MARKETING RESEARCH: A STUDY ON MODERATING EFFECT OF

IWOM (INTERNET WORD OF MOUTH) ON CHINESE MOVIE BOX

OFFICE AND ITS INFLUENCING FACTORS

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Abstract

Title:	A Study on Moderating Effect of IWOM (Internet Word of Mouth)
	on Chinese Movie Box Office and Its Influencing Factors
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In recent years, China's movie box office is constantly breaking the record. The development of China's movie market should not be underestimated. With the rapid development of the Internet, various community soft wares were developed and the Internet Word of Mouth (IWOM) has become an important factor influencing the box office. The paper takes the impact of IWOM on consumers' decision-making of movie watching as the basic theory, researching and analyzing the moderating effect of IWOM impact on box office revenue and its influencing factors, accordingly revealing the important impact of IWOM marketing on the movie market.

First of all, the paper reviews the related research on the relationship between IWOM and consumer purchase decision, and It respectively studies the independent variables on five factors: the movie box office and opening weekend box office revenue, casts' appeal, director's appeal, whether the movie is the IP play, the movie

schedule. And then IWOM is divided into two aspects i.e. the volume of comments and marks of IWOM. A study on moderating effect of IWOM on Chinese Movie Box and Its influencing factors. The results show that the influence of casts' appeal, director's appeal and movie schedule on movie box office is not significant, the opening weekend box office revenue and whether the movie is an IP play will affect the box office and are influenced by the volume of comments and marks of IWOM.

In this paper, as samples, 150 movies were randomly selected from the top 100 movies at the box office in 2014, 2015 and 2016, 50 from each year, which were released in mainland China before this September. Based on the data analysis by SPSS statistical software, it draws the conclusion that IWOM will affect movie box office. On this basis, combined with the movies' own characteristics, the related recommendations for the movie IWOM marketing were put forward.

Keywords: Movie Box Office, Internet Word of Mouth, the Volume of IWOM Comments, Evaluating Marks of IWOM.

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By the time of this paper is completed, my graduate student life also will be ended. Hereby, I would like to express my sincere thanks to my teachers and classmates who have given me great care and help both in my study and life.

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Contents

CHAPTER 1

INTRODUCTION

1.1 Research Background

With the integrated development of global economy, politics and culture, the connotation of the movie industry broke through the original territory and the space limitation of Movie Theater, gradually evolved into the most active part of the cultural industry - the movie industry. The movie industry is no longer confined to the movie's production, release and screening three steps. As an industry, the significance of movie has gone beyond the economic field, covering the political, cultural and other aspects, the impact and role is very significant.

The development of global cultural industry has a general rule. When the per capita GDP is more than 3,000 US dollars, the cultural consumption will enter a stage of rapid growth; more than 5,000 US dollars, the cultural consumption will enter the stage of blowout growth. The data published by National Bureau of Statistics shows that as early as 2013, China's per capita GDP was nearly 7,000 US dollars. This indicates that China's cultural industry has entered a golden period of development.

In recent years, China's movie market development should not be underestimated. According to the National Bureau of Statistics, the total number of movie box office revenue in 2002 was less than 1 billion yuan; 10 years later in 2012 it had increased to 17 billion yuan; the box office revenue exceeded 20 billion yuan in 2013 for the first time, it was 29.639 billion yuan in 2014, with year-on-year growth of 36.15%. The movie box office revenue in 2015 reached 44.469 billion yuan, with year-on-year growth of 48.7%. It was learnt from the website of State Administration of Radio Film and Television that the total box office revenue has reached 30.09 billion yuan as of September 2016.

With the advent of the Internet age, the users have turned into active creators

from the passive receivers of Internet information. The impact and penetration of network communication is getting stronger and stronger, and the living habits of people are changed. People communicate with each other through virtual community is communicated, and the internet influence on consumers' purchase decision is continuously strengthened.

With theemergence of new media application software such as various network communities, Microblog, WeChat, it is very convenient for consumersto obtain relevant information. More and more businesses begin to promote their products on the Internet, as one of the industry, movies improve their public attention using the network marketing which is an advertisement way with low cost, quick effect, and then the box office revenue is increased.

In recent years, with the rise of movie evaluating websites such as douban.com, mtiem.com and gewara.com, more and more audiences will read the movie marks and comments from the audiences who have already seen the movie before their watching. Therefore, under the rapid development of the movie industry, the study on Internet Word of Mouth impact on Chinese movie box office has important significance.

1.2 Research Significance and Purpose

For consumers, how to choose a movie is what they concern when they face with various movies in the different type and themes. For the movie, the marketing publicity is the most convenient and direct way for consumers to get the external information; it is also a powerful means to improve the movie popularity and increase the box office revenue. With the popularity and development of the Internet, network communication channels, social media and other channels of communication constitute the current online public opinion field of Chinese movie industry, especially in Microblog, WeChat era, as for a movie, the spread speed of word-of- mouth is far more than ever before. The movie's Internet word of mouth has become a more convenient and credible way for consumers to get external information.

After referring to related documents, it is found that the research on IWOM marketing is relatively comprehensive and extensive. However, there is little research on the application of IWOM in the movie industry. Meanwhile, in the study of IWOM and movie box office, most researchers only consider the direct impact factors of IWOM on movie box office, few researchers involved in the interactive effect between other factors and IWOM on the movie box office. Therefore, more researches are needed to improve this field and reveal the influence of IWOM on the movie box office and its influencing factors.

In this paper, the impact of IWOM on consumer purchase decision-making is applied to Chinese movie industry from the perspective of IWOM. Taking the quantity of network comments and evaluating marks as the standard to evaluate IWOM, the quantitative research method is used to study the moderating effect of IWOM impact on the movie box office and its influencing factors. By analyzing the interaction effect of each factor and IWOM impact on box office, the important influence of IWOM on the film industry is revealed. It is hoped to put forward the relevant recommendations and suggestions for Chinese movie market which is in the idea that "marketing is more important than movie itself".

1.3 Research Content and Framework

In this paper, 150 movies in total (the movies list see Appendix A) were randomly selected from the top 100 films at the box office in 2014, 2015 and 2016, 50 from each year which were released in mainland China before this September. IWOM was introduced to study the factors influencing movie box office. Based on the impact of IWOM on consumer purchase decision-making, the moderating effect of IWOM on box office and its influencing factors is analyzed; revealing the important impact of IWOM marketing on movie industry.

The first part is the preface. It is designed to clarify the research background, the research significance and purpose, research content and framework.

The second part is the literature review. It reviewed and evaluated the influence

of IWOM marketing, IWOM impact on consumer purchase decision-making and the research on IWOM in the movie industry, expounding the significance of the study.

The third part is the research methods. In this part, it establishes the research model and puts forward the hypotheses based on several factors which affect the box office of the movie, combined with the moderation effect of IWOM, setting up the independent variable, the dependent variable and the moderating variable.
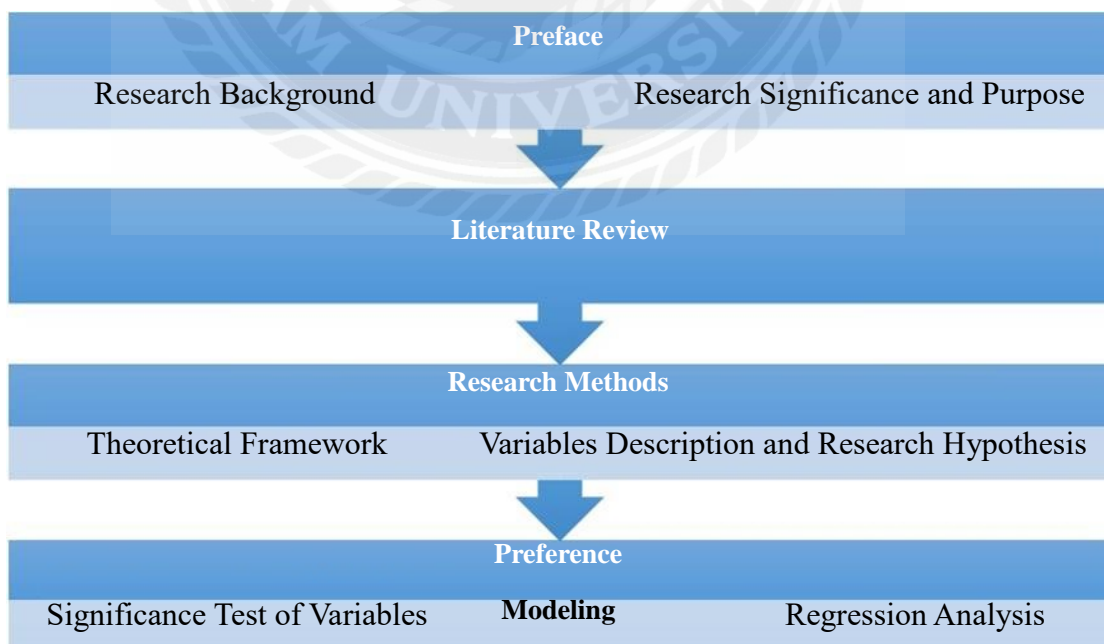
The fourth part is the empirical results. The selection of samples and the source of data were introduced in this part. The correlation between the variables was tested by SPSS statistical analysis software, and the non-significant variables were eliminated. The model was established by regression analysis.

The fifth part is conclusion. The research conclusions, marketing recommendations, research deficiencies and prospects for future research were concluded in this part.

