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The Fault in Our Stars: A Quantitative Study on the Effect of Cast Member Celebrity on Film Success

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ABSTRACT

Trust among Hollywood film executives in the ability of influential celebrity actors to boost a film's success, financially and artistically, can be seen in the extra ordinate sums of money actors are paid today by studios. However, the exact efficacy of this idea which so many studios have put their faith in has yet to be comprehensively tested. To this end, the following paper seeks to determine how the celebrity status of an actor correlates with film success, as defined by commercial success and critical acclaim, of the post-2015 films they star in, through a quantitative correlational analysis. Through a cross-sectional regression model, celebrity status, defined through the IMDB StarMETER, will be compared against both commercial success, as defined by box office revenue, and critical acclaim, broken down as artistic merit and public perception, to be represented by the Metacritic Score and IMDB Rating respectively. Based on the p-values for each model, it was determined that the collective celebrity status of a film's cast has a statistically significant, positive correlation with a film's commercial success and public perception, but not on a film's artistic merit. For film studios, these findings validate their financial burdensome philosophy of spending millions on celebrity actors, as it results in more profitable films. Additionally, these findings suggest that the likability of a film can be increased with a stronger cast celebrity status. However, these findings indicate that film studios attempting to create artistically successful films cannot do so solely through the addition of famous actors.

Introduction

There is no doubt that, as children, many of us have grown up with at least one hero in mind. Heroes act as role models and influence our passions, opinions, and outlook on the world; they can truly have a lasting and tremendous impact. Today, our biggest heroes are often movie stars, who portray the very people we look up to. Although the general population often sees actors as idols, for film industry executives, movie stars aren't just celebrity influencers but are the means to an end of a profitable and successful film. This guiding principle of using influential celebrity actors to boost a film's success has long reigned over Hollywood; since its existence, film studios have regularly paid star actors in the multi-million-dollar range to play crucial roles in their film. According to Elberse (2007), "A handful of high-profile stars, including Jim Carrey, Tom Hanks, Brad Pitt, and Julia Roberts, have been paid salaries as high as $25 million per picture." (p. 102). The growing prevalence and impact of these modern-day superstars serve as convincing evidence to support the financially burdensome decisions of film studios regarding celebrity actors; however, the exact efficacy of this principle has yet to be comprehensively tested in the context of Hollywood today.

To this end, the following paper seeks to determine how the celebrity status of an actor correlates with film success, as defined by commercial success and critical acclaim, of the post-2015 films they star in, through a quantitative correlational analysis. Through a cross-sectional regression model, celebrity status, defined through the measure of the IMDB StarMETER, will be compared against both commercial success, as defined by box office revenue, and critical acclaim, broken down as artistic merit and public perception, to be represented by the Metacritic Score and IMDB Rating respectively. Based on the findings of Nelson (2012) and Elberse (2007), it is predicted that

celebrity status has a positive correlation with commercial success and critical acclaim, both in the sense of artistic merit and public perception.

Literature Review

Origins and Rise of Hollywood

The United States Film Industry, colloquially known as Hollywood, is by far the largest and most dominant film industry globally, with a combined box office revenue of 11.08 Billion U.S. dollars in 2018 (Watson, 2021). Specifically, the "oligopoly of Hollywood studios comprising Universal, Paramount, M.G.M., United Artists, Fox, Colombia, Warner Brothers, R.K.O., and Walt Disney, known collectively as 'the Majors' have dominated the world of Cinema" (Silver, 2007, p. 1). Alongside these major studios are the producers, directors, and actors that have headlined the industry to the public, playing an equally pivotal role in the success and exposure of the industry (Silver, 2007, p. 7). To understand how Hollywood became the complex, interlocking system of studios, producers, directors, and actors it is today, one must understand how the industry came to be in the first place.

The beginnings of America's first-ever film industry began in the New York Metropolitan Area, where the Edison Manufacturing Company and the American Mutoscope and Biograph Company dominated the scene with their short films displayed in storefront theatres and nickelodeons. However, due to its advantageous climate and diverse landscapes, the industry we know as Hollywood today transitioned its operations to the Southern California area (Musser, 1994). By 1912, Hollywood would undergo a transformation, where it would begin to function as "an incipient agglomeration with its own distinctive production system and labour market characteristics, and with innovative capacities (in terms of both commercial practices and film content) that seemed to set it strongly apart from the more established firms of the northeast" (Scott, 2006, p. 16). By this point, Hollywood had established itself as the center for motion-picture production in America, and soon the entire world.

