

How Far Can French Films Travel in China? An Empirical Analysis from The Cultural Discount Perspective

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Abstract: As the second largest film exporter except the United States, France is not only one of the important export countries of European Union, but also a major exporter in China and North America. Cultural discount has generally been a problem in the cultural trade export. This article analyzes box office figures from 2009 to 2018 to examine whether French films of different genres and copyrights are more or less subject to cultural discount when they travel to mainland China. The results show that science fiction, adventure and thriller are apparently the most universal and that genre of drama and copyrights of ordinary and buy-out are highly particularistic, whereas co-productions are relatively universal due to non-significant test results. As the results, development status and trend analysis of Sino-French co-production cases are typically discussed.

Keywords: Box Office, Culture Discount, Copyright, Sino-French Co-Production.

1. Introduction

In the past decade of the global film markets shares, the compound growth rate of 9.14 percent of box office in Asia-Pacific region have far exceeded 1.95 percent growth rate of that in North America. The box office in China's market has always developing from over ¥4 billion (CNY) of 2009 to ¥60.9 billion (CNY) of 2018, which becomes the second-

largest box office market around the world. In addition, with a compound growth rate of 2.4 percent, European Union, the Middle East and African box office shares have usually playing important roles in the world markets. MPAA's 2018 Global Film Market Development Report shows that European countries dominated the eight positions of top 20 international box office markets, the U.K. and France in the third and fifth ranking respectively (See Table 1).

Table 1. 2018 Top 20 International Box Office Markets -- All Films

1	China	\$9.0	11	Spain	\$0.7
2	Japan	\$2.0	12	Brazil	\$0.7
3	U.K.	\$1.7	13	Italy	\$0.7
4	South Korea	\$1.6	14	Netherlands	\$0.4
5	France	\$1.6	15	Indonesia	\$0.4
6	India	\$1.5	16	Taiwan	\$0.3
7	Germany	\$1.0	17	Poland	\$0.3
8	Australia	\$0.9	18	UAE	\$0.3
9	Mexico	\$0.9	19	Malaysia	\$0.3
10	Russia	\$0.9	20	Hong Kong	\$0.3

Source: 2018 THEME Report

Note: China box office total includes online ticketing fees. Box Office in US \$Billions

These days, with the increasing fierce competition between the global and local markets, the huge domestic markets in the United States and mainland China have already become the significant cultural products export destinations to the other countries and regions. 2018 Global Film Industry Development Report shows that France remained the second behind the United States in 2017, which was not only one of the primary markets of European Union, but also the major exporter in mainland China and North America. In 2017, box office of release abroad for French films accounted for 76% of the overall revenue, increasing 42% year-on-year in 2016. Among exporting countries, China has a larger attendances of French films than the United States and Russia[1].

In 2001, after China joined the WTO, it promised to import 20 pieces of foreign revenue-sharing release every year. This

figure has increased to 34 in 2012. The quota for 14 special revenue-sharing releases (including 3D and IMAX formats) has been increased to 25% from 13%. In addition, China imports a large number of buyouts (also known as "batch films") every year. At the same time, in order to promote the prosperity of trade and cultural exchanges, co-production has become an important production genre. According to the provision of Sino-French Film Co-production Agreement in 2010, Sino-French co-productions are domestic films in both China and France, enjoying preferential policies and tax subsidies in their respective countries. In other words, Sino-French co-productions are not subject to the quota of imported films, and share the same proportion of domestic films in the Chinese mainland at 43%.

From current situation of import, France, the second largest

exporter, it is not as big as the export scale of American films in mainland China in terms of both the number of films and the total box office. From 2012 of 2009, Avatar of 2010 which ranked first on the list at that time to Avengers 3 of 2018 which ranked fifth, American films have long occupied the top ten at the Chinese box office. In terms of the number of films on the list and the box office, American films also far

outnumber other countries. As it can be seen from table 2, in the past decade, the position of French films in the top 10 of the box office in mainland China is vacant, and the number of films in the first 100 is less than 10 every year. Although the average box office is increasing every year, it still lags far behind American films.

Table 2. Number of French Films in Top Box Office Lists in China

Year	Top 10	Top 100	Rank and Title of Most Popular French Films	Average Box Office of French Films in the Top 100
2009	--	5	28 (<i>Transporter 3</i>)	26.3
2010	--	3	19 (<i>Resident Evil: Afterlife</i>)	66
2011	--	7	26 (<i>The Tourist</i>)	38.1
2012	--	4	39 (<i>Taken 2</i>)	55.2
2013	--	5	50 (<i>Now You See Me</i>)	86.7
2014	--	6	21 (<i>The Expendables 3</i>)	234.1
2015	--	6	17 (<i>Wolf Totem</i>)	224.9
2016	--	3	21 (<i>Now You See Me 2</i>)	363.3
2017	--	5	14 (<i>Resident Evil: The Final Chapter</i>)	445.6
2018	--	3	14 (<i>Mission: Impossible – Fallout</i>)	495.9

Source: www.boxofficejo.com & www.cbooo.cn,

Note: Box Office in CNY ¥Millions

In fact, with the support policies actively promoted by local governments, the total output of European films far exceeds that of the United States, but it lags behind the United States in terms of export country and revenue. There are many reasons such as film production investment, language and culture, and market scale, etc. But it also shows that there is still a huge room for growth in the export of European films. (Shan & Li, 2018) In addition, as the market main body and direct promoter of film production[1], distribution and consumption, French local studios also play an active role in transnational trade export and cross-cultural communication.