The GeneralResearch Process of this paper is as follow:

Table 1-1

General Research Process

Preface	
Research Background	Research Significance and Purpose

Literature Review

Research Methods	
Theoretical Framework	Variables Description and Research Hypothesis

Preference		
Significance Test of Variables	**Modeling**	Regression Analysis

CHAPTER 2

LITERATURE REVIEW

2.1 Internet Word of Mouth (IWOM)

The Word of Mouth (WOM) is an ancient way to disseminate information. Word of Mouth research originated from communication science, and was widely used in market research. The real word of mouth research began in the 1970s; Arndt (1967) gave the first definition of word of mouth: the word of mouth has nothing to do with the business, only the interpersonal communication face to face on products and companies.

With the development of the Internet, IWOM becomes an important channel for people to express their personal thoughts. And the relationship between the box office and IWOM become the focus of scholars and businessmen. On the Movie! Yahoo!, the positive and negative attitudes of movie posting were used as an important indicator of word-of-mouth, and the relationship between word-of-mouth and box office was discuss (Liu, 2006) through introducing the box office as variable. Moon, Bergey & Lacobucci (2010) also explored the movie community - Movie! Yahoo!, by studying the relationship between evaluating marks and box office, it was found that there is positive correlation between the number of users and marks, but their positive and negative evaluation is No impact on the box office.

With regard to IWOM research, the researchers in different fields will choose different research variables. However, there are some different factors are commonly accepted, which includes the amount, value, degree of spread and marks distribution. The "value" mainly refers to the user's attitude towards the movie, and the positive and negative value will directly affect the consumer behavior; meanwhile, "value" also means the persuasion of word-of-mouth. Some scholars use content analysis to extract the public's attitude towards the movie from the comments provided by IMDb,

Movie! Yahoo! (Godes, Mazylin, 2004)

Cai Yingzhou (2014) believes that word of mouth is an important indicator for evaluating a movie, the digital word-of-mouth breaks through time and space limitation, creating a high degree of bilateral interaction, is the dialogue beween audience and movie producers across time and space. It analyzes the propagation path from the communication elements of movie IWOM, and the three effects are produced. For different movies, the Internet users have different concerns, but the basic concerns are the same, that is the key words of WOM for network communication are basically identical. At present, a considerable number of studies have proved that IWOM, consumer behavior and attitudes are closely related. The source of this IWOM is from Douban (douban.com) and Mtime (mtiem.com). The only assessment basis of Douban WOM list is users' marks and comments. The commercial movies entered into the list do not rely on money PR, or taking the box office revenue as the basis, but by virtue of the story, photography, movie connotation to attract audiences. Therefore, the IWOM on douban.com is more impartial and objective to a certain extent.

2.2 IWOM Marketing

IWOM marketing also known as viral marketing is a popular online marketing method. It is commonly used in website promotion and brand promotion. The viral marketing is more convenient on Internet using the principle of "word-of-mouth communication". It can spread quickly like a virus, so the viral marketing has become an efficient means of information dissemination; moreover, it is network marketing almost with no cost due to this communication is carried out between users spontaneously.

2.3 Research Methods of Internet Word of Mouth

In the traditional environment, it is difficult for scholars to analyze the

word-of-mouth communication itself due to its instantaneous nature. In the network environment, the word-of-mouth information that can be copied and stored in text provides convenience for scholars to use the content analysis and field research to explore and simulate the real process of word-of-mouth communication. Usually, there are qualitative analysis and quantitative analysis. The qualitative analysis is a kind of exploratory research. It obtains deep-level response information about psychological characteristics, feelings and behavioral expression through written and verbal observation, and obtains the knowledge of things. It is mainly used to understand the attitudes, beliefs and motives, behavior and other issues. The research on IWOM mainly includes content analysis, network ethnography, grounded theory and in-depth interviews. The quantitative research refers to establishing assumptions and determining the various variables with causal relationship first, then using the measurement tools to measure and analyze these variables, and then verifying the hypothesis. For IWOM research, the main quantitative methods are laboratory experiments, field experiments, survey methods and field investigations.

In this paper, the content analysis of qualitative research is mainly applied. The content analysis is the main method of IWOM studying. Godes and Mayzlin (2004) used the postings on TV shows in Usenet newsgroups as IWOM. The indicators of word-of-mouth measurement include the volume of posts, positive and negative evaluation of posts, and the degree of dispersion of TV series among different newsgroups. It is concluded that the number and dispersion of online scoring have positive effects on audience rating, and the positive and negative bias have no significant effect. For other entertainment industry research, Liu (2006) took the posts on Yahoo movie forum as internet word of mouth to research the impact of word of mouth on the box office; the indicators for word of mouth include number of posts and its positive and negative comments. Dellarocas, Zhang and Awad (2007), Duan, Gu and Whinstom (2008), Moon, Bergey and Iacobucci (2010) have took the "marks" on Yahoo movie forum as IWOM, which was given by audience after watching the

movies, the indicators to measure the IWOM include the volume of comments and the mark value after watching. The conclusion is that the volume of IWOM has a positive effect on the box office; the positive and negative evaluations have no significant effect; the box office revenue of sequel movies is high, but the online mark is low. Chevalier and Mayzlin (2006) took the book reviews on amazon.com and bn.com as IWOM; the indicators to measure the word of mouth include the number and mark value of book reviews. The conclusion is that the number and mark value of books reviews can promote the book sales. Davis and Khazanchi (2008) used the evaluation on many product categories of online retailers as IWOM; the measurement indicators include number of comments, positive and negative bias of post, post format, posters and so on. The conclusion is that IWOM impact on sales is moderated by product category.

2.4 IWOM Research Methods of Movie Industry

With the continuous development of modern society, the movie greatly enriched people's lives, as an emerging cultural product, the movie's success often need huge public participation and public attraction. Based on the theory of accessibility and impact of information, Chaffee and Steven (1982) confirmed that there must be communication between groups about movies, and that such exchanges have an impact on consumers' purchasing decisions. In view of the special nature of the movie, the consumers can not make an accurate judgment about the quality level of movie before watching, and consumers often search for product information through word of mouth when it is difficult for them to appraise and evaluate the movie during the purchase decision-making. Therefore, the movie's word of mouth information has a great impact on purchase decision-making of consumers. At the same time, with the advent of the Internet era, not only the IWOM has emerged, but also the IWOM impact on movie box office is more far-reaching and complex. The IWOM study on movie industry by domestic and international scholars mainly focused on two aspects:

measurement form and role of IWOM. IWOM generally refers to the marks, comments and other interactions on movies that are from online users. According to the different design of different websites, the form of the IWOM content is also different. However, it mainly includes the volume of network comments and marks in general.

The volume of web comments means the public attention of the movie, the more people discuss a movie, then the more people can know the movie, so to a certain extent, the volume of web comments plays the role of advertising. The effect of network comments refers to the positive, negative or neutral evaluation on a movie, which means the persuasion of IWOM. People express their own attitude towards the movie through making comments the expressing feelings on internet. Many movie websites do not have scoring features such as Movie! Yahoo!, Internet Movie Database (IMDB), China's Douban and Mtime. The evaluation of movies is quantified by scoring of network users. On the one hand, users can simply and clearly describe their evaluation on the movie by mark value; on the other hand, the information searchers also can access to IWOM information more direct. In addition to scoring feature, most websites also have content comments; users can directly write comments and extract the audiences' attitude towards the movie from the content of comments. However, based on the consideration of research costs, most researchers conduct the study directly using the marks from various websites. YeHu (2004) pointed out some websites will sum up and publish the number of people who gave marks in different segments besides the scoring feature, in order to study the variance and distribution of network marks.

The influence of IWOM on movie box office is different, and the related scholars have finished some research and analysis on it. The research findings of most researchers indicate that the box office revenue will be significantly affected by the volume of comments. Yong Liu (2006) believes that the more online reviews, the easier for consumers to have access to relevant information, so the volume of web

reviews, as an information provision role, has an impact on consumers' cognition. There is a multiplicity of views on the relation between Internet evaluation marks and movie box office, based on the movie is an experiential consumption, the viewer often do not comply with the so-called quality indicators, but to meet their own needs to make the purchase behavior. Therefore, the marks will not necessarily have the same effect on the movie box office, which explains why some movies with "low mark but high box office revenue". In addition, IWOM impact on movie box office in different period is different, too. Hadida (2009) pointed out that IWOM had the greatest impact on movies before they are released and in first week of release. The influence of IWOM will be weakened as release time goes on. Some researchers not only studied the impact of IWOM on the box office from the volume of network reviews and marks, but also conducted positive study on the relations between the different periods of movie release and the IWOM in the period. The study of Yong Liu (2006) indicates that the IWOM of movies before their release has a strong predictive power for the box office within five weeks after the release; especially, it has more strong predictive ability for non-sequel movies.

2.5 Influence Factors of Movie Box Office

The foreign study on movie box office is comparatively mature due to the movie market was developed earlier. It integrates many research methods such as filmology, communication science, management science and media economics. By analyzing the influential factors of movie box office and its economic success, the research objective will be achieved. The research on influencing factors of movie box office is still one of the hotspots of academic research. In the late 1990s, the researches on the influencing factors of movie box office gradually became the hotspot of the western film industry. The research conclusions are diverse from each other. The following conclusions are found after the sorting and summing:

1.The types of movie have a large and complex impact on the box office, with

different results in different periods. Generally, action movies have a positive impact, which may be due to the use of high-tech and stars, and the restrictive rating has a negative impact on the movie box office.

