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Exploring the Behavioral Impact of Chinese Film and Television Celebrities: Evidence from 40 A-List Stars

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Abstract

This article addresses the behavior of film stars by considering the film industry's reputation and Netizens' attention. It notes that the current reputation mechanism may not be positively motivating film stars, highlighting an urgent need to establish a scientific and reasonable evaluation system. Furthermore, it suggests that the "eyeball effect" is not sustainable and that the film star group requires a "craftsman spirit."

The study builds a non-contractual model to explain the behavior of film stars, focusing on three-dimension films industry reputation and Netizens' attention. Forty Chinese first-line film and television stars, selected from the Forbes celebrity list (2013-2017), serve as empirical objects. By constructing panel data, the article aims to explore the relationship between various factors and a star's income across different dimensions, and to speculate on the factors that may affect a film star's actions.

We demonstrate that: (1) there is no relationship between a star's earnings and the number of their programs; however, the total number of awards shows a significant negative correlation with earnings. (2) Search volume exhibits an inverted U-shaped relationship with a star's earnings. (3) The number of fans, as a control variable, positively moderates the relationship between the number of awards and star's earnings, and similarly between search volume and star's earnings.

Keywords: Chinese Film stars, Non-contractual relationship Stakeholder, Behavioral study, Reputation mechanism

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Introduction

The concept of "film and television stars" has its roots in the world of actors, serving as a social symbol that encompasses various elements such as artistic performance, commercial

operations, and cultural consumption. The shaping process of these stars is influenced by external factors including economic development, public aesthetics, societal trends, and cultural patterns. In his work "Collective Search for Assimilation", Clapp suggests that stars have the ability to impact social norms through reinforcement, allure, and surpassing, thereby influencing the mainstream values of society [1][3]

In 2017, on social media in China, stars broke out a "reputation crisis" collectively. The negative behavior of individual stars damaged the reputation of the entire industry. While reducing the evaluation of dishonest individuals, the society also affected the evaluation of other individuals in the industry, resulting in negative spillovers, which affected the development process of the film and television industry. Therefore, it is of theoretical value and practical significance to study the behavior of film and television stars. The research can not only provide more targeted theoretical support for regulating the behavior of film and television stars, but also provide policy suggestions for the government to deal with the social problems such as sky high film remuneration, benefit transmission, tax evasion and so on.

This paper intends to answer the following three questions: (1) In the non-contractual relationship, which dimensions affect movie stars; (2) Which factors are significantly related to star income; (3) From the perspective of new media, what is the practical significance of analyzing the influencing factors of movie stars' behavior.

1 Literature review

With the development of China's film and television industry, the industrial production process dominated by "stars" and "culture" is gradually replacing the artistic creation process centered on "performance"[4]. Although China has not yet established a mature star system, the star phenomenon has become the most important social problem, and has formed a huge industrial benefit chain. On the one hand, film and television stars are widely concerned in the contemporary public discourse space; on the other hand, with increasingly strong negative evaluation, a paradoxical cultural phenomenon has formed. The "film performance" and "social performance" of film and television stars are presented as a strange combination and a "mutual text field" full of tension. They are not only entangled in the complex operation of various power relations, but also become cultural consumption objects in the context of contemporary urban consumption space [5]-[6]. Some scholars called for the establishment of a relatively mature star system as soon as possible, and the use of the "invisible hand" of the market to guide star consumption towards a healthy and orderly direction is also important. [7]

The existing literature of stars is mainly based on three perspectives: regarding stars as "commodities"; The star is regarded as a "symbol" placed in the social system; The star is

regarded as the object of audience desire [2][8][9]. The research focuses on the collation and analysis of historical materials of film and television stars, especially the career carding and life track reproduction of star cases. Some scholars analyzed the artistic performance and social performance of stars in the light of the social and cultural environment at that time [5][6][10]. Through literature review, it is found that cultural research based on stars needs to be furthered, and literature analyzing the status and role of stars in the film and television industry chain based on the current economic background is rare.

Ping Wang (2015) analyzed the "publicity" process of stars' private events from the perspective of new media [11]. Xin Xie (2015) pointed out that film and television stars always adopt two image "self-help" strategies: catering establishment and personalized establishment, under the background of wanton spread of social network information and lack of supervision. Yongzhong Yang et al. (2018) analyzed the strategic choices of actors by using the game model, found the reasons for the low efficiency of China's superstar market based on the institutional perspective [12]. In general, there are few researches on star behavior in the context of new media. The existing literature mainly analyzes the influence of external factors (such as social environment, cultural atmosphere, fans, etc.) on the fermentation of star public opinion events, and has not yet examined the behavior of film and television stars from the perspective of the event subject. The research perspective also focuses on the production, operation and consumption process of stars, lacking interdisciplinary analysis on the governance measures of stars' behavior under the new situation [13].

