Abstract
In recent years, China's film market has been growing rapidly. The magnet effect brought about by growing box-office sales has captured the attention of new electronic businesses and internet industries. These entities possess large capital and powerful information processing capabilities, creating major change in the structures and systems within the Chinese film industry. As electronic business and mobile networks flourish, service providers have begun to take advantage of the attention and online traffic that the film industry generates. To remain competitive, service providers have invested greatly in ticket subsidies, film financing, marketing and distributing, and film-showing hardware and architectures, becoming in and of themselves a major driving force in the highly-competitive, quickly-transforming Chinese film market. The purposes of this research project were, first, to examine how online ticketing has been involved in and continues to influence the related industries of film development, production, distribution, and exhibition. Furthermore, by use of economic principles of new media, such as platform model and network effects, this project examines how online ticketing industry factor into the value chain of film as a whole and what innovations within the industry they bring. Through conventional concepts from the film industry and principles of contemporary new media operations, we assess whether China’s online ticketing services are a mere product of the booming Chinese film market, a fad induced by government policy of "Internet plus", or a potential shift in the upgrading and transformation of the Chinese film industry altogether.

Keywords: online ticketing, internet plus, platform model, network effects, film marketing, industrial innovation.
1. Introduction

Recent years have witnessed the rapid growth of Chinese movies, which has become a phenomenon attracting the attention of the global film industry. In 2014, China overtook Japan to become the world's second largest film market, second only to the United States, and so the craze of surpassing Japan and catching up with the United States has swept across the film industry. This magnetic effect created by the box office of movies has attracted the participation of emerging e-commerce and Internet. These causes with considerable capital and remarkable information processing capacity have contributed to major changes in the ecology and structure of the Chinese film industry. Under these dramatic changes, the impact of online ticketing on the film industry is particularly noteworthy. The total box office in 2016 stood at CNY 45.71 billion, and the market only grew by 3.7%, substantially different from the growth rate of 49% in 2015 (Lee and Liu ed., 2017). In 2016, China's movie market growth was not as fast as expected, partly because of the slowing mechanism for subsidies for ticket prices in the online cinema ticketing system.

In the past, ticketing in the film industry used to be a window for selling tickets in theaters, and an online ticketing system was just an alternative service to buying cinema tickets. However, with China's e-commerce and mobile networks on the rise, service providers are noticing that movie events can bring great attention and traffic to online ticketing. Therefore, in order to ensure market competition, aside from huge subsidies, they are participating in movie marketing by getting involved in the development of movie themes, funding investment for film production, and actively investing in the competition of building more movie theaters. Consequently, this study explores the following: the position of online cinema ticketing, as a new platform business model, in the value chain of film industry, and how it affects the operating mechanism of the film industry, and how to follow the trend and promote the transformation and upgrading of the industry when current Chinese movies are facing the new technology of mobile networks. The study employs a platform business model, network effects, and other concepts for in-depth discussions.

2. Literature Analysis

The online cinema ticketing service has become quite a unique scene in the development of the Chinese film industry, which is closely associated with the development of China's economic, social, and cultural conditions and the era. First, China's use of cellular networks has fully adopted mobile Internet access (Ma, 2017). According to the statistics released by the China Internet Network Information Center (2017), as of the end of December 2016, the total number of China's Internet users reached 731 million, with a network penetration rate of 53.2%. Specifically, 95.1% of Internet users (695 million) access the Internet via mobile phones. Consequently, mobile Internet access has become the primary platform for China's network development (CNNIC, 2017). On this basis, the services of related application software have sprung up as a result to become an important popular application basis for online cinema ticketing.

Second, the strong support for national policies has contributed to the rise of services concerning online ticketing. Since 2012, private enterprises have been actively promoting "Internet Plus", hoping to find a new way out for traditional industries. In
2015, the State Council of the People's Republic of China published the Guidelines on Actively Promoting "Internet Plus" Action, and so the Internet has become a new tool for China's public entrepreneurship and innovation, giving new momentum and advantages to the country's economic development. Fueled by this "Internet Plus" policy, the Internet has been rapidly adopted by the film industry. Jin (2016) suggested that "Internet Plus" could bring forth an unprecedented new pattern for movies, including online ticketing, big data mining, social network marketing, and film-related merchandising, with the first three aspects related to online ticketing. As a result, online ticketing has become a significant breakthrough point for "Internet + Movies" (Jin, 2016). In 2015, the State Administration of Press, Publication, Radio, Film and Television of the People's Republic of China (SARFT) supported the policy "Internet + Movies", specifically approving the license for e-business platform movie distribution and permitting online ticketing platforms' qualification for joining the film industry. Consequently, these online ticketing enterprises can join the channel of the movie distribution business in an imposing manner.

