

Analysis on the Characteristics of Live Streaming Selling Channels

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Abstract

Based on relevant theories and literature review, this paper analyzes the online Red live broadcast sales channel composed of brand, online Red anchor and live broadcast platform. Firstly, this paper summarizes the online live broadcast sales channel from three aspects: the concept of online live broadcast sales channel, channel structure and channel comparative analysis; Secondly, it analyzes two specific sales channels under the online live broadcast sales channel, namely, the online Red sales channel in the talent live broadcast room and the online Red sales channel in the store live broadcast room; Finally, it analyzes the influencing factors of the contract design of the online live broadcast sales channel.

Keywords

Online Celebrity; Live Broadcast Sales; Analysis on the Characteristics.

1. Introduction

Online live broadcast sales have become one of the preferred channels for a large number of brands to sell products and clean up inventory. Tiktok, Taobao, jitter, and Kwai Tai have launched the live products sales business. With the support of the platform, the anchor has won the attention of a large number of fans by relying on his various talents, such as singing, dancing, make-up and talk shows. Suppliers sign product sales contracts with their loyal fans based on specific categories of online celebrity anchors. Thanks to the live broadcast, the anchor can not only fully display product information in his live broadcast room[1], but also interact with consumers in real time through bullet screen news. In the process of live broadcast sales, the audience's purchase of products is often affected by the external environment, such as the consumption efforts of the anchor, the real-time purchase information of a large number of viewers and low prices. All these factors make live broadcast sales the most popular sales model at present. For example, online celebrity anchor Li Jiaqi sells 15000 Lipsticks in five minutes[2]. However, the live broadcasting fee paid by the brand includes pit fee, commission and commodity discount, which has caused great cost pressure to the brand. It is reported that even if the discount cost is not considered temporarily, it is normal that the return on investment of brands in the live broadcasting room is less than 1.

With the rapid development of the live broadcast sales industry, brands began to sell products in the live broadcast room of their stores through long-term employment or self-cultivation of online Red anchors. According to iResearch's 2021 report on China's live e-commerce industry, in 2020, the turnover of merchants' live broadcasting accounted for 32.1% of the live e-commerce market, which is expected to account for nearly 50% by 2023[3]. Compared with short-term cooperative webmasters, hiring or cultivating webmasters to sell live broadcasts in the shop's live broadcasting room for a long time has the following advantages for brands: Mastering the ways to control costs and helping them save funds in pit fees, commission and gifts; Through the live broadcast of the products on the intranet[4], the audience can deepen their understanding of the brand. Therefore, how to design the contract and choose the channel is the problem that the brand needs to face under the online live broadcast sales channel.

The revenue sharing rate between the platform and the anchor network should be set at the same time when signing the agreement between the platform and the anchor network. For example, Taobao tiktok will charge 10% of its sales revenue as a technical service fee, and 20% of its sales revenue as a revenue share, while the jitter will generate 50% of revenue[5]. The sharing of sales revenue by the live broadcasting platform will certainly reduce the actual income of online Red anchor. Therefore, the charge of live broadcasting platform is a realistic factor that brands have to consider when establishing cooperation with online Red anchor.

To sum up, in order to better solve the above problems and fill the theoretical research gap in the field of live broadcast e-commerce, this paper analyzes the characteristics of online popular live broadcast sales channels, to lay a theoretical foundation for subsequent contract design.

2. Overview of Online Live Broadcast Sales Channels

2.1. Concept of Online Live Broadcast Sales Channel

The powerful flow creation ability of the live broadcasting platform has prompted the emergence of the online popular live broadcasting sales channel. Flow is the most important resource for enterprises to realize commodity sales. The sales channel of online Red live broadcast refers to that brands (manufacturers and dealers) connect with online Red anchors[4], determine the content scheme of live broadcast, introduce the live broadcast platform for content output, and finally guide potential consumers (fans of online Red anchors) to realize cash conversion on the e-commerce platform.