From the perspective of new media, the frequent occurrence of negative public opinion of film and television stars is a direct manifestation of their anomie online behavior. They have an unshirkable responsibility for the disorder, imbalance and anomie of the industry environment [14] [17]. With the emergence of new formats, some studies have proposed that stars should use scientific and rational thinking to manage their image, and make behavior adjustments in line with the image [18]. Through literature review, it is found that there is a lack of scientific research on the qualitative and quantitative combination of the network anomie behavior of star. At the level of research methods for network anomie behavior, qualitative literature is in the majority, quantitative research mostly adopts questionnaire analysis, and there are many common-sense explanations on the selection of variables, such as gender, age, occupation, education, etc, which makes it difficult to deeply reveal the social mechanism behind the phenomenon. Therefore, this paper expects to build an explanation model of movie stars' behavior based on the assumption of "economic man", and conduct empirical analysis through actual data.

As a rational person, when performing a specific behavior, he will comprehensively

consider all kinds of influences before and after. A rational individual is more inclined to act in a way that can make himself obtain favorable results or meet the expectations of others. Therefore, acts such as trying to break rules will occur [19]. "Film and television star" not only represent the individual star, but also represents an organization. As a symbol, he (she) is a collection of multiple social roles. Their behavior affects the development of the film and television industry, the trend of social entertainment and the trend of thought of the public, as well as the development of the film and television industry, relevant social organizations, online public opinion, consumers and other stakeholders. Therefore, the behavior analysis of film and television stars should consider from the perspective of the comprehensive characteristics of both "rational people" and socially responsible organizations [20].

As for the research on the influencing factors of behavior, the research objects are mainly in consumer behavior, enterprise employee behavior, etc. The research on the behavior of stars is focus on the influence of star behavior on their endorsement brands, endorsement tourism image and consumer behavior. The research on the influencing factors of film and television star behavior is relatively rare. The existing researches mostly establish questionnaires through theoretical analysis, semi-structured interviews and other methods, and find out the influencing factors and paths by using empirical analysis methods [21]-[26]. As a public figure, the film and television star needs to consider the influence of stakeholders on their behavior. This paper uses Wan Jianhua's (1998) definition and classification of non-contractual stakeholders for reference, mainly considering the second level of stakeholders in the definition, including the public, environmental protection organizations, communities, market intermediaries, news media, etc[27]-[31].

Existing literature on film and television stars reveals critical gaps: there's a dearth of systematic research into their behavior within the current socio-economic context, creating a mismatch between frequent negative publicity and the lack of robust governance strategies. Furthermore, studies often prioritize the impact of stars' actions on others over an in-depth analysis of their behavior considering their multifaceted social identities. Consequently, empirical research identifying the factors influencing celebrity conduct is urgently needed.

In summary, existing literature lacks a combination of qualitative and quantitative research on stars. Star groups have the dual attributes of "rational economic people" and representatives of organizations that should fulfill social responsibility. Under the realistic background of frequent negative information, we should to explore the driving factors of frequent negative behaviors of film and television stars. Based on the perspective of non-contractual stakeholders, which is different from the governance mode of laws and regulations, it is expected to use the "hand of the market" to guide stars to review their own

behavior. The empirical analysis adopted in this paper will find out the influencing factors of star behavior more scientifically and reasonably, so as to provide scientific theoretical suggestions for the governance of film and television stars.

