

Review of Research on E-commerce Short Videos

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Abstract

Short videos are innovative video content created through simple and quick shooting and post-production using smart devices, allowing for instant publication and sharing on social media platforms. Although there are various definitions, short videos are typically considered to be limited to a few minutes in length, easily watchable, diverse in content form, and highly engaging for users. The short video e-commerce model revolves around consumers, utilizing the creation of short video content embedded with product information to synchronize the circulation of products and content, making it one of the primary business models. Its development can be divided into three stages, covering the processes of mutual integration between short video platforms and e-commerce platforms, rapid development, and deep integration. The operational models of short video e-commerce mainly include three forms: "short video + e-commerce," "e-commerce + short video," and "short video e-commerce platform," each with its own characteristics. E-commerce short videos use short videos as carriers to promote product information through content marketing. Users participate in purchase decisions by watching videos, liking, commenting, and other behaviors, representing a specific manifestation of the "short video + e-commerce" model. During the marketing process, users experience sequential transitions from the "viewing" scene to other scenes, with the characteristics of short video content playing an important role in influencing user purchasing decisions.

Keywords

Short videos, E-commerce, Business model.

1. Definition of Short Video Concept

The concept of short video refers to innovative video content that is shot and post-produced conveniently and quickly through smart devices, typically lasting for a few minutes, and can be instantly published and shared on social media platforms. Despite scholars conducting various research on short videos, there are differing viewpoints regarding its definition.

The world's first mobile short video application was launched by Vine, a US company, in 2011, but it did not gain widespread popularity at that time. The true recognition and popularity of short videos came with the widespread use of platforms like Douyin and Kuaishou in 2017. In recent years, the rapid development of short video platforms has led to an increase in academic research. However, there is still no standardized definition of short videos in academia or the industry. Generally, short videos are considered as video content that can be accessed and viewed on mobile devices, typically lasting for a few minutes or less. They can be opened and watched anytime and anywhere. Short video content is concise, allowing it to stand alone or be part of a series, and it comes in various formats. This video format enables users to quickly digest and share content. Currently, short video content covers a wide range of topics, including movie clips, lifestyle entertainment, fashion trends, as well as commercial advertisements and e-commerce promotions.

Different from microfilms and live streaming, short videos possess the following characteristics: (1) Emphasis on immediacy, with content dissemination primarily through mobile platforms such as smartphones; (2) Short duration, typically lasting for a few minutes or less; (3) Simplified production process, enabling video shooting solely with mobile devices and instant uploading after quick editing; (4) High user engagement, facilitated by the dynamic format and rapid transmission of short videos, allowing real-time sharing among friends and fostering communication and interaction. Dai Jingli provided an explanation of the concept of micro-videos in her thesis, suggesting that "micro" refers to a temporal span, with video duration limited to within 60 seconds and a duration control of 20 minutes, presenting two interpretations of "micro"^[1]. Zhang Zixuan pointed out that the difference between short videos and long videos lies in the fact that short videos are shot using smart mobile devices and typically have a duration of 30 seconds or less^[2]. According to the research conducted by Chang Jiang and Tian Hao, short videos primarily rely on smart mobile devices and social platforms to deliver video content with a duration of a few minutes^[3]. Overall, although academia has not yet reached a consensus on the definition of short videos, key elements encompass video duration and the use of smart mobile devices.

2. The Development History of E-commerce Short Videos

Short video e-commerce is a consumer-centric e-commerce model that revolves around creating short video content focused on intellectual property (IP), key opinion leaders (KOL), live streaming, and trending events. It embeds product information within the short video content to facilitate synchronous circulation of goods and content, thereby enhancing marketing effectiveness^[4]. Currently, this model has become one of the primary business models for both media-focused short video platforms and product-oriented e-commerce platforms. From the perspective of short videos, since 2016 (the "short video era"), short video platforms have experienced rapid development, continuously capturing users' attention from other industries. According to the "2021 China Mobile Internet Annual Report" released by QuestMobile, the usage time of short videos has surpassed instant messaging, becoming the industry with the longest user engagement. As the most popular social media platform, short videos boast a considerable user base and high user activity. However, relying solely on traditional forms of monetization such as commercial advertisements and live streaming rewards cannot effectively convert user traffic, necessitating new monetization models. From an e-commerce perspective, China's e-commerce industry, after over 20 years of development, has become a national infrastructure, with slow user growth and intense internal competition. There is an urgent need for external forces to break through. Therefore, the short video e-commerce model represents an innovative path for short video platforms and e-commerce platforms to mutually monetize in the current landscape^[5].