The next great chapter of American Cinema was the Hollywood Renaissance, which took place around the mid-1960s and lasted until the early 80s. The era emphasized the increasing role of the director, the editor, and of course, the actor in moviemaking (Kra¨mer, 2018). Notable names such as Robert de Niro, Harrison Ford, Al Pacino, Woody Allen, John Travolta, Jeff Bridges, Martin Scorsese, Ridley Scott, Steven Spielberg, and George Lucas found success in this era that they have continued to this day. The evolution of Hollywood in this manner, where high-profile, high-value directors and actors have seen much of the public spotlight, has given rise to a period where the relationship between the studio and the moviemaker (producer, director, actor, etc.) has become of utmost importance, thus prompting the question of how to best allocate resources towards them when considering the success of a film commercially and artistically.

One of the newer trends in the Hollywood industry is the rise of film franchises, defined by the dominance of the Marvel Cinematic Universe, Star Wars, and Harry Potter film series, all of which came out past the turn of the millennium. Today, the top box-office titles are almost exclusively franchised films, and year after year, these types of films break existing records (Van der Schalk, 2019). This new era of filmmaking, where actors often gain even more recognition playing the same character over a series of films, is unique when compared to any other period of cinema in history. When looking at recent literature, there is a distinct lack of scholarship which considers this new facet of the film industry.

Main Determinants of Commercial Film Success

In the past, several studies have investigated the factors which influence box office earnings. Star power, expertise in acting, critic review, and public opinion have all been found to be the main contributing factors to the commercial success of a film (Carrillat et al., 2018). External factors, such as the size of production cost, award nomination,

whether it was released by a major studio, and whether it is a sequel to a previously successful film, are also key drivers of box office revenue (Pangarker, 2013, p. 47). Regarding the personnel within film production, it was found that lead actors are the most important members of a film project, followed by producers (Hadida, 2010). Evidently, the influence that main actors have on the success of films cannot be understated and is an integral part of the casting process, which studios much undertake.

Commercial Success, Critical Acclaim, and Star Power

On the surface level, it has been found that stars are crucial to the success of a motion picture for two reasons; first, they increase the chances of studio backing, and secondly, they increase the recognizability of a film and, therefore, its commercial success (Kim, 2016, p. 433). Gunter (2018, p. 175) says movies are defined by their star actors, citing the examples of Robert Downey Jr. in the Marvel Cinematic Universe as well as Jennifer Lawrence in the Hunger Games series. This is further substantiated by the findings of Elberse (2007), who found the involvement of stars increases the evaluation of the film company's stock. More specifically, an actor's prior economic film performance, artistic performance, and quantity of said performances are some of the main factors that affect the magnitude of their impact on a film project (Kim, 2016, p. 433). Regarding the empirical value of star participation, Elberse (2007) found that "stars can be worth several millions of dollars in revenue" (p. 118). More specifically, it was found by Nelson (2012) that "replacing an average star with a top star would increase revenue by an average of $16,618,570" (p. 141).

A thorough examination into the surrounding literature in the film industry has indeed substantiated the claim that stars affect the commercial success of the films they star in. Yet, an examination of this phenomenon uninvestigated is the degree of difference in success this makes in the modern era of filmography, where franchises and stars are ever the more present. A majority of previous studies had all taken place pre-2010, when film franchises and sequels were not as prevalent as they are today, so this is an area of the field yet to be explored. Another aspect surrounding the power of movie stars is the degree to which star actors impact the critical acclaim of their movies, both by professional critics and the general public. In this regard, no current literature has found any substantial conclusion regarding this facet of star power. To this end, this study plans to address the missing literature regarding star power in two main aspects: celebrity status of an actor in relation to critical acclaim and celebrity status of an actor with regard to commercial success in the modern era of cinematography.

