

How to Compute the Commercial Value of Idols?

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Abstract: Commercial cooperation with artists is an important means to boost business revenues and increase corporate visibility, but there is controversy over the role of “cultivating idols” in academia. This article computes idols’ business value, considering the event of cooperation between “cultivation idols” and listed companies in China. The empirical results show that: (i) Commercial cooperation with nurturing idols can effectively improve corporate performance; (ii) Commercial cooperation with nurturing idols can have an impact on company performance for two quarters. It was further discussed that choosing a foster idol with higher fan activity, a larger proportion of women and teenagers in the fan group, and higher national recognition is more conducive to driving corporate performance.

Keywords: nurturing idols; corporate performance; business cooperation

1. Introduction

In recent years, China's major video websites have been competing to create a new type of talent show-idol development program. More representative programs are “Idol Trainee” launched by iQiyi and “Sons of Tomorrow” launched by Tencent Video. The idol development program highlights the growth of the players through long-term development, and shows the players' personal characteristics and personality charm during the growth process. These players have gradually become the super idols in the minds of many Chinese teenagers. They are a special kind of entertainment star—to form an idol. More successful nurturing idols include Cai Xukun and Wang Yuan. Many companies have begun business cooperation with nurturing idols to gain the favor of more teenagers. This article attempts to answer the following questions: What is the commercial value of China's nurturing idols? Can the sales of the products of the cooperative enterprises be increased rapidly?

The nurturing idol is a type of entertainment star that has appeared in China in recent years. They rely on idol-cultivating variety shows, relying on fans to “develop idols”, that is, idols who are witnessed by audiences or fans and participate in their entire process from amateur to entertainer.

Compared to the early draft shows in the Chinese entertainment market, the current “cultivation” shows have undergone some changes. First, the emphasis of the program. The traditional talent show is aimed at outputting high-quality “singers” and “actors”, and the foster talent is aimed at creating “idol”. From the single stage competitive performance of traditional talent shows to singing and dancing A reality show that focuses on the private communication, training, and emotional expression of trainees, and puts more emphasis on the emotional experience of “emotional companionship” and “participatory growth”. Second, the role changes the audience. Such as “Super Girl”, “Fast Man” and “Come on!” In early draft shows such as “Good Boy”, the “judges” played a decisive role in the promotion of the players. Only after entering the semi-finals can the audience influence the results of the election. “The program is different. The audience has the right to control the life and death of the players from beginning to end. The audience has changed from participants to decision makers, and their status and psychological satisfaction have been greatly improved. Third, the transformation of the carrier. For example, in 2005, the popular talent show “Super Girls”, because the media carrier and TV programs were very limited at that time, the cost of interaction between the draft and the fans was very expensive. It was necessary to participate in the interaction through complex operations such as SMS and phone calls. The emerging “cultivation system” programs, such as “Idol Trainee”, “Creation 101” and “In the name of the group”, the broadcast of these training programs is based on iQiyi, Tencent, Youku and other online videos on the platform, the time and money costs for fans to participate in the production of idols through the Internet have been greatly reduced, and a variety of fan economic forms have been derived. Fourth, the change of the carrier leads to the change of the audience. Nowadays, the majority of new media users on the online platform are from the “post-90s” to “post-00s” youth groups, so the draft has also changed from full-age to “customized programs” with 20-30 years as the main target group. Because the audience of the program is limited to “teenagers”, the stickiness and loyalty of the audience of the program are greatly improved.

A variety of studies have confirmed from different disciplines such as psychology, communication, and economics that commercial cooperation with stars is

conducive to improving corporate performance and corporate visibility. Phua, Jin, and Hahm (2017) confirmed through experiments that celebrity endorsements also score significantly higher in credibility, professional skills, goodwill, and attractiveness than non-celebrities, making it easier for consumers to increase their purchase intentions [1]. Amos, Holmes, and Strutton (2008) found that celebrity endorsement will increase consumers' trust in the brand, make consumers have a positive impact on brand attitudes, and thus increase consumers' willingness to buy [2]. Bhutata and Rollins (2015) divided celebrities into experts and celebrities. Through the analysis of questionnaires, it was found that celebrity endorsements attracted consumers' attention and stimulated consumers' desire to buy more than expert endorsements. It also said that the gender of the spokesperson will not affect consumers' willingness to buy [3].