This paper provides an overview of the development path of the short video e-commerce model by examining relevant events, categorizing them into three stages. The first stage (2016-2017) represents the initial attempts at integration between short video platforms and e-commerce platforms, laying the groundwork for the subsequent development of this model. During this phase, short video platforms flourished, and oligopolistic monopolies had yet to emerge. Platform influencers monetized their traffic by establishing online stores. In 2016, influencers on platforms such as Meipai, Miaopai, and Xiaokaxiu capitalized on the industry boom, leveraging their influence to vigorously develop fan economies through online stores. Typical examples of this stage include HoneyCC, an influencer on Meipai, who sold 30,000 pairs of jeans at zero cost through Meipai, and Roxie, whose Taobao store sales exceeded one billion yuan. Simultaneously, traditional e-commerce platforms recognized the advantages of short video dissemination, with a few stores beginning to showcase their products through video content.

In March of the same year, entrepreneur Han Hui foresaw the trend of short video + e-commerce and pioneered the establishment of the first domestic short video e-commerce platform, "Hua Juan Mall."

The year 2018 marked a period of rapid growth for the short video e-commerce model, characterized by the widespread phenomenon of nationwide product endorsements, the conversion of short video content into primary sales drivers, and the emergence of various short video e-commerce platforms. During this stage, short video platforms demonstrated a trend of "two giants and many strong contenders," with TikTok (Douyin) and Kwai (Kuaishou) leading the industry^[6]. User traffic quickly consolidated around these platforms. In addition to hosting online stores, short video platforms actively collaborated with e-commerce platforms, embedding product links and enabling in-platform purchases. In March 2018, TikTok collaborated with Taobao to embed links to Taobao products in TikTok short videos. In June of the same year, Kwai partnered with Youzan to launch Kwai Xiao Dian, enabling in-app purchases. In December, TikTok introduced the shopping cart feature, allowing ordinary users to participate in the wave of product endorsements, thus initiating a nationwide trend. E-commerce platforms further refined the presentation of products through short videos. In 2018, short video content was featured in the primary search results of Taobao for the first time, marking a transition for merchant short videos from private to public domains. Simultaneously, numerous enterprises followed the lead of "Hua Juan Mall" and entered the short video e-commerce platform arena. Suning launched "Top Buyer" short videos during its 818 shopping festival, while Taobao introduced Lu Ke short videos in September, all aiming to create content consumption scenarios on short video platforms that integrate shopping and entertainment seamlessly.

The period from 2019 to the present marks a phase of profound integration between short video platforms and e-commerce platforms, characterized by a symbiotic relationship. Short video platforms have successively established e-commerce departments, placing e-commerce-driven endorsements at the core. In October 2020, the official launch of TikTok Mall established a domain for showcasing TikTok products similar to Taobao's homepage, signifying the simultaneous advancement of content conversion and search conversion in TikTok e-commerce. E-commerce platforms have embraced comprehensive "short-video-ization," with a focus on developing short video malls. During the 2019 Spring Festival, Xiaohongshu (Little Red Book) collaborated with celebrities like Huang Zitao and Angelababy, introducing a campaign where users could earn red packets by creating and watching videos, marking their full entry into the era of short videos. As visual representation increasingly influences consumer decisions, in December 2020, JD.com proposed industry standards for visual operations, promoting the coverage of visual content across 3D, VR, and AR. In February 2022, Pinduoduo launched Duoduo Video, where users could earn cash rewards and coins by watching videos, significantly increasing user engagement. In August of the same year, Taobao's search entry began to present short video content, indicating that content-driven strategies have become one of Taobao's most important strategies. Today, short videos have evolved from mere entertainment to a new means of internet monetization, injecting fresh vitality into the market through their integration with e-commerce.