Methodology

Design

To effectively determine if the fame of a film's cast truly has an effect on its success, a quantitative correlational analysis through the use of a cross-sectional regression model will be used, focusing on the comparison between cast member celebrity status and film success as defined by commercial success as well as critical acclaim between the years 2015 and 2019. The methodology of this study, a cross-sectional regression analysis, is consistent with that of Elberse (2007), Nelson (2012), Carrillat (2007), and Hadida (2010); evidently, it is the standard method of analysis used by literature focusing on the motion picture industry. However, this paper differs from others in the field, specifically in its time frame and its variables. Regarding the time frame of the analysis from 2015 to 2019, since this paper seeks to analyze stars and films in the modern era of filmmaking, it is fitting that this is where the paper differs from others. Specifically, 2015 and onwards were chosen because the era marks a shift in the film industry where franchises and sequels have become the norm, as documented by Van der Schalk (2019). The cut-off point of 2019 is meant to account for the effect of the COVID19 pandemic and its effects on the ability of moviegoers to attend movies, skewing box office statistics. Regarding the data sources and variables of the analysis, this paper draws from a variety of different papers in its field, an aspect which will be further explained in the data and variables subsection.

Data and Variables

This cross-sectional regression analysis requires the quantification of three major variables to be used in the model: commercial success, critical acclaim, and celebrity status. In the following paragraphs, these variables will be established, with a source of data being presented for each.

Commercial Success

As established by Nelson (2012), Elberse (2007), and Hadida (2010), the most common definition of commercial success as a quantified variable in the film industry is gross box office revenue. Gross box office revenue, according to the U.I.S. glossary of the UNESCO Institute for Statistics, refers to "revenue generated from ticket sales (receipts) including any taxes and other levies" (2021). This is the most direct measurement of commercial success and reflects on the total number of moviegoers for each film. Specifically, for the purposes of this study, gross box office revenue is measured worldwide in U.S. Dollars through the film's entire lifetime and is adjusted for inflation. The box office data will be collected from Box Office Mojo by IMDBPro, an Amazon company. IMDBPro is a pay-per-month subscription service for entertainment professionals and is a leading source in the entertainment industry with valuable analysis tools. Box Office Mojo, launched in 1998, provides access to in-depth box office data for its 7.5 million titles (IMDb.com, 2021). Thus, gross box office revenue from Box Office Mojo serves as a fitting representation of commercial success.

Critical Acclaim

Due to its subjective nature, critical acclaim is difficult to quantify. However, it can often be seen that there is often a large discrepancy when it comes to evaluations of a film by critics and by the general public, as argued by Holbrook (2007). As such, this paper will follow the methodological techniques used by Holbrook (2007), which distinguishes critical acclaim by two separate components: critical and popular evaluation (evaluations of excellence by film reviewers and ordinary consumers). In this paper, these terms will be referred to as artistic merit and public perception, each representing the evaluations by critics and consumers, respectively.

Critical Acclaim: Artistic Merit

Shaped by the definition of critical evaluation given by Holbrook (2007), artistic merit is defined in this study as the degree of excellence assessed by evaluations by professional film reviewers. To directly measure these evaluations, the Metacritic Score will be used in this analysis, a metric similar to the Rotten Tomatoes rating used in the study of Holbrook (2007) to capture reviews by critics. However, there are several reasons why the Metacritic Score serves as a more accurate measure of critic reviews than Rotten Tomatoes. The Metacritic Score takes into consideration the ratings of a particular film by the world's most respected critics, including reviews from publications such as The Guardian, The New York Times, and The Chicago-Sun Times. Metacritic then compiles these ratings into one score with a weighted average system, prioritizing certain critics based on their reputation, quality, and overall standing. Although Rotten Tomatoes also takes reviews from the world's most trusted critics and publications, the method in which it compiles its score has a major flaw. Its most significant issue is that it condenses the nuances of each review into either a yes or a no. This means that the Rotten Tomatoes score is essentially just the number of positive reviews (>50%) over the number of negative reviews (<50%), making it a faulty representation of the true judgement of a film by a critic. For example, through the Rotten Tomatoes score, there is no differentiation between a critic rating of 100% and a critic rating of 51%, clearly two very different evaluations of a film. Thus, the Metacritic Score acts as a serviceable metric to measure the artistic merit of a film.

Critical Acclaim: Public Perception

Shaped by the definition of popular evaluation given by Holbrook (2007), public perception is defined in this study as the degree of excellence established by evaluations by ordinary consumers. To directly measure these evaluations, the IMDB Rating will be used in this analysis, which is the exact technique used by Holbrook (2007) and Nelson (2012) to measure popular evaluation, the equivalent term to public perception in their study. The IMDB Rating is purely based on the ratings of its 83 million registered users, who can cast a vote on every released title available on IMDB's database. Each account can only cast one vote to prevent voter fraud. Then, votes are aggregated into one score through a weighted average system to prevent unusual voting activity from comprising its proprietary rating mechanism. Thus, the IMDB Rating serves as an ideal metric to measure the public perception of a film.