2. The role of movie stars on the box office has been controversial in academic circle. Some studies have pointed out that stars have no effect on the box office, and some pointed out that stars have a positive impact on the movie box office, some found that movie stars have positive impact on box office only in opening weekend box office revenue but have a negative impact on long-term box office. These seemingly contradictory research results will be helpful for us to understand further the influence factor of stars.

3. Whether a movie is an IP play is related to the movie box office. If the movie is sequel series or is adapted from other media, the audience is more familiar with the content of the movie, which has a positive effect on the movie box office. IP play refers to the movie and television play adapted from original network novels, games, animations which have a certain number of fans.

4. The production costs, distributors, schedule and other marketing factors will directly affect the movie box office. The production costs are positively related to movie box office. The strong distributors and summer schedule have a positive impact on the movie box office.

5. The evaluation of an independent third-party will affect the box office, that is, whether the movie won a prize has a great impact on box office.

6. The box office will also be affected by audience's evaluation on movie quality, in particular, the quality assessment caused by IWOM, that is the audience's attention, movie ratings and click-through rate will affect the movie box office.

2.6 Assessment and Revelation of Literature

This chapter reviews the related literatures of Internet Word of Mouth (IWOM), IWOM marketing, IWOM research methods, IWOM research in movie industry and

influencing factors of movie box office. Firstly, it expounds the theoretical definition of IWOM. Secondly, it explains what IWOM marketing is. Thirdly, it states the related thesis results of research methods on IWOM at home and abroad. Fourthly, it reviews the related researches on IWOM of movie; finally, it expounds the factors influencing the movie box office.

Through sorting the researches above, we get the following revelations:

1. Information is very important for consumers' purchasing decisions. The information about products and services will directly affect consumers' brand awareness, brand evaluation and brand attitude, which influences their purchase decision and purchase behavior. IWOM in Internet Era has become a useful way for consumers to search for and access information. Therefore, as a new form of word of mouth, the impact of IWOM on consumer purchasing decisions and purchase behavior is significant.

2. IWOM properties include the volume of IWOM, the quality of IWOM and the effect of IWOM namely marks, they are three different dimensions of IWOM. Since the different dimensions of IWOM have different properties, they have different effects on consumers' purchasing decision-making. In addition, IWOM will have a great impact on products sale, different directions of IWOM will have different degrees of impact. Based on the nature of the movie industry and the availability of relevant data, this paper mainly discusses the influence of the number and mark of IWOM on movie box office (i.e. the effect of Internet Word of Mouth).

3. Through reviewing the IWOM studies on the movie industry, it is found that there is some disagreement about IWOM measurement and the impact on movie box office, in which the relevant scholars have the same conclusion that the volume of IWOM has a positive impact on the movie box office, but how the evaluating marksof IWOM affect the movie box office is divergent. Therefore, this paper will respectively carry out the empirical analysis aboutthe moderating effect of the volume of IWOMcomments and marks on movie box office and its influencing factors.

4. There are many factors influencing the movie box office. Reviewing the studies on IWOM and box office found that as an influential factor of box office, IWOM has been studied together with other influential factors by researchers and scholars and drew a conclusion about the IWOM impact on box office. However, taking IWOM as a moderated variable and discussing the interactive effect with other factors influencing the box office has not yet appeared at present. Therefore, this paper will focus on the interactive effect between IWOM and other factors influencing box office, and then analyze the impact of IWOM on the box office from this view.
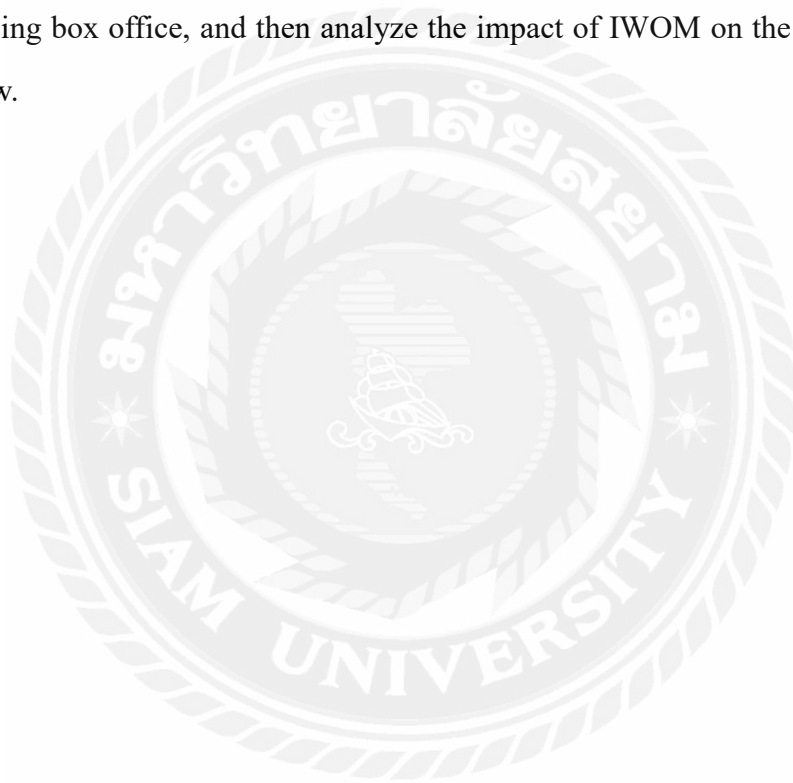
CHAPTER 3

RESEARCH METHOD

This paper adopts the method of combining theoretical research with empirical analysis. Based on the domestic and international marketing research, the paper analyzes the relationbetween the factors influencing the box office and IWOM marketing. This paper will collect the historical data of related variables of movie box office and IWOM in the past three years, establishing the mathematical model of which the box office is the dependent variable, the opening weekend box office revenue, casts' appeal, director's appeal, screenplay is IP play or not, movie schedule are independent variables, and IWOM is moderated variable, quantitatively describing the effect of IWOM on box office and its influencing factors, and then drawing the conclusion of this paper, and providing important theoretical guidance for movie IWOM marketing.

3.1 Theoretical Framework

Figure 3-1 Theoretical Frame Diagram
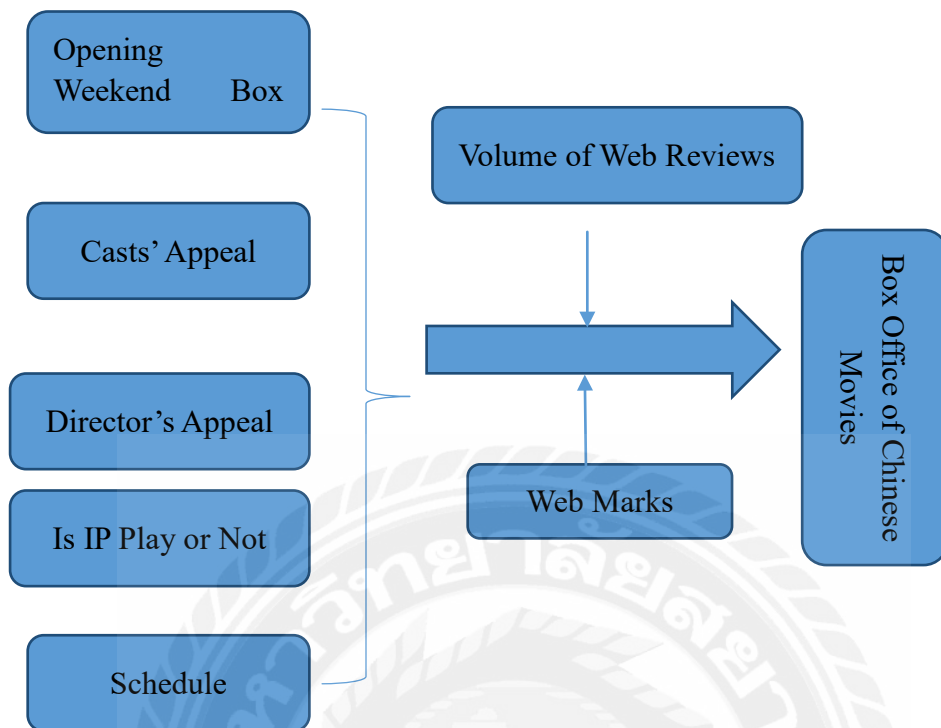
3.2 Variables Description and Research Hypothesis

1) Independent Variables

The box office will be affected not only by movie's characteristics, but also by other factors in the market. However, based on other scholars' research, the paper only chooses five variables (the opening weekend box office revenue, casts' appeal, director's appeal, whether the screenplay is IP play and schedule) to discuss and study.

a) Opening Weekend Box Office Revenue

In the study on relation between box office revenue and IWOM, Dellarocas et al. (2007) took the opening weekend box office revenue (the Fist Week)as one of the independent variables and believed that the opening weekend box office revenue is an important factor influencing the total box office.Since most movies releasedto the nationwide will have a dynamic big explosion effect, namely the movie premiere will produce a lot of IWOM. The data of opening weekend box office revenue is fromMaoyan Movies (http://www.maoyan.com).

b) Casts' Appeal

All along, the impact of casts' appeal on box office is controversial.With the growing trend of "Star Effect", the "Fans Movies" appear on the market. This study is based on five famous awards in mainland China, Hong Kong and Taiwan regions to determine casts' appeal, selecting the top three performers of each movie to sum the statistics, the data about number of award nominations and awardwinning are from mtime.com.

c) Director's Appeal

The famous director is a guarantee of movie quality. However, in recent years, young directors have changed the situation (Zhao Wei, Xu Zheng).The impact of director's appeal on the box office is still not clear. In this paper, it uses the number of nominations and awardwinning in the seven awards above to evaluate the director's appeal for box office. The data about the number of awards nominations and awards winning are from mtime.com.

d) Whether the screenplay is a IP play

With the growth of IP plays, this factor has to be regarded as one of the factors influencing the box office. IP play refers to the movie and television plays created and adapted from the original network novels, games and animations with a certain number of fans. Since there are thousands of fanatical fans behind the IP play and their spending power should not be underestimated. This factor is mainly used to test whether a certain audience groups will affect the box office.Therefore, the definition of IP playin this paper was changedas a movie withcertain audiences, such as adapted or sequel movies. The IP play is set to 2, otherwise,set to 1.

e) Schedule

In 2015, the box office in summer holidays accounted for 28% of the total for the whole year. The box office in Lunar New Year of 2015-2016 was 17.5 billion. The different schedule is for different consumers. According to research needs, this paper takes the value of 4,3,2 to respectively represent the movie schedule on Lunar New Year, Summer Holidays, Holidays and other schedule is set to 1. The schedule data

isfrom douban.com.