Hoegele, Schmidt, and Torgler (2016) used psychology and sociological theory surveys to find that female fans pay more attention to the appearance, character and behavior of star spokespersons, which makes it easier to produce buying impulses when meeting psychological needs [4]. Winterich, Gangwar, and Grewal (2018) use power distance beliefs (PDB) theory to show that the power distance between celebrities and fans is closer. Fans hope to obtain the right of group discourse through consumption and are more prone to consumption [5].

Erfgen, Zenker, and Sattler (2015) refer to the fact that although many brands like to use celebrities in their advertisements, they are also worried that the negative news of celebrities will overshadow the brand and thus damage the brand's image as the vampire effect [6]. Bartz, Molchanov, and Stork (2013) concluded that cooperation with taint stars would have an adverse effect on corporate performance. However, some scholars have put forward opposite views on the impact of star scandals on corporate performance [7]. Um and Kim (2016) explored consumer perceptions of the associativity between celebrity spokespersons and brands, the consistency between celebrity spokespersons' negative information and their recognized brands, and the impact of consumer brand commitment. The results of the study show that the consistency or "fit" between the negative information of celebrity spokespersons and the recognized brands will affect consumers' brand and purchase intentions. Due to the strong association between brands and celebrity spokespersons, the negative of spokesperson News leads to lower brand evaluation and lower willingness to buy. Consumers with a higher level of brand loyalty are less likely to have negative reactions to negative news from celebrities than consumers with lower loyalty [8].

The previous studies have been very informative about the influence factors, mechanism, and effects of the performance of spokespersons and companies, but there are still some research perspectives and research objects. For example, although most of the literature has shown that "star endorsement "Enterprise performance has a significant impact", but in the current study, most of the celebrity effect research objects are traditional stars, not nurturing idols. China has low recognition of the

commercial value of nurturing idols. Whether nurturing idols are like traditional stars can improve corporate performance; to what extent will nurturing idols affect corporate performance, this article will also start from the above issues to discuss.

2. Theoretical Framework and Research Hypotheses

Commercial cooperation with entertainers is a marketing strategy adopted by many companies today. As far as the impact of the cooperation itself on business operations is concerned, it is mainly manifested in the following aspects: First, cooperation with entertainers can effectively attract and keep consumers' attention. Because entertainers have strong social appeal and influence, when cooperating with an entertainer, endorsing or promoting a certain product, the product will soon be able to spread at the public level, gaining more ordinary consumers and its own fans' attention, and then the visibility of the company, brand or product will increase, the business income and market share will increase. Secondly, brand cooperation with entertainers can enhance the communication effect of publicity and stimulate consumers to imitate the artist's brand choices, thereby generating positive and active communication and increasing the loyalty of ordinary consumers to the brand. Finally, the commercial cooperation between enterprises and entertainers also sends a signal to the market that the company has strong economic strength and has a long-term business vision, thereby facilitating business transactions in the market.

Therefore, what type of celebrity companies choose to cooperate with can achieve higher performance at less cost, and it has become the top priority of business cooperation.

This article uses the corresponding data disclosed by China Entertainment Index Network to analyze the popularity index, number of active fans, professional index, word-of-mouth index and other related data of the top 50 cultivated idols and the top 50 actors or singers. Statistics and analysis show the data in Table 1.

Table 1. Comparison of key data between cultivated idols and traditional artists

	Heat index	Active followers	Professionalism index	WOM index
cultivation idols	48.73	13232	68.1	68.54
traditional entertainers	68.44	11648	81.7	80.34

It can be seen from the table that the average popularity of cultivated idols is 48.73, which is much lower than that of actors and singers. When companies choose co-stars, they often only see indexes such as popularity, word of mouth, and average professionalism, ignoring the cultivation of idols. In the process of participating in "making idols into idols", fans can determine the fate of idols through consumption. This method of publicity and production attracts specific fan groups. The fan group is mainly composed of teenagers and women. There are documents showing that teenagers and women have stronger purchasing power than other groups; finally due to the small size of the growing idol, the cost of

commercial cooperation with it is lower, and its publicity action is mainly on new media platforms, which is less expensive than traditional TV media. In general, the growing idol fan the purchasing power is strong, the cost of publicity is low, and the cost-effectiveness of cooperation with the idols of the cultivation department is higher than that of the traditional artists. Because the popularity of the cultivation department and the national recognition are lower than that of traditional singers and actors, it has a greater role in driving corporate performance depends on fans for purchase, so the cultivated idols with more active fans have a stronger ability to drive performance for the company.

