Analysis of the Reasons for the Success of Douyin in the New Media Era
—— Based on the Perspective of User Value co-creation

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Abstract: In the new media era, short video has become the main channel for users to engage in social entertainment and obtain information. Douyin, as a leader in the field of short videos, attracts huge traffic. The prosperity and development of short video platform cannot be separated from the contribution of users. Taking Douyin as the research object, based on the perspective of user value co-creation, this paper analyzes the driving forces that the platform gives users to carry out value co-creation activities from the two aspects of content creators and content viewers. For content creators, the low threshold for user creation, the sense of value gained by user creation, the income gained by user creation, and the full protection of user creation rights and interests all can stimulate the enthusiasm of creators for continuous creation and continuously input high-quality excellent works to the platform. For content viewers, users can obtain pleasant experience through browsing, gain knowledge and skills through browsing, and buy preferential products through browsing. These factors will encourage viewers to use app more and participate in interaction. Finally, this paper summarizes Douyin's experience in user value co-creation, including the design of easy-to-use apps, the setting of appropriate reward mechanism, and the creation of good social interaction atmosphere, in order to provide valuable and meaningful reference for the development of other apps and brand promotion.

Keywords: Douyin; Reasons for success; User value co-creation

1. Research background
With the advent of the new media era, apps focusing on releasing and sharing short videos have become popular among consumers. Compared with Wechat, microblog and other software published by text and pictures, short video apps are more fragmented, highly social and highly entertaining. It is the main tool for people's daily recreation, social interaction and information interaction. According to the 51st 〈Statistical Report on the Development of the Internet in China〉, the number of Internet users in China reached 1.067 billion by December 2022. The user scale of short video grew rapidly, exceeding 1 billion for the first time, and the user usage rate reached 94.8%, becoming a universal application[1].

Douyin is one of the best-known short video apps in China. It has more than 800 million total users and 700 million daily active users[3]. Douyin, a short video community platform for all ages, was launched in 2016. The app allows users to shoot short videos and upload them to social media accounts to create their own works. In August 2022, Douyin was listed in the "2022 Top 500 World Brands" list, ranking 140th.

According to the characteristics of short video software, users' interactive activities such as downloading, sharing, liking and forwarding play an important role in its development. For short video enterprises, most of their value is created by users, which is consistent with the theory of "value co-creation". Therefore, it is of great theoretical and practical significance to analyze the reasons for the success of Douyin and summarize the experience and enlightenment based on the perspective of user value co-creation.

2. Literature review
The traditional view is that companies create products and services and are value creators, while users are only value users. With the advent of the Internet era, many business models have undergone great changes, and the theory of value co-creation has been widely discussed in the academic world. After searching literature, screening, reading and systematic combing, sort out some of the previous research experience.

2.1 "Value co-creation" theory
The theory of "value co-creation" originated in the 19th century. In the 21st century, this theory has been continuously enriched and developed. C.K.pahalad and Venkat Ramaswamy (2004) proposed that value co-creation is an activity that
creates value among different entities, which means that companies and customers jointly create value\(^3\)\(^4\). Since then, many scholars have conducted in-depth research on this view in different situations. Zwass (2010) studied the application of value co-creation and spontaneous value co-creation in the production and consumption fields under virtual environment\(^5\). Xie K (2016) analyzed the role of big data cooperative assets in the value co-creation between companies and consumers, and discussed the process of enterprises developing cooperative assets through big data resource transformation based on the service-oriented logic theory\(^6\). Kazadi (2016) studied the identification of value co-creation ability among multiple stakeholders such as pharmaceutical enterprises, non-governmental organizations and local governments\(^7\). Based on the Internet environment of travel sharing users, Yang Xuecheng and Tu Ke (2017) point out that the concept of value co-creation is the process of direct interaction between enterprises or organizations and customers to jointly create value\(^8\). Wu Yao (2017) studied the theoretical mechanism of enterprises and consumers from the mode of value co-creation to the mode of value co-creation from the perspective of the collaborative evolution of enterprises and consumers\(^9\). Yang Xuecheng and Tao Xiaobo (2015), taking XiaoMi as an example, studied the process of social value co-creation from physical value chain, value matrix to flexible value net, and proposed that flexible value net consists of three main lines of value co-creation driven by user link, interaction and reconstruction\(^10\). Zhou Wenhui (2017) studied the theoretical process of enabling to enhance enterprise value co-creation and promote strategic entrepreneurship\(^11\). As for the concept of value co-creation, although scholars have different definitions of theories, there are two characteristics in general: (1) Value co-creation is the result of the joint action of multiple entities. (2) Value co-creation is essentially an interactive process.