2) Moderated Variable

Internet Word of Mouth

In this paper, IWOM is divided into two dimensions, namely, the volume of IWOM comments and marks. The study of Eliashberg and Shugan (1997) indicates that the evaluating marks of movies will not only affect the viewing decision of consumers in the early stages of release, but also predict whether consumers will like the movie or not. However, there is no unanimous conclusion about the influence of the movie marks on the audience decision-making. In addition, the study finds that although theconsumer behavior can be predicted by movie marks, but movie marks does not affect the consumers. However, Holbrook (1999) found that there was a positive correlation between professional movie ratings and consumer behavior.

The data in this paper comes from douban.com and mtime.com. These two websites areleading webs of movie IWOM in mainland China at present, with high authority and credibility. The volume of network comments represents the number of people concerned about the movie, which is represented by the total number of comments. This papertakesthe totalcomments from douban.com and mtime.com as the volume of IWOM comments. The IWOM marks represent how much the audiencesaccept and like the movie. The volume of comments in this paper is obtained from the weighted average of comments on both websites.

3) Dependent Variable

Box Office

Box Office refers to the total income of a movie during the showing period, which is a direct result caused by consumer's purchase. This paper chooses box office revenue as the standard to measure the consumer purchase behavior. Starting with the impact of IWOM on consumer purchase behavior, it discusses the impact of IWOM on box office. All box office data in this paper is from http://www.maoyan.com. The statisticsfor box office on this website includesthe daily ranking, weekly ranking and

historical ranking.This paper mainly selects the historical data of box office to do empirical analysis.

From the above, the related hypothesis is put forward:

H1a: The volume of IWOM comments has a significant impact on the box office.
H1b: The IWOM markhas a significant impact on the box office.
H2a: The opening weekend box office revenuehas a significant impact on the box office.
H2b: The volume of IWOM comments has a significant impact on the relation between opening weekend box office revenueand box office.
H2c: The IWOM mark has a significant impact on the relation between opening weekend box office revenueand box office.
H3a: The casts' appeal has a significant impact on the box office.
H3b: The volume of IWOM comments has a significant impact on the relation between casts' appeal and box office.
H3c: The IWOM mark has a significant impact on the relation between casts' appeal and box office.
H4a: The director's appeal has a significant impact on the box office.
H4b: The volume of IWOM comments has a significant impact on the relation between director's appeal and box office.
H4c: The IWOM mark has a significant impact on the relation between director's appeal and box office.
H5a: Whether the screenplay is IP play has a significant impact on the box office.
H5b: The volume of IWOM comments will affect whether the screenplay is IP playand has a significant impact on the box office.
H5c: The IWOM mark will affect whether the screenplay is IP playand has a significant impact on the box office.
H6a: The movie schedule has a significant impact on the box office.

H6b: The volume of IWOM comments will affect the movie schedule and has a significant impact on the box office.	
H6c: The IWOM mark will affect the movie schedule and has a significant impact on the box office.	

From the above, the definition of each variable is shown as the following Table 3-1

Table 3-1 Variable Definition

Variables	Description	Data Sources
Dependent Variable		
Box Office	Totalincome during its showingperiod	http://www.maoyan.com
Moderated Variable		
The volume of IWOM	Total number of people who make comments	douban.com, mtime.com
Marks of IMOM	Weighted Average Mark	douban.com, mtime.com
Independent Variable		
Opening Weekend Box Office Revenue	Box Office in the first 7 days of release (including movie on-demand)	http://www.maoyan.com
Casts' Appeal	The top three starswho obtainedfamous awards nomination and awardswinning	mtime.com
Director's Appeal	The number of famous awards nominations and awards winning	mtime.com
Movie Schedule	4=Lunar New Year, 3=Summer Holidays, 2=Holidays, 1=Ordinary Days	
Is the Movie an IPplay?	2=Yes, 1=No	douban.com,

		mtime.com

CHAPTER 4

RESULTS

4.1 Sampling

In this paper, 150 movies (the movies list see Appendix A) were randomly selected from the top 100 films at the box office in 2014, 2015 and 2016, 50 from each year, which were released in mainland China before this September.These 150 moviesare taken as the object of study. It makes the empirical analysison the box office revenue, IWOM (network evaluating mark and the volume of network reviews), the opening weekend box office revenue, whether the screenplay is IP one, schedule, casts and directors and other relevant data.

4.2 Significance Test of Variables

1) Significance Test of Moderated Variables

In this paper, it tests the correlation between IWOM and box office before the model is established, analyzing the degree of correlation between independent variable (network comments and mark) and the dependent variable (box office).

Table 4-1: DescriptiveStatistical Analysis of Independent Variable					
	Figure	Minimum Value(M)	Maximum Value (X)	Average Value (E)	Standard Deviation
The volume of Web Comments	150	.744	426.821	88.04417	84.081359
Web Evaluating Marks	150	3.32	9.08	6.1673	1.28006
Effective N (in row)	150				

Table 4-1respectively presents a descriptive statistical analysis for the volume of webcomments and marks. In the 150 sample movies, the maximum value of web

comments (in thousand) is 426.821, the minimum is 0.744, and the average is 88.044, which indicates that the volume of web comments is quite different for different movies; the maximum value of web marks (marks) is 9.08, the minimum is 3.32, and the average is 6.167. Different audiences like different movies, but in general, the average webmark of the sample movies is around 6.2.

Table 4-2:Correlation Matrix of IWOM and Box Office				
		Box Office (Ten Million)	The Volume of Web Comments	Web Evaluating Marks
Box Office (Ten Million)	Pearson Correlation	1	$.647^{**}$	$.276^{**}$
	Significance(Two-tailed)		.000	.001
	N	150	150	150
The Volume of Web Comments	Pearson Correlation	$.647^{**}$	1	$.590^{**}$
	Significance(Two-tailed)	.000		.000
	N	150	150	150
Web Evaluating Marks	Pearson Correlation	$.276^{**}$	$.590^{**}$	1
	Significance(Two-tailed)	.001	.000	
	N	150	150	150

**. The correlation is significant when the confidence coefficient (double test) is 0.01.

Based on the correlation between the independent variable (IWOM) and the dependent variable (box office) inTable 4-2, the correlation coefficient between the volume of webcomments, web marks and box office is 0.647, 0.276 respectively, indicating that the two independent variables are positively correlated with box office, and the significance of both is less than 0.05, indicating that the volume of web comments and marks have a significant positive correlation with box office. Therefore, both hypotheses H1a and H1b are true.

2) Significance of Independent Variables

There are many factors that will affect the box office and predecessors have studied some in their own papers. However, the factors that affect movie market change as time goes on. In order to validate the impact of IWOM as a moderated variable on box office, this paper selects five variables (opening weekend box office revenue, whether the movie is IP play, movie schedule, casts' appeal, director's appeal) to research and analyze. However, based on previous studies, it is found that scholars have some ambiguity about the relationship between these variables and box office. Therefore, this paper carries out the significant test for each variable before the modelingof data analysis.

(1) Opening Weekend Box Office Revenue

The data of opening weekend box office revenue is from http://www.maoyan.com. The descriptive statistics of opening weekend box office revenue shows that in 150 samples, the minimum is 1.54 million yuan, the maximum is 1.82148 billion yuan, and the average is about 164.2 million.

Table 4-3: Descriptive Statistics of Opening Weekend Box Office Revenue					
	Figure	Minimum Value(M)	Maximum Value (X)	Average Value (E)	Standard Deviation
Opening Weekend Box Office Revenue (Ten Million)	150	.154	182.148	16.42622	20.792670
Effective N (in row)	150				

Table 4-4:Correlation Matrix of Box Office and Opening Weekend Box Office Revenue

		Box Office (Ten Million)	Opening Weekend Box Office Revenue (Ten Million)
Box Office (Ten Million)	Pearson Correlation	1	.876[**]
	Significance(Two-tailed)		.000
	N	150	150
Opening Weekend Box Office Revenue (Ten Million)	Pearson Correlation	.876[**]	1
	Significance(Two-tailed)	.000	
	N	150	150

**. The correlation is significant when the confidence coefficient (double test) is 0.01.

By testing the correlation analysis between the movie box office and the opening weekend revenue, Table 4-4 shows that the correlation coefficient is 0.876, which indicates that there is a positive correlation between the opening weekend box office revenue and the total box office. Sig. = 0 <0.01, it proves again that there is a significant correlation between the opening weekend box office revenue and the total box office. Therefore, hypothesis H2a is true. Analyzingthe sample data we can find:

(2) Casts' Appeal

In this paper, the total number of awards nominations and awards winning of top three stars in each movie is used as a measuring standard of casts' appeal. From the related information of casts' appeal described in Table 6, we can see that the maximal of cast's appeal is 113, the minimum is 0, and the mean value is about 27.393.

