Opportunities and Reflections of Paying for Knowledge Online in the Context of E-commerce Live Streaming

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Abstract. Paying for knowledge online relies on e-commerce live streaming, thus presenting a new industry trend. This paper analyzes the development status of paying for knowledge online and e-commerce live streaming, and discusses the new opportunities of paying for knowledge online under the environment of e-commerce live streaming from the aspects of economic benefits, personal and social values, and user experience perception. On this basis, the possible problems are summarized, such as the lack of systematic supervision and evaluation standards, the unhealthy atmosphere of "benefit first", and the blind obedience behavior of users, which will provide theoretical reference for the future research on paying for knowledge online.

Keywords: E-commerce Live Streaming · Paying for Knowledge Online · Opportunity · Reflection

1 Introduction

With the vigorous development of China's Internet economy and new media, "Paying for knowledge online" has appeared in people's field of vision as a new means of knowledge dissemination. New media provides more opportunities and forms of expression for paying for knowledge online, and e-commerce live streaming is also a new network marketing method in the new media environment under the Internet economy. Therefore, both are products of the Internet and new media. When e-commerce live streaming and paying for knowledge online are combined, complementary effects should be realized. This paper discusses how e-commerce live streaming provides opportunities for paying for knowledge online, and reflects on the possible problems, so as to provide a reference for the optimization of paying for knowledge online industry.

2 Status Quo

2.1 Paying for Knowledge Online

Paying for knowledge mainly refers to the phenomenon that knowledge receivers pay for knowledge, which is usually done on the Internet. In 2016, the emergence of Q&A

interactive products such as "Zhihu Live" and "Fan Answer" opened the "first year of paying for knowledge online". Paying for knowledge online has become an important development trend, and the related content and topics have received wide attention. Today, there are various forms and platforms of paying for knowledge online, mainly in the form of paid Q&A, publications, knowledge communities, audio and video courses, etc.

The COVID-19 pandemic has made mature paying for knowledge online platforms and products popular among users. According to iiMedia Research, the market size of China's paying for knowledge online market will reach 112.65 billion yuan in 2022, and the market size is expected to reach 280.88 billion yuan in 2025. Paying for knowledge online platforms in China have formed a relatively stable mode of realization [1].

2.2 E-commerce Live Streaming

E-commerce live streaming is a new marketing method that uses live streaming technology to display products or services, answer questions and guide shopping through the network. Live streaming is based on the development of new media platforms and evolved from TV shopping programs on traditional TV media. In March 2016, Mogujie, the pioneer of e-commerce live streaming, took the lead in the whole industry to launch the live video function.

By June 2020, the number of e-commerce live streaming users reached 309 million, an increase of 44.3 million compared with March 2020, with a scale growth of 16.7%. E-commerce live streaming became the fastest growing personal Internet application in the first half of the year [2].

3 New Opportunities

Paying for knowledge online adopts the new technologies and marketing methods of e-commerce live streaming to build a multi-faceted business system of knowledge producers, platforms and users, so as to improve the achievable efficiency.

3.1 Economic Benefits

Paying for Knowledge of Traditional Offline Mode and Traditional E-commerce Mode
Traditional offline paying for knowledge modes such as bookstores and education and training institutions are affected by multiple factors such as location, time and climate, and have costs such as rent, logistics and offline publicity. During the sales process, sales staff often need to serve consumers one-on-one, resulting in low sales efficiency.

In the traditional paying for knowledge mode of e-commerce, users can only make a basic evaluation of the product by trying part of the content, browsing other buyers' messages, and simply communicating with customer service. Therefore, many users hesitate to buy products because they cannot predict the experience perception of products.

E-commerce Live Streaming Mode
E-commerce live streaming provides mass traffic focus for paying for knowledge online, sells knowledge products through live interaction, and maintains user stickiness with the help of strong IP attributes to achieve economic benefits.

Short Marketing Path
E-commerce live streaming has the characteristics of short marketing path. Technological innovation enables e-commerce live streaming to break the limitations of traditional sales models and build a bridge between merchants and users to bypass middlemen and other intermediate channels, so that products can directly reach users and reduce costs. Meanwhile, e-commerce live streaming has the characteristics of low sharing cost and high active users, and is not restricted by geographical regions and cumbersome processes, so it can directly and accurately attract target users.

Strong Interactivity
E-commerce live streaming has the characteristics of strong interaction. In the live streaming room, the host can directly show and demonstrate knowledge products to users, and real-time communication between users and hosts, users and users is realized through real-time messages and bullet comments. "Discussion" is a necessary process in learning knowledge. The collision of different opinions can stimulate learners' interest in learning and thirst for knowledge, and improve their subjective initiative and learning efficiency. In addition, the strong interactivity and real-time attributes of live streamings can promote a sense of social presence [3], meet users' needs for social value [4], improve users' online shopping safety perception, and urge users' herd consumption psychology [5], enabling effective fast-paced marketing.