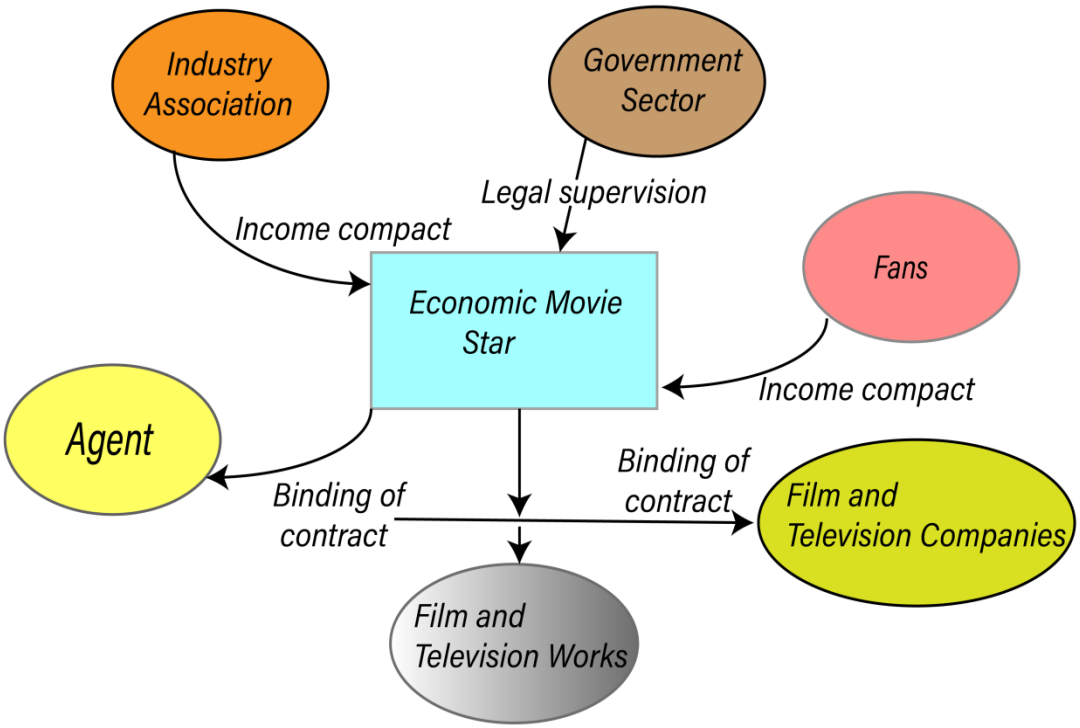

Figure 1; Stakeholder identification of film and television stars

2. Theoretical Analysis and Research Assumptions

The stakeholders of film and television stars can be divided into formal contracts and informal contracts. The stakeholders of formal contracts include brokerage companies, companies, and government regulators, as shown in the dotted line in Figure 1. The stakeholders of informal contracts include audience, netizens and relevant industry associations, as shown in the real frame of Figure 1. Based on the hypothesis of rational economic man, this paper believes that income or interests have a significant impact on the behavior of film and television stars. The amount of income will directly affect their behavior in the next stage. At the same time, stakeholders are also the main factors affecting the behavior of film and television stars in the subsequent stages. Based on this logic, this paper constructs a conceptual model and puts forward research assumptions.

2.1 The relationship between film and television works and income

The income of film and television stars mainly includes film remuneration, advertising endorsement, property auction, various commercial performances, etc. "Film art performance" is star's core competitiveness. Film stars' art performance is formed by the accumulation and precipitation of their art works, and star influence directly determines their income. In terms of the role of the box office, Zhang Peng (2017) empirical research shows that the role of star social performance is greater than that of film art performance. It shows that as a "superstar" with super high income, its high income is not entirely generated by talent differences, and the distribution of artists' publicity resources may also be independent of talent differences. The talent of a superstar is not necessarily higher than that of other artists [32] [33].

Film and television works are the main display of star art performance. The number of works, on the one hand, shows the popularity of stars in the film market, and on the other hand, reflects the market's recognition of star art performance. The more famous a star is, the more he will be invited by the cast, and the higher his income will be. The art performance and their income are the key to guide the behavior of stars.

Therefore, the following assumptions are proposed in this paper:

H1: There is a positive correlation between the number of movie stars' works and their income

2.2 Relationship between industry evaluation and income

According to Maslow's demand theory, stars will begin to pursue higher levels of self-realization such as social reputation when their careers develop to a certain extent. Reputation is an asset. When reputation is good, it can generate profits; Bad reputation will bring losses. The reputation of an actor can only be formed through the comprehensive evaluation of stakeholders in the social network. For micro individuals, long-term reputation will bring benefits to them [34]. In terms of the relationship between reputation and income, some studies believe that the reputation of managers will have a significant negative impact on the stock price in the short term and a significant positive impact on long-term business performance [35]. Some empirical studies also found that high reputation of managers can not significantly improve business performance, while low reputation managers can bring ultra-high or ultra-low performance to enterprises. The annual awards of non-governmental organizations such as film and television industry associations have formed a certain influence in the industry, representing the authoritative reputation evaluation of the industry. Examine the correlation between the current reputation evaluation and the income of the evaluation subject to test the effectiveness of the existing evaluation system in this industry.

H2: There is a positive correlation between the number of winning awards and their income.

