E-commerce and Live Banding Model: How the Industry Nowadays Profit?

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Abstract. Currently, e-commerce has become one of the very important economic components in various countries. Especially in China, the unique live streaming has been one of the powerful driving forces for the rapid development of trade volume in China’s e-commerce industry since the outbreak of the new crown epidemic in 2020. Based on other existing research on the traditional business of e-commerce, this paper provides a comprehensive analysis and discussion of the live banding model, revealing the sharing model and profitability ratio of the live banding industry.

Keywords: Finance; E-commerce; Live industry; Profit mode; C2C

1. Introduction

1.1 Background Analysis

Short video apps have become part of people’s lives. As people can get knowledge or have fun without any concern on time, it fits people’s needs perfectly in the days people only have their fragment time free. In this way, the new form of information media has shown its profitability, which makes it become a hot spot for capitals. To seize the market share, internet corporations, newly founded or tycoon in other fields, have tried all means. Their high financing and high exposure have made the market competition extremely fierce. User generated content, professionally generated content and occupationally generated content all have occupied part of the market share. However, because of the competition focusing on net flow, the contents they produce is gradually homogenized, making many short video producers facing massive deficit and bankruptcy. The short video apps in China mostly focus on embedded advertisement in apps themselves, retailing products on their own platform and signing contracts with video producers for commissions to profit.

(I) The Origin of E-commerce in China

In 1997-2000, China Commodity Exchange and ChinaChemNet were officially launched, which were the first two domestic e-commerce companies in China, both engaged in B2B business. Jingdong, Alibaba, Dangdang was officially established. The emergence of these companies marked the beginning of a whole new phase of development for China's e-commerce industry [3]. The volatile cultivation phase that followed the bursting of the international Internet bubble in 2000, while the business it conducted shifted from B2B to C2C mode.

In 2008, domestic e-commerce giant Jingdong and Taobao, which won the competition in the financial crisis with eBay, created a new B2C model. In this year, China became the country with the largest number of Internet users in the world, and the annual e-commerce transactions in 2008 exceeded three trillion RMB, while the number of Internet users involved in e-commerce platform transactions exceeded 100 million people. [2]
In 2013, another e-commerce model quietly emerged in China, the O2O model (Online to Offline), where mobile payments emerged so that consumers did not need to prepare cash and service providers did not need to provide cash-on-delivery services and did not have to worry about being exposed to the risks of counterfeit currency and credit sales. Rural e-commerce quietly went online in China. Between 2011 and 2014, China's e-commerce transactions entered a period of rapid growth, with the addition of Taobao's Double 11 shopping festival, which became known as China's version of Black Friday. [1]

Since 2015, Chinese e-commerce has entered a phase of steady progress. Mutual cooperation between e-commerce sparring too has been strengthening, the speed is significantly decreasing. The blue ocean market gradually became a red ocean market, while rural e-commerce began to receive more and more attention. [4] Late 2018, the domestic market gradually saturated, e-commerce platforms cannot get a large number of new users, and therefore can only make the price gradually transparent, single product profits decreased, and competition between platforms intense. But the country launched the "One Belt, One Road" concept at this time, the e-commerce platform has a new way of development: to support foreign trade and expand overseas markets. Cross-border e-commerce is in this policy after the launch of a huge development. [5]

According to the reality of China E-Commerce Report 2020, China's cross-border e-commerce transactions reached RMB 37.21 trillion in 2020, up 4.5% compared to the same period last year, with 27.95 trillion yuan in commodity e-commerce transactions, 8.08 trillion yuan in wufu also e-commerce transactions, and 1.18 trillion yuan in contract e-commerce transactions. National online retail sales reached 11.76 trillion yuan, up 10.9% year-on-year, rural network retail sales of 1.79 trillion yuan, up 8.9%. The total import and export of cross-border e-commerce was RMB 1.69 trillion, an increase of 31.1% year-on-year. [12] These figures show that the future of China's e-commerce industry remains promising. At the same time, on November 16, 2020, several Chinese departments, together with the People's Bank of China, released the "Thirteenth Five-Year Plan for Domestic Trade Circulation", which puts forward new requirements and goals for the development of China's electric fan industry. This document is given high hopes by most domestic assessment agencies, and the development space after the transformation of domestic e-commerce is still worth looking forward to. The e-commerce platform is one of the important driving forces supporting the booming development of the live broadcast industry, therefore, the booming development of the e-commerce platform will surely mean a further leap in the live broadcast with the industry. [14]