China's film industry is now facing a wide transformation. The era of cinema has long gone, and China's film production processes have been fully digitized. In recent years, China's movie industry is booming, with over 8,000 screens increasing each year, rendering the traditional film production, distribution and exhibition system unnecessary for the times. New businesses are presently rising from e-commerce, social network and search websites, including Baidu, Alibaba, and Tencent, which are nicknamed BAT as the three major network companies. These companies broke into the film industry with sufficient funds, high-speed information processing capacity, and huge network traffic. In particular, the most important issue is online cinema ticketing. In respect of the current four major online ticketing operators, Alibaba once invested in "Maoyan Movie" and later established "Taopiaopiao"; Baidu owns Baidu Nuomi, specializing in online ticketing; Tencent's Weiying owns "Wepiao" and "Gewara". The three major network companies all take online cinema ticketing as a breakthrough, and look to reform the traditional film industry with its advantages in network, digital marketing, and big data, while also opening up opportunities for the film industry's transformation.

The rise of China's mobile economy, the policy of "Internet Plus", and the impact of BAT's breaking into the film industry have given rise to a brand-new operation model of film industry - that is, the platform business operation mode encouraged by network effects. The platform model is a brand-new business operation pattern and uses an interactive ecosystem, connecting people, organizations, and resources to create and exchange great values. "Product" was information, valuable information in any business about consumer demand, price fluctuations, market supply and demand and trends ("Parker, G. Geoffrey, Van Alstyne, Marshall W., & Choudary, S. P., 2016").

The platform model basically connects two particular groups, suppliers and consumers, and provides both parties with infrastructure and rules to facilitate transactions by bilateral users. The platform benefits from such products or services, and the key to its success or failure is the network effects. Network effects refer to the impact of the total number of users on creating values for individual users. When the users of a certain product (service) increase, their values to users will increase. The network effects created by the platform model are a new economic phenomenon
driven by technological innovation and a model breaking away from traditional commercial pipeline production. The key to enterprise profit is no longer the service and operation of the platform, and thus seeking the potential network effects on the market is the key to the platform's future development and profitability (Eisenmann Thomas, Geoffrey Parker, and Marshall W. Van Alstyne, 2006) (Chen and Yu, 2013) (Parker, G. Geoffrey, Van Alstyne, Marshall W., & Choudary, S.P., 2016).

From the perspective of the traditional film industry, cinema ticket sales were seldom of concern by people in the past. The ticket offices of theaters are the first avenue to test the success of movies and market reaction. At the same time, they are also the first window of operating revenues after long-term production and distribution of movies. Regarding the channels, ticket offices were of great importance in the past, but had always been controlled by theater owners. The online cinema ticketing service used to be an auxiliary system of buying tickets to the theaters. However, in China, under the intensive intervention of e-business and network operators, cinema ticketing is being operated by the platform model that connects both cinemas and audiences. The scale and scope of the platform have been constantly expanded from a theater, to the theaters chain, and to all of China's metropolitan areas. The audience does not need to spend time queuing for tickets in theaters, and instead they can use network services for low-cost group buying, online seat selection, and online payment. Watching movies has become an easy and convenient activity, which is accessible with only one finger. As a result, network effects emerge, attracting more audiences to use online ticketing systems and hence driving China's movie box office to steadily increase. Therefore, the development of the current online cinema ticketing in China is an extremely typical example resulting from the platform model and has gradually changed the value chain system of China's film industry. Next, this paper shall explore how the current online cinema ticketing impacts the original structure and value system of China's film industry.