Table 4-5: Descriptive Statistics of Casts' Appeal					
	Figure	Minimum Value(M)	Maximum Value (X)	Average Value (E)	Standard Deviation

Casts' Appeal	150	.0	113.0	27.393	26.2028
Effective N (in row)	150				

Table 4-6: Correlation Matrix of Casts' Appeal and Box Office

		Box Office (Ten Million yuan)	Casts' Appeal
Box Office (Ten Million yuan)	Pearson Correlation	1	.025
	Significance(Two-tailed)		.761
	N	150	150
Casts' Appeal	Pearson Correlation	.025	1
	Significance(Two-tailed)	.761	
	N	150	150

Table 4-6 shows that the correlation coefficient between casts' appeal and movie box office is 0.025, indicating that there is a certain positive correlation betweencasts'appeal and box office, but the correlation coefficient is very low. Meanwhile, Sig. = 0.761> 0.05, also indicates that there is no significant correlation between the casts' appeal and box office. Therefore, the hypothesisH3a is false. This is attributable to the diversified developmentof the current entertainment market; we can find a lot of actors/actressestry to pack themselvesthrough many channels, even if they did not obtain any movie awards or nominations. However, with a highmedia exposure and popularity, and even the achievements obtained in other fields, they gain the audience's favor and praise, possessing a large number of fans, and thencausing a great impact on the movie box office.

(3) Director's Appeal

In this paper, the measuring standard of director's appeal is the same as thecasts', using the total number of movie awards nominations and awards winningof the director as the measuring standard. From the description in Table 8, we can see the maximum value of director's appeal is 71, the minimum is 0, and the mean value is about 8.2.

Table 4-7: Descriptive Statistics of Director's Appeal

	Figure	Minimum Value(M)	Maximum Value (X)	Average Value (E)	Standard Deviation
Director's Appeal	150	.0	71.0	8.220	13.1138
Effective N (in row)	150				

Table 4-8: Correlation Matrix of Director's Appeal and Box Office

		Box Office (Ten Million yuan)	Director's Appeal
Box Office (Ten Million yuan)	Pearson Correlation	1	.041
	Significance(Two-tailed)		.614
	N	150	150
Director's Appeal	Pearson Correlation	.041	1
	Significance(Two-tailed)	.614	
	N	150	150

Table 4-8 shows that the correlation coefficient between the director's appeal and movie box office is 0.41, indicating that there is a certain positive correlation between the director's appeal and box office, but the correlation coefficient is very

low.Meanwhile, Sig. = 0.614> 0.05, it proves that there is no significant correlation between director's appeal and box office.Therefore, the hypothesis H4a is false. By analyzing the sample, we can find the movies: "Three" (Johnnie To), "Monk Comes Down The Mountain" (Chen Kaige), "The Crossing" (John Woo) are all directed by the famous directors, but the box office is not as expected. This indicates that well-known directors'movies are unable to guarantee the box office incurrent movie market. In contrast, a group of "new directors" led by Xu Zheng have become the main force of the market. They can understand more about young people'sfavor compared with the fifth generation directors and the young audiences is the mainstream in the current movie market. Moreover, the new directors also have professional learning and shooting experience. With more mature and rational concept, they naturally occupy the market.

(4) Is IP Play or Not

In this paper,the IP play is set to 2, otherwise, it is set to 1. By the statistics, from Table 4-9 we can find that there are 82 IP play movies in 150 samples, accounting for 54.7%. But the box office revenue is as high as 38.46725 million yuan, significantly higher than others, accounting for 67% of total box office revenue.

Table 4-9: Descriptive Statistics of Whether the Movie is IP play				
	Frequency	Percentage	Total Box Office	Percentage
1	1.0	45.3	1906.915	33%
2	2.0	54.7	3846.725	67%
Total	150	100.0	5753.640	100

Figure 4-1: IP Play vs Box Office
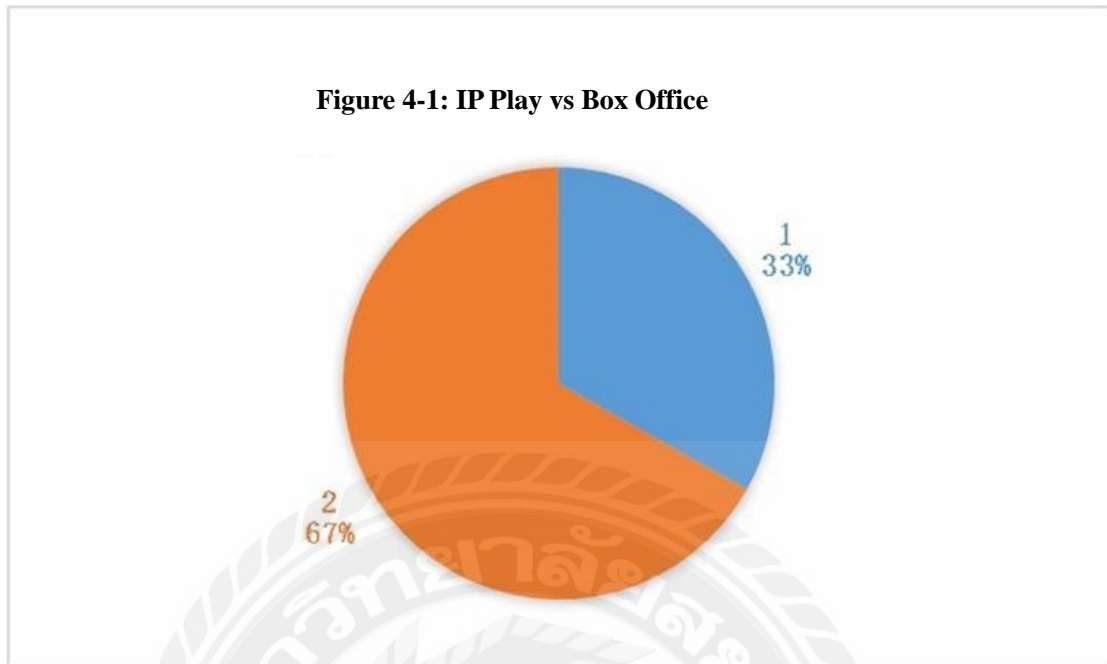
		Box Office (Ten Million yuan)	Is IP Play or Not
		Table 4-10: Correlation Matrix of IP Play Movie and Box Office	
Box Office (Ten Million yuan)	Pearson Correlation	1	.183[*]
	Significance(Two-tailed)		.025
	N	150	150
Is IP Play or Not	Pearson Correlation	.183[*]	1
	Significance(Two-tailed)	.025	
	N	150	150

*. The correlation is significant when the confidence coefficient (double test) is 0.05.

By testing the correlation between "whether the movie is an IP play" and box office,the results are shown in Table 4-10, the correlation coefficient is 0.183, indicating a positive correlation. Furthermore, Sig. = 0.025 <0.05, indicates"whether

the move is an IP play" has a significant impact on box office.Therefore, the hypothesis H5a is true. In recent years, both the domestic and foreign directors are full of enthusiasm aboutmaking large IP movies, such as "Tiny Times", "The Hunger Games", "Time Raiders", "Marvel Series" etc. This is because the IP movies have formed their own brand value before the release; the movies can attract viewers bytheir good brand value, and thus create better box office revenue.

(5) Schedule

In this paper, the movies screening schedule is divided into four periods, respectively, Lunar New Year, Summer Holidays, Holiday and Ordinary Days, taking the value of 4,3,2,1in sequence as reference. Figure 3 shows that there are 52 movies of 150 samples were chosen to release on summer holidays, the box office accounts for 40% of the total. Another 52 movies were released onordinary days, but the box office only accounts for 24% of the total. There are 10 movies releasedon holidays, the box office accounted for 10% of the total, 36 were released on Lunar New Year and the box office accounted for 26% of the total.