With the rapid development of the live broadcast sales industry, brands gradually began to hire or cultivate online celebrity anchors for a long time, and recommend goods to the fans who pay attention to the store through their store live broadcast room, which is not limited to establishing a short-term sales cooperation relationship with the online celebrity anchors in the live broadcast platform and selling goods through the talent live broadcast room[6]. Therefore, the online Red live broadcast sales channels studied in this paper include the online Red sales channels in the talent live broadcast room and the online Red sales channels in the store live broadcast room. The online Red sales channel of talent live room is mainly for the fans accumulated by the online Red anchor on various social media, while the online Red sales channel of store live room is mainly for consumers[7] who pay attention to the brand products for a long time. This kind of commodity sales channel through talent live broadcasting room and store live broadcasting room is the online popular live broadcasting sales channel of this study. For the traditional e-commerce platform, because its traffic increment bonus is nearly exhausted, the online Red anchor who sells products through the live broadcasting room of the store mainly uses the existing users and accumulated resources; However, due to the powerful communication function of webcast and the strong influence of webcast anchor, it has developed a huge new traffic, which makes the potential consumer groups faced by the sales of webcast anchor in Daren live studio more extensive, and provides an opportunity for brands to expand users and resources[8]. However, for brands, live selling through the talent live broadcasting room is an auxiliary means, and the store live broadcasting room is a normalized sales means. The two kinds of live broadcasting sales channels have their own advantages and disadvantages. Brands should take the initiative to weigh the relationship between short-term sales increase and long-term sustainability, and reasonably adopt the online sales channels of talent live broadcasting room and store live broadcasting room according to their own commodity brands.

2.2. Analysis on Sales Channel Structure of Online Live Broadcast

With the Kwai Fu Industry's rapid development, the traditional e-commerce platform (Taobao, Jingdong, etc.), short video sharing platform (jitter, fast hand, etc.) and live broadcasting

platform (tiger tooth live broadcast, tiktok live broadcast, etc.) have opened a new sales channel, net red live sales channel, through the function of opening live broadcast shopping and developing the live broadcast of the electricity supplier. According to the different types of online live broadcasting sales channels, they can be divided into talent live broadcasting room and store live broadcasting room. The sales channel of online Red live broadcasting consists of three main bodies: brand, online red and live broadcasting platform[9]. Brand can choose to sell in the live broadcasting room of the store or provide goods to the talent live broadcasting room on any live broadcasting platform, and then the online Red anchor will sell on the live broadcasting platform, so as to provide products and services to consumers.

The research of this paper is based on the supply chain of two-level online Red live broadcast sales channels. The main subjects of the supply chain include brands, online Red anchor and e-commerce live broadcast platform. These subjects are described in detail below:

2.2.1. Brand Dealer

In the supply chain of online live broadcast sales channels, upstream brands include factories and dealers. Brands are any organization or organization that sells goods to individuals, enterprises or family consumers and provides appropriate after-sales services. Among them, some brands have settled in traditional e-commerce platforms and short video sharing platforms, such as Anta, Li Ning, Xiaomi, etc.; In addition, some brands do not have official online sales channels, such as overseas products, new products, small commodities [10], etc.

The brand business studied in this paper refers to the business settled in the traditional e-commerce platform, which has stores on the traditional e-commerce platform. The sales methods include store sales and live broadcast sales. In the live broadcast sales channel, brands can hire or cultivate online celebrity anchors for a long time, and recommend goods to fans who pay attention to the store through their store live broadcast room; You can also choose to establish a short-term cooperative relationship with the webmaster on any live broadcasting platform, and the webmaster will sell goods through its talent live broadcasting room.

2.2.2. Online Celebrity

The development history of netred is the epitome of the development of Internet technology. The earliest online popularity in China can be traced back to the end of the 20th century. A group of online writers spread their personal image through words and accumulated fans on the Internet, to become popular. Finally, they realized the flow realization through online paid reading and book publishing. Many scholars call this kind of Online popularity "online popularity 1.0"; Around 2005, wanghong began to hype through the way of "picture + text" and became famous in the online community. Since then, it has entered the era of "wanghong 2.0"[11]; In 2008, the display mode of netred was not limited to graphics and text, but also video and live broadcast, which were highly disseminated and real-time. Scholars called it "netred 3.0".

The online celebrity anchor studied in this paper refers to the online celebrity with goods, which attracts the attention of users on various social media, then establishes sales cooperation with suppliers, and sells goods on the e-commerce live broadcast platform to realize the purpose of fans' cash conversion.

2.2.3. E-commerce Live Broadcast Platform

E-commerce live broadcasting platforms can be divided into three categories. The first category is the live broadcasting platform transformed from traditional e-commerce platforms through new live broadcasting functions, such as Taobao, pinduoduo, jd.com, etc. The advantage of this kind of live broadcasting platform is that it has stable shopping consumers, and online live broadcasting sales is an innovation of its original sales model. The traditional e-commerce platform can provide a series of e-commerce services[12]. Brands can combine the online live broadcast sales channel with the original online channel to obtain a certain amount of free

traffic on the traditional platform; The second is Kwai live broadcast from the short video sharing platform, which will become a live broadcast platform for the electronic commerce, such as tiktok, jitter, etc. The third category is the e-commerce live broadcasting platform formed by professional live broadcasting platform through opening shopping channels. The advantages of the second and third types of platforms are: the main user groups have a high degree of acceptance of the live broadcast mode, and the live broadcast platform itself has a large number of online celebrities.