3. Structural Impact on China's Film industry

In 1999, Beijing Huayi Yangguan Culture Media Co, Ltd. was established, launching the marketing of online performance ticketing and engaging in online ticketing business. In March 2001, "www.piao.com" was registered and incorporated and became China's first electronic ticketing company. At the beginning, ticketing companies sold tickets to performances, sports, movies, and attractions via the Internet. In 2009, the number of mobile phone users grew rapidly, driving the rise of mobile applications (APPs) (Kuo, 2016). In terms of online cinema ticketing, in 2010, "www.gewara.com" (referred to as Gewara) introduced online selection service in Shanghai. At that time in 2009, the U.S. film “Avatar” was released in China and the audience stayed up late and queued for tickets, highlighting the advantages of Gewara's online sales of movie tickets. The ticket sales stood at CNY 14 million in 2010, soaring to CNY 470 million in 2014, with an amazing growth rate. At that time, "Himovie", "JVIN", "Spider", and many other movie booking sites appeared in Shanghai (Yu, 2013). In 2012, "Meituan", which had already made a fortune by offering group buying, launched group buying activities for movie tickets and began to be involved in the online cinema ticketing business. In 2013, this operation project was renamed "Maoyan Movie", bringing new competition to China's online cinema ticketing business.
In 2013, the movies "Lost in Thailand", "Journey to the West: Conquering the Demons", and "So Young" achieved unprecedented box office results in the movie market and also fueled the development of online cinema ticketing. The online box office totaled CNY 4.86 billion, representing 22.3% of the annual box office (Analysys, Annual Comprehensive Analysis of China's Online Cinema ticketing 2017, 2017). In 2014, some movies like "The Continent", "Breakup Buddies", and "Gone with the Bullets" used online ticketing for pre-sales of movie tickets and later changed the film release system with the success of pre-sales, attracting the attention of the film industry. Among them, "Breakup Buddies" was the most representative. Maoyan Movie played the role of a joint producer, connected all theaters around the country during National Day, and conducted pre-sales half a month in advance. Finally, "Breakup Buddies" became the most popular movie with a box office of more than CNY 1.1 billion, turning into a watershed for online ticketing in film distribution.

In 2017, the box office of online ticketing jumped to CNY 13.57 billion, accounting for 45.8% of the whole market (Analysys, Annual Comprehensive Analysis of China's Online Cinema ticketing 2017, 2017).

For China's film industry, 2015 was the climax of the movie market boom. The annual box office reached CNY 44.07 billion, up 49% year on year. This growth was partly vigorously driven by online ticketing. That year, BAT was heavily involved in the cinema ticketing market, which extended from ticketing sales to movie joint distribution and production. The "Entgroup" survey pointed out that in 2015, online ticketing platforms were involved in distributing nine out of China's top ten popular domestic movies, except for one movie named "Wolf Totem", which nevertheless was pre-sold and promoted via Gewara (Entgroup, 2016). In this way, the box office of annual online ticketing totaled CNY 31.76 billion, taking up 72.1% of the annual box office and making online ticketing an important link for China's film industry that cannot be neglected.

Although the number of Chinese cinemas continued to grow in 2016, the annual box office was CNY 45.71 billion, or only rising 3.7% e (Fu, 2017). This is partly because the subsidy measures for ticket prices of online ticketing decreased. After the previous year's intense competition and obtaining market share through great subsidies for ticket prices, the online ticketing industry merged and made investments that year. The annual box office traded through online ticketing stood at CYN 33.64 billion and the box office share was 73.6% (Analysys, Annual Comprehensive Analysis of China's Online Cinema ticketing 2017, 2017). In addition, according to the statistics of Entgroup, this year, network agency sales service fees alone reached CNY 3.57 billion, but such fees were not included in the statistics of annual box office sales. Starting in 2017, online service fees will be included in the figures of annual box office (Fu, 2017). Therefore, China's online cinema ticketing has maintained a share of more than 70% for two consecutive years, and the Chinese movie audience has developed the habit of buying movie tickets via the Internet, which also means that the market is nearly saturated.

The operation mode of online cinema ticketing can be divided into four types: first, ticketing franchise: with the core of online seat selection services, the major operators include Maoyan Movie, Wepiao, and Taopiaopiao; second, group buying e-business: with the business model of e-business group buying ticketing, the major operators include Baidu Nuomi and Dianping; third, social movie network: with social network
of movie information, introduction to movies, and resource sharing of movies, the major operators include Douban Movie and Mtime; fourth, proprietary ticketing of theaters: theater chains provide services such as online ticket purchasing and discounts to their members or users, and the operators include Wanda Film and Stellar Ticket (Sinolink Securities, 2016). According to the Research Report on 2016 China's Online Movie Ticket Market published by "Bigdata Research", among these operation modes of online ticketing, online seat selection accounted for 52.6% of the ticket issuance volume, followed by group buying e-business (25.1%) and social movie network (only 9.3%) (Bigdata Research, 2017).

Gewara began to run online ticketing in 2010 on the rise of e-commerce, staging cutthroat competition in the online ticketing market, from numerous battles in the period of group buying to the present blossoming of online ticketing. In 2015, BAT fought for the market with huge funds and resources. For example, in the first quarter of 2017, from the share of ticket issuance, Maoyan Movie was dominant among the four major operators of online cinema ticketing market, representing a 26.41% share, followed by Taopiaopiao (20.06%), Wepiao (17.49%), and Baidu Nuomi (13.74%). These four operators constitute approximately 80% of the market share (Analysys, 2017). As a result, online cinema ticketing services basically form the competitive state of "Maoyan Movie + BAT".