Table 4-11: Descriptive Statistics of Schedule and Box Office

	Frequency	Percentage	Total Revenue
Ordinary Days	52	34.7	1396.898
Holidays	10	6.7	598.778
Summer Holidays	52	34.7	2278.020
Lunar New Year	36	24.0	1479.944
Total	150	100.0	5753.640

Figure 4-2 : Pie Chart of Movie Schedule vs Box Office
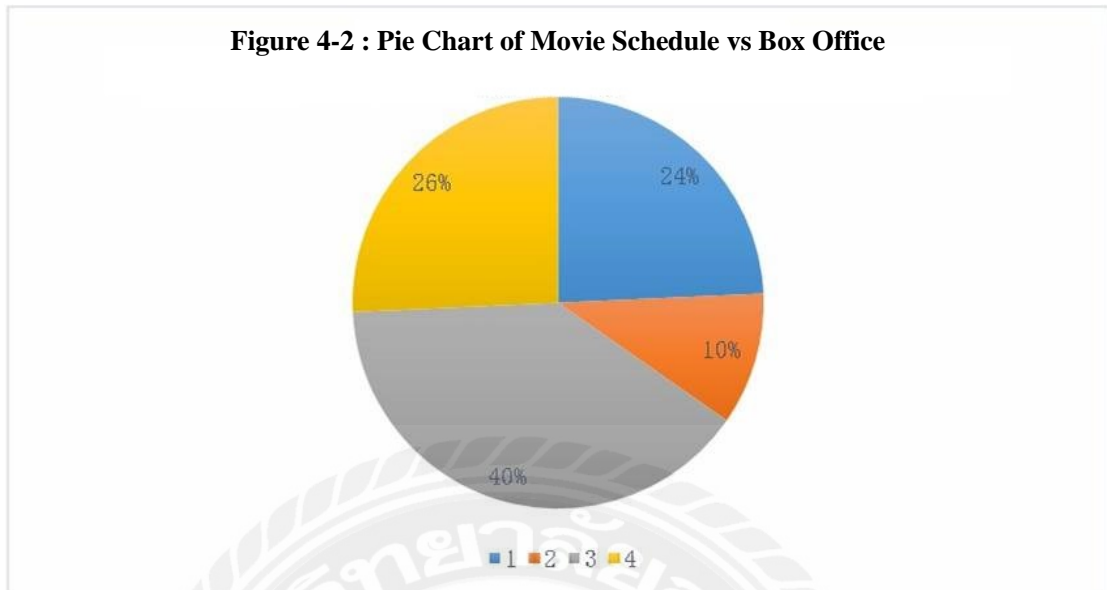
**Table 4-12: Correlation Matrix of Schedule and Box Office**

		Box Office (Ten Million yuan)	Schedule
Box Office (Ten Million yuan)	Pearson Correlation	1	.124
	Significance(Two-tailed)		.131
	N	150	150
Schedule	Pearson Correlation	.124	1
	Significance(Two-tailed)	.131	
	N	150	150

By testing the correlation, it is found that there is a positive correlation between movie schedule and box office. However, Sig. = 0.131> 0.05, indicates that the impact of the schedule on box office is not significant, so H6a is false. As a result of the random sampling, there are 52 movies of 150 samples released on ordinary days, and only 10 were scheduled to release on holidays. So this variable was eliminated.

In conclusion, after the significant test for each variable, the volume of network comments and marks are significantly correlated with the box office. Among the five

independent variables, the opening weekend box office revenue, and whether it is IP playhave significant correlationon the box office;there is no significant correlation between the casts' appeal, director's appeal, movieschedule and the box office. Therefore, these three variables were eliminatedfrom this paper and the theoretical frame of the third chapter was modified, and the revised relational model is shown as below:

Figure 4-3Revised Theoretical Frame Diagram
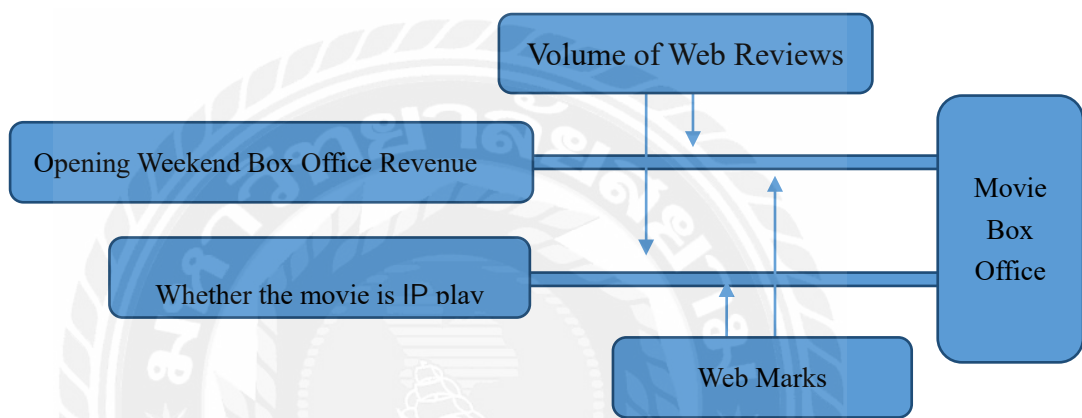
In this paper, the relational model between the revised independent variables affected by IWOM and box office was established after the significance of the variables was tested.In the next study,it will focus on analyzing and validating therelation between the first week revenue, whether the movie is IP play and box office.

4.3 Modeling

In this paper, the first weekrevenue (First Week), whether the movie is an IP play (IP) these two variables are used as independent variables, respectively establishing the regression model for IWOM volume (Volume) and box office, IWOM mark (Mark) and box office(Box Office), and usingtherelated statistical methods to validate and analyze.

Box Office＝a0+a1* Volume ＋a2* First Week + ε1

Box Office＝b0+b1* Mark+b2* First Week + ε2

Box Office＝c0+c1* Volume +c3* IP + ε3

Box Office＝d0+d1* Mark+d4* IP + ε4

4.4 Regression Analysis

1) The Regression Analysis of the First Week Box Office Affected by theVolume of Web Comments

As it is shown in Table 4-13, the correlation coefficient between the volume of web comments and box office is 0.647, and Sig. = 0.000 <0.01, indicating that there is a significant positive correlation between the volume of web reviews and box office; the correlation coefficient between the first week box office and total box office is 0.876 and Sig.= 0.000 <0.01, indicating that there is also a significant positive correlation between the First Week andBox Office; the correlation coefficient between thevolume of web comments and first week box office is 0.478, Sig. = 0.000 <0.01, indicating thatthere is a significant positive correlation between the volume of web comments and the first week box office.

Table 4-13: Correlation Matrix of Each Variable				
		Box Office (Ten Million yuan)	The Volume of Web Comments	The First Week (Ten Million yuan)
Box Office (Ten Million yuan)	Pearson Correlation	1	.647**	.876**
	Significance(Two-tailed)		.000	.000
	N	150	150	150
The Volume of	Pearson Correlation	.647**	1	.478**

Web Comments	Significance(Two-tailed)	.000		.000
	N	150	150	150
The First Week (Ten Million yuan)	Pearson Correlation	.876**	.478**	1
	Significance(Two-tailed)	.000	.000	
	N	150	150	150

**. The correlation is significant when the confidence coefficient (double test) is 0.01.

Table 4-14: Regression Coefficient of Opening Weekend Box Office Revenue, The Volume of Web Commentsand Box Office

Model	Non-standardized Coefficients		Standardized Coefficients	t	Significance	Collinearity Statistics	
	B	Standard Error	β			Allowance	VIF
(Constant)	-5.113	2.430		-2.104	.037		
The Volume of Web Comments	.172	.022	.296	7.746	.000	.771	1.297
The First Week (Ten Million yuan)	1.725	.090	.734	19.213	.000	.771	1.297

a. Dependent Variable: Box Office (Ten Million yuan)

From the regression coefficient table of the First Week, the volume of web comments and the box office, we can see that the First Week as a moderated variable in the regression equation, the constant is -5.113, the volume of web comments $a1 = 0.172$, the first week box office $a2 = 1.725$. The regression coefficient $\beta = 0.217$, the significance Sig. = 0.000 <0.01, therefore, the interaction effectbetween the volume of

web comments and the first week box office was analyzed separately. As the moderated variable, the volume of web comments affect the first week revenue, and then significantly affect the total box office, the hypothesis H2b is true. The following regression equation is derived:

Box office =-5.113＋0.172* Volume+1.725 * First Week + ε1

2) The Regression Analysis of the First Week Box Office Affected by the Web Marks

As it is shown in Table 4-15, the correlation coefficient between the webmarks and the box office is 0.276, and Sig. = 0.001 <0.01, indicating that there a significant positive correlation between the web marks and the box office; the correlation coefficient between the first week revenue and the box office is 0.876, Sig.= 0.000 <0.01, indicating that there is also a significant positive correlation between the first week revenue and total box office; the correlation coefficient between the web marks and the first week revenue is 0.153, Sig. = 0.062> 0.01, indicating that the correlation between the web marksand the first week revenue is low.

Table 4-15: Correlation Matrix of Each Variable

		Box Office (Ten Million yuan)	The First Week (Ten Million yuan)	The Volume of Web Comments
Box Office (Ten Million yuan)	Pearson Correlation	1	.876**	.276**
	Significance(Two-tailed)		.000	.001
	N	150	150	150
The First Week (Ten Million yuan)	Pearson Correlation	.876**	1	.153
	Significance(Two-tailed)	.000		.062
	N	150	150	150

		.276**	.153	1
Web Marks	Pearson Correlation			
	Significance(Two-tailed)	.001	.062	
	N	150	150	150

**. The correlation is significant when the confidence coefficient (double test) is 0.01.

Table 4-16: Regression Coefficient of Opening Weekend Box Office Revenue, Web Markson Box Office								
		Non-standardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Standard Error	β	t	Significance	B	Standard Error
1	(Constant)	-28.879	9.135		-3.161	.002		
	Web Marks	5.562	1.468	.146	3.790	.000	.977	1.024
	The First Week (Ten Million yuan)	2.005	.090	.853	22.190	.000	.977	1.024

a. Dependent Variable: Box Office (Ten Million yuan)

From the regression coefficient table of the First Week, the web marks and the box office, we can see that the First Week as anindependent variable in the regression equation, the constant is -28.879, the web mark $b1$ = 5.562, the First Week $b2$ = 2.005,the regression coefficient β = 0.125, the significance Sig. = 0.000 <0.01, therefore, the interaction effectbetween the webmark and the first week box office was analyzed separately. As the independent variable, the web marks affect the first week revenue, and then significantly affect the total box office, the hypothesis H2c is true. The following regression equation is derived:

Box office =-28.879＋5.562*Mark＋2.005* First Week + $\varepsilon 2$

3) The Regression Analysis of IP Play Affected by the Volume of Web Comments

As it is shown in Table 17, the correlation coefficient between the volume of web comments and the box office is 0.647, and Sig. = 0.000<0.01, indicating that the there a significant positive correlation between the volume of web comments and the box office; the correlation coefficient between the IP play and the box office is 0.183, Sig.=0.025<0.05, indicating that there is also a significant positive correlation between the IP play and total box office; the correlation coefficient between the volume of web comments and IP play is 0.048, Sig.=0.558>0.05, indicating that the correlation between the volume of web comments and IP play is low.