(II) The Rise of Live E-commerce Industry.

The live e-commerce industry was first developed around 2015-2017, the stage of 4G network booming. This stage of the live industry has not yet entered the live with goods mode, mainly for the public to provide entertainment services. But at this time belongs to the stage of imperfect development, live platform violates many regulations, chaos frequently. [2] 2017-2019 years, the government made certain provisions for the standardization of the live industry, regulate the development of the platform, while many enterprises in the strict regulation of the phenomenon of financing difficulties, at this time the platform began to seek cash, live e-commerce industry came into being. [19] 2020 meeting, the e-commerce industry Enter the growth explosion period, stimulating a trillion-dollar market, especially in the first half of 2020, the new crown epidemic swept the world, the post-epidemic era how to restore the economy has become a major problem. People shifted their attention to the live e-commerce industry, which is gaining momentum, and many farmers joined the live e-commerce bandwagon to restore their business through a thin margin, and the live e-commerce industry was officially announced to enter the outbreak period. By the end of 2020, the market size of China-wide live e-commerce reached RMB 961 billion, a significant increase of 121.5% year-on-year. Therefore, we believe that the live e-commerce industry is still a blue ocean industry despite its impressive size, and therefore it is necessary to study the development of the live e-commerce industry in China. [17]

From the Chinese commerce department, there were more than 4million live e-commerce broadcasts in a season by 2020. From the data from Chinese internet information center, the audience
of the broadcasts is more than 560 million, which is 62% of the whole internet users is China. Since the February of 2020, the A-share webcast index has risen more than 20%, far more than the speed of Shanghai Composite Index. According to the Internet Economy Society, the volume of trade is about 1285 billion (yuan) in 2020 and is predicted to be 2350 billion (yuan) in 2021. [13]

Short video industry, as a newly formed popular industry, can undoubtedly show us how information media and even kind of art form become in the future. [7] It is oriented in ordinary people, which is usually ignored in other forms of media, from truck driver to young people in rural areas...Short video brings a newer angle for us to view the world, which is also the angle of mass. In other words, short video brings a revolution on the internet, which is worth researching. We hope that our review and analysis can give the industry a clear and comprehensive knowledge about short video development and help concern how it will go on from the view of profitability. [18]

1.2 Existing Analysis.

The popularity of short videos guided by the pioneer micro movies began in 2005. The ensuing primary research is mainly based on the investigation of short video types that have received high attention, analyzing the marketing strategies and business models of short video platforms such as the increase of video traffic at this time, and predicting the future development trend of short video content and topics. [9] With the beginning of the value transformation of short video enterprises, a large number of studies have begun to try to explore the functional value of the transformation of a short video from instrumental to social. Subsequently, after 2016, young short video companies appeared in large numbers. When the market competition was extremely fierce, a large number of studies began to focus on analyzing video content such as secondary creative production methods, the challenges faced by the industries, and the profit potential of short video platforms in order to show the ability of competitive advantage in the market. [8] However, most researchers paid more attention to the platform marketing model and ignored creating specific implementation methods. Until recently, the scale of the short video business field has gradually taken shape. At this stage, a large number of studies have mainly focused on the comparisons between the industry giants Tik Tok and Kuai Shou to explore the business value and contrast profit models. [14]

1.3 Our Contribution

(I) Dissected The Development Status of The Live E-commerce Industry.