Therefore, this article puts forward the hypothesis: Commercial cooperation with nurturing idols has a significant positive impact on corporate performance.

3. Empirical Strategies

3.1. Model

This research aims to explore whether the cooperation between the company and the nurturing idol can significantly improve the company's performance, that is, whether the cooperation leads to high performance and the strength of this causal relationship. This research believes that although the experimental method is more scientific, it is limited to cost and capacity issues. This research will not consider it for the time being, and because the object of this article is an enterprise, since the probability of cooperation with any cultivated idol is roughly the same. It can enable the companies in each sample to be randomly assigned to the experimental group and the control group. It can be seen that the grouping level of such samples is completely determined by natural experiments, that is, this research has a quasi-natural experimental environment. In the choice of method, due to the natural experimental environment mentioned above and in order to avoid the endogenous problem, this article did not choose the general linear regression model as a means of data processing, but used the method of difference-in-difference (DID), Which makes the estimated results more scientific and accurate, which is also an innovation in the method of this research.

This article will select that within the same period of time, there are products in the company that cooperate with the idols of the cultivation system, and control that the company will not experience rapid changes in sales due to external factors such as mergers and acquisitions and quality crises. The situation, and then explore the changes in the business income of the company. Due to the stability of factors such as the popularity of the idols, word-of-mouth, and other factors, there are currently major disputes, and there is currently no consensus on this issue in the academic and practical circles. Therefore, in real life, among them, most companies will choose short-term (quarterly) cooperation to ensure that the cooperation effect will not be affected by uncontrollable factors during the cooperation period. When the cooperating idols have vicious emergencies that greatly affect the reputation and popularity, short-term cooperation it can stop the loss in time and will not bring more adverse effects to the

company. The empirical research part of this article will also follow this time rule, taking the time of the company's first official announcement and the development of idols on social platforms as a node and studying the quarterly data where the node is located, and the changes in related variables of the quarterly data where no cooperative behavior has occurred.

This article will use the DID method to identify the impact of business cooperation between a company and a growing idol on the company's operating income. We will examine the extent to which this behavior will affect the company's operating income. The model is as equation (1):

$$Y_{st} = \alpha + \beta D_{st} + \delta X_{st} + A_s + B_t + \varepsilon_{st}, s=1,2,\dots,19; t=2017q1,\dots,2019q4 \quad (1)$$

where Y_{st} is the logarithm of operating income in the quarter t , A_s and B_t represent firm individual and quarterly fixed effects respectively, and X_{st} represents the control variables. The key variable D_{st} is a dummy variable, that is, it is set to 1 in the quarter when the companies conducts business cooperation with the cultivation idol, and it is set to 0 in the non-cooperative quarter.

3.2. Variable Definitions

The data model of this study will involve three types of variables, namely the dependent variable: corporate performance; independent variable: the quarter in which the company cooperates with the nurturing idol; control variables: corporate total assets, inventory turnover, sales expenses, and macro environment. As shown in Table 2.

Table 2. Variable Definitions

Variable name	Variable definition
Business Performance	Business income
Season of cooperation with growing idols	Cooperative quarter is 1, non-cooperative quarter is 0
Total assets	The total assets of the enterprise
Inventory turnover	The ratio of operating cost to average inventory balance
Sales expense	Current sales expenses
GDP	GDP

This article uses corporate operating income as a proxy variable of corporate performance.

The control variables in this article include total assets, inventory turnover, sales expenses, and GDP. This article uses GDP to measure the macro environment.

3.3. Data

Considering that the unit price of fast-moving products is lower, they are products with greater demand elasticity, which are more affected by the star effect and the effect is more obvious. Therefore, this article selects listed fast-selling product companies as the research object, and in order to ensure the quasi-natural experiment environment of this research, we purposefully select companies with roughly the same probability of cooperation with the idols of the cultivation system.