3. The operational model of short video e-commerce

Yin Bing believes that the essence of short video e-commerce is a form of content commerce, which is more intuitive and suitable than text and image-based product endorsements, and more flexible and targeted than live streaming^[7]. Under this model, it is a matter of debate whether content or e-commerce takes precedence, or if a balance between the two is achieved. Different platforms with varied backgrounds have evolved to form three distinct models. It's

worth noting that short video platforms now encompass a variety of formats, including images and live streaming, leading some scholars to consider "live streaming e-commerce" as one of the forms of short video e-commerce^[8]. However, this paper aims to explore the short video e-commerce model that utilizes short videos as the primary dissemination medium, thus excluding research and discussions related to live streaming functionality within short video platforms.

3.1. The "short video + e-commerce" model

The "short video + e-commerce" model is centered around short video platforms, which integrate e-commerce interfaces to create a closed loop for providing users with short video content services while offering channels for purchasing goods. Short video platforms possess strong social attributes. In this model, creators engage with users through short videos, focusing on product features to stimulate potential purchasing intentions among consumers.

In 2018, the rapid growth of short video user traffic led to the emergence of numerous million and multi-million level internet celebrities. To expedite the monetization of user traffic, major platforms began exploring the "short video + e-commerce" model. By either establishing their own e-commerce platforms or linking to third-party e-commerce platforms, these platforms aimed to shift consumers from content-oriented to product-oriented behavior, catering to and satisfying the demand for "watching while buying." Taking TikTok as an example, over the past four years, it has evolved from initially partnering with Taobao and linking to third-party e-commerce platforms to establishing its own e-commerce platform, TikTok Mall. Currently, there are two methods for selling products on TikTok. One is by opening a "TikTok Store," similar to a Taobao store, where businesses need to provide relevant corporate materials such as business licenses during registration, and the products listed belong to the store itself. The other method is by applying for a "TikTok Showcase," a tool provided by the platform for individuals. The requirements for applying for a showcase are relatively low (having more than 1000 followers, account real-name authentication, publishing more than 10 works, and paying a 500 yuan deposit). Ordinary users can also earn commissions by listing products on TikTok showcases, and the products listed belong to the bloggers' recommended items. In summary, businesses can set up stores on short video platforms, publish short video content that aids in product sales, or collaborate with platform influencers/KOLs to embed products as advertisements in their video content.

Fans imply traffic, and traffic provides opportunities for monetization. The fundamental aspect of the "short video + e-commerce" model lies in the number of followers an account possesses, making platform influencers the main drivers of product endorsements under this model. Unlike traditional celebrity endorsements, influencer endorsements in short videos are characterized by their grassroots nature. Influencers naturally have a closer connection with consumers, making it easier to cultivate trust and thus prompt consumer purchasing behavior. Leveraging their own experiences and the unique characteristics of short video dissemination, influencers focus on specific vertical industries, resulting in the emergence of many specialized "grass-root accounts" in industries such as beauty, food, and electronics. The "short video + e-commerce" model achieves a triple win for advertisers, users, and platforms in a true sense.

3.2. The "e-commerce + short video" model

The "e-commerce + short video" model is a commercial model where e-commerce platforms serve as the core, and short videos are used as a means to convey product promotional information. In the visual era, imagery has become the most powerful form of modern rhetoric. Under this model, the primary function remains the sale of goods, with short videos serving to provide high-quality content to aid users in making better decisions and optimizing the shopping experience for customers.

The "e-commerce + short video" model not only involves replacing traditional text and images with short videos but also includes the production of short dramas with storylines or entertaining and practical reviews to showcase products from various angles. In March 2016, Taobao proposed three main directions at its annual seller conference: community-oriented, content-oriented, and local lifestyle-oriented. In August of the same year, Taobao's second floor was officially launched, positioning itself as a "video-based bedtime story" platform. Users could access Taobao's second floor after 10 p.m. through the homepage scroll. The first program on the second floor was a food-themed series called "One Thousand and One Nights," with each episode lasting 4 to 5 minutes. Users could click on the video to view related product information. Within two hours of the broadcast of the first episode, the featured store sold 200,000 dumplings. Alibaba CEO Zhang Yong stated that "One Thousand and One Nights" was highly instructive for Taobao's content marketing and encouraged the platform to develop it into a long-term program. From "One Thousand and One Nights" to "Night Playground" and then to "Overseas Shopping Night Chat," Taobao's second floor has captured the late-night entertainment needs of young people and gradually become a platform for social interaction between Taobao and users. Meanwhile, major e-commerce platforms have actively tried to add short video mall channels to enhance their social attributes and increase user stickiness. Taobao's homepage "Explore" section has a separate "Video" column, adopting a vertical scrolling format consistent with Douyin (TikTok). It also includes a product detection and recommendation feature in the videos, allowing users to click the "Same Style as Mentioned in the Video" button at any time to view related products. JD.com's homepage "Explore" section has created a product recommendation area similar to Xiaohongshu (Little Red Book), with video content revolving around the products themselves, allowing users to view similar products by scrolling down the videos. Pinduoduo's homepage "Duoduo Video" section, in line with its characteristics, increases user usage time by distributing cash rewards for watching short videos.