2. Literature Review

The relevant research on the film box office was originated from American scholar Litman & Kohl. Through the analysis of 679 films from 1981 to 1986, Litman & Kohl (1989) established the prediction model of the film box office[2]. In this model, independent variables include story creation, distribution mode and marketing, and the film genre becomes an important component variable of the creativity portion. Based Litman & Kohl's model, Sochay (1994) proposed a new box office prediction model[3], introducing new variables such as market concentration and release weeks, and created a dynamic prediction model. Since then, scholars from many countries and regions, including Chang & Ki (2005) and Yin (2013)[4,5], have successively carried out and extended relevant studies, and all of them have found significant correlation between box office and multiple variables. In the past, these empirical studies have verified the influence and prediction function of box office from stars, directors, budgets, film reviews, film ratings, awards and other factors.

Because film has the double attribute of cultural art and commodity economy, media economists are interested not only in the factors that affect the box office itself, but also in how cultural characteristics affect cross-border trade of media products. The research on the benefits and influence of various foreign media products on the country's foreign trade and cross-cultural communication has received

unprecedented attention, especially for film products.

In the past literature review, a large number of empirical studies have already examined the key concept of cultural discount in the film industry, proposed by Canadian scholars Hoskins & Miru (1988)[6]. Hoskins & Miru (1988) point out that a specific television program, movie, or video rooted in a culture is attractive in the domestic market, where the audience shares common sense and lifestyle; but the attraction wanes in other places. It is difficult for the audience there to identify with such styles, values, beliefs, history, myths, social institutions, natural environments and patterns of behavior. This concept provides a theoretical basis for proving and explaining how American media products are hegemonic and dominant in the global market. However, especially in earlier works, researchers rely more on macro-level market data to test the cultural discount hypothesis. Jayakar & Waterman (2000)[7], for instance, analyze that the export situation of U.S. films; Oh (2001) investigates that the international trade trends in the film industry[8]; Lee (2002) studies that competitive balance between U.S. and Japanese film markets, etc[9]. These studies have summarized and supported the hypothesis that cultural discount is dominated by diverse media market.

In the last decade of research, most of researchers have already separated from the macro-level data of the film market and applied micro-level econometric analysis methods instead. Fu & Lee (2008)[10], for example, discuss that the cultural and economic impact of foreign films in Singapore on the perspective of local market acceptance; Lee (2006) researches on the box office performance of U.S. films in Hong Kong from 1989 to 2004 as an example to analyze the relative cultural discount and cross-cultural predictability, and Lee (2008, 2009)[11,12,13] also demonstrates that cultural discount hypothesis in several east Asian countries; Walls & McKenzie (2012)[14] make a quantitative study in the field of cultural discount towards Hollywood films exhibited in Australia, France, Mexico, Spain and the UK; Moon et al. (2015) studies that the competition situation between local films and Hollywood films exhibited in Korea market in a culture-specific context[15]; Cheng & Ma (2014)

analyzes that the cultural discount of U.S. films in Chinese mainland market based on the box office data from 2009 to 2013; Park (2015)[16] verifies that the market size and cultural discount contributes to becoming the significant driving force for the international trade one-way flow of media and culture products in basis of the box office analysis of Australian imported films from 1999 to 2009.

As for the modeling of relevant concepts and indicator system of cultural discount, scholars have also carried out discussions and analyses in different dimensions. For example, Park (2015)[16] discusses the theoretical origin of cultural capital and cultural discount, introducing Hofstede's four-dimensional cultural distance and other index concepts in the regression analysis alike scholars Kogut & Singh (1988)[17] and Fu & Lee (2008)'s works[10]. The concept of cultural capital, which is similar to the hypothesis of cultural discount theory, has also become the focus of the research. Cultural scholars point out that cultural preferences and cultural tastes are difficult to be easily changed to a large extent (Stigler & Becker, 1977[18]; Anderson, 1983; Bourdieu, 1986)[19,20], and the long-term stable status stems from people's familiarity with cultural products (Throsby, 1999)[21], while familiarity with other cultures is related to the consumption of media content. In recent years, Park (2004, 2005)[22,23] points out that the exposure frequency of media content have a positive impact on foreign cultural preferences. Straubhaar (2007, 2008)[24,25] also believes that cultural identity can be constructed through the consumption of popular culture by diverse types of media, such as satellite TV and the Internet, which unquestionably requires a long-term and continuous process.

On the other hand, the theory of cultural discount has also been questioned and criticized by the school of critical political economics. Miller et al. (2005)[26], as an example, argue that Hoskins & Miru's neoclassical economic conservatism ignores the role and identity of the U.S. government in regulating the global cultural market trade[8]. In other words, the United States more or less dominates the global film trade flow, and its powerful driving force of Hollywood studios on the global market prevents the U.S. from experiencing the higher cultural discounts as other countries. In fact, Lee (2008)[12] believes that in the transnational trade of media products, both macro-level market and micro-economic data can be regarded as effective perspectives and conceptual tools for empirical research. Meanwhile, it is necessary to discuss and analyze how to combine national policies and business strategies to establish parameter characteristics. As a result, when the concept of cultural discount can explain the transnational communication status of media products, it is also necessary to understand the policy system and industrial environment of the production, distribution and consumption of films in exporting countries. In case studies, Wildman & Siwek (1988)[27] points out that the interaction between market size and cultural discount rates benefits producers in larger markets, regardless of whether the market is divided by region, country, culture or language. However, simply studying the box office ratio of exporting and importing countries of films cannot directly reflect the cultural discount. If focusing on a single importing or receiving country, the box office ratio can reflect the "relative cultural discount"[11].

To sum up, this paper tries to test and analyze the following two problems by focusing on the quantitative analysis in empirical research and taking into account the explanatory

analysis in qualitative research:

Q1: In the past decade, which genres of French films released on the Chinese mainland have enjoyed relatively high cultural discounts and which have enjoyed relatively low cultural discounts?

Q2: According to the import copyright property of mainland China, which copyright has a relatively high cultural discount, and which copyright has a relatively low cultural discount?