2.2 Exploration of "Value co-creation" theory in the field of short video

Although the theory of value co-creation has long been concerned by scholars, the research of introducing the theory of "value co-creation" into the field of short video is still in the development stage due to the popularity of short video in recent years. In the existing literature, scholars have discussed from different perspectives. Ma Yuanhong (2018) adopted the single case study method to analyze the value co-creation and development evolution mechanism of mobile short video social platforms\(^12\). Research findings: video publishers, video viewers and platforms co-create dominant logic and value in the whole process; Based on the framework of "subject-Activity-output", the paper analyzes the evolution process of the main body of the mobile short video social platform in its initial stage, development stage and maturity stage, as well as the corresponding main activity and the output of the activity. Wang Yunhe and Sun Danyang (2018) built a business model analysis model of short video platform based on value co-creation, and revealed the internal mechanism and innovation path of its business model by reorganizing value modules and reconstructing key elements\(^13\). Wu Zhaoxia (2019) analyzed the conflict and balance of multiple value creation subjects in short video platforms from the perspective of axiology\(^14\). Guo Kejing (2020) discussed the science communication mechanism of short video platform from the perspective of value co-creation\(^15\). Zhang Yafen (2021), in her master's thesis, explored the influence of customer interaction on value co-creation intention in virtual brand community\(^16\). Lin Yuanyuan (2021) found that multi-form interaction between we-media and users can realize value co-creation, and technology input is the "accelerator" of value co-creation upgrading and evolution. And further put forward "how to drive users to invest value for enterprise empowerment", "through what interactive channels to create value with users" thinking\(^17\). Zhang Rui, Yang Limao (2022) took the mobile short video platform as the research object and analyzed the specific behaviors of three value co-creators: users, platform enterprises and partners\(^18\).

3. Analysis of the reasons for Douyin’s success based on the perspective of user value co-creation

Short video platform gives users a brand-new interactive experience. Analyzing the reasons for the success of Douyin from the perspective of user participation in value co-creation will help to better understand the needs of users and facilitate the construction of the platform. Users of Douyin can be divided into content creators and content viewers\(^18\). Platform enterprises give these two types of users different driving forces for value co-creation.

3.1 For content creators

3.1.1 Low barriers to user creation

Douyin encourages every user to express, communicate and record spontaneously. From attracting a large number of seed users by relying on star effect at the beginning, to realizing the creation of short videos for all the people, this development cannot be separated from convenient creation methods. The works published on Douyin platform mainly fall into two categories: graphic works and short video works. Graphic works are the most simple, just select the picture, with text and topic can be published. In 2019, Byte Dance, the parent company of Douyin, released the "Clip" for short video works to lower the threshold for creating video content. "Clip" is a short video creation service, integrated with a lot of special effects and templates. The use of "Clip" to shoot and edit makes the original highly professional video content creation become a daily routine for the public, reducing the production cost and difficulty for users. Every user can participate and have fun. As long as ordinary people are clever, they also have the opportunity to create popular videos on the Internet, which not only record their beautiful life, but also obtain huge traffic as they wish and satisfy some psychological demands. Douyin provides diversified and open creative methods, and satisfies different creative needs of creators by creating an ecological link of "live broadcast + short video + graphics".

3.1.2 Users can gain a sense of value by creating

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Short video platforms cannot produce content on their own, but rely on aggregating numerous content creators to achieve sustainable operation of the platform. High quality content resources have become a key factor to determine the healthy and prosperous development of short video platforms. Users need a certain driving force to shoot short videos for creation. Driving force comes from one's own interests and hobbies on the other hand from external value affirmation. Li Zhen (2021) divided users' needs and motivations for participating in short video creation into entertainment needs, recording and expression needs and interpersonal communication needs and so on[19]. The Douyin platform provides users with powerful social interaction functions. Users can like, comment, follow and add fan groups to each other. Works with high browsing and likes can also be pushed to the whole network, becoming the focus of national attention. For the creator, it is undoubtedly a kind of value recognition that the works can get the likes and comments from the viewers. This will further stimulate the creative enthusiasm and motivation of publishers, and strive to achieve self-value. Douyin has become one of the main channels for the public to express themselves and show their individuality. Creators from different fields have flocked to Douyin platform, forming a content ecological pattern of a hundred flowers blooming. Statistics from Feigua Internet show that the number of newly entered creators in the first half of 2022 increased by 172% compared with the same period last year, ushering in an era of nationwide creation[20].