Through our research, we found that cross-border e-commerce has recently become the focus of research due to the launch and implementation of the Belt and Road policy, and most of the papers related to e-commerce in Chinese domestic journals focus on the development trend of cross-border e-commerce and rural e-commerce. [15] The industry of live streaming with goods has shown an explosive growth trend only after the 2020 epidemic, so there are relatively few articles studying the development trend of the live e-commerce industry. This paper supplements the research deficiencies in this field and provides a detailed analysis of the development prospects and future expectations of China's live e-commerce industry. [4]

(II) Focus On the Profit Model of E-commerce Industry.

The terms "MCN companies" and "live streaming" have become synonymous with the new power of e-commerce in China, but the huge and complex profitability behind them is little known. [16] The algorithms of e-commerce platforms have been a classic topic that has troubled most people, and the meaning of the terms "doing data" and "doing traffic" is worth thinking about. In this paper, we aim to clarify the idea and the way of cashing in through our analysis, and also to evaluate the sustainability of this way. By analyzing the profitable draw model of bandwagon anchors, we understand how e-commerce platforms earn draws from them. [6]

(III) Provide Our Opinions for The Improvement of The E-commerce Platform and The Live E-commerce Industry.

Due to the emerging nature of the live-streaming industry, we found that there is a lot of chaos in the live-streaming industry in terms of the draw part, which indicates that the model of live-streaming
is not mature enough. [3] We have found through online surveys and research on online videos that many anchors are seriously exploited for their residual value, and that chaotic management by platforms and third-party organizations, and damage to both consumers' and anchors' rights and interests, occur from time to time. We hope to provide our own opinions and suggestions for improving this industry through the research in this thesis. [5]

1.4 Writing Arrangement

This paper is consisted of 3 sections. The firsts section depicts 4 stages that short-video industry have experienced, where short videos spread, platforms emerged, the number of users surged, and agencies created online influencers, with the contribution of 4G and smartphones development. The second section covers methods of how views of videos are monetized. We discuss about three main ways that are advertisements, online stores, and live interactions (Platforms share gifts given by audience with online influencers.) [8] Platforms have the most revenue from advertisements. The third section studies a new trend of platforms. Sales of livestreaming marketing have rocketed in recent years. Nowadays, more and more celebrities and movie stars start to do livestreaming marketing, and platforms and influencers get a commission from the sales of goods. [18]

2. Organization of the Text

2.1 Exploration of The Live Broadcast Sharing Mode

(I) The Commission Mode of The Anchor With Goods

For anchors, there are two modes of commission: "pit fee + commission" and "pure commission". Similar to Taobao live platform Li Jiaqi, Weiya, and Huang Shengyi stars and other head anchors, generally adopt the "pit fee + commission" model. The pit fee refers to the anchor in a single live sale of the product brand to give the anchor part of the cost, similar to "accounted for a pit", addition the head anchor will generally charge 10% - 20% of sales commission. [2] On April 28, 2021, Taobao Live announced that it would implement a pit fee reform, changing from a one-price pit fee (e.g., RMB 50,000 - RMB 80,000) to a "sell as much, pay as much" model. "The pit fee is linked to sales. If the actual sales are less than 20% of the target sales within 15 days after the live broadcast, the merchant does not need to pay any pit fee, and the Taobao platform will refund the pit fee in full; if the actual sales exceed 20%, the brand will enter the next stage, i.e., the 30th day after the live broadcast to confirm the actual sales, according to the If the actual sales exceed 20%, the merchant will proceed to the next stage, i.e., the brand will confirm the actual sales on the 30th day after the live broadcast, and pay the pit fee in equal proportion to the ratio of the actual sales and the target sales confirmed by the final customer. [12]

(II) The Sharing Model Between Live Broadcast Platform, MCN-Free Anchor, And Merchant.

When merchants choose to find anchors on Taobao live streaming platform to carry goods, Taobao lives streaming platform plays the role of both the content platform and the lives streaming platform. After a brand decides to use an anchor to bring goods, it will roughly go through the following steps.