Considering the cyclical and continuity of the cooperation between the nurturing idol and the company, in this paper, we conduct manual searches on social platforms such as Baidu and other search engines, Weibo, and Douban, and select incidents of business cooperation

between idols and companies that meet the research standards. First search for the full name or abbreviation of the listed company to confirm whether it has had a cooperative relationship with the idols in a certain period of time; then perform a combined search of the company name and artist name to determine the specific endorsement time. Information sources include various websites and social platforms such as the company's official website, Weibo, and Douban. In addition, this article is based on the collected samples of nurturing idols and cooperation time, according to their industry and company size to find companies that have not cooperated with nurturing idols as matching samples, and the time of matching samples is as long as possible. It is consistent with the time selected by companies in similar industries in the experimental sample.

In the selection of specific data, to control the differences in the time period of different sample objects, the celebrity endorsement events that occurred between 2017 and 2019 were uniformly selected, and the samples were further screened on this basis. First, samples with missing data have been deleted, such as data missing due to a listed company being acquired within the selected time period or the latest data has not yet been released. Second, we deleted the samples of companies that collaborated with multiple idols or ordinary artists in the same period. Third, we deleted samples that had other major events (such as major investments, dividends, mergers and acquisitions, etc.) during the sample selection period. After screening, this article finally selected 19 listed fast-moving product companies that have commercial cooperation with cultivated idols as samples, and collected data for each company from the first quarter of 2017 to the fourth quarter of 2019, a total of 12 quarters. A total of 204 observations were obtained. However, the time nodes for business cooperation between various companies and the idols of the cultivation system vary, as shown in Table 3.

Table 3. Time of cooperation between companies and idols

Company Name	Cooperation time	Company Name	Cooperation time
WHITE CLOUD MOUNTAIN	2019.Q2	GUANG MING MILK	2019.Q2
PROYA	2019.Q2	WAN MEI	2019.Q3
HAO XIANG NI	2019.Q1	XIANGPIAOP IAO	2019.Q3
JAHWA	2019.Q3	JIUYANG	2019.Q1
YU JIA HUI	2018.Q4	BY-HEALTH	2018.Q3
TSINGTAO BEER	2019.Q4	CHJ JEWELLERY	2019.Q1
METERSBON WE	2019.Q3	ZHUJIANG DRAFT BEER	2019.Q2
SUPOR	2019.Q3	YILI	2019.Q3
ZHOUDASH ENG	2018.Q3	THREE SQUIRRELS	2019.Q3
ASD	2018.Q3		

On the basis of the selected samples, in the process of searching for specific index data, since the brand cooperation of developing idols is mostly 3 months (quarterly) cooperation, control variables (enterprise total assets, inventory turnover rate, sales expenses) data come

from the quarterly reports published by Yingwei Finance, Sina Finance, and the superior companies; the current quarterly value of macroeconomic GDP for the corresponding time period comes from the National Bureau of Statistics; the comprehensive popularity index and number of active fans for the development of idols come from China Entertainment Index Network.

4. Empirical Analysis and Results

4.1 Regression Results

In this study, the DID method was used to estimate the impact of cooperation with nurturing idols on corporate performance. But in the use of the DID method needs to meet three premise assumptions. One is that different companies enter the intervention group or the experimental group randomly, which has been discussed earlier. The second is that the experiment or processing variables are not related to other variables that may affect the results of the experiment. The previous article also included variables such as total enterprise assets, inventory turnover, sales expenses, and macro environment to reduce the endogenous problems that may arise from the model. Third, even if no experiment exists, the time trend of the control combination experiment group should be the same. That is, the parallel trend test will be Discuss at the end of this section. This study uses Stata 15.0 to regress the collected data, and the results are presented in Table 4.

Table 4. Effect of cooperation with cultivated idols

	(1)	(2)	(3)	(4)
Season of cooperation with idols	0.30* (-5.1)	0.17* (-3.2)	0.17* (-3.3)	0.12* (-2.5)
Log(total assets)		0.05 (-0.9)	0.06 (-1.0)	0.07* (-1.6)
Log(sales expense)		0.66* (-3.9)	0.64* (-3.7)	0.72* (-5.5)
Inventory turnover		0.08 (-1.6)	0.09* (-1.8)	0.06 (-1.4)
Log(GDP)			0.09 (-0.3)	0.16 (-0.4)
Individual effect	Yes	Yes	Yes	Yes
Quarterly effect	Yes	Yes	Yes	Yes
Constant	2.79* (-508)	1.60* (-9.5)	0.46 (-0.1)	-0.53 (-0.1)
Obs	204	188	188	188
Within R ²	0.10	0.50	0.50	0.54

Notes: * means significant at the level of 1%; t statistics are in parentheses.