Celebrity Status

Celebrity status, similar to critical acclaim, is hard to quantify due to its subjective nature. In this study, celebrity status is defined as the level of popularity of an actor among the public. To best capture the celebrity status of a film cast, this study will follow, to the best of its ability, the approach used by Nelson (2012) with the use of the IMDB StarMETER. The IMDB StarMETER is a ranking that is calculated based on the behaviour of IMDB's millions of users, specifically the frequency and number of people who access a person's IMDB page or view them on the credits page. According to Nelson (2012), "The StarMETER Rankings are widely acknowledged in the industry as an up-to-date measure of fan interest in a given star" (p. 147). Since the StarMETER Ranking is time-sensitive, this study will again follow the techniques of Nelson (2012) and will capture an actor's StarMETER Ranking on the date on which the film was released. To capture the effect of an entire cast of actors, the aggregate StarMETER following will be used to represent each film; this is calculated by adding the StarMETER Rankings of the top seven actors of a film, by order of the credits. The number seven was chosen because it was the number of actors in the film with the least number of actors in its cast within the sample frame, as not to disadvantage films with large casts as well as to simplify the data collection process. In the end, a lower StarMETER aggregate following means that a film's cast is more popular. Thus, the StarMETER aggregate following serves as a feasible representation of a cast's celebrity status.

Sample

The sample size of this study spans across the years 2015 to 2019, a time frame that captures the features of the modern era of cinema featuring the prominence of sequels and franchises, a phenomenon mentioned by Van der Schalk (2019) and the area in which this study focuses on. Specifically, the film sample of this analysis takes the top 20 grossing films of each year from 2015 to 2019, totalling 100 films in the sample. This allows the analysis to consider films across an array of years within the same era while featuring a set of films that differ in commercial success and critical acclaim. As previously mentioned, the top seven actors by credit order are selected to calculate the StarMETER aggregate following, making the total count of actors within the sample 700.

Statistical Analysis

The nature of this cross-sectional regression analysis, with three dependent variables and one independent variable, essentially creates three separate models. The first model will look into the comparison between the StarMETER aggregate following and gross box office revenue. The second model will look into the comparison between the StarMETER aggregate following and the IMDB Rating. The third and final model will look into the comparison between the StarMETER aggregate following and the Metascore.

In each comparison, the dependent variable is graphed against the independent variable, with each point representing the data of each film. From there, a regression analysis, including an ANOVA test, is conducted in order to determine the correlation, significance, and fit of the data.

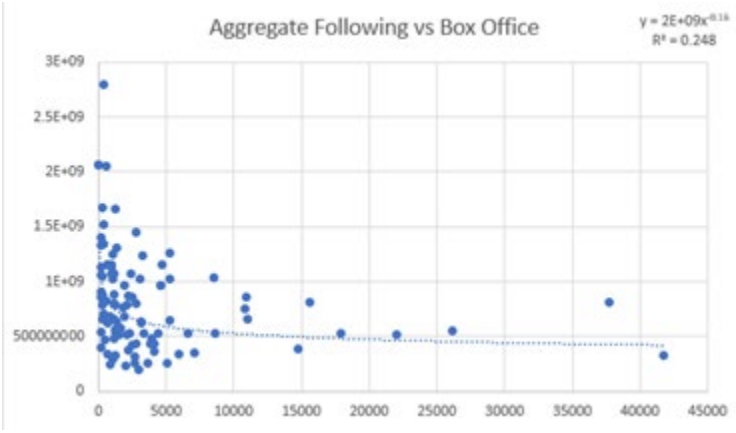
Results

In the following paragraphs, the results of this study are shown through three scatterplots and are then analyzed through the use of summary regression statistics and an ANOVA analysis from Microsoft Excel to determine if said data supports the notion that the celebrity status of actors positively impacts a film's commercial success and critical acclaim.

The below scatterplot is a comparison of Box Office Revenue against StarMETER Aggregate Following. As seen in the graph, this relationship is best modelled through a negative power function, where a negative exponent of -0.16 indicates that for every one increase in StarMETER Ranking, meaning a less popular cast, box office revenue decreases relatively by a factor of 0.16 within the model.