In conclusion, the integration of short videos into e-commerce platforms has been immensely successful. Major e-commerce platforms have leveraged their strengths to innovate video content and display formats, utilizing the powerful social and content attributes of short videos to evoke emotional resonance and consumer desire, showcasing their prowess in the ongoing battle for user traffic.

3.3. The "Short Video E-commerce Platform" Model

The "Short Video E-commerce Platform" model revolves around short video shopping as its core. Creators produce videos centered around products and enable in-platform purchases. This model emphasizes the dual identity of short videos and e-commerce, integrating content, social interaction, and commerce seamlessly, where watching and shopping are equally significant. Short video content primarily consists of professionally generated content (PGC). Platforms like Lu Ke, Shua Shua Kan, Hua Juan Mall, and Douyin Box represent this model. In December 2021, Douyin launched the "Douyin Box" app, focusing on trendy e-commerce, and refining Douyin's e-commerce business. Compared to the Douyin app, the "Douyin Box" app features simpler functionality and page design, establishing a unique e-commerce ecosystem based on short video endorsements and shopping mall searches. Each video in Douyin Box revolves around the product itself, covering a wide range of topics from street culture to high-end fashion, from styling tips to makeup and skincare, vigorously promoting interest-based e-commerce. Some scholars suggest that Douyin e-commerce is transitioning from "Douyin Store" to "Douyin Box," and how to effectively complement content-side e-commerce (Douyin app) with independent-side e-commerce (Douyin Box app) remains to be seen^[9].

In summary, the "Short Video E-commerce Platform" model offers professional video production and high-quality content services, aiming to provide reliable recommendations to

users. However, short video e-commerce platforms inherently carry a strong commercial atmosphere, with short video content primarily focused on product sales objectives and relatively weaker in terms of interactive social engagement. As it stands, it appears challenging for these platforms to gain user traffic.

4. E-commerce Short Videos

Ma Zha'oaan defines e-commerce short videos as a new marketing model that utilizes short videos as a medium to promote product information, embeds links for purchasing within the videos, and thereby facilitates consumer purchasing decisions^[10]. This paper adopts Ma Zha'oaan's definition of e-commerce short videos and considers them as a specific manifestation of the "short video + e-commerce" model. Consumers gain comprehensive knowledge of product information while watching the video content, leading to the desire to make a purchase and subsequently completing the purchase.

E-commerce short videos, like other entertainment videos, appear in the process of "swiping" through videos based on user preferences. When users are interested in the video content or the recommended products, they choose to stay on the video page to continue watching. Otherwise, users will scroll down to the next short video or long-press the screen to indicate disinterest. When users continue to watch e-commerce short videos, they can choose to like or share the video if they enjoy the content or are interested in the products. They can also leave comments if they have certain emotions or insights about the video content or products. If users believe that the e-commerce short video is worth revisiting in the future, they can bookmark it. If users want to learn more about the products recommended by the blogger, they can swipe right to enter the blogger's personal homepage and click on the storefront to view. Each e-commerce short video contains embedded links for purchasing products. When users are attracted by the e-commerce short video, they can click on the product link to be redirected to the purchase page to browse detailed information and make a purchase. Based on the above analysis, this paper summarizes the basic marketing process of e-commerce short videos as shown in Figure 4-2.