3. Methodology

Cheng & Ma (2014)'s study on the cultural discount of American films in the Chinese market referred to and drew on the empirical model and method of Lee (2006) in his study on the cultural discount of American films in the Hong Kong market. And they introduced the relevant variables of copyright attribute according to the difference of the quota restrictions on imported films between Chinese mainland and Hong Kong market[11]. Since the research in this paper also takes the Chinese mainland market as the target country, the independent variable of copyright can also be introduced. Different from Cheng & Ma (2014) in the classification of copyright of imported films[28], in addition to the four categories of Ordinary, Special, Buyout and Sino-French co-production, the U.S.-French co-production is newly added, so it is divided into five dummy variables in the study. There are two reasons to divide the co-production into Sino-French co-production and U.S.-French co-production. Firstly, among the 97 films, the United States is involved in producing 43 films, almost half the total sample. This is related to Hollywood's strategic layout and cultural policy towards the French market. French films mostly participate in the production of American blockbusters by means of co-production. The advantage is that while the genre is more diversified, it can also use Hollywood's influence and competitiveness to improve the ability of film products to trade in the global market. Secondly, six of the 12 Sino-French co-productions were also participated by American producers (three countries co-productions), accounting for half of the total, so the United States became a factor in the study. In this study, according to the interpretation and definition of French film by France national film center CNC (key film figures in 2016), which is also in line with the foregoing, French film is defined as a film in which France is mainly involved and assisted in production, including co-productions in foreign languages.

Similar to the research purpose of Cheng & Ma (2014)[28] and Lee (2006)[11], this study is also not to establish a box office prediction model, and it does not involve many complicated variables such as stars, directors, budgets, film reviews, film ratings and awards. First of all, based on the box office data, the focus of this paper is to test the cultural discount of different genres and different copyright attributes of French films in the Chinese mainland market. Secondly, considering that French films always balance the value between artistic creation and commercial benefits, this paper analyzes and discusses typical cases on the basis of examination and analysis.

The data samples of the study come from different professional statistical websites, research reports, media reports, etc., such as China's Box Office, Mtime.com, Douban.com, QQ.com, etc. More than 120 French films which have been shown in Chinese mainland cinemas from 2009 to 2018 are selected. However, due to the absence of many key variables, such as the box office of a film in

mainland China, the box office of a film in France (In the study of the French film market, the number of audience is usually used as the statistical basis. In order to facilitate the measurement of variables, this paper uniformly adopts box office data.), release window and other key variables, the actual number of samples meeting the research conditions is only 97. Variables used in the study included total box office sales in mainland China and France, film genre, release year, release week, and copyright attributes. French box office data are mainly from the international section of boxofficemojo.com released by the Motion Picture Association of America, including Box office statistics of France and Algeria, Monaco, Morocco and Tunisia (French region) and www.allocine.fr/boxoffice/france/. (French commercial film website). Mainland China box office data are from the international section of www.boxofficemojo.com (China's Box Office). The genre of each film mainly comes from www.imdb.com., which is recognized by scholars. On the basis of the 9 film genres classified by Lee (2006)[11], animation and documentary are added based on the characteristics of French film genre output and trade export, 11 film genres in total. Based on these genres, 11 dummy variables are established: comedy, action, thriller, romance, science fiction, adventure, family, drama, horror, animation and documentary. In the statistics, it is found that each film belongs to different film genre.

To measure relative cultural discount degree, Cheng & Ma (2014)[28] and Lee (2006)[11] used the indicator of box office ratio in their research, that is, the box office of the same film in France (converted into CNY units according to the exchange rate) divided by the box office income ratio in

mainland China, which means the higher the box office ratio, the higher the relative cultural discount. Since the value of the total box office of a film is relatively large, which is not conducive to statistical analysis, the logarithms of each of these are chosen, and take the logarithm of the Chinese mainland box office as the dependent variable. The logarithm of French box office and film genre, copyright and time factors were taken as independent variables, and an analysis model was established.

4. Findings

4.1. Relative cultural discounts for different film genres

According to the statistical results of the description of classification variables, the three genres of films in this study are action (42.3%), adventure (39.2%) and thriller (38.1%), and the three genres of films that are the least are documentary (2.1%), horror (5.2%) and science fiction (9.3%). However, because the same film can be subdivided into multiple genres, further analysis is needed. The genre was treated as a dichotomous variable, where 1 means that the film belongs to this genre and 0 means that it does not. The logarithmic mean of the box office of this genre and the logarithmic mean of the box office of non-this genre were counted, and the test and analysis of independent sample t were conducted. The research focuses on examining whether there are differences in the relative cultural discount of different genres of French films in mainland China.

Table 3. Box Office Ratios for French Films of Different Genres

Genre	N	Belong to the Genre	Not Belong to the Genre	t
Comdy	36	8.8739	3.7459	1.523
Action	41	2.8994	7.6622	-1.943
Thriller	37	3.1618	7.1829	-1.696
Romance	16	9.8267	4.8239	1.023
Science Fiction	9	0.5493	6.1706	-1.188
Adventure	38	3.0083	7.3499	-1.825
Family	24	5.2223	5.7893	-0.72
Drama	33	7.1409	4.8798	0.777
Horror	5	0.3418	5.9375	-0.898
Animation	15	6.0121	5.5826	0.112
Documentary	2	7.4239	5.6117	0.186
All	97	5.6491	--	--

N=97. * p<0.05, ** p<0.01, *** p<0.001.

Table 3 shows the test results of independent sample t, showing the differences between the average box office ratios of different genres and those that do not belong to this genre. Preliminary statistical results show that there is no significant difference in box office ratio between films of different genres. Table 3 only shows the bivariate relationship between box office difference rate and film genre. Since each film belongs to a different genre, it is necessary to further control other genres in the study and use multivariate regression analysis of multiple variables to continue the test.