2.3 Relationship between network search volume and income

The cultural industry is "attention" economy and an "eyeball" economy. Different from the traditional economic model, the public's attention and the length of its stay on the "focus" become the criteria to measure the success of the "content" operation. As a form of payment for information resources, higher search volume, longer attention time, and greater user engagement can lead to increased potential income. The search volume and click rate become the concentrated embodiment of the network value in the star operation, and attention shows the ‘Matthew effect’ in the film and television star groups. MacDonald believes that the status of a first-line star depends on the visibility of the performers, including visibility on the screen and media coverage of their off screen lives [36]. However, in the long run, it remains to be verified whether blindly attracting "attention" can continue to obtain high returns. At present, the negative information of star groups is emerging in an endless stream. On the one hand, some "high profile" stars are subject to a "ban order" due to illegal acts, and on the other hand, the negative information helps some "low profile" stars rapidly improve their popularity by playing a moral sideline. Therefore, it is of practical significance to explore the relationship between search volume and star income.

H3: There is a positive correlation between online search volume and movie star income.

2.4 Regulation of vermicelli

Fans group is the driving force for the development of the film and television industry. Centered on the stars they worship together, it organizes fan activities regularly and irregularly, improves the popularity of stars and brings benefits to them. It is an important group for maintaining the relationship between stars and their public relations teams. No matter the gender difference of stars, the level of artistic performance, and the positive or negative social image, any individual star has fans. According to Metcalfe's Law, the number of fans in the social network not only means the size of influence, but also represents the value of "fan economy"[37]-[39]. The number of fans is an important factor to measure the value of microblogging. The more fans there are the more attention the star receives from the public. Some studies believe that the joining of stars is conducive to improving the box office revenue, which mainly depends on the display of personal life and the promotion of popularity to accumulate fan traffic. For film and television stars, the formation of fan groups begins with the widespread recognition of a good work, and the quality of the work determines the possibility to winning awards in the industry, thus affecting their income.

Therefore, fans play a regulatory role in this process. To sum up, the logical framework of this paper is shown in Figure 2.

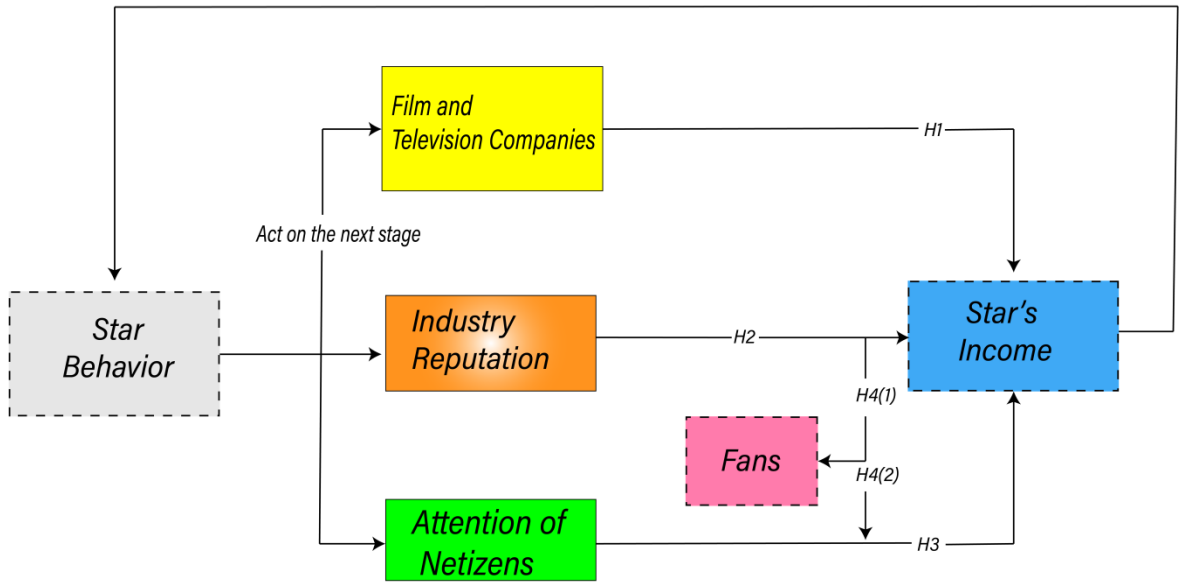

Figure 2; Logic diagram of the study

H4.1: The number of fans plays a positive role in regulating the relationship between industry evaluation awards and their income.
H4.2: The number of fans plays a positive role in regulating the relationship between online search volume and income.

3 Research Design

3.1 Data source and sample selection

In 2018, China's film and television industry faced a crisis and experienced major adjustments. In order to show the problem of stars, the research object of this paper was set before 2018.The research objects of this paper are selected from the top 100 Forbes Celebrity List, and screen the stars who have been on the list for more than four consecutive years. In the process of data collection and sorting, it is found that the number of movie stars who have been on the list for three to five consecutive years is about 40, and the number of movie stars who have been on the list for more than six consecutive years is less than 30. So finally, 40 movie stars who have been on the list for five consecutive years are all current first-line

movie stars, It also shows that the career peak of first-line stars lasts for short time, and the "popularity" of young idol stars leads to the rapid upgrading of the industry. So, this paper takes the income of stars from 2013 to 2017 as the explanatory variable, and constructs the panel data of 200 samples for research.