The live broadcast platform is a bridge between the webmaster and consumers. In reality, the webmaster needs to abide by the revenue sharing rate set by the platform when executing the sales contract signed with the brand. According to the "2020 merchant live broadcast white paper" released by Taobao, Taobao live broadcast will charge 10% of the sales revenue of the online popular anchor as the technical service fee and 20% of the sales revenue as the revenue sharing fee. And the tiktok will earn 50% of the sales revenue[13]. Taobao live broadcast has become the industry benchmark of live e-commerce, and the e-commerce live broadcast platform studied in this paper is Taobao live broadcast. At the same time, consider the sharing mode formulated by the live broadcasting platform, including the online Red anchor promotion sharing mode and the supplier sales revenue sharing mode, that is, explore the impact of the differences in the sharing mode of the live broadcasting platform on the expected profits of suppliers and online Red anchors.

2.3. Comparative Analysis of Online Live Broadcast Sales Channels

The online Red live broadcast sales channels studied in this paper include the online Red sales channels in the talent live broadcast room and the online Red sales channels in the store live broadcast room. At the same time, considering the impact of the two sharing modes formulated by the live broadcast platform on the above channels, that is, the online Red anchor promotion sharing mode and the supplier sales revenue sharing mode. This section will analyze and discuss the characteristics and similarities and differences of online Red sales channels from the perspective of the comparison between online Red sales channels in talent live broadcasting room and online Red sales channels in store live broadcasting room[14], and from the perspective of the channel itself. There are certain price differences between the online live broadcast sales channels. First of all, in the online Red sales channel of Daren live studio, the online Red anchor and the brand often establish a short-term and temporary cooperative relationship, and because the online red has accumulated a large number of fans on various social media, it has the bargaining power. For example, some brands can't bargain with the head anchors such as Li Jiaqi, and the price is often determined by the anchor. Therefore, the webmaster has known the price of the goods in advance after establishing a cooperative relationship with the brand and before making sales efforts. However, for the online celebrity anchor in the live broadcasting room of the store, because it is a long-term employment relationship with the brand, which is equivalent to the traditional salesperson, it can be regarded as that he knows the price of the goods only when he is live broadcasting, that is, the sales efforts and the market price of the products are decided at the same time. In addition, compared with the online Red sales channel of the store live broadcast room, the operation cost of wireless access to the store, and it needs to maintain the loyalty of the fan group through the price advantage. Therefore, the price of the reach live broadcast sales channel is relatively low, transmitting the signal of "the lowest price in the whole network" to consumers.

According to the data of Taobao e-commerce business department, in the first half of 2020, there were more than 280000 actives online Red anchors in stores and more than 130000 online Red anchors in Daren live broadcasting room. Although in terms of the number of online Red anchors, the shop online Red anchors are better, from the perspective of transaction volume, the sales contribution of online Red anchors in Daren live broadcasting room cannot

be underestimated. Compared with the live broadcast sales of shop online Red anchor, the live broadcast sales of talent anchor room not only have fast sales speed and large sales volume, but also attract new traffic. For the traditional e-commerce platform, the live broadcast sales of shop online Red anchor are mainly aimed at the existing fan groups and accumulated resources, while the audience coverage of talent anchor is wider, providing brands with opportunities to expand customers and resources.

3. Operation Mechanism of Online Live Broadcast Sales Channel

3.1. Analysis on the Operation Process of Online Live Broadcast Sales Channel

According to the analysis of the supply chain structure of the webcast sales channel, this section combs the characteristics of the supply chain members and the relationship between them. This section mainly discusses the operation process of the webcast sales channel, and combs the operation process among the main members of the webcast sales channel. It mainly includes brands, online celebrity anchors, online consumers and logistics service providers.

