# Analysis on the Development Potential of E-commerce in TikTok under the "FACT+" Operation Matrix

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**Abstract.** In today's digital age, which covers all aspects, e-commerce business profoundly impacts people's lives. Since its development, China's e-commerce industry has gone through an initial stage, an initial stage of competition, a stage of rapid growth, a stage of steady development, and a stage of emerging changes. The "short video+live broadcast+e-commerce" three-in-one platform created by "TikTok" brings together people, goods, content, and scenes, enabling the content to spread. Direct broadcasting with interests is the most popular shopping guide type of marketing. Combining direct broadcasting with a short video platform and giving full play to the marketing effectiveness of 1+1>2, which can deepen the understanding of the brand and products and realize full interaction with the audience. In the future, it will become the standard of enterprise marketing plans. Although the three e-commerce giants Taobao, JD.COM, and Pinduoduo together accounted for 88% of the market share in 2021, TikTok e-commerce, as a dark horse in the emerging stage of change, has also received more and more attention. Based on the above background, this study will analyze the development potential of e-commerce in TikTok. This paper first introduces the operation model of e-commerce with interest and the operation matrix of "FACT+" and studies the advantages and disadvantages of e-commerce in TikTok under the "FACT+" matrix. Finally, it suggests improving the re-purchase rate of consumers, raising the access threshold, and perfecting the platform management mechanism.

**Keywords:** E-commerce, TikTok, "FACT+" Operation Matrix.

## 1. Introduction

In recent years, online shopping has imperceptibly affected our lives. The industry development background of physical goods online retailers in China is divided into five stages. The initial stage of China's e-commerce industry is still in the exploratory stage. In the initial stage of the competition, B2C and C2C have gradually become the mainstream business model in the online shopping market. In the high-speed development stage, e-commerce giants such as Suning. cn, JD.COM, and Gome launched the most intense e-commerce price war, and the industry grew rapidly in the competition. In the stable development stage, the e-commerce market has gradually changed from a blue sea to a red sea, with a relatively gentle development speed. It is worth noting that in the new stage of change, the entry of the two short video giants of Pinduoduo, TikTok and Aauto Quicker, which adopted the "ten billion subsidies" strategy in 2018, has strongly opened up a new round of fierce competition in the e-commerce industry, so the e-commerce market share continues to usher in recent changes [1]. Judging from the overall pattern, the domestic e-commerce circuit has temporarily formed a three-legged situation. However, it is worth noting that, with the help of the current hot short video and live broadcast industry, a large number of traffic has poured into TikTok e-commerce and Auto Quicker e-commerce, which has provided a vast development space for their e-commerce business.

This paper will study how the "FACT+" operation model is embodied, the advantages and disadvantages of the e-commerce matrix, and how to foster strengths and circumvent weaknesses. Starting from the connotation and extension of the "FACT+" operation matrix, this paper makes an in-depth analysis of the characterization of the development potential of e-commerce in TikTok, making up for the academic gap of "FACT+" operation matrix analysis in the field of e-commerce in TikTok, and also increasing the richness in academic papers, providing strategic guidance and suggestions for the development of e-commerce in TikTok, as well as a reference for other e-commerce platforms. In the second chapter, this paper summarizes the research done by other

scholars in the academic field on this topic. In the third chapter, it introduces TikTok's "e-commerce of interest" operation model and "FACT+" operation matrix by using the method of case description and systematically analyzes the strengths, weaknesses, and development potential of TikTok's e-commerce competitiveness under the "FACT+" operation matrix. The fourth chapter draws a conclusion based on the above analysis and the limitations of this paper.