(1) The merchant pays the agreed pit fee with the anchor and prepares the agreed quantity of goods (the amount of shipping needs to be taken into account).

(2) The buyer places an order for the goods through the anchor's live room and pays the amount payable for the goods.

(3) The anchor receives the commission minus the total amount of goods * (commission ratio - content platform channel fee ratio) (1 - content platform service fee) + agreed pit fee (take the head anchor who takes commission + pit fee as an example)

(4) content platform receives the total amount of goods * content platform channel fee + total price of goods * (to the anchor of the agreed commission ratio - content platform draw percentage) * content platform service fee ratio of draw points.

(5) The e-commerce platform receives (the total amount of goods - the anchor's draw - the content platform's draw) * the e-commerce platform's deduction points.
(6) The merchant receives the fee for the total amount of goods - content platform draw - e-commerce platform draw - anchor income. [5]

From the above steps, it is not difficult to conclude that when a live e-commerce platform and content platform are two platforms, e-commerce platform, and content respectively according to the live sales on the spot to earn the corresponding proportion of commission, where the content platform draw includes two parts of sales draw and technical service fees. [15] According to the proportion of the channel fee of the sales draw, different companies have different regulations, the type of goods brought by the anchor on the spot and the development stage of the brand's store itself will also affect the proportion of the channel fee, but the technical service fee is generally fixed at about 10% will not easily change. [8] When the live e-commerce platform and the content platform are the same platforms (for example, Taobao goods directly in Taobao live platform show, Jitterbug goods directly in Jitterbug live, etc.), this drawing model will be certain changes. The content platform should no longer charge the channel fee, only about 10% of the technical service fee, as well as about 5% of the e-commerce platform draw fee. [9]

(III) The Intervention of MCN Platform.

As mentioned above, the current Chinese weblebrities and anchors can be roughly divided into two types: one is an independent self-publisher, and the other has the background of signing up with an MCN company, which is called a multi-channel network and was first born in the United States between YouTube and its video creator YouTuber. [12] These agencies are responsible for mining potential celebrities on the web and signing them up, using their traffic and information advantages to cultivate and support the growth of web celebrities, packaging them, creating different "personas" according to their characteristics, bringing them corresponding traffic and benefits, and helping content creators to make a profit by taking 30%-70% commission share in the process of cashing out their traffic. [11]

These companies first appeared in the U.S. market in 2009, and after seven years of fierce battles, the Chinese market verified the feasibility of the YouTube profit model in China in 2016, with Youku and Weibo, as the first domestic leaders, throwing out olive branches to MCN agencies. [16] However, compared to the United States, where the main goal is to unite high-quality creators, the "incubation" function of Chinese MCN agencies is particularly prominent. Since China's NetFlix culture started late compared to the U.S. and the number of mature quality creators between 2016 and 2017 was scarce, the main business of Chinese MCN agencies is to dig up potential stocks and cultivate them, rather than directly digging up weblebrities with large fan bases for their use. [17]

In the early days of MCN companies in the U.S., they mainly adopted the model of "quality content + boutique advertising". Chinese MCNs have adopted another innovative model, namely "quality content + e-commerce sales". Founded in 2012 by the founder of Onion Video, the company has used this model to generate huge profits, tripling its GMV in 2017 alone.

China's MCN agency market has huge potential, with Li Jiaqi, who came from L'Oréal's counter BA, and Weiya, who made 7,000w in sales with a single live broadcast in 2017, as representatives, MCN companies have cultivated many netizen bloggers with superb potential. [5] 2018 began to see regular military and state-owned enterprises join the ranks of MCN companies, and broadcasting groups such as Hunan Entertainment Channel, Heilongjiang Radio and Television, and Zhejiang Radio and Television took the lead in the MCN field began to plan for planning, triggering market changes. [4]

When brands that need to sell goods use platform promotion channels, such as Ali Mama, Magpie Bridge, and other services, for anchors with MCN contract background, the live broadcasting platform chosen by the anchor will take a certain percentage of the commission negotiated between the merchant and the MCN agency, and after the platform has finished taking the commission, the MCN and the anchor will share according to the percentage determined in the contract.