Table 4-17: Correlation Matrix of Each Variable

		Box Office (Ten Million yuan)	The Volume of Web Comments	Is IP Play or Not
Box Office (Ten Million yuan)	Pearson Correlation	1	.647**	.183*
	Significance(Two-tailed)		.000	.025
	N	150	150	150
The Volume of Web Comments	Pearson Correlation	.647**	1	.048
	Significance(Two-tailed)	.000		.558
	N	150	150	150
Is IP Play or Not	Pearson Correlation	.183*	.048	1
	Significance(Two-tailed)	.025	.558	
	N	150	150	150

**. The correlation is significant when the confidence coefficient (double test) is0.01.

*. The correlation is significant when the confidence coefficient (double test) is 0.05.

Table 4-18: Regression Coefficient ofWhether the Movie Is IP Play, the Volume of Web Commentsand Box Office

Model		Non-standardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Standard Error	β	t	Significance	B	Standard Error
1	(Constant)	-17.456	10.207		-1.710	.089		
	The Volume ofWeb Comments	.372	.036	.640	10.370	.000	.998	1.002
	Is IP Play or Not	14.864	6.042	.152	2.460	.015	.998	1.002

a. Dependent Variable: Box Office (Ten Million yuan)

Table 4-18 the Regression Coefficient of Whether the Movie Is IP Play, the Volume of Web Comments and Box Office showsthat "whether the movie is an IP play"as a moderated variable in the regression equation, the constant is -17.456, the volume of web comments $c_1 = 0.372$, whether the movie is an IP play $c_3 = 14.864$,the standard regression coefficient β = 0.097, the regression coefficient β 1 =0.000 (<0.01), β2=0.015 (<0.05). Therefore, the interaction effectbetween the volume of web comments and whether the movie is an IP playwas analyzed separately. As the independent variable, the volume of web comments affect whether the movie is an IP play, and then significantly affect the box office, the hypothesis H5b is true. The following regression equation is derived:

Box Office＝－17.456+0.372* Volume ＋14.864* IP＋ε3

4) The Regression Analysis of IP Play Affected by the Web Marks

As it is shown in Table 4-19, the correlation coefficient between the web marks and the box office is 0.276, and Sig. = 0.001<0.01, indicating that the there a

significant positive correlation between the web marks and the box office; the correlation coefficient between the IP play and the box office is 0.183, Sig.=0.025<0.05, indicating that there is also a significant positive correlation between the IP play and the box office; the correlation coefficient between the web marks and IP play is 0.032, Sig.= 0.702>0.05, indicating that the significance between the web marks and whether the movie is an IP play is low.

Table 4-19：Correlation Matrix of Each Variable				
		Box Office (Ten Million yuan)	Web Evaluating Marks	Is IP Play or Not
Box Office (Ten Million yuan)	Pearson Correlation	1	.276**	.183*
	Significance(Two-tailed)		.001	.025
	N	150	150	150
Web Marks	Pearson Correlation	.276**	1	.032
	Significance(Two-tailed)	.001		.702
	N	150	150	150
Is IP Play or Not	Pearson Correlation	.183*	.032	1
	Significance(Two-tailed)	.025	.702	
	N	150	150	150

**. The correlation is significant when the confidence coefficient (double test) is 0.01.

*. The correlation is significant when the confidence coefficient (double test) is 0.05.

Table 4-20：Regression Coefficient ofWhether the Movie Is IP Play, the Web Marksand Box Office

Model		Non-standardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Standard Error	β	t	Significance	B	Standard Error
1	(Constant)	-51.857	21.872		-2.371	.019		
	Web Marks	10.334	2.976	.271	3.472	.001	.999	1.001
	Is IP Play or Not	17.048	7.638	.174	2.232	.027	.999	1.001

a. Dependent Variable: Box Office (Ten Million yuan)

Table 4-20 the Regression Coefficient of whether the Movie Is IP Play, the Web Marks and Box Office showsthat "whether the movie is an IP play"as a moderated variable in the regression equation, the constant is -51.857, the web marks d1 = 10.334, whether the movie is an IP play d2 = 17.048,the standard regression coefficient is0.047, the regression coefficient $\beta 1$ =0.001 (<0.01), $\beta 2$=0.027 (<0.05). Therefore, the interaction effectbetween the web marks and whether the movie is an IP playwas analyzed separately. As the moderated variable, the web marks affect whether the movie is an IP play, and then significantly affect the box office, the hypothesis H5c is true. The following regression equation is derived:

Box Office＝－51.857+10.334* Mark+17.048 * IP + ε4

Now, the research hypothesis on the sample data was validated and listed as follows:

Research Hypothesis	ValidatedResults
H1a: The volume of IWOM comments has a significant impact on the box office.	True
H1b: The IWOM markhas a significant impact on the box office.	True
H2a: The opening weekend box office revenuehas a significant impact on the box office.	True
H2b: The volume of IWOM comments has a significant impact on	True

the relation between opening weekend box office revenueand box office.	
H2c: The IWOM mark has a significant impact on the relation between opening weekend box office revenueand box office.	True
H3a: The casts' appeal has a significant impact on the box office.	False
H3b: The volume of IWOM comments has a significant impact on the relation between casts' appeal and box office.	——
H3c: The IWOM mark has a significant impact on the relation between casts' appeal and box office.	——
H4a: The director's appeal has a significant impact on the box office.	False
H4b: The volume of IWOM comments has a significant impact on the relation between director's appeal and box office.	——
H4c: The IWOM mark has a significant impact on the relation between director's appeal and box office.	——
H5a: Whether the screenplay is IP play has a significant impact on the box office.	True
H5b: The volume of IWOM comments will affect whether the screenplay is IP playand has a significant impact on the box office.	True
H5c: The IWOM mark will affect whether the screenplay is IP playand has a significant impact on the box office.	True
H6a: The movie schedule has a significant impact on the box office.	False
H6b: The volume of IWOM comments will affect the movie schedule and has a significant impact on the box office.	——
H6c: The IWOM mark will affect the movie schedule and has a significant impact on the box office.	——

CHAPTER 5

CONCLUSIONS

5.1Research Conclusions

With the development of the Internet, itextends the chain of film industry and remodels the ecological pattern of Chinese movies. The creation of Chinesemovies presents a trend of diversification, which has brought the thriving vitality and the driving force of sustainable development to Chinese movie market. However, followed by the fierce competition in the market and interests pursuit, the movie box office becomes the center point of competition. It not only represents the consumption result of audiences for a movie, but also reflects audience purchase behavior and decision for a movie. Consumer'spurchase decision is affected by internal and external factors. Similarly, as an industry, the purchase decision of a movie is also affected by many factors. The publicity, movie quality and the viewer's personal preferences and other factors will affect the box office revenuein some degree.The so-called "the box office depends on publicity in early stage, and on word of mouth in late stage". It is thus obviousthat the word of mouth plays a very important role in success of a movie.

With rise of douban.com, mtime.com, maoyan.com and a series of community websites, it not only provided a platform for audiences to discuss and evaluatemovies, but also formed the IWOM. The IWOM not only allows audiences to directly obtain the relevant movie information, but also profoundly affect the audiences' viewing decisions.

In this chapter, it reviews the related literature and theory of Internet Word Of Mouth (IWOM), IWOM Marketing, IWOM Research Methods, Influencing Factors of Movie Box Office and IWOM Research ofMovieIndustry. On this basis, combined with the movie industry's own characteristics, the IWOM is divided into the volume

of IWOM comments and IWOM marks these two dimensions for discussion. It respectively analyzes how the volume of IWOM comments and IWOM marksaffect the movie box office and its influencing factors. In addition, this paper introduces five influencing factors: the opening weekend box office revenue (First Week), casts' appeal, director's appeal, movie schedule, whether the movie is IP play. It is found that the impact of casts' appeal, director's appeal, and movie schedule on box office is not so significant after testing the significant impact of variables on box office. Therefore,these three variables were eliminated.The relational model between revised independent variables affected byIWOM and box office was established, i.e. there is a significant correlation between two independent variables and box office, furthermore, the volume of IWOM comments and IWOM marks affect the first week revenue and whether the movie is IP play respectively, and thus affect the box office. In this paper, 150 movies were randomly selected from the top 100 movies at the box office in 2014, 2015 and 2016, 50 from each year,which were released in mainland China before this September. These 150 movies were used as the research objects. After analyzing the related data with SPSS statistical software and validating theresearch hypothesis, we obtained the following main conclusions:

1.There is a significant positive correlation between the volume of IWOM reviews or commentsand movie box office. In this paper, the IWOM data selected from douban.com and mtime.com are analyzed; the volume of IWOM reviews from two websites is summed up and its impact on the box office is analyzed. It is concluded that the volume of IWOM reviews has positive correlation with the movie box office. The highervolume of web comments on a movie, the more attention the movie receives, and the more people are involved in the discussion and evaluation of it, which will play a positive role in the audience's awareness, that is to say, the more network reviews a movie gets, the more consumers will know it.Accordingly, the higher sales volume will be achieved.