In the regression results of these four columns, we all control the individual effect of the company, and the coefficients of the core variable “the quarter of business cooperation between the company and the cultivation idol” are all positive. And it is statistically significant at the 1% level, indicating that the strategy of “business cooperation with idols to raise product sales and business income” is effective. Column (1) does not include control variables. The results show that the sales revenue will increase by 30% in the season when the company and the idols of the fostering department conduct business cooperation. This

result obviously overestimates the effect of business cooperation between the company and the idols of the fostering system on sales and corporate operating income.

Therefore, we added the control variables of the enterprise itself in column (2), and further added environmental control variables in column (3). The results of the two columns are roughly the same. Among them, the coefficients of the core variable “whether the company engages in commercial cooperation with the idols of the cultivation system” are 0.179 and 0.174. Moreover, the R^2 within the group is also greatly improved than the result in column (1), indicating that the regression result becomes more reliable after the control variable is introduced. In column (4), we further controlled the quarterly effect, and the R^2 within the group further rose to 0.546. It can be found that the regression result in column (4) is the most accurate. The coefficient of the core variable in this column is 0.125. Therefore, it can be considered that the strategy of commercial cooperation with the development idol can increase the company's operating income by 12.5% in the current quarter.

4.2 Parallel Trend Test

As mentioned above, the use of the DID method needs to satisfy a basic assumption, the parallelism assumption. The treatment group and control group should have the same growth rate of the dependent variable before the treatment. Only in this way can the counterfactual situation of the treatment group be calculated based on the value after the event in the reference group, and the average treatment effect can be obtained by subtraction. However, since the time node for the business cooperation between the company and the cultivation idol is not unified in a certain quarter, that is, it is impossible to confirm which quarter the control group will be 1, so the author can no longer verify the parallel trend according to the ordinary DID method. Therefore, this article introduces the following equation:

$$Y_{st} = \alpha + \beta_1 D_{st}^{-10} + \beta_2 D_{st}^{-9} + \dots + \beta_{14} D_{st}^{+5} + A_s + \beta_t + \varepsilon_{st} \quad (2)$$

Among them, the processing variable D_{st} is 1 when the enterprise s cooperates with the idols of the cultivation department, and it is 0 in any other cases. The superscript of the core variable D_{st} indicates the advance and lag items of the event. For example, D_{st}^{-1} indicates 1 in the first quarter of the business cooperation between enterprise s and the idol of the cultivation system, and 0 in other quarters; D_{st}^{+2} means that when the company s said that the company will take 1 in the second quarter after the company has entered into commercial cooperation with the idols of the cultivation system, and it will take 0 in other quarters. D_{st}^{-10} to D_{st}^{-1} are the advance terms of the event, describing the effect of the event in the j^{th} year before the event. If $D_{st}^{-10} = D_{st}^{-9} = \dots = D_{st}^{-1} = 0$, it means that the cooperation with nurturing idols in different periods cannot have a significant impact on the company's performance, that is, it is a counterfactual that occurred at other stages outside of this research. The situation does not meet the significant impact on corporate performance. Simply put, there is no significant difference in the income

distribution between the treatment group and the control group in each quarter before the event. For this reason, the parallel trend assumption can be satisfied. And D_{st}^{+1} to D_{st}^{+5} are the lag items of the event, which describe the effect of the event in the j^{th} year after the event. It should be noted that in order to avoid the trap of dummy variables, this formula does not include the quarter in which the event occurred (that is D_{st}^0), so the estimated results from D_{st}^{-10} to D_{st}^{+5} are all relative results based on D_{st}^0 as the base quarter.

Figure 1 shows the coefficient estimation results from D_{st}^{-10} to D_{st}^{+5} , the dot value represents the mean value, and the dotted line represents the confidence interval. It can be seen from the figure that the confidence intervals of the coefficients from D_{st}^{-10} to D_{st}^{-2} all include 0, that is, the coefficients from D_{st}^{-10} to D_{st}^{-2} are not different from 0. Although the confidence interval of the coefficient of D_{st}^{-1} does not include 0, as a whole, most of the assumptions are satisfied, indicating that in most of the counterfactual situations, there is no significant difference between the treatment group and the control group. Therefore, we can still consider the parallel trend to be satisfied. In addition, when the event of cooperation with a growing idol occurred, the coefficients of D_{st}^{+1} and D_{st}^{+2} were significantly positive, indicating that the cooperation event had a significant impact on the company's operating income, and this effect could last for two quarters.