(IV) Analysis of The Importance of Live Streaming Business to The Company's Operation From The Financial Statements of Well-known Domestic Live Streaming Platforms In China
According to Alibaba Group's Q2 FY2021 financial report released on November 5, 2020, Taobao Live's GMV reached RMB350 billion in the past 12 months as of September 30, 2020, and Alibaba's Tmall International's GMV (excluding unpaid orders) grew 37% quarter-on-quarter; according to the Crypto platform's March 23, 2021, 2020 fourth quarter and full-year earnings report, Racer performed approximately 1.7 billion live broadcasts across its platform in 2020, its live revenue was RMB33.2 billion as of December 31, 2020, up 5.6% year-over-year, and the total merchandise transactions of the e-commerce it facilitated increased from RMB59.6 billion in 2019 to RMB381.2 billion in 2020. For another domestic short-video platform giant, Jitterbug's 2020 earnings report showed that its full-year 2020 GMV value exceeded RMB 500 billion, roughly tripling compared to the 2019 value. Among them, about 100 billion yuan of sales is the profit from users' direct purchases in Jitterbug's built-in mall, and another 300 billion yuan is the jump to Taobao, Jingdong, and other big platforms through the "Little Yellow Car" link. In early 2021, Jitterbug Group set Jitterbug's annual DMV target at 10,000 billion RMB, and in January 2021, Jitterbug's built-in mall, Jitterbug Little Shop, generated more than 30 billion RMB in sales, and in August, Jitterbug launched a special campaign to sell beauty products. GMV growth in a single day was over 160%.

The domestic well-known company Pinduoduo, along with Ali and Jingdong, is known as one of the three giants of domestic e-commerce companies. on March 17, 2021, Pinduoduo announced its Q4 and full-year financial results for 2020, and the data showed that the platform-wide GMV value of Pinduoduo in 2020 was RMB 1,667.6 billion, an increase of 66% year-on-year. The GMV values of domestic e-commerce giants have maintained a high growth rate over the years, and even in the case of a near-saturated market, Pinduoduo and Ali Group still managed to maintain a relatively large growth rate of GMV values, indicating that the scale of China's domestic e-commerce live platforms still has a large growth space.

(V) Summary And Reflection On The Profit Model of A Live Streaming Platform

At present, the profit source of most domestic e-commerce platforms lives streaming function is still a various proportion of drawbacks, including technical service fee, channel fee, etc. [11] The rapid development of the P2P model in recent years has made the live broadcast platform shift from a single online live broadcast model to a combination of online and offline, thus increasing other sources of income. [7] Take the Taobao live base launched by Ali Group as an example, the base and the domestic well-known cultural operating institutions jointly, get the support of the government, industry associations, profit sources are roughly three channels: first, through cooperation with Taobao anchors and station to the base of the merchants with goods, under the operation and management of the live base, in Taobao anchor sales on the draw point to generate revenue points, which is similar to the traditional online live draw; second. For Taobao live base in the core industry, the formation of special government policies, high-quality sources of goods on the turn, anchor empowerment, business training, activities such as landing live ecological closed-loop, to help businesses e-commerce transformation, expand the industry with e-commerce channels, help local economic development, create jobs. [10] Eventually, get a lucrative government subsidy; third, earn the difference by renting housing, renting the venue to the needy merchants and professional anchors to earn rent; fourth, provide a variety of innovative services, such as live broadcast services, proxy broadcast services, proxy operation services, etc. This model has changed the single source of income and greatly increased the profitability of the live streaming platform. Taobao Live Base has been a great success since its launch in 2018, providing a good reference experience for other e-commerce platforms to expand their profit channels. [8]

2.2 How Is Popularity Monetized

(I) Advertisement.