As shown in Table 1, the top 100 Forbes celebrities are distributed in eight industries, including stars, directors, and singers, hosts, and sports stars. Among them, film and television stars account for the highest proportion, and the number of people on the list is increasing year by year, which shows that stars are a highly paid professional group.

Table 1 Distribution of People in Different Industries on the Forbes Celebrity List (2013-2017)

Industry / Year	Performer	Director	Singer	Host	Sports star	Model	Quyi Artist	Writer	Total
2013	60	2	23	3	4	1	5	2	100
2014	62	1	22	5	2	2	4	2	100
2015	67	2	21	2	2	1	3	2	100
2016	71	2	14	4	2	2	4	1	100
2017	76	2	14	3	1	2	1	1	100

Using Liu Liying (2013), Vinegar Weihua (2015), Jin Xuejun (2015) and other research methods for reference, the star award data comes from the total number of awards of China TV Golden Eagle Award, Shanghai TV Festival Magnolia Award, China TV Drama Flying Award, China Film Huaibei Award, China Film Golden Rooster Award, and Popular Film Hundred Flowers Award. The average value of Baidu index corresponding to the time period is selected as the number of Internet users searching. The number of fans mainly comes from the data collection of Sina Weibo [35] [40] [41].

3.2 Model design and variable definition

This paper uses the short panel data analysis module of Stata software to consider the correlation between non-contractual stakeholder factors and income. The annual income earning of 40 first-line movie stars from 2013 to 2017 is selected as the explained variable.

There are three explanatory variables: Works, Prize and Search.

The panel data model is built as follows (1):

$$\text{Earning}_{it} = \alpha_t + \beta_1 Works_{it} + \beta_2 \text{Pr}ize_{it} + \beta_3 Search_{it} + \mu_{it} (1)$$

Analyze the change trend of influencing factors, introduce the square term, and construct the model as shown in Formula (2):

$$\text{Earning}_{it} = \alpha_t + \beta_1 Works_{it} + \beta_2 \text{Pr}ize_{it} + \beta_3 Search_{it} + \beta_4 Variables_{it} * Variables_{it} + \mu_{it} \quad (2)$$

MacDonald's film research shows that the first-line star group is not only restricted by economic status, but also by gender, race, age and other factors [35]. Therefore, four control variables are defined to indicate the number of fans, age, gender and whether they cross the border, and their regulatory effects are investigated. The construction model is as shown in formula (3):

$$\text{Earning}_{it} = \alpha_t + \beta_1 Works_{it} + \beta_2 \text{Pr}ize_{it} + \beta_3 Search_{it} + \beta_4 \text{Controls}_{it} + \mu_{it} \quad (3)$$

In order to analyze the impact of control variables on income, cross item analysis is introduced to build a model as shown in Formula (4):

$$\text{Earning}_{it} = \alpha_t + \beta_1 Works_{it} + \beta_2 \text{Pr}ize_{it} + \beta_3 Search_{it} + \beta_4 Variables_{it} * \text{Controls}_{it} + \mu_{it} \quad (4)$$

4 Empirical Results and Analysis

4.1 Descriptive statistical analysis

Table 2 is the correlation coefficient matrix between variables, which shows that: income is significantly positively correlated with search volume; some control variables are significantly correlated, but the correlation coefficient is small, and There is no evidence of multicollinearity, as the correlations between the explanatory variables and the control variables are weak, suggesting that multicollinearity is not a concern in this analysis. In the regression analysis, the expansion factor of each variable was close to 1 (mean 1.02), far less than 10, which also ruled out the multicollinearity problem.

Table 2 Matrix of variable correlation coefficient

variable / Variable	Earning	Film and Television works	Prize	Search volume	Sex	Age	Fans	Cross
Earning	1.000							
Works	-0.0017 (0.9813)	1.000						
Prize	-0.0520 (0.4644)	0.0767 (0.2806)	1.000					
Search	0.3273*** (0.0000)	0.1431* (0.0432)	0.0588 (0.4081)	1.000				
Sex	0.0541 (0.4469)	0.1529* (0.0306)	-0.1724* (0.0146)	-0.1701* (0.0161)	1.000			
Age	0.2447*** (0.0005)	-0.1974* (0.0051)	-0.1703* (0.0159)	-0.2389*** (0.0007)	0.4346*** (0.0000)	1.000		
Fans	0.2484*** (0.0009)	0.0971 (0.2010)	0.1560* (0.0393)	0.5229*** (0.0000)	-0.4848*** (0.0000)	-0.3670*** (0.0000)	1.000	
Cross	-0.0049 (0.9451)	-0.2340*** (0.0009)	0.0006 (0.9930)	-0.1551* (0.0284)	-0.1791* (0.0112)	0.2600*** (0.0002)	0.0954 (0.2093)	1.000