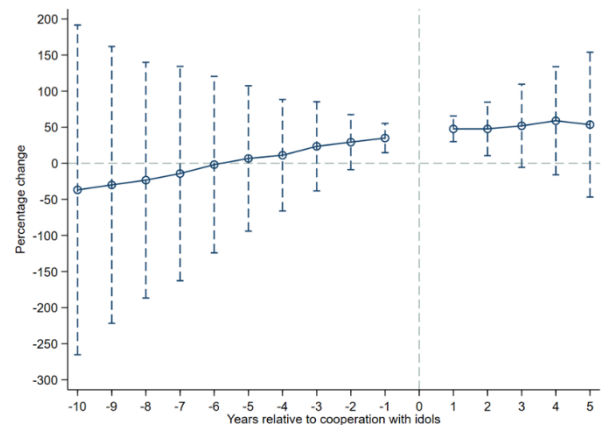


Figure 1. The dynamic impact of events on business revenue

The phenomenon that the influence can continue for two quarters is inseparable from the celebrity effect. When the cultivating idol conducts business cooperation with a certain company or brand, ordinary consumers or fans of the artist in products, brands, and companies with similar functions will have a more favorable impression of the company. Even after the commercial cooperation between the development idol and the company has expired, fans and consumers will still have a good impression of the company and the product for a period of time, which is the so-called increase in reputation. If fans and consumers want to buy a product, the product still has the advantage of being selected among similar products than other brand products. However, we can also see from the model that cooperating with the idols of the nurturing system can only increase the business income of the company for three quarters, and the effect time is relatively short.

Therefore, the business cooperation between companies choosing and developing idols can effectively increase product sales and increase the company's operating income by 12.5% in the current quarter. This effect can extend to two quarters after the end of the endorsement period.

5. Further Discussions

The "Commercial Value Index" of China Entertainment Index Network is composed of the popularity index, word-of-mouth index, and professional index. The popularity index is mainly calculated by weighting indicators such as the number of active and dehydrated fans on the entire network of celebrities during the evaluation period, the amount of media exposure on the entire network, the amount of dehydrated hot discussions on the entire network, and the number of searches on the entire network. Since the development of idols is specially tailored for teenagers, the audience is smaller than that of traditional artists and has strong limitations. Therefore, there is no advantage in the index of nationality such as the amount of media exposure on the whole network, the amount of dehydrated hot discussion on the whole network, and the amount of searches on the whole network used to measure the popularity index; but for the number of active dehydrated fans, developing idols has a greater advantage. This article compares the popularity and average number of active fans of the top 50 cultivated idols and the top 50 actors or singers in the statistics of China Entertainment Index.com, as shown in Table 5.

Table 5. Comparison of cultivated idols and traditional artists

	Heat index	Active followers
Cultivation idols	48.73	13232
Traditional entertainers	68.44	11648

It can be seen from the table that although in terms of average popularity, cultivated idols are higher than traditional artists, they have more active fans. This is because fans in their teenage years will place their expectations and unfulfilled desires on their idols. By seeing the idols show themselves in front of the camera, they will realize their dreams through the opportunities and personal efforts provided by the show. Idols are doing things that fans dare not or have no objective conditions to accomplish.

"The harder you work, the luckier" and "I have a shining light" as the theme of the show and the production philosophy that is consistent with the young people's psychology, it just caters to the strong psychology of young people who are currently in the confusion, rebellion, and fantasy of the future. And it gave them a sense of accomplishment to help others realize their dreams, which is a topic often discussed in the current media: "Idols are sellers, and what they sell is fantasy. Therefore, the "cultivation idol" produced by this program concept that is highly compatible with teenagers' thinking will naturally gain high recognition among the teenagers, inspire resonance, and gain super-high audience stickiness in a short time.