In table 4, the dependent variable is the logarithm of Chinese mainland box office, and the logarithm of French box office is the independent variable. After controlling the box office data of French films, the correlation coefficient of genre variables can test the cultural discount degree of this

film genre in the Chinese mainland market. The multi-classification variables involved are converted into dummy variables to be added to the analysis, and 4 models are established. According to the regression analysis results in table 4, when the dependent variable is the logarithm of box office in mainland China, all the four models are meaningful.

Firstly, model 1 analyzes the impact of film genre on box office and cultural discount degree. The analysis results in table 4 show that there is a positive correlation between science fiction and adventure of the French film genre and the box office in mainland China, and the results are significant, indicating that these two genres of films have higher acceptance in mainland China and lower cultural discount. Comedy, romance, drama, animation and documentary show a negative correlation with the mainland China box office, but

the test results are not significant.

On the basis of model 1, time variables are added in model 2, including the number of release weeks, summer, New Year and Spring Festival time windows. The regression analysis results in table 4 show that the release weeks of films are positively correlated with the box office in mainland China, and the results are significant. On the contrary, the Spring Festival in the window variables is negatively correlated with significant results. The reason is that as an important family reunion moment in mainland China, Spring Festival is always the time window for domestic blockbusters and imported high-quality blockbusters to be screened, and the market competition is very fierce. Specifically, on the basis of model 1, in addition to science fiction and adventure films, which are positively correlated with the box office of mainland China with significant results, thriller films are also added, while drama is negatively correlated with significant results. Through analysis, it can be seen that science fiction, thriller and adventure films have relatively low cultural discount degree in mainland China after adding time-related variables. Comparatively, the impact of cultural discount on drama is obvious.

4.2. Relative cultural discount of different copyrights

Model 3 is used to test the relative cultural discount and

influence of French films with different copyright attributes in the Chinese mainland market. Variables include general, special, buyout, P.R. & France and U.S. & France co-productions. From the analysis results in table 4, it can be seen that the co-productions of the United States and France and ordinary revenue-sharing release are significantly correlated with the box office of mainland China. The former presents a positive correlation. The latter shows a negative correlation. And the influence coefficient of the latter is almost twice that of the former. Since the regression R2 value of model 3 is relatively small, genre and time variables are further added to model 3 for analysis (model 4). According to the regression results in table 4, the regression R2 value in model 4 is significantly larger than that in model 3, indicating that the fitting effect is improved. The analysis results in table 4 show that, under the control of the French box office, the test results for the ordinary revenue-sharing release in the copyright attribute are the same as those for model 3. At the same time, there is an increase in imported buyouts. Both of them show a negative correlation with box office and the results are significant, indicating that the relative cultural discount of both of them is relatively high. It is worth noting that the positive correlation between American and French co-productions and box office is decreasing, and the results are not significant.

Table 4. Regression Analysis of Box Office in China (Dependent Variable: Chinese Box Office)

Variable	Model 1	Model 2	Model 3	Model 4
	Unstandardized	Unstandardized	Unstandardized	Unstandardized
Box Office	.379** (.299)	.227* (.179)	.347 (.111)	.174 (.137)
Year	.074** (.282)	.124*** (.471)	.035** (.024)	.085*** (.323)
Comedy	-.224 (-.151)	-.119 (-.080)		-.005 (-.003)
Action	.003 (.002)	.059 (.041)		.023 (.016)
Thriller	.276 (.187)	.450** (.304)		.434** (.294)
Romance	-.071 (-.037)	.219 (.113)		.150 (.078)
Sci-fi	.546* (.220)	.470* (.190)		.531** (.215)
Adventure	.445** (.302)	.326* (.221)		.289* (.197)
Family	.093 (.056)	.141 (.085)		.026 (.016)
Drama	-.084 (-.056)	-.257* (-.169)		-.265* (-.175)
Horror	.343 (.106)	.173 (.053)		.177 (.054)
Animation	-.358 (-.180)	-.215 (-.108)		-.043 (-.022)
Documentary	-.245 (-.048)	-.447 (-.088)		-.334 (-.066)
Weeks		.157*** (.511)		.128*** (.417)
Summer		.116 (.063)		.117 (.063)
New Year		-.248 (-.110)		-.277 (-.122)
Spring		-.303* (-.156)		-.310* (-.160)
Ordinary			-.966* (.437)	-.734* (-.336)
Special			-.251 (.480)	-.193 (-.059)
Buyout			-.779 (.406)	-.667* (-.376)
P.R.& France			.230 (.222)	.148 (.068)
U.S.& France			.487*** (.128)	.193 (.133)
Constant	-147.235**	-247.477***	-67.649***	-168.478***
R	.679***	.828***	.632***	.862***
R ²	.461	.685	.399	.744
Adjusted R ²	.377	.617	.352	.668
F	5.464***	10.112***	8.436***	9.765***

N=97. * p<0.05, ** p<0.01, *** p<0.001. Values in brackets are standardized.

In terms of the number of films, though American and

French co-productions account for more than half of the

ordinary revenue-sharing release, American elements are also influenced by genre and time. For example, the action-thriller *HHhH* (2017) only grossed around CNY ¥4 million and another romantic comedy, *Bridget Jones's Baby* (2017), also grossed just over CNY ¥5 million. Both films of different genres were released during the Spring Festival. As the previous analysis of model 2 shows, the Spring Festival is the most competitive time window for domestic blockbusters and high-quality imported blockbusters. Out of touch with its American roots, the family animated film *Arthur et la vengeance de Maltazard* (2010) and romantic comedy *The Leisure Seeker* (2018), which are also released during the Spring Festival, also grossed around CNY ¥4 million and CNY ¥6 million respectively at the box office. The top three categories of non-American and French co-productions are comedy, romance and feather films. However, these three genres of films are negatively correlated with the box office, and the feather films are more significant.