3.1.3 Users can obtain income by creating
Users can not only gain satisfaction in terms of value when creating works on Douyin platform, but also accumulate fans and become bloggers by releasing high-quality short videos, which can realize the flow and obtain considerable income. When the number of followers reaches more than 1,000, bloggers can open live broadcasts or shop windows to help merchants promote their products. In addition, the product advertisement is integrated into the video production, and the commission can also be obtained through the brand advertisement placement and the addition of small commodity links. Some content operators rely on fan tips for revenue. In order to encourage authors to create excellent videos, the platform has launched an incentive program for creators to encourage them to export high-quality video content and monetize traffic quickly. According to relevant statistics, Douyin has driven content creation into a stable career. In just one year, 22 million creators made 41.7 billion yuan on Douyin [21].

3.1.4 Users' creative rights and interests are fully guaranteed
Douyin has a number of initiatives to protect its original content. The "Original Creators Alliance Plan", launched in 2020, cooperates with professional copyright monitoring agencies to provide creators with free online copyright monitoring, exclusive rights protection platform, free rights protection and other services. And the original protection measures continue to be upgraded. Subsequently, an original review mechanism was added. Qualified creators can apply to be public reviewers and participate in the discussion and review of controversial content such as manuscript washing and plagiarism, so as to jointly maintain the original atmosphere of the platform.

For jointly created works, Douyin has also launched a "Co-create works" function, which supports joint submission by creators and stimulates cross-field cooperation among creators. Co-creation is when two or more bloggers collaborate to create a work together. After the creation is completed, each participant can post the work on his or her personal Douyin account, and the work will be noted with other creators' information. The creation of this function helps the creators to give full play to their strengths and polish out high-quality works. The launch of co-creation function encourages creative collision, so that each creator can make satisfactory works. Through these co-created videos, online users can also enjoy refreshing works, gain happiness and new knowledge. For co-creators, it's also a quick way to absorb fans. The rights and interests of all video creators are fully protected.

3.2 For content viewers
3.2.1 Users can get a pleasant experience by browsing
As short videos are characterized by fast rhythm, rich variety, simple operation and precise recommendation, users' emotions can be easily mobilized when watching them. Compared with articles, games and long videos, short videos on Douyin can stimulate users' emotions more quickly and continuously, enabling users to get more thorough and comprehensive emotional vent and immersion. In the era of big data, platforms can also calculate users' preferences based on their browsing history and consumption habits, and push content that users may like. The rich and diverse ecological content of short videos constitutes a digital window to show a better life. According to the Report on the Content of Short Video for a Better Life, users who record their lives through video, live streaming and other forms have a better life experience[22]. The survey found that short videos with three positive emotions of pleasure, moving and inspiring achieved the greatest emotional resonance among users and together became the driving force for a better life.

3.2.2 Users can gain knowledge and skills by browsing
In recent years, a large number of creators of all kinds of universal knowledge have emerged in Douyin, and the number of knowledge-based short videos have increased significantly. The content of pan-knowledge is widely recognized by users, covering six categories: life skills, science popularization, humanities and arts, education, sports and career. According to the 2021 Douyin Pan-Knowledge Content Data Report, life skills content is the most popular and growing fastest, while science content is also rising fast [23].

In addition, knowledge is breaking down barriers, moving out of the campus and benefiting the public. According to the report, more than 1,200 universities are now covered by Douyin. Many colleges and universities started classes on Douyin live-streaming, which has accumulated tens of thousands of live-streaming events. More and more experts,
scholars, professors and academicians have joined Douyin to share expertise in various fields through short videos and live broadcasts, lowering the threshold of knowledge transmission. Short video allows more people to participate in the production of knowledge, which expands the boundary of knowledge. Meanwhile, with the expression form of short video, the content is expressed in a more vivid and interesting way, arousing users' interest in knowledge. Universal knowledge content shines in short video, which has become a new trend of short video content creation and communication. The combination of short video and knowledge makes knowledge itself, knowledge disseminators and receivers benefit a lot. Users can not only gain entertainment experience, but also gain all kinds of knowledge and skills through browsing and viewing on Douyin platform, which becomes an important channel for learning.

3.2.3 Users can buy the preferential products by browsing live-streaming sale on Douyin is very popular now, not only because consumers can interact with online celebrities and stars, but more importantly it can better meet the needs of terminals. In terms of ordinary online shopping experience, when consumers choose products online, their understanding of the product is limited to text description, that is, browsing web introduction, product reviews or asking about customer service, and it is difficult to truly feel the value of the product. This is the biggest defect of online shopping. And live-streaming sale can bring users more intuitive feelings. At the same time, users can buy a lot of cheap and useful goods on Douyin. In addition, Douyin group purchase pushes preferential information of many local merchants to customers, so that users can enjoy various local life services at a lower price.