In most cases, cultivating idols' drive to corporate performance depends on their fans buying endorsement products. Therefore, cultivated idols with more active fans who are willing to make purchases have higher commercial value and are more beneficial to the enterprise. Although fans are the most loyal group that contributes most of the brand's sales, they are not a uniform group. There are a certain degree of individual differences and differences in loyalty among fans. The higher the loyalty of fans, the less they will be attracted by the marketing methods of competing products and give up the purchase behavior of the original brand. At the same time, fans with higher loyalty are more likely to take the initiative to spread word of mouth to the social groups around them. This allows companies to fully expand the scope of influence of cooperation with idols of the cultivation department, and the effect of interpersonal communication is better than that of advertising and marketing: because ordinary consumers may not and cannot search for all relevant information before making a purchase decision, they will use a small amount of information to help make purchase decisions through the search channels for filtering information. In most cases, consumers will rank the authenticity of information based on the role of the communicator and the conflict of interest. Among them, because the communication source of interpersonal communication is not related to the information transmitted, or is related to undetectable interests, consumers will believe more in the information obtained through word-of-mouth communication and have a higher probability of purchasing the product. Therefore, it is very important for enterprises to choose cultivated idols with more active fans and higher loyalty fans for commercial cooperation.

The word-of-mouth index in the business value index is composed of multiple dimensions of public welfare word-of-mouth, marriage and love, words and deeds, appearance and personality. Since most of the idols in the development department themselves are still students who have not completed their studies, important thoughts such as outlook on life and values are formed. Therefore, when selecting partners, companies need to fully understand the past, personality characteristics, current status of marriage and love, and avoid uncontrollable misconduct during the cooperation period. This situation has a great impact on word of mouth, number of active fans and fan loyalty, and directly affects the effect of commercial cooperation. When meeting psychological needs, it is more likely to have an impulse to buy, and the unique exquisite appearance and pleasing character of the "cultivation idol" can attract the attention of women. Therefore, celebrity endorsements can easily make them a sense of identity, which leads to buying behavior. This article counts the age composition of the fans of cultivated idols and traditional artists, as shown in Table 6.

Table 6. Comparison of age between cultivated idols and traditional artists

	18-24 years old	25-34years old
Cultivation idols	66.67%	11.11%

Traditional entertainers	29.79%	58.30%
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It can be seen from the table that most of the idol fans of the nurturing line are young people aged 18-24. This group has less pressure to survive, more funds can be mobilized, and idols give it motivation to generate a sense of identity. This group is willing to buy behavior for it to gain mimic intimacy. For companies, choosing a cultivated idol with exquisite appearance, likable personality, and three correct outlooks for business cooperation can obtain a consumer group with strong purchasing power and strengthen the effect of the cooperation.

The professional index is comprehensively evaluated by professional skills, movie box office, TV series ratings and broadcasts, variety show ratings and contribution rates. For idols in the cultivation department, after the audition program ends, a new chapter in the performing arts career begins. The number of audiences whose works can be recognized as an important criterion for measuring the professional index of artists. At the same time, it also measured the degree of national recognition of the idols of the cultivation system from another aspect. Therefore, when companies choose to develop idols for cooperation, try to choose artists with higher professional indexes as much as possible to stabilize the effect of commercial cooperation.

6. Conclusions

With the increasingly fierce competition in the commodity market, commercial cooperation with celebrities has become a marketing strategy commonly adopted by enterprises. Based on the data of the cooperation between listed companies and nurturing idols in the 12 quarters from 2017 to 2019, this paper conducts a DID empirical analysis on the issue of the impact of commercial cooperation with nurturing idols on corporate performance. Then we discussed further and came to the following conclusions:

First, the cooperation between the company and the idols can improve the performance of the company, and this influence can last for two quarters.

Because nurturing idols can determine the fate of idols through consumption, in such consumption behavior, fans will have a mimic intimacy of approaching and achieving idols through consumption. Therefore, fan groups who develop idols have stronger purchasing power. Secondly, because most of the idols of the nurturing line are newcomers who have just entered the showbiz, and the cost of commercial cooperation with them is relatively low, so on the whole, the idols of the nurturing line have a higher cost-effectiveness in commercial cooperation, which can significantly improve corporate performance. When the cultivating idol conducts business cooperation with a certain company or brand, ordinary consumers or fans of the artist in products, brands, and companies with similar functions will have a more favorable impression of the company. Even after the commercial cooperation between the development idol and the company has expired, fans and consumers will still have a good impression of the company and the product for a period of

time, which is the so-called increase in word-of-mouth. The empirical analysis of this article also shows that if fans and consumers still want to buy the same type of product within two quarters after the end of the endorsement, the cooperative product still has the advantage of being selected among similar products compared to the products of other companies.