Also in terms of the number of films, 77 imported buyouts accounts for 80% of the total sample. 31 American and French co-productions accounts for almost half of all buyouts. Although *The Expendables 3* (2014), *Resident Evil: Retribution* (2013) and *Resident Evil: The Final Chapter* (2017) were all box office success, the overall Numbers is a separate phenomenon. Similar to the ordinary revenue-sharing release, the box office of American and French co-productions in imported buyouts is also polarized. For example, the Chinese New Year drama *Jackie* (2018) grossed just over CNY ¥2 million. Most imported buyouts produced by French independent producers or co-productions with other European countries have performed only modestly at the box office. In terms of film genre, the ordinary revenue-sharing release is more diversified than the imported buyout films, including action, science fiction, thriller and other genres, while the top three genres of imported buyout films are drama, comedy and animation. As mentioned above, these three genres of films are negatively correlated with the box office, especially the drama. In addition, the time is also in collision with the Spring Festival, New Year's eve and other popular windows, the market cycle is longer, and there is also a general lack of visual impact, the freshness and experience of the film is insufficient.

It can also be seen from the test results in table 4, although the test results of Sino-French co-productions in model 3 and model 4 show a positive correlation with box office, the significance is not strong. This indicates that Sino-French co-productions do not have a strong influence on the box office of mainland China. On the one hand, the number of purely Sino-French co-productions is relatively small in the statistics, which is mainly reflected in incomplete information such as box office data (China and France have very different standards for the project approval of Sino-France co-productions. In a word, China's investment and production are based on the "2-8 principle", while France's are reflected in the grading criteria.). For example, *11 flowers* (2012), *Blind Massage* (2014), *The Assassin* (2015), *Night Peacock* (2016), *The lady in the Portrait* (2017), *Looking for Rohmer* (2018) (Due to its involvement in the homosexual theme, *Looking for Rohmer* was called the ice-breaking work that passed the administrative investigation in mainland China. However, after the review in 2013, it suffered five years of immersion and changed its window for many times.). Most of the films have been released in France on DVD, VOD and blu-ray outside of cinemas, according to the data from

www.allocine.fr/boxoffice/france/ website. The advantage of choosing this distribution channel stems from the fact that French TV stations have preferential purchase policies supported by the local government, and they do not need to compete with foreign films, including the United States, for the broadcast quota in French TV stations. In addition to the limited number of statistics, on the other hand, most co-productions between China and France in the genre of the single film has become a constraint on box office performance. Take the sixth generation of Chinese directors as an example. Wang Xiaoshuai's *11 flowers* (2012); Lou Ye's *Blind Massage* (2014); Jia Zhangke's *Mountains May Depart* (2015) are almost take the drama as the main film genre (According to imdb, *Mountains May Depart* was co-produced by China, France and Japan.). In terms of the selection of themes, although there are some aspects such as children, homosexual, animals, etc., they are generally inclined to artistic films originated from the film culture of the French author. Although many films have a good grasp of theme, narration and emotion, and have won numerous awards at major international film festivals, they are often at a disadvantage when it comes to the cinema release window in mainland China, with a short number of release weeks and the absence of hot time. The reason is also related to the lack of cinema goers in French artistic films. For example, *11 flowers* (2012), praised by the French media as "Wang Xiaoshuai's best work", was released for three weeks in French cinemas that year, but only three days in Chinese mainland cinemas. Isabel Grantchett, the greater China representative of uniFrance at the time, said in an interview with www.1905.com that Chinese audiences prefer to watch 3D and IMAX blockbusters, and cinemas offer few opportunities for artistic films. It will take some time for Chinese artistic films to be released and professional audiences to be cultivated

5. Conclusions And Discussions

Based on the measurement and statistics of box office revenue of French films released in mainland China from 2009 to 2018, and combined with qualitative interpretation and analysis, the following main conclusions are drawn and discussed. First of all, different genres of French films have different cultural discounts in mainland China. The cultural discount of animation, documentary, comedy, drama and romance is relatively high, but the test result is not significant. The relative cultural discount of science fiction and adventure films is low, and the audience accepts them more. After adding variables related to time, including release window and release week, drama shows a significant negative correlation, indicating that drama has the highest cultural discount, and the audience has great difficulty in cross-cultural acceptance. In addition to science fiction and adventure films with relatively low cultural discount, a new genre of thriller is added, which indicates that thriller films are greatly affected by release window and release weeks. Under the premise of reasonable arrangement of these two factors, they can also contribute to box office performance and can be accepted by the audience more easily. Furthermore, the relative cultural discounts of French films with different copyright attributes are also different in mainland China. The relative cultural discount of ordinary revenue-sharing release and imported buyout is higher, but the test result of the latter is not significant. The relative cultural discount of American and French co-productions and Sino-French co-productions

are lower, but the test result of the latter is not significant either. After adding the variables related to movie genre and time, the fitting degree is improved. In addition to the significant test results of ordinary revenue-sharing release, imported buyouts are also added, indicating that compared with ordinary revenue-sharing release, film genres and release windows have a greater impact on imported buyouts. The disappearance of the significance of the America-France co-production test results indicates that there is no category with the lowest relative cultural discount in the copyrights.