## 2. Literature review

Academic circles have also launched many studies on the development of e-commerce in the new and changing stage. Wang and Zhang used the SICAS model to study users' shopping behavior in TikTok e-commerce and concluded that TikTok e-commerce could strongly drain users and retain the differentiated advantages of transforming users by its algorithm recommendation and the "PGC+UGC" video production model [1]. Liu used the case analysis method to study the development of e-commerce in TikTok and the possible hidden dangers under the interest e-commerce model [2]. Li used the case analysis method to elaborate the logic of creating TikTok e-commerce explosion, the marketing method of short video and live broadcast of double engine resonance and concluded that with the innovative short video marketing method and massive traffic advantages, the development prospect of TikTok e-commerce is very bright [3]. Liu applies the SICAS model and relationship marketing theory to analyze the development status of e-commerce in TikTok, establishes a relationship marketing model for e-commerce in TikTok based on the SICAS model, studies the relationship among anchor, TikTok platform, and consumers, and proposes a relationship marketing model for e-commerce in TikTok based on the perception of content release, interaction, and communication, generating purchase behavior, encouraging experience sharing and forming word of mouth, which provides theoretical support for the formulation of relationship marketing model for the same type of e-commerce platform [4]. Based on the current operation of e-commerce in TikTok, Gai and Cui analyze the advantages, marketing methods, and practical value of e-commerce in TikTok, and propose solutions to the existing problems of e-commerce in TikTok [5]. Chen and Liu adopt the methods of questionnaire and interview, take the attitude of university students towards e-commerce in TikTok as the research object, and analyze the characteristics of university students' consumption groups and their consumption behavior in TikTok, respectively. Based on this, they put forward practical suggestions on establishing the platform positioning, adopting material incentives, expanding the types of goods, and other marketing strategies for the short video platform [6]. Based on the analysis of the current situation and development of the "short video+live broadcast" e-commerce marketing strategy represented by TikTok, Tang Yalin systematically expounds on the opportunities and threats that e-commerce will face in the future when combining short video with live broadcasts and e-commerce social content, as well as the advantages and disadvantages of the "short video+live broadcast" e-commerce marketing environment [7].

## 3. Case description

### 3.1. Competition pattern

At present, the e-commerce retail platform has formed a three-pillar trend. Amoy e-commerce, JD.COM, and Pinduoduo, the three e-commerce giants, occupied about 88% of the e-commerce market share in 2021 [5]. As shown in Figure 1, the market share of retail e-commerce platforms in 2021 was 51% for Taobao, 20% for JD.COM, 15% for Pinduoduo, 5% for TikTok, and 4% for Auto Quicker, respectively. Less than 5% of the remaining market share was divided among Suning.cn, Proview, Fortune, and other platforms (Resource: Hua Chun Securities Co., Ltd.).