In 2022, Douyin upgraded the concept of "interest e-commerce" to "all-domain interest e-commerce", starting a deep exploration in the field of e-commerce. Its goal is to create a consumption platform that can not only create new consumer demand, but also undertake daily demand, both content e-commerce and shelf e-commerce. Platform upgrade, there will be more goods and relatively more favorable prices to provide users.

4. Experience and inspiration
In the Internet era, the development of any APP should be based on the perspective of user value co-creation, so as to arouse the enthusiasm of users and the power of communication to the greatest extent. The success of Douyin provides a lot of experience for reference.

4.1 Design easy-to-use apps
In the era of mobile Internet, various types of apps emerge endlessly. Downloads and usage of different apps can vary dramatically. In addition to functional design, user experience is often the key factor in determining usage. One of the main reasons for the popularity of short video apps is the low threshold of production and instant shooting. Therefore, "easy to use" should be the root of APP design. From the visual sense level, should simplify the interface, reduce the jumbled information when watching. From the perspective of interactive sensory, functions should be simplified, cumbersome operation functions should be reduced, and dynamic effects of interactive feedback between users and software should be enhanced. In terms of content, we should innovate the push mechanism to keep the content fresh.

4.2 Setting an appropriate reward mechanism
APP should pay attention to maintain the relationship with users and comprehensively improve the interaction effect. In the Internet era, the in-depth and continuous use of apps by users depends on certain reward mechanisms. The software platform should focus on stimulating users' active participation and personalized expression, and arouse users' curiosity and participation. By setting up reasonable reward mechanism, encourage users to reuse. At the same time, users are the best spreader. Fission creativity and reward design in line with product characteristics can also motivate users to actively share and spread, so as to achieve the purpose of national promotion.

4.3 Create a good atmosphere for social interaction
Ordinary people can also become "little stars" with tens of thousands of followers, which is an important driving force for many users to continue to input high-quality content on Douyin platform. The social nature of an APP is an important factor for users to consider when using it. APP functional design should focus on creating a social interaction atmosphere to encourage users to interact with each other. Enhance users' sense of participation and fun of online activities. Functional design should be able to guide users to take the initiative to create, bring users a deep sense of satisfaction. For example, we can design more details about likes and comments on users' works. Improve the ease of sharing to other social platforms; Increase the exposure of the author's work and so on.

5. Summary
The advent of short video era has opened a communication phenomenon of production, participation and sharing by all people. The emergence of short video platforms represented by Douyin not only enriches people's spiritual life, but also drives the development of e-commerce economy. The prosperity of short video platform cannot be separated from user participation and interaction. Taking Douyin as the research object, this paper analyzes the reasons for its success based on the perspective of user value co-creation.

5.1 Conclusion
According to different usage habits, the users of Douyin can be divided into content creators and content viewers. The creator is the most important supplier in the whole content system, and the interaction of viewers will further stimulate the creative enthusiasm of the creator. For content creators, the driving forces provided by Douyin include: low
threshold for user creation, sense of value in user creation, realization income in user creation, and full protection of rights and interests in user creation. These factors will stimulate the enthusiasm of creators to continuously input and provide high-quality works to the platform.

For viewers, the driving forces provided by Douyin are as follows: users can obtain pleasant experience by browsing, users can gain knowledge and skills by browsing, and users can buy preferential products by browsing. Viewers can not only use Douyin as a way of daily entertainment and relaxation, but also use the platform to learn and improve, and can buy affordable goods. This will further drive viewers to use the app more frequently and engage with the platform more.

5.2 Innovation and contribution

The biggest innovation of this paper lies in the unique research perspective and the novelty of the research content. Some scholars may have explored the success of Douyin. Based on a new perspective, this paper focuses on the perspective of user value co-creation, and makes an objective analysis and systematic summary. Combing the driving factors of users' value co-creation activities on Douyin platform.

At the same time, based on the successful experience of Douyin in user value co-creation, this paper summarizes more methods and inspirations for the development and promotion of other apps, such as the design of easy-to-use app, the setting of appropriate reward mechanism, and the creation of a good social interaction atmosphere. Use theory to guide practice.

5.3 Prospect

Currently, the content genre of Douyin is developing in a more diversified direction, which has changed from a way of entertainment to a way of life. In the future, short video is very likely to become the mainstream carrier of information flow, become an inseparable part of our life, and affect the iteration and trend of various industries. In future studies, factors influencing the iterative upgrading of Douyin's business model and user value co-creation can be further analyzed, and users' willingness to value co-creation can be analyzed through quantitative methods. And we can also do comparative study with other apps, such as Facebook or Youtube.

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