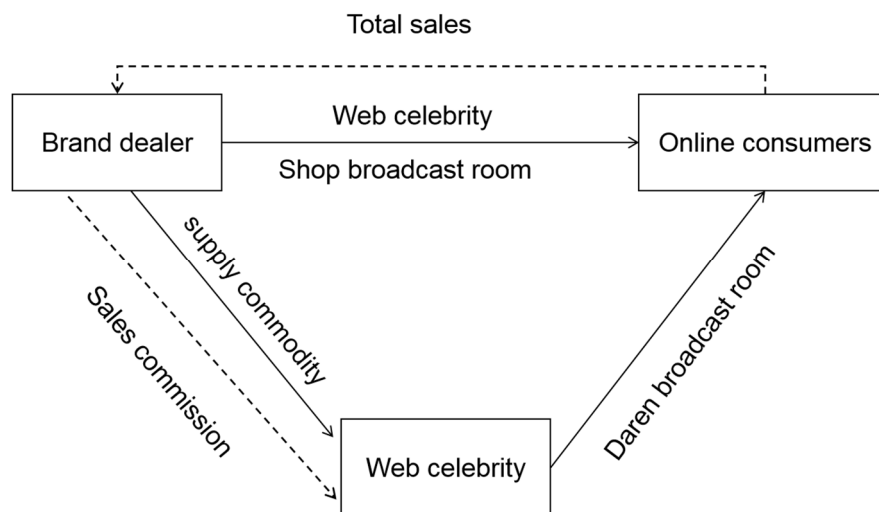


Fig 1. Online live broadcast sales channel operation process

The operation process of the whole online live broadcast sales channel is as follows: on the e-commerce live broadcast platform, brands can choose to establish short-term cooperation with online live anchors, sell goods through the talent live broadcast room, and pay a commission according to a certain proportion of commodity sales. You can also choose to hire an online celebrity anchor to sell its goods live in the live broadcasting room of its store for a long time. The online Red sales channel of talent live room is mainly for the fans accumulated by online red in various social media, while the online Red sales channel of store live room is mainly for the resources accumulated by brands on the e-commerce platform. On the e-commerce platform, by watching the live broadcast, consumers can choose to buy in the talent live broadcast room or in the store live broadcast room. After the consumer places an order, the brand will deliver the goods through the e-commerce platform, such as Taobao, jd.com and pinduoduo [15]. Finally, the logistics service provider will deliver the goods to the consumers.

3.2. Decentralized Decision-making of Online Sales Channels in Daren Live Broadcasting Room

In the context of online Red live broadcast sales, one of the cooperation modes between brands and online Red anchor is that online Red anchor sells goods through its talent live broadcast room, which directly faces consumers, that is, online Red fans. However, the cooperation

purposes of the two sides are different. The purpose of the brand is to promote or sell new products, and the purpose of the webmaster is to increase profits or absorb powder. This situation belongs to the decentralized Decision-making of the brand and webmaster.

In the case of decentralized Decision-making between brands and online Red anchors, brands and online Red anchors strive to maximize their expected profits. The game under the online live broadcast sales channel is a three-stage Stackelberg game: the brand is located in the upstream of the supply chain and can decide whether to adopt the live broadcast sales means, so it is the leader in the game and the online anchor is the follower. In the first stage, the brand maker makes a decision, aiming at maximizing its expected profit, and determines the profit sharing proportion given to the online Red anchor; In the second stage, brand makers determine the product price with the goal of maximizing their profits; In the third stage, the online celebrity anchor determines its sales effort level. However, the live broadcast e-commerce platform is responsible for its own development and operation, and improves its service quality. The brand and the webmaster cooperate to sell goods on the platform. Generally speaking, the commission income of the live broadcast platform to the online popular anchor is a commission. This paper considers that the platform sets the brand sales revenue sharing mode and the online Red anchor promotion revenue sharing mode, so as to compare the impact of the difference of the platform sharing mode on the contract parameters, product price and the expected profit of the brand and the online Red anchor when the brand chooses to use the online red in the talent live broadcasting room for live broadcasting sales.

3.3. Decentralized Decision-making of Online Sales Channels in Store Live Broadcasting Room.

In the context of online live broadcasting sales, another cooperation mode between brands and online anchor is to hire online anchor for a long time to sell goods in the live broadcasting room of their stores. The purpose of cooperation is to improve product sales and brand awareness.

In the case of live broadcast sales in stores, the goal of both brands and online celebrities is to maximize their expected profits. However, for wanghong, it is mainly responsible for the professional introduction of products for the fans of brand merchants. The price is determined by the brand merchants, and they only know the price of goods during the live broadcast. Therefore, the game under the sales channel of the store live broadcast room is a two-stage Stackelberg game: in the first stage, the brand decides to give the share proportion of the online Red anchor when it maximizes its expected profit and the expected income of the online Red anchor is greater than its retained income; In the second stage, brand makers and online celebrities make decisions at the same time. Brand makers determine the product price under the maximization of their own expected profit, while the anchor determines the level of sales efforts under the maximization of their own expected profit. However, the live broadcast sales cannot be separated from the service support of the live broadcast platform, which is consistent with the online popular sales channel of the talent live broadcast room. This study considers the platform to set the brand sales revenue sharing mode and the online popular anchor promotion revenue sharing mode.

