-0.014864935
Golden Globe (Drama)	0.14022332	0.06068573	2.310647	0.023428	0.019454864	0.260991769
PGA	0.71820148	0.064052006	11.21279	4.41E-18	0.590733927	0.845669037
WGA(original screenplay)	0.22881926	0.058675931	3.899712	0.000199	0.112050433	0.34558808

The Intercept, roughly speaking, is negative 0.01, indicating that chances of a movie which does not receive any of the listed major awards are extremely low.

If a movie wins the Screen Actors Guild award for Outstanding Performance by a Cast in a Motion Picture it will increase the chances of the movie by 18%, ceteris paribus.

If a nominee is awarded by Golden Globe as the best picture in drama genre, that increases the odds of winning the Oscar for Best Picture by 14%, ceteris paribus.

The motion picture recognized by Producers Guild of America as laureate elevates its chances to get the Oscar by 71%. On the other hand, if a movie's genre is comedy, we can be 95% sure that it will cut back the probability by 11%. I am 95% sure that this number may range within the interval -21% and -1%.

Ultimately, acknowledgement of excellence of the original screenplay by Writers Guild escalates the odds of being honored the Academy Award by 23%, ceteris paribus. With 95% confidence the effect of this variable will be at least 11, and at most 34 percent.

Summary

To sum up, in a period of time from 2009 to 2018, there have been held ten Oscar ceremonies, where people involved in cinematography have been rewarded due their excellence in a past year. According to the data collected from those, the nominated movies had a better chance if they were awarded by Golden Globe, Producers Guild of America, Screen Actors Guild for great cast performance or/and Writers Guild for best original scenario. However, among the nominates, comedy films had less chance to get the main prize. Fin!