Figure 1

Comparison of Box Office against StarMETER Aggregate Following

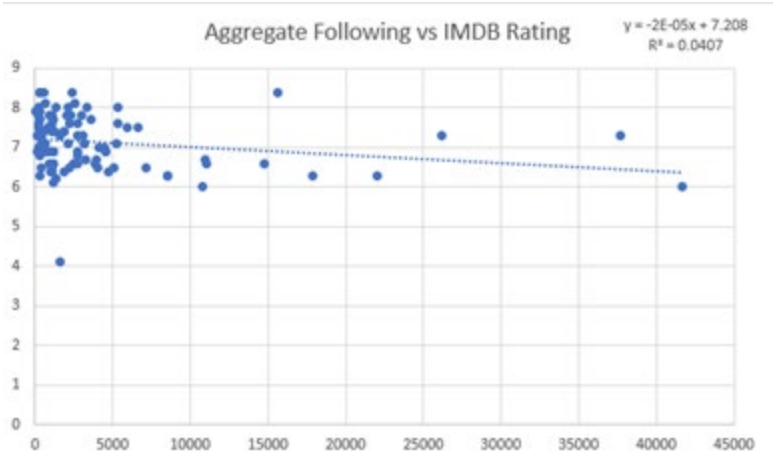


Note. Samples were taken from 2015-2019, capturing the box office data from top 20 grossing films of each year. To measure the aggregate following of each film, the IMDB StarMETER rankings of the top seven credited actors at the time of the film's release are totalled.

The below scatterplot is a comparison of IMDB Rating against StarMETER Aggregate Following. As seen by the graph, this relationship is best modelled by a negative linear function, where the negative co-efficient of -2E-05 indicates that for every one increase in StarMETER Ranking, meaning a less popular cast, the IMDB Rating of a film decreases by $2*10^{-5}$ / 10 within the model.

Figure 2

Comparison of IMDB Rating against StarMETER Aggregate Following

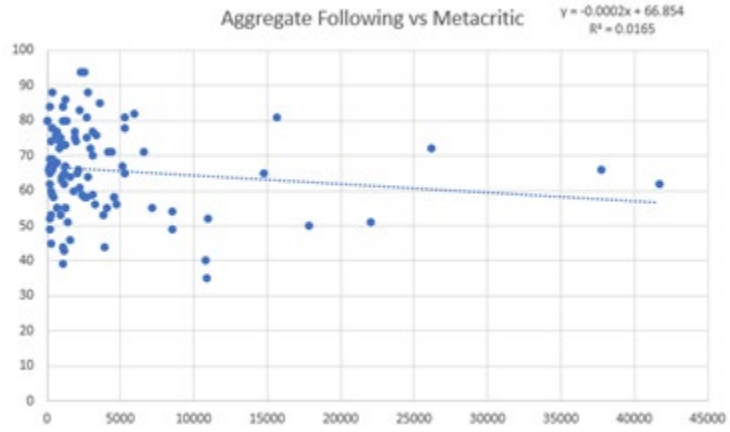


Note. Samples were taken from 2015-2019, capturing the IMDB Rating data from top 20 grossing films of each year. To measure the aggregate following of each film, the IMDB StarMETER rankings of the top seven credited actors at the time of the film's release are totalled.

The below scatterplot is a comparison of Metacritic Score against StarMETER Aggregate. As seen by the graph, this relationship is best modelled by a negative linear function, where the negative co-efficient of -0.0002 indicates that for every one increase in StarMETER Ranking, meaning a less popular cast, the IMDB Rating of a film decreases by 0.0002 / 100 within the model.

Figure 3

Comparison of Metascore against StarMETER Aggregate Following



Note. Samples were taken from 2015-2019, capturing the Metacritic Score data from top 20 grossing films of each year. To measure the aggregate following of each film, the IMDB StarMETER rankings of the top seven credited actors at the time of the film's release are totalled.

Commercial Success and Celebrity Status

The statistics below provide the key statistics for the Commercial Success vs Celebrity Status graph, including the R^2 value and p-value, important to drawing conclusions.