A lot of related studies have shown that the genre of film does affect box office performance. Different genres of films have different cultural characteristics, therefore, they will all have the problem of cultural discount. As a common genre of film, drama have rich cultural characteristics involving language, style, values, social system, behavior pattern and other factors, and cross-cultural communication is difficult. Most artistic films belong to the drama genre, emphasizing the director's unique writing style and experimental exploration of the film language. "Can't understand; difficult to understand" is often the biggest obstacle to watching these films. Of course, it is also related to the movie viewing habits and aesthetic quality formed by Chinese mainland audiences for a long time. In 2016, under the guidance and support of national policies, the establishment of the National Art Film Screening Association has provided a meaningful exploration for broadening the distribution channels of artistic films and cultivating professional audiences. However, in less than three years since its establishment, the association has faced many operational difficulties. For example, the lack of channel distribution experience, the dispersion of film copyright, the lack of professional film review personnel (Sun, 2018) [29]. As the birthplace of artistic films, France's rich experience in art cinema operation can provide more technical guidance and experience for the Art Association. In addition, comedies, cartoons, documentaries and other genres with declining influence of French films in mainland China can also be incorporated into films with relatively low cultural discount.

Taking the 50th anniversary of the establishment of diplomatic relations between China and France as an opportunity, *Wolf Totem* (2015), which was released in the Spring Festival of 2015, has become a successful attempt of

Sino-French co-production under the care of both artistic expression and commercial benefits. *Wolf Totem* (2015), a film about ethnic minorities, is adapted from the novel of the same name by Jiang Rong, and directed by famous French "animals" director Jean-Jacques Annaud. The film tells the story of Chen Zhen (Feng Shaofeng) and Yang Ke (Dou Xiao), who were sent to the Inner Mongolia steppe to work and live during the cultural revolution. The film adopts the narrative technique of Hollywood and integrates the writing style of the French director. From the perspective of anthropocentrism and ecological criticism, it explores the universal values of harmonious coexistence between ethnic groups and races.

In terms of box office performance, *Wolf Totem* (2015), which was released for 10 weeks in the mainland, became the best Sino-France co-production in the history with about CNY ¥700 million of the box office. In terms of artistic achievements, the film has also won numerous awards. For example, it won The Best Drama and The Best Fine Arts at the 30th China Golden Rooster Awards, standing out from many other outstanding nominated films such as *The Taking of Tiger Mountain* (2014), *The Golden Era* (2014), *Wolf Warriors* (2015). Feng Shaofeng, the leading actor, won The Best Actor Award of the 33rd Hundred Flowers Awards. And The Tiantan Award for the best director at the 5th Beijing International Film Festival went to French director Jean-Jacques Annaud. In terms of co-production mode, *Wolf Totem* presents distinct Chinese elements and local cultural characteristics. French producers have always been adhering to the "follow the good story" concept of cooperation, mostly in the form of behind-the-scenes cooperation. According to the rating criteria for the French project of Sino-France co-production, only if the film reaches 25 points can it enjoy the preferential policies and subsidies provided by the Central National Cinema (CNC) to support French local films (2014 Sino-France Honeymoon Period (Part 1): the love and sorrow of co-productions). As can be seen from table 5, the French producer met the policy conditions with a score of 26 points. On the other hand, according to the Chinese standards for project approval, the Chinese and French producers of the film respectively take 80 percent and 20 percent of the funding, and the creative team mainly in mainland China also includes a certain proportion of French people, which also meets the Chinese standards for co-production.

Table 5. French Scoring Standards in Chinese and French Co-production Films

Dialogue (20)	Producer (10)	Writer (10)	Cast (20)	Crew (6)	Location (20)
--	Jean-Jacques Annaud	Jean-Jacques Annaud	--	Jean-Marie Dreu (Cinematographer)/ Reynald Bertrand (Editor)/ Christian Rajaud (Visual Effects)	--

Source: <http://www.1905.com> & www.imdb.com

Note: Values in brackets are scores.

In terms of film genre, *Wolf Totem* combines the adventure with relatively low cultural discount on the basis of drama, and combines the commercial value of film while retaining the tradition of French romantic creation. Although from the perspective of local cultural acceptance, some scholars questioned the film in terms of ideological differentiation, separation of Cultural Revolution background, weak national characteristics, flat character image, etc., the creative concept of typological production and the co-production mode of

cultural integration provide successful cases of "paradigm film" and "Chinese story, world expression" of cross-cultural production in the new context for mainland China. (Wan, 2015[30], p.137 & Chen, 2018)[31].

On the other hand, sci-fi films with low cultural discount are not only absent from the Hong Kong film industry [11], but also absent from the Chinese mainland market for a long time. The United States was once the dominant producer of sci-fi films, and it is reflected in many co-productions

between the United States and France. China has a large number of sci-fi novel writers and readers, which provides a huge market potential and imagination space for the cultivation and development of the science fiction films market. French producers should take advantage of the market opportunities, make full use of their advantages in scriptwriting, post-production and visual effects, and expand more genres of films in the field of Sino-French co-productions. In the case of sci-fi films, in 2014, two co-productions released only half a year apart on the Chinese mainland triggered a debate about artificial intelligence and brain science.

As an "atypical" Sino-France co-production co-produced by France (According to IMDB, Filmagic Pictures Co., an independent Taiwan film company, participated co-producing in the role of production services, including providing location shooting and other services. Because the film is full of bloody and violent scenes, it is set in Taiwan, which can better avoid administrative censorship in the mainland market and other issues.), Germany and Taiwan, *Lucy* (2014) was directed by Luc Besson, a famous French director known to the mainland public for *Leon* (1994). The film tells the story of Lucy (Scarlett Johansson), a white American woman working in Taiwan, who is forced to help a criminal gang transport drugs called CPH4 through her body and accidentally has superpowers. The plot is based on the scientific premise of "less than 10% of human brain is developed", and unfolds the narrative through the five stages of Lucy's brain upgrading and evolution. The writing style of this film reflects the characteristics of multinational production. For example, the international cast includes