4. Analysis on Influencing Factors of Contract Design of Online Live Broadcast Sales Channel

4.1. Number of Viewers in the Live Broadcasting Room

The number of viewers in the live studio has a great impact on product sales during the live broadcast. A large number of visitors or user traffic is the cornerstone of profitability. According to the data, during the "double 11" event in 2021, the first pre-sale transaction volume of the head webmaster in the first echelon was nearly 10 billion, which opened a lot of distance from

the anchor in the second echelon, while the head anchor in the first echelon almost "monopolized" most of the traffic of the day, with more than 100 million viewers.

The number of Live Room viewers that the webmaster can attract represents its sales ability. In this study, the number of viewers in the live broadcasting room represents an average number of viewers that can be achieved by the online Red anchor according to the statistical data of the past live broadcasting room.

4.2. Sales Efforts of Webmaster

Webcast sales refers to product introduction, trial and experience sharing through webcast anchor on the webcast platform, and real-time communication and feedback with online consumers, so as to generate trust in the products recommended by webcast anchor with the help of trust in webcast anchor, so as to promote commodity purchase. Compared with traditional online shopping, it uses live broadcast to introduce and display product details in detail, which makes up for the disadvantage of insufficient display of static web page information. At the same time, the online Red anchor has real-time two-way interaction with consumers, which can better arouse consumers' shopping intention. Compared with the shopping guides in physical stores, the webcast anchor relies on the live broadcast platform, which makes it more convenient for consumers to shop.

It can be seen from the above that the sales efforts of webmaster include product introduction, function display, on-site display and real-time interaction, and its sales efforts will accelerate the promotion of consumers' purchase. That is, the harder the webmaster tries to sell products, the higher the market demand will be. Therefore, this paper describes the impact of the sales effort level of online Red anchor on market demand.

4.3. Product Market Price

In the online live broadcast sales channel, the ultra-low product market price is the main reason to attract viewers to stay in the live broadcast room. Price is one of the necessary factors for consumers or fans to consider in shopping decisions. At the same time, online discounts and benefits can help brands gain an advantage in market competition and directly hit the price pain point of consumers or fans. Therefore, the market price of products is one of the factors that must be considered to measure the market demand.

The online Red live broadcast sales channels studied in this paper include the online Red sales channels in the talent live broadcast room and the online Red sales channels in the store live broadcast room. Due to the complexity of the realistic background, according to the previous analysis, this paper simplifies the difference between the above two channels, which lies in whether the webcast anchor knows the product price before live sales. Investigate the influence of the Decision-making order of commodity prices on brands and online celebrity anchors under the online celebrity sales channel of talent live broadcasting room or store live broadcasting room.

4.4. Live Broadcast Platform Sharing Mode

The live broadcasting platform is responsible for the development and operation of the platform, such as algorithm matching, pushing to consumers, popular recommendation places, etc. to publicize the online Red anchor. It takes a certain proportion of the Commission received by the online Red anchor as its own source of income, and improves the quality and service of the platform.

The live broadcast platform is the carrier to execute the live broadcast sales contract signed between the brand and wanghong. In reality, the premise for the webmaster to execute the sales agreement is that he must sign a revenue sharing contract with the live broadcasting platform. However, the success of the platform will reduce the sales revenue of online Red anchor. In essence, online Red anchor and live broadcast platform are a community of interests. This

paper assumes that the proportion of the platform is exogenous, considers the sharing mode set by the live broadcast platform, including the online red anchor promotion sharing mode and the brand sales revenue sharing mode, and investigates the impact of the difference of the sharing mode on the Decision-making and expected profit of the brand and online Red anchor in the two online Red sales channels.

5. Summary

Starting from the realistic background of the online live broadcast sales channel, this paper first analyzes the participants of the online live broadcast sales channel jointly participated by the brand, the online anchor and the live broadcast platform, and summarizes the current situation of the participants; Secondly, it makes a comparative analysis on the channel characteristics, channel conflict and channel impact of the supply chain of the online Red sales channel between the talent live room and the store live room, and analyzes the similarities and differences of the online Red sales channel between the talent live room and the store live room; Then, from the perspective of supply chain operation process analysis and Decision-making of brands and online Red anchor, this paper studies the operation mechanism of online Red live broadcast sales channel; Finally, it analyzes and summarizes the factors affecting the contract design under the background of online live broadcast sales channel.

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