2.There is also a positive correlation betweenthe network marks and box office.

The paper also analyzes the data from douban.com and mtime.com, and makes weighted average for the marksfrom these two websites. After analyzing the impact of web marks on the box office, the resultshows that the higher the web mark is, the higher the box office revenue will get. The mark of a movie reflectsits quality and acceptance of audience. When the audience does not know too much about a movie, normally they will seek word of mouth information to guide them to make a watching decision. As a result, the higher web mark for a movie, the more likely the audience will make a watching decision.Consequently,the higher box office revenue will be achieved.

3. The impact of casts' appeal, director's appeal and the movie schedule onthe box office is not significant. First of all, the box office will not be affected significantly by casts' appeal. Currently, there is no a unified viewoncasts' appeal, this paper chooses the sum of awards nominations and awards winning as the measuring standard forcasts' appeal, but we find that although some actors/actresses rarely and even did not obtain any major awardsin movie industry, they still can affect the box office greatly with a high media exposure, popularity and a large number of fans. Their "fan effect" can not be underestimated. Secondly, it analyzes the impact of director's appeal on the box office. With the emergence of "young" directors, the movie market is dominated by them. They can understand more about young people'sfavorcompared with the fifth generation directors and the young audiences is the mainstream in the current movie market. Moreover, the young directors also have professional learning and shooting experience. With more mature and rational concept, they naturally occupy the market. Therefore, the impact of director's appeal on the box office is not significant. Finally, it analyzes the impact of movie schedule on the box office. This paper selects the historical data of box office to research and analyze, but does not carry on the corresponding analysis for the box office and IWOM in different period of release.To some extent, the impact of movie schedule on historical data of box office is not so significant.

4.After data analyzing and testing, it is found that the first week revenue and whether the movie is IP play these two factors will affect the box office to a certain extent. Since a large number of IWOM will be created after the first week of release.At this point, as a moderated variable IWOM will affect the consumer's purchase decisions, and this will affect the total box office. Secondly, the IP play is a brand extension. It can attract more attention and bring more box office revenue based on the brand value and public praiseof original fiction, animation, games or the former movie.

5.In this paper, the opening weekend box office revenue (the first week revenue) andwhether the movie is an IP play are used as independent variables.It respectively researchesthe impact of interaction effectbetween these two variables and the volume of IWOM comments, IWOM marks on the movie box office. Through the data analysis, this paper draws the conclusion that the firstweek revenue andwhether the movie is an IP play will affect the volume of IWOM reviews and IWOM mark respectively. On this basis, the volume of IWOM reviews and IWOM marks will significantly affect the movie box office.For example: "Monkey King: Hero Is Back" was releasedin summer of 2015, the first week revenue was only 86.74 million. Later, a large number of netizens who called themselves as "tap water"voluntarilydisseminate and promote this movie on the network, which causes the effect of IWOM. Finally, it became a dark horse in 2015, and obtained nearly 1 billion yuan of box office. "Marvel Comics" is soldall over the world, and the series movies adapted from it have been widely expected before their release. Therefore, these movies will naturally be discussed and evaluated more by audiences,establishing more IWOM information, which will affect the volume and effect of IWOM.

5.2 Marketing Recommendations

1. Attach importance to IWOM and improve themovie attention.

With the rapid development of the Internet Age, the information of IWOM isdisseminated faster, widerin more forms and the impact on audience decision-making is increasingly profound. Therefore, the movie producersshallpay a close attention to IWOM, and check the audience attention and movie popularity through the related topics ofMicroblog or the discussion on community websites in order to timely adjust the promotional strategies.Tryingto improve the movie attention and then increase the box office through IWOM effect caused by multiple channels, such as WeChat promotion, Microblog hot topic, and the interaction between movie crew and audiences on social networking sites.

2. To increase publicity efforts after the first week of release.

The life cycle of a movie is relatively short with a clear trend.Generally,the box office is higher in early stage after release and constantly declines as time goes on. Therefore, the box office revenue of premiere day and the first week is very important for the total box office performance. After the release, Internet users will express their opinionsabout the movie in various channels, which will affect the purchase decision of other viewers virtually. In order to get a high early box office in the commercial agewhich is under prevalence of popular culture background, the movie must be fully publicized, increasingpeople's attention on movies, this is a only way to increase the opportunities to promote the sales. As for the literaryfilm, the pre-publicity shall be more attractive and make consumers interested in the film in order to achieve the effect of IWOM on the box office.

3. As for IP play, to get rid of the problem of"High Box Office Revenue with Low Public Praise"

It is not difficult to find that there is a phenomenon in Chinese movie market, as long as any IP play movie is released, it will create a box office upsurge. And are these IP play movies really interesting and outstanding as the box office reflects? Mostly,the answer is No. Since the IP play has sufficient topics and attention, which ensures the box officeto some extent. However, in a long term, the domestic movies

will not get positive evaluation and even lose high box office if they only rely on topics as marketing and negative evaluation to attract consumer's interest.

4. To improve the production level of movie and gain high box office with highquality.

As an emerging cultural industry, movie can bring a kind of spiritual satisfaction to consumers, butno matter how powerfulcasts or publicity team a movie has, the quality of movie itself is the basic element to obtainhigh box office and good word of mouth. Therefore, the producers must pay more attention to the quality of the movie itself, pursuing the breakthrough and improvement of content, theme and shooting quality. On the basis of this, they can increase the movie attraction, establish the brand value and obtain the high box office.

5.3 Research Deficiencies and Prospects

1. The volume of IWOM comments and markscollected in this paper is from the dataobtained after the movies were stopped to play in theater.After study, itis not difficult to find that the IWOM data from different period after the movie released has different impact on the box office. This paper has validated that IWOM will affect the accumulated box office during its playing, but how IWOM affect the box officein different periods was not specified. In the follow-up study, we can collect the number of IWOM and box office data in different period to compare the impact of IWOM on box office before, during and after the release of movie, describing the IWOM impact on the box office in detail.

2．There are many factors influencing the movie box office. This paper only selects the factors which are not involved in the former researches and I think there are some differences between them as the independent variables. And there are some limitations here.

3. In this paper, the two dimensions of IWOM, namely, the volume of IWOM comments and IWOM marks were selected. The volume of comments only reflects

the number of people who pay attention to the movie, but it can not reflect that the good or bad content is also an important factor of IWOM. Since it has some subjectivityand is difficult to be quantified, so this paper does not include it into the dimension of the IWOM for study and analysis. In the future research, we can consider using index mark to quantify the content of network comments, and add it to the study of IWOM.

4. The success of "Fans Movies" is based on the stars'popularity, and these stars may not be famous and did not win any awards. In the previous studies, the casts' appeal was determined based on whether they win any awards in five movie awards issued in mainland China, Hong Kong and Taiwan. But for the "Fans Movies", whether the popularity of stars affectsthe box office? In the future study, the popularity marks can be introduced to set the casts'appeal.
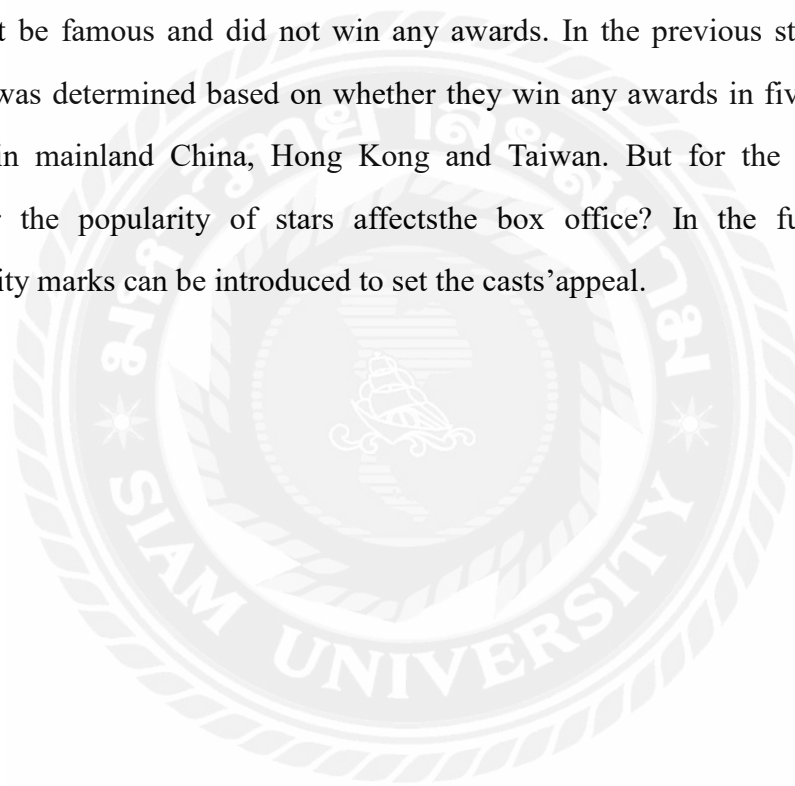
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