Maoyan Movie became independent from Meituan group buying in 2013 and was involved in the movie joint distribution business for coping with the ticketing of "Breakup Buddies" in 2014. In 2015, it founded a wholly-owned subsidiary named "Maoyan Culture Media Co., Ltd." and integrated the related businesses of the movie channels of Meituan and those of Dianping. In 2016, after Beijing Enlight Media Co., Ltd. became a shareholder and made an investment, the deficiencies of the production field of Maoyan Movie in the industry sector were cleared up.

Taopiaopiao was formerly known as Taobao Movie and was founded by Alibaba in 2014. It had to rely on Gewara, Mtime, Wangpiao, and other platforms to provide online seat selection services in the beginning. After Alibaba acquired "Yueke Software Engineering(YKSE)" and could directly be connected with the cinemas' ticketing system in 2015, Taopiaopiao won independent development space. In the same year, Alibaba incorporated two major online platforms, Taobao Movie and Yulebao, into Alibaba Pictures, integrated Alibaba's movie platforms including film production, fundraising, distribution, and ticketing, and worked with Tmall to develop markets for related film products. In 2016, Alibaba Pictures produced movies such as "Soul Mate" and "See You Tomorrow". Since the box office was not as good as expected, its annual loss reached CNY 976 million, mainly resulting from marketing expenses of Taopiaopiao (Alibaba Pictures, 2017). Recently, Alibaba re-integrated its cultural and entertainment undertakings, established the "Major Entertainment Sector", heavily invested in the business of Taopiaopiao, and acquired "Damai" specializing in performance ticketing in China and India's second largest online ticketing platform -Ticket New.

Wepiao, formerly known as WeChat Movie Ticket, was unveiled in December 2013, expanded its capital in 2014, introduced investment from Tencent and Wanda Group, and founded Beijing WeYing Technology Co. Ltd. In 2015, it was renamed as "Wepiao", acquired the film distribution license approved by SAPPRFT, and acquired
Gewara at the end of 2015. In respect of ticketing operations, in addition to running the business of movie tickets, it also engaged in selling tickets for performances, sports competitions, concerts, and other related activities. Its huge online ticketing business primarily came from four major aspects, including WeChat Wallet, "Movie Tickets", QQ Wallet, "Movie Performance Tickets", "Wepiao" APP, and Gewara. In 2016, it established Next Entertainment, engaging in businesses related to film production and distribution. It also set up "Weying Galaxy LLC", devoted to investment in overseas movies and agency foreign movies, including "xXx: The Return of Xander Cage" (xXx: The Return of Xander Cage, 2017), "Ghost in the Shell" (Ghost in the Shell, 2017), and "Transformers: The Last Knight" (Transformers: The Last Knight, 2017).

Baidu Nuomi was formerly known as Nuomil.com, a website under "www.renren.com" specializing in group buying, and put into operation in 2010. Baidu became a shareholder of Nuomil.com in 2013 and renamed it Baidu Nuomi in 2014. Baidu Nuomi depends on related resources of Baidu's Baidu Search, Baidu Post Bar, Mobile Baidu, Baidu Map, Baidu Knows, Baidu Wallet, Baidu Takeaway, and iQiyi. Its advantages include undertaking the huge network traffic from Baidu and then transforming and directing it to online cinema ticketing platforms and even the promotion of theaters and shopping mall.

The above operators have grown from online movie ticket sales, and are able to have more control of movies, participate in film distribution business, or even get involved in the profit sharing of movies in the name of film producers or investors. In fact, the online ticketing business is an industry with exceedingly light profit and probably gains service fees of less than 10% of the ticket price. The profitability of such low fees under the fierce competition of subsidies for ticket prices is minimal. As a result, the current online ticketing service is in the red. For instance, Alibaba Pictures lost CNY 976.1 million in 2016 (Alibaba Pictures, 2017). Despite the intense competition and difficulty in gaining profits, the majority of these online ticketing operators are supported by important movie enterprises or BAT, which means that online cinema ticketing plays a vital role in the film industry, e-commerce, and network undertakings. This is because the platform business model of online ticketing can bring ground-breaking innovation for traditional movies and can bring greater traffic and network effects to these e-businesses and network companies.