Second, when companies choose to develop idols as partners, they need to pay attention to the following three dimensions: (i) The proportion of active fans and high loyal fans in its fan group is large; (ii) The proportion of women and teenagers in its fan group is large; (iii) Strong professionalism and high national recognition. When the partner meets the above three conditions, the pulling effect on corporate performance can be improved.

Because during the cooperation period between the company and the nurturing idol, it mainly relies on the purchase behavior of fans to drive the company's performance, so the more active the nurturing idol has the more obvious advantages. On the other hand, because fans with higher loyalty are more likely to produce interpersonal communication, it can expand the effect of publicity and more effectively promote corporate performance. Due to the exquisite appearance and pleasing character of the cultivated idol, and the production method of the cultivated idol in line with the growth concept of young people, it is more attractive to female and young fan groups, and women and young people are more likely to have buying behavior. The mechanism of action has been explained before, so it won't be repeated it here. Therefore, it is more effective to choose a foster idol with a larger proportion of women and young people in the fan base to cooperate with companies. Finally, due to the general problem of small audiences in the nurturing idols, choosing nurturing idols with strong professional abilities can effectively increase national recognition, expand the scope of cooperation and increase reputation.

For enterprises, this article provides some theoretical assistance for subsequent enterprises to choose cooperation candidates. In the follow-up cooperation, the range of objects that can be selected is expanded again. Choosing a cultivated idol with lower cost and stronger fan purchasing power can also effectively improve corporate performance and expand corporate reputation. But at the same time, developing idols also have disadvantages such as low professionalism and insufficient reputation. When choosing to develop idols for cooperation, you need to have a keen sense of the entertainment market. Try to avoid a situation where a potential public opinion crisis erupts during the cooperation period, which affects the activity of the fans of the nurturing idol, resulting in a decline in the overall buying enthusiasm of the idol fan group and unable to drive the business income of the company. All in all, when companies choose to develop idols as partners, they should combine theory with practice and choose carefully.

On the other hand, because this article controls other cooperation, mergers and acquisitions and other behaviors of the company during the same period of time, it only studies the cooperation between the company's products

and the idols of the cultivation system. The impact on the company only lasts for three quarters. It can only show that the cooperation with the idols of the cultivation system does promote the business income of the company, and cannot deal with other crises encountered by the company, and it does not have the effect of reviving the company. When an enterprise encounters major production and management problems, it cannot improve its status quo by cooperating with the idols of the cultivation system alone. It is necessary to keep improving the quality of products, that is, to use the “celebrity effect” to attract fans to convert into product users, and to retain consumers with high-quality products and high satisfaction. Only in this way can we truly improve the efficiency of business operations and become an evergreen tree of the market economy.

For nurturing idols, the research in this article finds that the commercial value of nurturing idols is mostly driven by fan activity, and the purchasing power of their active fans is also an important indicator of commercial value evaluation. How to retain fans and how to survive in the entertainment market of “back wave and forward wave” has become an urgent problem for major brokerage companies and traffic stars. Returning to the term “idol” itself is to use it as an object of worship and imitation, and to a certain extent it is also a model for fans. Therefore, “idols” with a large number of fan groups, as public figures, are magnified by the Internet in every move. To show to fans, they should have strict requirements on their own business capabilities, correct their own morals, and live up to the expectations of fans, in order to better retain fans and expand the scope of commercial cooperation. On the other hand, although commercial cooperation income and advertising income account for a high proportion of the total income of cultivated idols, blindly consuming and harvesting fans’ money will reduce fans’ pleasure and speed up the loss of fans. Appropriate choice of business cooperation, guide fans to establish a correct consumption concept, will effectively improve the loyalty and retention of fans who develop idols.

As for the fan groups of nurturing idols that produce consumption behaviors, it is more necessary to carefully choose “idols” and regard high-quality idols as more spiritual role models rather than puppets manipulated by brokerage companies and marketing methods. As the younger generation, to consume rationally in accordance with the principle of maximizing utility, they must develop

correct consumption habits and cultivate normal consumption patterns to meet the needs of economic activities. To cultivate a scientific and rational concept of consumption, it is necessary to grasp the “degree” of consumption and understand the significance of rational consumption to individuals, families, schools, and society.

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