When it comes to celebrities, it seems that embedding advertisements are unavoidable. The viewers usually call a celebrity’s video with advertisement “a video for having meals”. It can also tell us that embedding advertisement is the most basic means for celebrities to make money. It’s also one of the most convenient and basic ways to monetize their popularity. When they have enough fans,
advertisers would contact them and pay if the celebrities agree to put the advertisement in their videos. Papi, an extremely celebrity, received RMB 22million for her first advertisement. Liu Ergou, a celebrity with 41.66million fans, receives RMB 520 thousand for an advertisement lasting 1-20s and RMB 780 thousand for a 21-60s one. Mei Yangyang, a celebrity with 1.01 million fans, receives RMB 13 thousand for a 1-20s one. [15]

Moreover, for some of the viewers, accepting recommendation from celebrities also means a kind of lifestyle they look forward to. Pursuing the products recommended by celebrities is not only the way to support someone they like but it’s also a way to get closer to the celebrities, or fashion itself. It results in another kind of advertisement for celebrities, as they can show their perfect life in their videos, such as having meals in those extremely expensive restaurants. It’s no longer a kind of recommendation but a kind of lifestyle, which means they can accept more types of advertisement instead of something just related to their professions. [16]

As for the advertisers, the popularity brought by celebrities is more worthy. As fans of celebrities have particular features, such as those who enjoy cooking videos are more likely to cook by themselves, which is called vertical group, advertisers can embed related advertisements. Moreover, those celebrities have more discourse power as they are kind of experts in the particular area, the fans are more likely to believe them. In this way, the intensive target group is a better choice for advertisers.

Moreover, there’s usually cooperation between online shopping apps like Taobao and short video apps. For example, the purchase link is usually put with the advertising videos, which is easier for consumers to do their purchase. There’s hardly any time for viewers to consider whether they need it when they just finish viewing the video and see the link. Even they truly need it, it’s still a convenient way for them to do the purchase instead of searching for the same thing from different brands.

(II) Online-Stores.

Some of the celebrities would choose to set up online stores themselves to monetize their popularity. Besides the benefits listed before, their e-stores will also become one of their brands to attract new fans. Ziqi Li, one of the most influential celebrities in China, has 6.33 million fans for her online store. Besides the foods related to her videos, there are also animation products selling and cooperating with Huabei, an app that belongs to Alipay. Moreover, there are also special celebrities such as Dayi Zhang who are cultivated just for a matched online store. “Wardrobe I Like”, Dayi Zhang’s online store, has 12.23 million fans, with 338 million income during the Double Eleven Festival in 2019. They take more risk for their stores and spend more costs but binding with online stores can add to the loyalty of their fans and make their income much more in quantity and stability.

(III) Live Interaction

It’s usually bonded with advertisements. Only live interaction itself is a small part of the profit model for celebrities. However, those platforms mostly work on live broadcasts can profit from the paid virtual gifts that viewers bought for streamers. Few of the money is given to the streamers, extremely those without a contract with the platforms. However, those celebrities who have fame and fans can bring a large scale of income to both themselves and the platforms through broadcasting.

2.3 The Development of Stages

The development of China's short video industry can be summarized into four stages. First, video clips, or microfilms was started to appear in the market since microfilms act as the ignitor, which has played an important role in the development and explosion of short videos. At the end of 2005, a 20-minute online short film called "A Murder caused by steamed buns" became a huge hit, beating out excellent traditional films in terms of downloads. Since then, China's well-known video websites, many famous directors, actors, and a large number of ordinary people have also started to use microfilm for shooting and production. Microfilm promoted the popularization of short videos among users with middle and low economic levels, unintentionally cultivating the consciousness of netizens to take advantage of the fragmented time to shoot, produce, upload and watch. The studies began to appear around 2005, mainly through the investigation of the types of
short videos with high attention, analyzing the marketing strategies and business models of short video platforms, and predicting the development trend of short video content and theme.