Note: P value of significance of correlation coefficient in brackets. *, * **** It is significant at 10%, 5% and 1% levels respectively; the same below

As shown in Table 3, the maximum income of film and television stars in the sample is 330 million yuan and the minimum is 8 million yuan, indicating a large income gap within the industry. Film and television stars shoot nearly 3 films and television dramas every year, and some stars shoot up to 10 films and television dramas every year. Some stars can still enter the ranks of first-line stars without excellent film and television works. The average age of the 40 film and television stars is nearly 40 years old, with the maximum age of 63 years old and the minimum age of 24 years old, indicating that high-income film and television stars are concentrated in young and middle-aged groups. In terms of search volume and number of fans, there is a large difference between the maximum value and the minimum value, and the standard deviation is large, showing high attention and concentration on a small number of "superstars".

Table 3 Descriptive Statistics of Variables

Project / Variable	Mean value	Standard deviation	Maximum value	Minimum value
Earning	5823.375	4740.486	33000	800
Works	2.73	1.89076	10	0
Prize	0.485	0.8386247	4	0
Search volume	28355.88	31851.96	238533	3013
Age	39.4	7.55815	63	24
Fans	3035.977	2132.153	8493	120

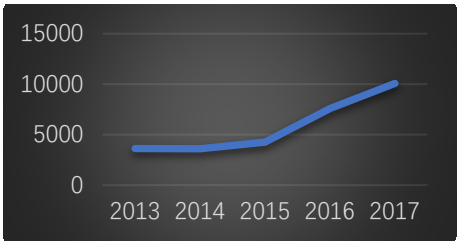

Figure 3.1 Trend of average income

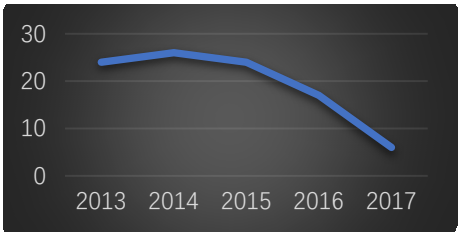

Figure 3.2 Trend of Total Awards

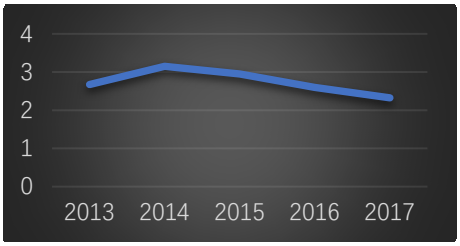

Figure 3.3 Trend of the number of works per capita

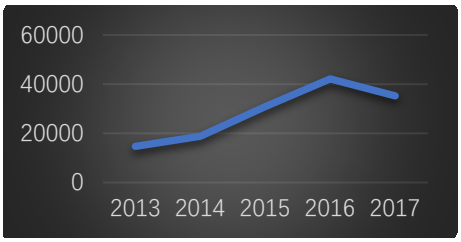

Figure 3.4 Trend of search volume per capita

Figure 3; Trend chart of descriptive statistics

Figure 3 summarizes the descriptive statistical trend of each variable: the trend chart of average income per capita Figure 3.1 shows that the average income began to grow in the third year, and the growth accelerated in the fourth and fifth years; As shown in Figure 3.2, the total number of awards remained stable in the first three years and decreased significantly in the fourth year; As shown in Figure 3.3, the number of works per capita changes slightly, but from the overall trend, the decline is obvious in the fourth year; The trend chart of per capita search volume shows Figure 3.4 that the search volume of listed stars has increased significantly since the third year, peaked in the fourth year, and then began to decline slowly.

On the whole, Figure 3 shows that in the first two years after joining the list, the number of works and awards of film and television stars have significantly increased. After two years of

accumulation, the income and search volume have increased significantly. In the process of data collation, it was found that the period of stars entering the list was about 3-6 years, and the data showed that after 2-3 years of accumulation, the income and search in the fourth year would increase significantly. Influenced by the constant addition of new stars, the search volume will slowly decline after reaching the peak in the fourth year.

4.2 Regression analysis

To assess the moderating effects of control variables, we analyze their interaction terms with key explanatory variables. The results reveal that the number of fans significantly amplifies the positive relationship between awards, search volume, and income, supporting H4. In contrast, age exhibits no discernible moderating role. The findings underscore the importance of fan engagement as a regulatory mechanism in shaping creator income dynamics as shown in table 4.