Strong IP Attributes
E-commerce live streaming has a strong IP attribute, which makes the host's personal style and charisma become the key factor to attract users. In the live streaming, users build emotional and value trust in the host, forming a fan effect [6]. Fans have an exclusive sense of cultural identity, and all consumption is the consumption of identity. E-commerce live streaming realizes the value of IP, establishes the consumer cultural identity of fans, and achieves commercial purposes [7].

Compared with physical products, knowledge products are more abstract and have relatively vague evaluation criteria. The fan effect of e-commerce live streaming helps to form a trust relationship between users and knowledge producers, generate worship complex and following behavior, and identify with knowledge products.

3.2   Realize Personal Value and Social Value

In the self-media era, everyone can speak up. The low threshold of e-commerce live streaming means that every knowledge producer can output high-quality knowledge content and deliver value to the society through e-commerce live streaming, so as to have the opportunity to achieve self-development and gain a certain reputation and status.

Take the English teacher Xueli and Liu Genghong, two representative knowledge producers on the Douyin live streaming platform as examples:

English Teacher Xueli

English teacher Xueli is the head account of the English teaching vertical content field in the Paid Knowledge online category of Douyin platform, and she has 8.176 million followers as of Aug 6, 2022. This account regularly publishes short videos of English teaching, and live streams at 8:00 every day, sharing efficient English learning methods and introducing online English courses in the live streaming room. English teacher Xueli mainly sells English lessons through a small yellow car in the studio and Douyin window. According to Feigua data, English teacher Xueli has broadcasted 27 live shows in the past 30 days, with a cumulative viewing audience of 3.765 million, a cumulative sales of 58,000 pieces, and a cumulative sales of 19.877 million yuan [8].

English teacher Xueli received her master's degree in translation from the Chinese University of Hong Kong. After graduation, she joined the famous educational institution New Oriental as a lecturer. Under the pressure of the pandemic, New Oriental has made large-scale layoffs, Xueli is one of them. The downsizing forced Xueli to look for a new career direction, and eventually she decided to try to combine her English teaching skills with we-media. Xueli started a live streaming of English enlightenment, teaching standard pronunciation and how to quickly master everyday conversations in English. Within ten days, the number of viewers had surpassed 1,000, then Xueli launched a variety of quality courses, which sold well.

The live lecture enabled Xueli to discover her value gradually. Xueli said: "In the past, teaching was a job that I was good at and could make a living at the same time. Later, I wanted to be a teacher who can stimulate other people's interest. Now I feel like I'm getting closer to the educational dream of inspiring others" [9]. Xueli has become a benchmark in the vertical field of online payment for English knowledge, and continues to output high-quality knowledge content, which has played a good example for other knowledge producers in the field.

Liu Genghong

Liu Genghong is currently the top account in the sports and fitness category on Douyin, which saw rapid growth in followers in the first half of this year. In the month of April, the number of fans increased from one million to more than 50 million. Liu Genghong and his wife did aerobics in the live streaming room and gained the love of the majority of netizens.

Liu Genghong's sudden popularity shows us a new form of paying for knowledge online. As a knowledge producer, Liu Genghong creates and spreads fitness knowledge, which does not need to be paid. The revenue generated is the sale of sports goods, clothing and other products related to sports and fitness in the live streaming room, as well as the collection of advertising fees from merchants and brands. On the night of May 27, Liu Genghong started selling goods via live streaming for the first time. He sold three products of the cooperative sports brand "Fela" in his wife Wang Wanfei's live streaming room. The number of people online in this live streaming exceeded 50,000, and the goods were sold out. Most netizens believe that Liu's selling behavior is understandable, because selling goods in live streaming rooms is not mandatory. Users can obtain fitness

knowledge for free, and choose to buy relevant products recommended by Liu Genghong based on his professional recognition and emotional trust. Liu Genghong made use of the universality, timeliness and participation of all live streamings to achieve good communication effects and contribute to the promotion of the national fitness industry.

3.3 User Experience Perception

Existing studies have found that the satisfaction of knowledge online paying users to knowledge products is mainly affected by four factors: perceived usefulness, expectation confirmation, emotional value and social value [10]. This paper argues that e-commerce live streaming provides a positive impact on all four factors.

Perceived Usefulness and Expectation Confirmation
Perceived usefulness refers to the degree to which users subjectively believe that using a particular information system can improve their work performance [10]. Perceived usefulness is defined as users' perception of whether knowledge products are useful to them, such as whether they can help them improve their quality of life and professional skills.

Expected confirmation is the different psychological perception generated by comparing the user's psychological expectation before using the product with the actual performance after using the product [10]. Whether users' expectations before consumption of knowledge products are consistent with their perceptions after use will directly affect users' satisfaction.