For example, after analyzing the content of more than 2000 micro-videos forwarded on "Miaopai", a short video platform, it was found that micro-videos of life, fun, and entertainment will be the most important directions to promote the development of short videos. At the same time, the studies also point out some current difficulties and challenges. Such as to a short video platform "Meipai" of the study, in addition to the detailed analysis of the platform, the audience demand, it also reveals many problems existing in the development of mobile short video, such as "wireless network temporarily not unblocked, UGC quality are intermingled, threats to privacy, user viscosity barriers and profit model not mature enough", etc. Therefore, some constructive ideas and suggestions are put forward from the aspects of technology, content, security, operation, and business.

Second, with the reflection of producing professional content, tool-based video applications are turning into those with socialization properties. At the stage when the mobile social pattern is not yet formed, forward-looking tool-based video applications begin to emerge, such as "Xiaoying". However, in the early stage, tool-based video applications have a common feature, that is, lack of social attributes and poor user engagement. Then, through the short video time limit to create a unified integrated community atmosphere, by balancing the video size and the economical consumption level of mobile phone application users, 8 seconds is the best time to transfer information. Coinciding with the widespread popularity of smartphones and 4G, Microvision, which was born in 2013, further optimizes the social attributes of video applications. Subsequently, a large number of high-quality short video enterprises began to appear in the market, competing for more users’ time. The 2014 charity Ice Bucket Challenge played an indispensable role in the transformation of short videos. Many celebrities used Miaopai to post videos of ice buckets pouring over themselves, with an unprecedented 2 million daily live users, In May 2015, Xiaokaxiu, another short video app, appeared in the market, too. By providing ready-made scenes and scripts to stimulate users' lip-syncing performances and attract users' participation, Xiaokaxiu has reached 5 million daily live events and 1.2 million original short videos per day, further consolidating the social attributes of short videos. As the user group of short video platforms is positioned, the short and fixed length of the video leads to a wave of short video new media entrepreneurship. The research in this stage mainly focuses on the exploration of the functional value of short videos. For example, many studies in the field of media journalism show that short videos can be used as a language carrier on the Internet and can be used in news reports due to their transformation from instrumental to social.

In the third stage, with the rise of a large number of short video new media, the short video new media industry gradually moves towards normalization. Data show that mobile video traffic accounted for more than half of the total mobile data traffic in 2016 and continues to grow at a high rate. With the introduction of foreign MCN concepts into China, which organizations help video producers to create content and monetize, with the support of capital and resources, cultivating fans for the latter, doing marketing promotion, the short video model focusing on professional production of content has been further strengthened. Compared with the previous stage, the research in this stage shows a blowout growth, which reflects the extremely advantageous commercial position of the short video platform after 2015. During this period when short video platforms were booming, research mainly focused on analyzing video content production modes, such as "reproduction" or "creation". And quantitative analysis of the serialization of media video production and the scale of platform media production.

At the same time, the profit potential and ability of short video platforms are deeply explored. However, researchers pay more attention to the platform marketing model, and there are few specific methods of realization, mainly including soft advertising, e-commerce revenue, platform traffic realization, etc. The study points out the challenges faced by the industry at this stage, such as fierce competition within the short video field, high operational demand, and the limitations of the realization of the short video field.
The fourth stage is the stage in which the overall pattern of the short video field is formed. Douyin and Kuaishou dominated the industry, and other short video software has formed its audience scope. GIF Kuaofou, which was founded in 2011 and mainly produces and shares GIF pictures, transformed from a tool application into a short video platform in 2012. By introducing a personalized recommendation algorithm, it recommends content for each user's different preferences, emphasizing the operation of user communities, and descends to third and fourth-tier towns and rural areas, harvesting a large amount of data traffic from "bottom users". In 2017, Douyin achieved a large number of user data traffic by introducing stars and KOL resources. Rely on algorithm recommendation and driving users to watch and participating in the strong operation, Douyin quickly capturing the time of users in the first and second-tier cities. Since then, Kuaishou and Douyin have successfully established a new order in the short video field. A large number of comparative studies appear at this stage. Led by "Douyin" and Kuaishou, two giants in the industry, the commercial value is explored, and the profit model is compared.