Figure 4

Regression Statistics of Figure 1

Regression Statistics	
Multiple R	0.412124
R Square	0.169846
Adjusted R Square	0.161375
Standard Error	0.217535
Observations	100

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	9.362005	0.116681	80.23589	3.38E-91
X Variable 1	-0.16003	0.035739	-4.47777	2.04E-05

The R^2 value of 0.1698 in this regression model suggests that the model poorly explains the variation between box office and film StarMETER aggregate following, as the data does not fit the expected trend as seen through the regression line. However, the p-value of 2.04E-05, a value less than the alpha of 0.05, suggests there is a statistically significant difference in box office for films with low StarMETER aggregate followings as compared to films with high StarMETER aggregate followings.

Public Perception and Celebrity Status

The statistics below provide the key statistics for the IMDB Rating vs Celebrity Status graph, including the R^2 value and p-value, important to drawing conclusions.

Figure 5

Regression Statistics of Figure 2

Regression Statistics	
Multiple R	0.20162
R Square	0.040651
Adjusted R Square	0.031152
Standard Error	0.670089
Observations	100

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	7.20804	0.076253	94.52805	2.2E-100
X Variable 1	-2E-05	9.82E-06	-2.06874	0.041124

In this comparison, the low R^2 value of 0.040651 of this model suggests again that a linear fit fails to account for the variation between the two variables of the IMDB Rating and the StarMETER Aggregate Following, meaning there is a poor fit of the data on the expected trend. The p-value of 0.041124, a value less than the alpha of 0.05, suggests there is a statistically significant difference in IMDB Rating for films with low StarMETER aggregate followings as compared to films with high StarMETER aggregate followings.

Artistic Merit and Celebrity Status

The statistics below provide the key statistics for the Metacritic Score vs Celebrity status graph, including the R^2 value and p-value, important to drawing conclusions.

Figure 6

Regression Statistics of Figure 3

Regression Statistics	
Multiple R	0.128294
R Square	0.016459
Adjusted R Square	0.006721
Standard Error	12.72348
Observations	100

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	66.85427	1.447871	46.17418	1.02E-69
X Variable 1	-0.00024	0.000187	-1.30008	0.196533

Once again, this regression model is defined by a low R^2 of 0.016459, which suggests that the data does not fit the expected trend very well, and the model fails to account for the variation of the data. In this case, the p-value of 0.196533, which is greater than the alpha value of 0.05, suggests that there is no difference in Metacritic Scores between low StarMETER aggregate followings as compared to films with high StarMETER aggregate followings.

Discussion

These findings indicate that the collective celebrity status of a film's cast has a statistically significant, positive correlation with a film's commercial success and public perception, but not on a film's artistic merit. However, the model fails to account for the variation in the data for all three regression lines. This conclusion is based on the p-values of Figure 4 and Figure 5, which are both less than 0.05, suggesting a rejection of the null hypothesis. Therefore, we accept the alternative hypothesis, which states there is a significant difference between films with low StarMETER aggregate followings and films with high StarMETER aggregate followings, in the case of box office and IMDB rating, representing a film's commercial success and public perception. Additionally, we affirm there is a positive relationship between celebrity status and commercial success and public perception, as suggested by the negative exponent/co-efficient. In the context of the study, a negative exponent/co-efficient indicates a positive relationship between variables since the StarMETER Rankings are opposite to what they represent, as the #1 ranking indicates the most popular actor at the time. However, this is not the case with a film's artistic merit, as the p-value of this regression line was greater than 0.05, meaning we fail to reject the null hypothesis. Therefore, there is no statistically significant difference in artistic merit between films with low StarMETER aggregate followings and films with high StarMETER aggregate followings, despite its negative coefficient.

Correlation of Celebrity Status with Commercial Success

Analysis of the Box Office vs Celebrity Aggregate Following regression model indicates that commercial success is positively correlated with a film's celebrity status through a power relationship, as suggested by the model's p-value and negative exponent. This finding is supported by the conclusions of Nelson (2012) and Elberse (2007), which both suggest that the involvement of more influenceable star actors has a positive impact on box office success. Through a different method than that of Elberse (2007), a similar conclusion was reached by this analysis, which utilized the IMDB StarMETER Ranking as a measure of celebrity, a method supported by Nelson (2012). Similar conclusions

based on different methods provide strong evidence that the conclusion is true, as well as that the methods themselves are reliable. This conclusion indicates that the general population may be influenced by the presence of famous actors.