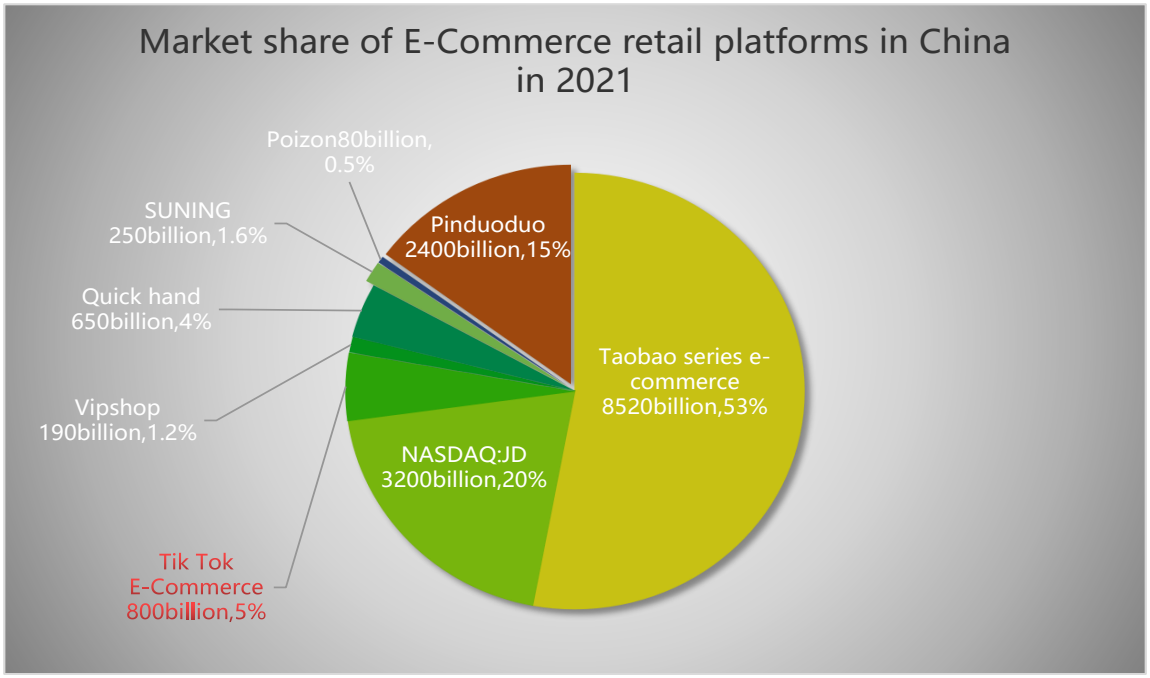



**Figure 1.** The market share of retail e-commerce platforms in 2021

Judging from the overall pattern, the domestic e-commerce circuit has temporarily formed a tripartite confrontation. In absolute terms, the e-commerce platforms in the top three in market share have gradually opened the gap with other media through the positive feedback network effect. It is still difficult for other platforms to catch up with the top three quickly. According to statistics, Taobao ranked first among all e-commerce platforms with a monthly activity of 840 million yuan, indicating that Taobao is still the app with the most significant number of apps opened and the highest national awareness. JD.COM and Pinduoduo have monthly activity of 510 million and 390 million, respectively, and the user base is equally essential (Resource: Hua Chun Securities Co., Ltd.). TikTok's e-commerce model of interest and "FACT+" operation matrix are the cornerstones of its rapid development [6].

### 3.2. "E-commerce with interest" operation model

In April 2021, Kang Zeyu, president of e-commerce in TikTok, first proposed the word "interesting e-commerce", a new e-commerce consumption model based on people's yearning for a better life, satisfying users' potential shopping interests and improving consumers' quality of life. In a nutshell, this is a kind of operation mode that can make intelligent algorithm recommendations according to the user's behavior and habits, recommend the goods that the user is interested into the user, and achieve the goal of looking for people for goods [5].

Different from the traditional "shelf eCommerce," TikTok's "interest eCommerce" transforms the content of commodities by recommending the related contents of items and commodities to users through two legs-personalized matching and active search by users. In June 2022, the number of monthly active users in TikTok was 680 million, and colossal traffic has always been the cornerstone of "e-commerce of interest" (Resource: Quest Mobile). While providing stable traffic, the vast user base also hides many potential consumers. TikTok accurately "captures" this group through algorithmic procedures and pushes the content-based commodities to realize business transformation [4].

### 3.3. "FACT+" Operations Matrix

At that time, TikTok e-commerce companies proposed a "FACT business methodology" for the content field. F is the basic plate of the Field's self-operated daily sales operation. The self-broadcast by the merchants helps the merchants to strengthen content control and accumulate crowd assets for

stable and long-term operation. A is the Talent Matrix Alliance, which amplifies business growth. It helps businesses enter the market quickly, expands the supply of traffic, and boosts business growth. C is the Campaign of the marketing theme, i.e., the outbreak of large-scale sales volume. The marketing campaign cultivates the consumption mind and helps the merchants to obtain platform resources to realize large-scale sales volume outbreaks. T is the head big V, that is, Top KOL. Big V can help the merchants to make a "broken circle" loudly and quickly, thus achieving a win-win situation for both products and sales [8].

In 2022, FACT entered into the global operating system of FACT+. That is, two new upgrading points were added: the central market (TikTok Mall and Search) and the marketing market. They worked with the content market to expand the business position for the merchants and achieve complete coverage for the consumers. Among them, the search business led to a significant increase in e-commerce conversion rate. As one of the platform's considerable precision traffic, 25% of the merchants brought more than 1/3 of GMV through search, and the proportion continued to grow. The combined delivery of search and information flows increased the overall hit conversion rate by 24% (Resource: Quest Mobile).

## 4. Advantages and disadvantages of TikTok's e-commerce competitiveness under the "FACT+" operation matrix

The differentiated "FACT+" business methodology strategy will bring a better life for users and realize the long-term development of businesses, which will help TikTok's e-commerce firms and brands break through. The following is an analysis of the advantages of e-commerce in TikTok.

(1) High concentration of flow. The revenue of the tremolo short video platform is mainly from public domain advertising, and the traffic features of solid content, robust operation, and accurate algorithm distribution are that TikTok Xiaodian's mall is the self-support of F Position and the diversion of the third-party e-commerce platform, forming a commercial closed loop with huge customers.