4. Platform Model and Industrial Transformation

The market share of China's online cinema ticketing has so far reached more than 70%, and audiences are now accustomed to such a convenient movie-going experience. What impacts or innovations will it bring to a film industry that has one hundred years of history? First, online ticketing redefines the role and meaning of movie ticket sales. Movies were originally delivered to theaters, and the audience paid at the ticket office and watched the movies in theaters, where the long-term creative production process ended and the movie's operating revenues started (Vogel, 1994). In the past, ticket offices of the cinemas were the only entrances for movie economic activities and cash income. Today's online cinema ticketing system re-assembles the audience and introduces online payment systems, so that movie ticket sales are no longer just at the ticket office in front of the theaters in the traditional sense. The current online cinema ticketing channel has gotten involved in film distribution and
promotion, and even in film financing activities.

Second, online ticketing has redefined the industry positioning of movie ticket sales, which also means that it will bring a more dramatic industrial shock - that is, the restructuring of the whole film industry value chain. The innovation of the platform business model has bypassed monopolists of traditional industry, information blockers, and false high costs, eliminating obstacles, driving industrial restructuring, and promoting industrial innovation (Chen and Wang, 2016). In the past, there was a gap of monopoly and information barriers between movie distributors and exhibitors. Their contracts contained profound ideas and details, which general outsiders found difficult to understand. Sometimes for the purpose of publicity, the movie distributors and exhibitor even distorted box office figures (Vogel, 1994). The online cinema ticketing system now has become a platform business model, linked theaters and audience to a bilateral market, gotten involved in the film distribution business, broke intermediate links in the traditional film industry (such as the opaque, inefficient, and high-cost state of distribution and exhibition), transformed into a new intermediary based on network platform operations, created higher fluency and efficiency for industrial processes, and re-constructed the industrial value chain system.

Under the high involvement of online cinema ticketing, movies' viewers are no longer just the "audience", but have turned to the "user" concept of a network platform (Wang, 2016). In the past, the film industry claimed that it shot movies for the audience through such links as film production, distribution, and exhibition. However, their understanding of the audience was vague and based on past practical experience. Online users are no longer just a passive audience, but now active users. After watching movies, they make online comments on them, score them, and form online reputations that can control the movie box office and can summon "fans" to "locking the showings" for movies that star their idols, so as to ensure the scheduling ratio of such movies in theaters. In recent years, China's 3-tier and 4-tier cities have continued to increase theaters, and marketing has appeared to become the key to the success of movies. Mobile networks are the most effective channel to develop the potential audience of such cities (Ma, 2017). With the help of widespread subsidies for ticket prices, online ticketing has motivated younger audience in these cities to enter theaters, thus becoming an extremely unique group in the course of China's film development - "township young people" (Sun, 2017). As a result, the original essence and definition of movie audience have been subverted under the excessive pull and popularization of online cinema ticketing.

The online cinema ticketing platforms is the matchmaker between cinemas and audience, and this media platform is composed of software system and data about bilateral market interactions (David S. Evans and Richard Schmalensee, 2016). All viewing data and tastes, online consumption patterns, and all online activity records of these "movie audience" transformed from Internet users are collected on these ticketing platforms, eventually becoming exceedingly complete and rich big data that can be utilized by marketing and promotion. These online ticketing operators depend on the big data about audiences, allowing them to get involved in movie distribution and marketing and participating in movie investment and production. Perhaps it is difficult to notice the significant impact in the short term, but in the long run the big data accumulated from these online cinema ticketing users will promote an industrialized and standardized production process of Chinese movies (Hsin and Hu,
2017).

5. Conclusion

In the past, the ticket office was not a concern of the film industry; but at present, the booming of China's movie market, the popularity of mobile Internet services, and the government's "Internet Plus" policy have fueled the current huge development into online cinema ticketing. Online ticketing is redefining the role of movie ticket sales, replacing the traditional film distribution and exhibitions' functions with the platform's business model, transforming the movie audience into users of mobile networks, constructing big data that is more precise than that outlined audiences in market surveys, and bringing a new look to the century-old film industry.

Cinema ticketing has become a place of strategic importance for the film industry and e-businesses and presents the current competition of "Maoyan Movie + BAT". These operators are convinced that the ticketing link controls the income of the film industry, box office, users (audience), as well as distribution and marketing hubs. Furthermore, in order to gain more predominant power and take part in more upstream movie investment and production, they are seemingly extending the whole industry chain and entering the field of film production, but most of them in fact focus on profit sharing only, or to gain more control, and cannot really enter the essence and core of the film industry - that is, the movies' creative and aesthetic values. The core value of movies, as a creative industry, is the professionalism of movies' creative and production process. If there are no creative and professional production teams to produce impressive movies, then distribution and exhibition are in vain, no matter how excellent they are. This is exactly what those tycoons from e-business firms cannot achieve at one go with just their funds and Internet traffic.
References


Contact email: brutusliu@gmail.com