3. Conclusion

In contemporary, short-video applications and online streaming have become an increasing important topic that has drew a lot of attention of business and public. We went through major studies on short-video applications and online streaming, and we have figured out four stages that this industry has experienced and major profit methods. I believe our study are significant when it comes to existing business model of short-video app and future revenue sources, “short-video plus”, just like “internet plus” business model.

References

[1] Meng Xiang-ming, Tang Qian-hui. Status quo and countermeasure analysis of electronic commerce of cross-border trade in China [J] Journal of Shenyang University of Technology (Social Science Edition), 2014, 7(02)

[2] Zhu Kai. Analysis of the current situation of cross-border e-commerce development in China and related suggestions [J]. E-commerce.

[3] Yu Hua, Xiao Ke. The social environment, development history and future trend of live e-commerce in China. [J] China's national conditions and power. 2021, (08)

[4] More than 10 million sessions in six months, live e-commerce has become an important part of users' online shopping [EB/OL]. [2020-09-14]. https://www.jiemian.com/article/4980198.html.

[5] Microcast. Live e-commerce ecological evolution - 2020 live e-commerce industry research report [EB/OL]. [2020-07-09]. https://socialone.com.cn/livestreaming-weiboyi- report-2020/.

[6] Tan Xinran. Analysis of live e-commerce industry series (II) MCN agencies that carry on the top and bottom [EB/OL]. [2020-07-29]. https://www.sohu.com/a/410300435_389451.

[7] Wang Wailian, Wang Mingyu, Liu Shuzhen. Analysis of the current situation of cross-border e-commerce in China and suggestions[J]. E-commerce, 2013(9) : 23 - 24.

[8] Chen Yunbo. Discussion on the development trend of cross-border e-commerce in China under the development trend of international e-commerce [J]. Business. 2013(13).

[9] Sina Finance. This year's expected live bandwagon industry size is nearly trillion yuan. China Broadcasting 2020.07.

[10] Zhu JunJie.: Exploration of domestic short video profit model. Master's degree, Shanghai Normal University, China, 2018. p1, p28-43.

[11] Yao LiWen, Duan FengFeng. Exploration of traffic realization of online short video platform. News Outpost. (2019) No.8, p34-36.

[12] Gao Chong, Yang BoXu. Analysis of the development trend of content theme of micro-video: A study of highly retweeted micro-video on Sina Weibo's official short-video app "Seconds". Journalism and Mass Communication Monthly. (2016) No.12, p47-50.
[13] Yao XiuXiu. Study on the development strategy of mobile short video from the perspective of use and satisfaction theory --- A case study of Seconds App. Master, Jiangxi University of Finance and Economics, China, 2017. P3-5.

[14] Zhang ZiXuan, Wang Hai, Xu Dan. The rise of "mobile short video social application" and its trend. Chinese Journalist. (2014) No.02, p107-109.

[15] Gao Chong, Yang BoXu. An Analysis of the Content Production Model of Micro-video: A Study Based on Sina Weibo's Official Short Video Application "Seconds". Journalism and Mass Communication Monthly. (2016) No.23, p60-65.

[16] Wang XiaoHong, Ren YaoShi. New features and problems of short video production in China. The Press. (2016) No.17, p72-75.

[17] Luo YaWen. Analysis of the Operation Strategy of Food Short Video Self-Media--Take "Daily Food" as an Example. Master, Huazhong University of Science and Technology, China, 2017. P30-32.

[18] Guo Fan. Analysis of the business value and profit model of Jitterbug short video. New Media Research. (2018) No.12, p59-60.

[19] Zhao Ru, Zhang Nan. Interpretation of Online Celebrities: Fans Gathering and traffic Monetization. Journal of News Research. Vol.7 (2016).