(2) The characteristic marketing model of combining short videos with live broadcasts. Consumers on other platforms are more likely to search for what products they want to buy. At the same time, those in TikTok are more likely to encourage consumers to "consume impulsively" without prior preparation. A short video+live broadcast can give users more multi-sensory stimulation, and the form of content display is more prosperous and efficient. The interactivity of live broadcasts makes up for the unilateral content output of short videos. The short video also fills in the short board that live broadcasts cannot introduce products from multiple perspectives. The combination of the two has enabled the audience to understand the characteristics and functions of the commodities themselves. The selection under the market rule of "survival of the fittest" has left high-quality advertising content, further improved the presentation efficiency and facilitated the purchase and transformation of users.

(3) OPCM Advertising Fee Rules. That is to say, optimizing the usage of display bids, in a nutshell, is to optimize the billing for a thousand exposures, target conversion bids, and use a more accurate click-through rate and conversion rate prepayment mechanism to display advertisements to users who are prone to conversion. Based on CPM, extensive data are optimized and screened in advance for the exposed crowd. This way can improve the accuracy of the advertising crowd to the greatest extent.

(4) Special discount for high-quality merchants and newly settled merchants. To stabilize the short video live e-commerce market and motivate businesses to improve the quality of their products and services, since April 1, 2020, the TikTok platform has conducted service assessment on the last day of every natural month for the businesses settled in and the businesses that passed the evaluation are rated as high-quality businesses. High-quality merchants who pay ordinary orders online every month (except for orders with non-advertising traffic and jewelry under Category 1) will enjoy a certain technical service fee discount the platform offers. To reduce the pre-operation pressure on newly-settled merchants, TikTok Platform launched a special deal for the technical service fee of newly-

settled merchants on May 1, 2020, i.e., small store merchants can enjoy a value of 1% for the technical service fee of non-advertising orders for the first month. Within 30 natural days from the date of entry, any part of accumulated business turnover (accumulated payment transaction amount less accumulated return refund transaction amount) not exceeding 1 million will be entitled to a 1% Commission discount, and the spare part will not be allowed to discount [7].

However, the development of e-commerce in TikTok has only sometimes been smooth sailing. The "defections" of Luo Yonghao and Yu Minhong have also sounded a wake-up call for e-commerce in TikTok. The migration of talent and anchor between platforms occurs from time to time, but the frequent departure of the head anchor sends out a dangerous signal. The following is an analysis of the disadvantages of e-commerce in TikTok.

(1) The head anchor has low trust. In the second half of 2017, TikTok began strengthening the algorithm and adopting a "centralized" traffic distribution model. For the anchor, the massive amount of traffic that TikTok brings is undoubtedly very tempting. According to the TikTok anchor list released by Pye Dai in September, Dongfang Selection won first place for the fourth consecutive month, with sales reaching 500 million to 750 million yuan. However, depending on the flow of TikTok, there is always a great deal of uncertainty. To control the discourse power of traffic, TikTok is not to blame for limiting the flow of e-commerce anchors. However, this moves places the anchor in a highly passive position through risk transfer and makes him feel uneasy and deeply in a crisis of trust when he falls from the peak to the bottom at any time.

(2) Stores have low barriers to entry and imperfect rights protection services. After-sales service is the last line of defense to protect the rights and interests of consumers and is an essential remedial strategy to resolve corporate failures or customer complaints [7]. The e-commerce service provider needs to perfect the screening mechanism for entering merchants. Any merchants and commodities can enter this huge market. Inevitably, merchants with poor service attitudes and commodities with poor quality are active in the eyes of consumers, which directly leads to a significant decrease in consumers' shopping experience and trust in the platform. More noteworthy is that commercial advertisements and information with vulgar and lousy tastes may appear on the e-commerce platform with short audio and video clips. These nasty things will also bring extremely adverse effects to consumers. Currently, the products with high sales volume in TikTok are mainly concentrated in tailstock, clothing, food, small household appliances, etc. [10], which are highly coincident with the main types of Tmall. Most of them are small and medium-sized merchants, but they are primarily non-standard products. Therefore, the merchants in TikTok want to promote the transaction by ensuring a specific price advantage even though they have paid the traffic fee. On this basis, the quality of the products may decline.

(3) Some merchants have difficulty starting cold and taking a long time. Although there is a discount for newly settled merchants, in terms of self-operation in the Field position, merchants who are mainly engaged in non-daily necessities also find it hard to obtain a cold start of products and rapid growth on the platform, especially for commodities with a longer tail, inventory backlog and operating costs make many high-quality merchants flinch. New brands rely on content to obtain natural traffic, which is more than just time-consuming and challenging. Therefore, most stores need to use Alliance and even Top KOL's commercial launch or the opportunities that Campaign brought to help them obtain additional traffic. This approach can bring more attention to the brand in the short term but still bear the risk of "losing everything."