Table 4 Regression Analysis of Panel Data without Interactive Items

Variable	M1	M2	M3	M4	M5	M6	M7	M8
Works	-27.90132 (-0.16)			-88.815 (-0.57)	106.0055 (0.59)			65.40634 (0.36)
Prize		-824.6069* (-2.15)		-664.484* (-2.42)		-316.4098 (-1.10)		-421.8601 (-1.20)
Search			0.0530158*** (4.37)	0.0521** (2.95)			0.0438365** (2.96)	0.0446127** (2.99)
Fans					1.741141*** (6.33)	1.710936*** (4.19)	1.218533*** (4.24)	1.208111*** (4.17)
Age					461.7939*** (5.37)	436.3917*** (5.08)	395.8611*** (5.12)	392.5518*** (4.90)
Sex					508.6696 (0.35)	556.7986 (0.36)	721.1749 (0.55)	588.8549 (0.44)
Cross					-2512.41	-2478.02	-1703.25	-1656.26

					1 (-1.85)	9 (-1.46)	1 (-1.38)	4 (-1.33)
Cons	5899.546*** (8.48)	6223.309*** (33.51)	4320.064*** (9.89）	4910.06*** (9.42)	-17181.38*** (-5.08)	-15696.45*** (-4.73)	-14333.8*** (-4.81)	-14109.71*** (-4.39)
R-Squared	0.004	0.0262	0.1072	0.1346	0.4560	0.4444	0.3855	0.3919
Fixed effect	No	Yes	Yes	No	No	Yes	Yes	No
F/w	0.02	4.64	19.08	15.21	69.31	52.58	74.82	76.37
P	0.8755	0.0375	0.0000	0.0016	0.0000	0.0000	0.0000	0.000

Note: the t/z value of coefficient significance test in brackets

Model 1 show that there is no significant correlation between their income and the number of works, and the original hypothesis H1 is rejected;

Model 2 shows that there is a significant negative correlation between the income and the total number of awards. It rejects the original hypothesis H2, which indicates that the current reputation mechanism is not a good incentive for stars.

From Model 3 and Model 7, it can be seen that the income is significantly positively correlated with the amount of internet search, and the results verify the hypothesis H3. Model 11 shows that the square term of network search volume is significantly negatively correlated with income, indicating that the impact of search volume on revenue is marginal decreasing, that is, an inverted U shape. This result shows that attracting network attention and increasing search volume can significantly affect revenue in a short period of time, but the impact will weaken in the long run, and will form a negative impact in the later period. This conclusion guides film and television stars to focus on improving the level of performing arts from a long-term perspective, and the short-term "eyeball effect" will not last long.

As shown in Table 4, Model 5-Model 8 shows that the R-Squared of the equation is significantly improved from 0.004 to about 0.4 after adding control variables. Among the four control variables, number of fans, age, gender and whether they cross the border, the coefficients of the two variables, gender and whether they cross the border, are not significant, so they are eliminated. The other two control variables are multiplied by the two significant explanatory variables to obtain the corresponding interaction terms for further analysis.

As shown in Table 5, Model 12 and Model 14, after adding the control variable (number of fans) to form the interaction item, the number of awards and search volume have a significant positive correlation with the interaction item formed by the number of fans and the income. It

shows that the number of fans plays a positive role in regulating the negative impact of their awards on income, and also plays a positive role in regulating the inverted U-shaped impact of their search volume on income. It proves that the number of fans, as a control variable, plays a positive role in regulating the impact of awards and online search volume on income, which verifies hypothesis H4. Models 13 and 15 indicate that the original variable's coefficient becomes statistically insignificant after introducing the interaction term with age, suggesting that age does not exert a significant moderating effect.

Table 5 Regression Analysis of Panel Data with Interactive Items

Variable	M9	M10	M11	M12	M13	M14	M15
Prize	-674.3088* (-2.56)	-551.6345 （-0.61）	-786.0342*** (-3.25)	-1636.464*** (-3.19)	0.8499739 (0.00)	-880.1004*** (-3.18)	-605.0455*** (-2.85)
Search	0.0515752** (2.96)	0.051715** （2.89）	0.138733*** （4.13）	0.0664931*** (3.35)	0.0511628** (2.91)	0.0996597*** (2.9)	-0.323192 (-0.36)
Prize*Fans				0.247787* (2.13)			
Prize*Age					-18.44832 (-0.27)		
Search*Fans						0.0000195*** (2.67)	
Search*Age							0.0047873* (2.00)
Square of Prize		-47.15852 （-0.17）					
Square of Search			-5.26e-07*** （-3.55）			-1.09e-06*** （-3.93）	-5.27e-07** （-3.40）
Cons	4687.955*** (9.27)	4668.588*** （8.16）	3224.151*** （5.85）	4375.02*** (8.30)	4704.911*** (8.61)	2947.613*** (5.05)	2914.664*** (5.25)