In the process of traditional paying for knowledge online, knowledge producers need to conduct detailed market research and positioning in the early stage of knowledge product development, including consumer segmentation, geographic segmentation, demographic segmentation, psychological segmentation and behavioral segmentation. After the product is put into the market, the product is further optimized and updated according to user feedback, and the process of obtaining feedback often requires a lot of time and cost. In the process of paying for knowledge online combined with e-commerce live streaming, knowledge producers can capture the user characteristics, functional requirements and usage of knowledge products more directly, quickly and comprehensively due to the timeliness and interactivity of live streaming. Then, product development and iteration can be carried out based on the confirmation of users' perceived usefulness and expectations, so as to improve user satisfaction. More importantly, users can also obtain a lot of information and evaluation from other users through interactive functions such as bullet screen, public screen and connected microphone in the live streaming room, and refer to the perceived usefulness and expected confirmation of products in advance.

Emotional Value
Affective value, also known as hedonic value, refers to the emotional changes felt by users in the process of consuming knowledge products or services [10]. The timeliness and interactivity of e-commerce live streaming have shortened the distance between users and knowledge products, bringing users a high sense of presence. Users can perceive their emotional changes in the streaming room, such as the positive and negative

emotions generated by the personal style of knowledge producers, the trial experience of knowledge products, and knowledge communities, so as to more accurately predict the emotional value endowed by knowledge products.

Social Value

The social experience value emphasizes the relationship between users and society. E-commerce live streamings help paying for knowledge online users to find a sense of belonging and respect, and meet their self-realization needs. Compared with non-live streaming paying for knowledge online, e-commerce live streaming creates a social field for users. Users gather together because they share the same cultural and behavioral identity with knowledge products and their producers, forming a social relationship, and then they engage in ideological collision and fusion with other users to establish social ties.

4 Reflections

E-commerce live streaming provides new opportunities for paying for knowledge online, and paying for knowledge online also opens up a new track for e-commerce live streaming. The two promote each other to achieve rapid innovation and development. At the same time, we should also pay attention to its possible problems. First, the lack of qualification certification of knowledge producers and the low threshold of e-commerce live streaming lead to mixed knowledge content and difficulties for users to judge knowledge products. Second, the short marketing path and fast marketing pace may lead to economic supremacy. Strong IP attributes and fan effect may lead to blind obedience of users.

4.1 Lack of Systematic Supervision and Evaluation Criteria

While knowledge producers and knowledge products thrive on live streaming platforms, they also face the problem of uneven content quality. At present, in most live streaming platforms, users only need to perform real-name authentication to start live streaming, while platforms do not have special evaluation standards and supervision measures for the vertical category of paying for knowledge online. Users have no way to evaluate the qualifications of knowledge producers, and it is even more difficult to subjectively identify the quality of knowledge products.

4.2 A Bad Atmosphere of "Interest First"

Although e-commerce live streaming has improved the economic benefits of paying for knowledge online and attracted more people to join the industry, it may also form a bad competition environment. At the same time, it may also lead to the formation of a bad atmosphere of "interest first" in the industry. In this environment, knowledge producers pay attention to the external publicity of products, but ignore the knowledge core, resulting in the form of knowledge products more than content. What's more, there may be industry chaos of exaggerated product promotion and false marketing in order to attract users' attention and purchase.

4.3 User Blind Obedience

Strong IP attributes and fan effects may make users the strong IP attribute and fan effect may make users blindly transfer their personal trust in knowledge producers to knowledge products, and users may be driven by the herd effect in the strong interactive atmosphere of the livestream room, resulting in blind obedience and consumption behaviors. For example, among the users who follow Liu Genghong and his wife in the livestream room, most of them do not have professional sports experience and knowledge, and suffer injuries in body parts such as knee joints.

5 Suggestions

First of all, practitioners who pay for online knowledge should have excellent professional ability, pay attention to the quality of knowledge content and products, and correctly use mass communication resources to transfer knowledge energy to the public [11]. Secondly, live streaming platforms should establish a more complete review and supervision system for the vertical field of paying for knowledge online. For example, knowledge producers should upload detailed certification materials such as academic certificates, skills and qualifications, and relevant resumes and display them publicly. Then the trial content of knowledge products will be uploaded to the livestream room for users to evaluate the products for reference. Finally, users should cultivate their ability to consume rationally, and should recognize their own needs and consumption levels when choosing a paying for knowledge online livestream room.

6 Conclusions

E-commerce live streaming has become a powerful marketing portal for paying for knowledge online, providing new opportunities for knowledge dissemination in the information age of Internet we-media. We have seen the beneficial value of e-commerce live streaming to paying for knowledge online, which is reflected in the economic benefits of the industry, the personal and social values of practitioners, and the perception of user experience. Meanwhile, we observed potential problems related to the lack of regulation in the industry and the negative impact of users. How to avoid and correct them is still an important topic for future research.

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