(4) Poor commodity retrieval capability. A huge problem of e-commerce in TikTok is the lack of commodity retrieval ability, which gives users no price comparison ability. For example, the price of the same product varies from studio to studio and from anchor to anchor, but users cannot buy lower-priced products through the platform [9].

(5) The e-commerce industry lacks standardization. With more and more anchors entering the 100 million level threshold, it is gradually becoming the norm in the live broadcast industry. However, a return rate as high as 30-70% is behind the over-billion GMV. During the barbaric growth period, the

anchors falsified the data and falsely reported the turnover to create beautiful sales results and raise their pit fees.

## 5. Development proposals

In terms of live e-commerce for the whole year of 2021, judging from the heat index of the traditional live e-commerce platform and the social live e-commerce platform, the heat index of TikTok's live broadcast surpassed that of Taobao's live broadcast to rank. First, Taobao's live broadcast ranked second, and Auto Quicker's live broadcast ranked third (Resource: Micro Hot Big Data Research Institute). The following suggestions will be made on how to expand advantages further and improve disadvantages:

Focus on improving the repeat purchase rate of consumers. Live e-commerce has become one of the development priorities of social e-commerce. The platform should take advantage of the high traffic and growth rate of e-commerce GMV to increase the stickiness of live users and generate multiple transactions. They are using actual transactions to drive away false sales and continuously submitting to the standardization of industry development. The TikTok platform now only uses large-scale promotion measures to promote consumer activity and improve consumer switching. These promotion measures need to stabilize the transaction scale of the live e-commerce platform [10]. Under the competition from e-commerce platforms, the consumption group of mobile internets is always a limited number. Although the consumption group increases yearly, under the competition from e-commerce platforms such as Taobao, Pinduoduo, JD.COM, and Proview, there needs to be more than one-time user conversion to help the TikTok platform establish a traffic-closed loop. Improving the repeat purchase rate of consumers, increasing user stickiness, and circulating traffic on the forum are essential in building a traffic-closed loop.

Raise the entry threshold and improve the platform management mechanism. The diversified and low-threshold platform management mechanism has brought opportunities for the live broadcasting of goods. Still, the phenomenon of high return rate caused by the quality problem in the live broadcasting studio must be fundamentally solved. The live broadcast supervision team in TikTok can strengthen the qualification and transaction behavior standard of the host companies and anchors, cultivate the anchor's legal awareness and integrity awareness, improve the anchor's professional quality, ensure the authenticity and legality of the live broadcast information, and prohibit inducing users to conduct off-platform transactions. Improve the operation mechanism of the platform to ensure that the legitimate rights and interests of consumers are not harmed.

## 6. Conclusion

Relying on its position as the head of the short video content platform and the rise of live e-commerce in the platform, TikTok has pushed aside its cooperation with third-party e-commerce platforms, built its e-commerce system, and built a closed-loop e-commerce transaction to maximize the value of traffic. TikTok's e-commerce business has a large consumer base, a featured marketing model that combines short videos with live broadcasts, precise advertising rules, and friendly store policies, and has a bright future. However, the disadvantages of the head anchor, such as low trust, imperfect entry criteria, a rights protection system, the status quo of stores that are difficult to start, weak industry standards, and platform retrieval capability, are all worthy of TikTok's high attention and rapid improvement.

During the development period of e-commerce in TikTok, different and related campaigns were planned for merchants and users. The entry of new businesses, the production of high-quality businesses, and the promotion of consumer shopping are all effective but still need to be improved. Compared with the traditional giant e-commerce platform, there is no competition for the just-started e-commerce in TikTok. When it has not yet formed a confrontation force, it can find a new way to avoid the confrontation with the head giant and plan a special ceremony for live e-commerce, which

will become a symbolic festival for live e-commerce, attract users' attention and stimulate users' consumption. In addition, we will improve the incentive mechanism for repeat purchases and increase the repeat purchase rate of platform merchants. Raising the access threshold and improving the platform management mechanism are also the problems that TikTok e-commerce must solve in the future development path.

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