R-Squared	0.1339	0.1347	0.2062	0.1714	0.1372	0.3322	0.2148
Fixed effect	No	No	No	No	No	No	No
F/W	14.91	16.12	27.98	23.18	15.37	34.6	23.94
P	0.0006	0.0011	0.0000	0.0000	0.0015	0.0000	0.0001

Note: the t/z value of coefficient significance test in brackets

5 Research conclusions and enlightenment

This paper draws the following conclusions:

1. Film and television stars are super high income groups, accounting for 76% of the Forbes Celebrity List in 2017, up from 60% in 2013. However, some film and television stars have no outstanding works, which have been listed for several consecutive years. There is no significant correlation between the number of film and television works and income. In addition, the income gap among first-line film and television stars is large, and high attention is focused on a few "superstars".

2. The factors that have a significant relationship with income are the main factors that can affect the behavior of movie stars. The number of Internet searches and awards is significantly related to the income; as a control variable, the number of fans has a significant positive regulatory effect. Therefore, the influencing factors of star behavior based on the perspective of non-contractual stakeholders include: network search volume, number of awards, and number of fans.

3. There is a significant negative correlation between the number of awards and income. From the data of five years, there is a significant negative relationship between the number of awards and income, but there is no significant correlation between the number of works and income. It reflects that after becoming popular and rising in value, film and television stars often turn to advertising projects and variety shows that they can obtain more attention and income, indicating that there is a pathological cultural symptom driven by interests in the film and television industry. On the other hand, it also reflects that various award evaluation mechanisms have lost their restraint and incentive effect on stars. China's evaluation system and reputation mechanism for film and television stars are lagging behind.

4. The relationship between search volume and income is inverted U-shaped. It shows that making headlines and increasing search volume can increase "attention" in the short term, which will lead to an increase in income. However, the marginal effect of search volume decreases, which will have a negative impact in the long run.

5. The number of fans has significant positive regulation. The number of fans of stars plays a

positive regulating role in the negative impact of their awards on income, and also plays a positive regulating role in the inverted U-shaped impact of their search volume on income, proving the obvious "fan economy" characteristics of the film and television industry.

Based on this, this paper draws the following inspiration:

1. Pay attention to the influence of stakeholders in non-contractual relationships on star behavior. The film and television industry is in a period of rapid development, and there are many non-standard behaviors. On the one hand, it is necessary to restrict the behavior of film and television stars, their enterprises and brokers through administrative forces such as taxation and enterprise acquisition supervision. On the other hand, it is necessary to encourage directors and stars to produce good works through the guidance of social environment and values, so as to force stars to restrict their behavior.

2. Gradually establish a reputation mechanism for film and television stars. Some scholars believe that reputation can be maintained through "self-implementation" mechanisms. Reputation mechanism refers to that a party with reputation will limit its own behavior under certain rules in the transaction. If there are too many standards and the level of awards is not high, the reward and punishment mechanism within the industry will lose its incentive and punishment effects. Therefore, we should gradually establish the reputation mechanism of film and television stars on the basis of practical achievements of countries where the film and television industry started earlier, and in combination with China's national reality.

3. Stars need "craftsmanship", and eyeball effect is not conducive to long-term development. With the commercialization and entertainment of film and television culture, the positive correlation between stars' popularity and their performance ability is becoming weaker and weaker. In the future, the level of performing arts should become the most important indicator to measure the value of film and television stars, whether their works have increased social positive energy is also important. "Benefit first" is not only detrimental to the career development of film and television stars, but also affects the healthy development of the industry.

4. The government should improve the literacy of internet users and strengthen the supervision of online public opinion. One of the important reasons for the high returns of stars is the "fan economy". If the supervision is not effective, individual stars and media will take advantage of netizens' psychology of peeking at the life information and privacy of stars, and even create eye-catching information. Therefore, while strengthening the cultivation of internet users' literacy, the media also need to shoulder social responsibility. The government should guide fans to pursue stars rationally, and provide a healthy media environment for the development of the film and television industry.

The limitation of this paper is that there are many factors influencing the behavior of stars, but relatively few data are available, so multiple index data need to be added for multi-dimensional consideration. Future research will explore the influencing factors of star behavior from various aspects, and conduct research on the governance of stars' behavior.

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