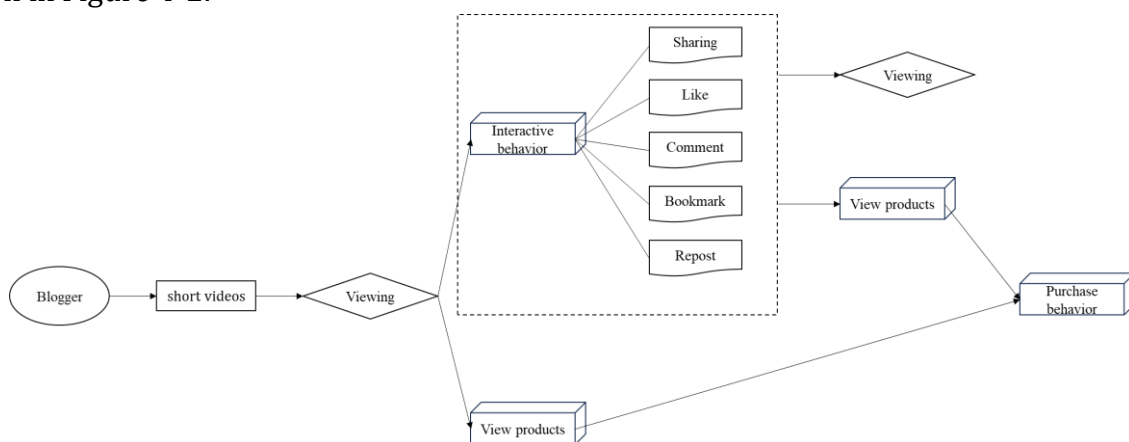


Fig.1 E-commerce short video marketing process

Zhu Lei and Zheng Changmao propose a model of consumer behavior in e-commerce short videos from a cross-scene perspective, consisting of seven steps: watching, liking, commenting, selecting, buying, reviewing, and sharing^[11]. These steps correspond to three scenes: viewing, socializing, and shopping. Corresponding to the marketing process of e-commerce short videos, paper believes that the sequential switching of scenes in the e-commerce short video marketing process is characterized by transitioning from the "viewing" scene to other scenes. In other words, the marketing effect in the "viewing" scene plays a significant role in influencing consumers' final purchasing decisions. The core of the "viewing" scene is the content of the short video, which is the collection of all elements seen by users on the screen. Scholars have

conducted research on the characteristics of short video content from different perspectives, as shown in Table 4-1. From the table, it can be observed that current research primarily falls into two categories. One category focuses on objective factors related to short video content, such as video titles, duration, and clarity. The other category examines subjective factors of the video, such as practicality, professionalism, and emotional content.

Table1 A study on relevant variables of short video content characteristics

Scholars	Characteristic Variables	Conclusion
ZHANG L, LI (2022)	Content themes, Emotional types	Videos related to "military propaganda" and "sports events" tend to have better dissemination effects in promoting positive energy. However, the differences in dissemination effects among short videos of different emotional types are not significant.
HE Y F (2021)	Dramatic elements, Emotional elements	Dramatic elements and emotional elements have a positive impact on the popularity of videos. However, they do not have a significant effect on user commenting and sharing behavior.
M.Y. He (2020)	Expository nature, Practicality, Brand prominence, Promotional nature, Positive emotions	The stronger the expository nature of the video, the lower the user's willingness to share; the more prominent the brand's presence, the lower the user's willingness to share. Excitement, happiness, motivation, and expressions of love are the main positive emotions that enhance the willingness to share. However, fear, as a negative emotion, also has a positive effect on the willingness to share.
L. Bao (2020)	Professionalism, Product involvement	The professionalism and product involvement of short videos both have a positive impact on users' purchase intention.
T.T. Sun (2019)	Title length, Video duration, Type of background music, Topic introduction	The characteristics of mobile short videos have an impact on user likes, comments, and shares, primarily through factors such as title length, topic guidance, and duration.
Z.Y. Wang, H.L. Yu (2019)	Title emotion type, Content emotion type, Title emotion intensity, Content video intensity	The emotion of short video titles is unrelated to their dissemination effectiveness. However, the emotion of short video content is significantly correlated with dissemination effectiveness, with negative emotions being more contagious. The intensity of emotion does not necessarily correlate with greater dissemination effectiveness.
F.D. Li, H.Q. Huang (2019)	Clarity, Practicality, Entertainment value	Content clarity and entertainment value significantly positively influence consumer purchase intention, while the impact of content practicality on consumer purchase intention is not significant.

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