Hollywood famous actress Scarlett Johansson, African American film star Morgan Freeman and Korean experienced film star Choi Min Sik. At the same time, the Korean gangsters, French police, Taiwan scenes and other images collage into the theme concept of Hollywood-style and narrative framework. In the collision and communication of different languages and cultures, such as English, French, Korean and Chinese, problems concerning the global dominance of English, the rise of Oriental forces, the dignity of the European continent order and other ideological and international politics have also been exposed (Shi, 2015)[32]. Despite comments from the mainland media that the film was a "science-fiction stew" of Hollywood narrative models (Hu, 2014) [33], however, compared to the Sino-American-Britain co-production *Transcendence* (2014), which was released in the same year, the film's "post-film influence and the thinking triggered are much more than the latter" (Zeng, 2014) [34]. Although both films involves multi-dimensional scientific, philosophical and artistic topics such as neuroscience, post-human, embodiment and ethnic identity, *Lucy* is more thought-provoking in the presentation of the Oriental context and the trial of the moral standards. Finally, *Lucy* debuted at No. 37 on Chinese mainland box office ranking list with US \$45 million (About CNY ¥280 million). It is also released on the United States in the same time and the first week's box office is only second to *The Fifth Element* (1997). It can be seen from the comparative analysis of table 6, given the similarity of the major genres, *Lucy*'s released week and box office performance is better than *Transcendence* in China, France and America.

Table 6. Comparisons and Analysis of Co-Production Films in Multinational Markets

Director	Genre	Date	Weeks	Country	Production Co.	Box Office
Luc Besson (France)	Action/ Sci-Fi/ Thriller	24 th Oct. (China) /	4 (China) /	France/ Germany/ Taiwan	Europa Corp/ TF1 Films Production/ Filmagic Pictures Co. (Taiwan)	\$44.8 (China) /
		6 th Aug. (France) /	11 (France) /			\$43.8 (France) /
		25 th Jul. (USA)	15 (USA)			\$126.7 (USA)
Wally Pfister (USA)	Action/ Drama/ Sci-Fi/ Thriller	18 th Apr. (China) /	3 (China) /	UK/ China/ USA	Alcon Entertainment/ Straight Up Films/ DMG Entertainment (China)	\$20.3 (China) /
		25 th Jun. (France) /	5 (France) /			\$6.5 (France) /
		18 th Apr. (USA)	9 (USA)			\$23 (USA)

Source: www.boxofficemojo.com & www.imdb.com

Note: Box Office in US \$Million

Compared with the commercial success, the film is still controversial in terms of science fiction setting, narrative style and ideology. For example, Luc Besson's tacit of acceptance of the American-backed English order, intentionally or unintentionally. In fact, French film theorists have long been resistant to local directors like Luc Besson and Jean-Jacques Annaud, who take an international approach and shoot American genres (Zhu, 2014) [35]. However, "the process of co-production is the reproduction of culture in the process of mutation and fusion". On the basis of respecting cultural spirit and artistic tradition, we should follow the cultural discount principle of transnational communication, face up to the phenomenon of cultural collage, and pursue mutual benefit and win-win between culture and industry

(Chen, 2018) [31]. This provides an idea and direction for French films which have long been in "the contradiction between increasing margin in cultural sense and decreasing margin in profit margin" to maintain tension and vitality between art and commerce in addition to macro-control and policy support (He, 2009) [36].

In general, the notion of cultural discount provides a strategic direction for the transnational export trade and cross-cultural communication of French films. Although the total amount of French film exports and the box office of a single film lag behind that of the United States targeting to the Chinese market, for the French domestic market, through the trade exports to the mainland China market, it still obtains better co-production policies and dividends of market

development.

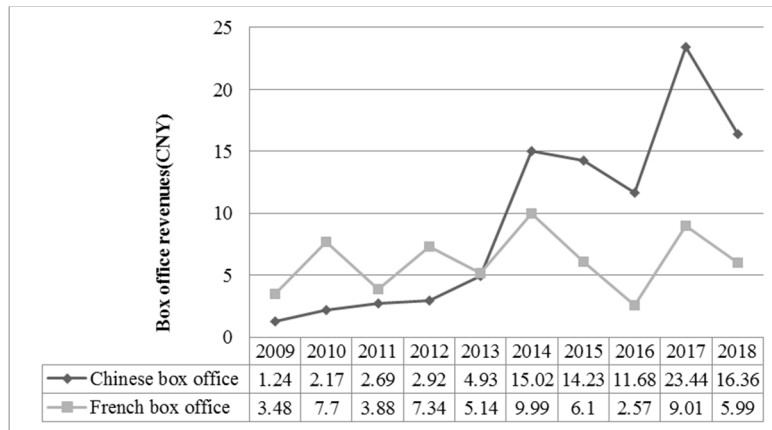


Figure 1. Domestic and Exported Box Office Revenues of French Films

According to the data (See Figure 1), 2013 played a crucial role in the trends of box office in China and France. The total French box office revenue had been higher than that of the mainland China from 2009-2012, and then, the box office of the Chinese mainland had begun to show an explosive growth since 2013, soaring from under ¥0.5 billion (CNY) to the range of ¥1-1.5 billion (CNY). In 2017, it reached the peak revenue of ¥2.34 billion (CNY), which exceeded the range of ¥2 billion (CNY). On the other hand, the revenue of French domestic box office had always been unimpressive during the ten-year statistical period, with the fluctuation range of ¥0.5-1 billion (CNY) for more than half of years. On the whole, French films had reaped higher benefits in the Chinese mainland than in their home market since 2013.