Correlation of Celebrity Status with Public Perception

Analysis of the IMDB Rating vs Celebrity Aggregate Following regression model indicates that public perception is positively correlated with a film's celebrity status in a linear relationship, as suggested by the model's p-value and negative coefficient. This finding is novel and has not been observed in any major study in the field of motion pictures. The IMDB Rating is based on the reviews of IMDB users, who are members of the general population. Since the IMDB Rating is based on the views of the general population, this finding is logically consistent with that of the previous finding of commercial success, since commercial success is essentially a monetary measure of the people wanting to watch, and presumably liking, a movie. Similar to the conclusion about commercial success, this conclusion indicates that the general population may be influenced by the presence of famous actors.

Correlation of Celebrity Status with Artistic Merit

Analysis of the Metacritic Score vs Celebrity Aggregate Following regression model indicates that the artistic merit is not correlated with a film's celebrity status, as suggested by the model's p-value. Again, this finding is novel and has not been observed in any major study in the field of motion pictures. The Metacritic Score is a rating based on several reviews by credited publications and their professional critics. This conclusion suggests that critics hold a view of a film unbiased by the presence of famous actors.

Limitations

The most significant limitation of this study is the nature of the StarMETER Ranking, which was the basis of measurement for celebrity status, a key feature of all three regression models. In the case of this analysis, the StarMETER ranking is a number that is relative to all other actors at a certain time, meaning it does not account for celebrity status in an absolute sense, as there is no differentiation between #1 and #2 as compared to #50 to #51. Despite being what the IMDB StarMETER Ranking measures, clicks, its absolute value is simply not available for public viewing, even through the use of an IMDBPro subscription. The relative nature of the StarMETER Ranking calls into question the accuracy of its measurement of celebrity status.

Another limitation of the study is the choice of seven actors per movie to capture a film's aggregate following. This number was chosen due to the time constraint of the study without the use of automation, as well as it being the number of cast members in the smallest cast out of all 100 movies in the sample. The issue with this constraint is that it prevents the aggregate following score from fully capturing the celebrity status of the entire cast. In the case of a film such as *Avengers: Endgame*, which features over a dozen A-list actors, seven actors fail to capture the overall scope of celebrity for the film's entire cast.

Another limitation of the study, specifically in regard to the validity of the conclusions, is the reverse influence of a movie on an actor's following. Due to how celebrity status was measured, which was at the time of the film's release, it is a possibility that the marketing and reputation of a film benefit the following of an actor. Specifically, in the case of the *Star Wars* franchise, this effect can be seen, where actors see large spikes in the StarMETER Ranking at the time of the film's release. This puts into doubt that the notion that it is the following of the actors that cause a film to be successful, and not the other way around.

Conclusion

The findings of this study have several implications towards the motion picture industry. In summary, they are three-fold: the collective celebrity status of a film's cast has a statistically significant correlation with a film's commercial success, the collective celebrity status of a film's cast has a statistically significant correlation with a film's public perception, and the collective celebrity status of a film's cast does not have a statistically significant correlation with a film's artistic merit. These findings have the most direct impact on film industry studios and their executives; the price to pay for star actors is worth it financially in most cases, as the commercial success of a film increases with the celebrity status of its cast. Additionally, film success in the eyes of the general population rises too with the celebrity status of its cast; thus, it can be seen that the likability and reputation of a film can be increased with a stronger cast celebrity status. However, a caveat to this is that artistic merit in the eyes of professional critics does not increase with celebrity status; therefore, film studios attempting to create artistically successful films cannot do so solely through the addition of famous actors.

These conclusions come with several limitations, which can be summarized as such: the StarMETER Ranking is inherently flawed, the aggregate following variable may not fully represent a cast's celebrity status, and there may be a reverse effect of a movie on an actor's celebrity status. Along with this, the conclusions come with the caveat that the fit of the model onto each of the three data set comparisons were all poor. The next step to improve upon this study is to increase its sample size dramatically in order to account for the full effect of every actor within a film's cast. This increase in sample size would paint a more accurate picture of how every actor contributes to the awareness of the film.

So, to answer the question: does the celebrity status of actors positively correlate with the commercial success and critical acclaim, as defined as public perception and artistic merit, of the post-2015 films they star in: this paper says yes in the aspects of commercial success and public perception. In the end, perhaps the ultimate conclusion of this paper is how it shows the true power our heroes can have over us and how film studios can leverage that power to create a successful film.

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