In practice, 2013 was the tenth year belonging to the reform and development of China's film industrialization, which had been made a new breakthrough at the data, including revenue of box office, number of screens, audience size, etc. Meanwhile, Chinese box office revenue reached nearly

¥21.8 billion (CNY), which contained ¥12.8 billion (CNY) from domestic films revenue, accounted for 58.7% of the total box office, increasing 54.3% year-on-year in 2012 (Sun et al., 2014) [37]. Domestic films began to consolidate and improve their dominant position in the Chinese mainland market, and the advantage of new quotas for imported films had been gradually weakened. As mentioned above, on the other hand, according to the Sino-French Film Agreement in 2010, the co-productions are not subject to the quota restriction of imported films which also enjoy 43% of revenue-sharing like China's films. After the policy was issued, there have been around 2 pieces of co-productions each year exhibited in the Chinese mainland market since 2014, consisting of *Lucy* (2014) and *Wolf Totem* (2015). Especially in 2018, a total number of 4 pieces of co-production films were released. In other words, it can be said that during the last six years from 2013 to 2018, while enjoying dividends of policy support and market development, French films need to pay more attention to the rapid growth of the Chinese market.

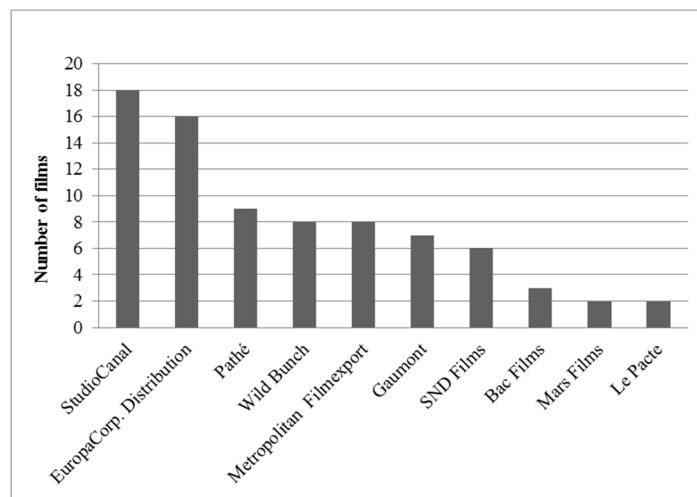


Figure 2. Number of Local Distributions by Top 10 French Film Corp.

In terms of industry development, IMDb statistics (see Figure 2) show that among the top 10 pieces of French studios in the light of the number of films released in France, the total number of distributions from the top 3 of StudioCanal, EuropaCorp., and Pathé accounted for nearly half of 97 samples. The number of StudioCanal's 18 pieces of film released were twice as many as Pathé's 9. While EuropaCorp.'s 16 pieces of film was second in the overall

ranking, but it still had pretty performance.

In the statistical year from 2009 to 2018, both of StudioCanal and EuropaCorp. released French films in French market each year, sometimes in the international market as well. StudioCanal participated in producing and releasing 8 pieces of film exhibited in the Chinese mainland in 2015 and 2018 respectively, involving *The Two Faces of January*, *Paddington*, *The House of Magic*, *Shaun the Sheep*

Movie, and *The Gunman* in 2015, as well as *The Big Bad Fox and Other Tales*, *The Commuter*, and *Early Man* in 2018. EuropaCorp. on second place participated in producing and distributing five films in the Chinese mainland in 2014 and 2015 respectively, including *The Family*, *Brick Mansions*, and *Lucy* in 2014, as well as *Taken 3* and *The Transporter Refueled* in 2015. It is worth mentioning that Wild Bunch's 8 pieces of film released shared the fourth place with Metropolitan Filmexport, however, it had cooperated with the mainland China's directors earlier. In addition to, Wild Bunch participated in distributing *Love and Bruises* (2011) and *Mystery* (2012) directed by Ye Lou.

These local head giants not only have a strong background and resources, but also broaden their eyes on the international markets in the long-term competition and cooperation with Hollywood studios. Since 2013, the rapid development of China's film market has attracted Hollywood studios to set up their branches in the mainland China, meanwhile, several French studios' attention were drawn as well. For example, StudioCanal's branch in Beijing became the first one of French studios to enter into the Chinese mainland market in 2015 (StudioCannal Sets Up the Branch in Beijing of China). In the same year, Wild Bunch co-founded sino-european film fund with Beijing Cultural Assets Chinese Film and Television Fund, investing and shooting of co-productions together (Sino-European Film Fund Invests 100 Million Euros in Five Years to Co-Produce 10 Films.). In the next year, year of 2016, Shanghai Fundamental Films Corp became its exclusive partner in the Chinese market by taking a stake in EuropaCorp. founded by renowned French director Luc Besson (Shanghai Fundamental Films Corp Takes a Stake in EuropaCorp. and Becomes the Second Largest Shareholder of "The Eight Largest Film Company in the World").

Although France is one of the most export market for European Union countries, a great many local distributors are still in financial trouble. As an example, Mars Films, which ever participated in distributing the sino-French film *Wolf Totem* (2015), has already transferred a third of stock shares to Vivendi group recently. Similarly, Gaumont, an independent French film studio, had also suffered from the slumping performance in China which ranked the sixth. It participated in production and distribution in France of 7 pieces of film, but still was hit hard by the Chinese market. Because its 6 pieces of film almost experienced a higher cultural discount genre for audience, such as comedy, drama, animation, etc., except for the thriller genre of *Point Blank*(2012). In addition, Gaumont had been also seriously absent while those local head giants entered into the Chinese market rapidly. From 2013 to 2016, it merely released *Grace of Monaco* (2014) which certainly missed the golden opportunity.

As an exploratory study on the spread of French films in mainland China under the cultural discount theory, this paper also has many shortcomings. For example, the overall sample size is relatively small and some key data lost, which may lead to the deviation of some analysis results due to the insufficient data of some variables in the measurement statistics. These effects and deficiencies can be improved in future studies. Meanwhile, this paper only studies the current situation of film dissemination in France. In addition to France, the development of the film industry in Germany, Italy and other European countries can also be included in the future research scope to help understand the overall development and communication of European films.

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