Research on the Live Streaming Operation Mode of China Cross-Border E-Commerce Platforms—Taking the Southeast Asia Market as an Example

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Abstract: The digital economy has penetrated people's lifestyles and all areas of the market. E-commerce platforms as a new model, new business model and new technology are flourishing. Live e-commerce is an emerging industry of e-commerce. It breaks the limitation of time and space and can be realized in the platform to show and communicate anywhere and anytime. This study examines the current status and trends of e-commerce industry development in China and Southeast Asia. Two cross-border e-commerce platforms, TikTok and Shopee, are selected as case studies for this study. The case studies are used to explore the successful model of e-commerce platforms to achieve live operation on multinational e-commerce platforms. To better understand the localization of Southeast Asian market, the article uses PEST analysis and SWOT analysis. This analysis can combine the current situation of Southeast Asian market and better analyze the applicability of China's live e-commerce system applied to multiple countries in Southeast Asia. This study expects to inject new vitality into the economic and trade cooperation between China and Southeast Asia in the future. Let China and various Southeast Asian countries achieve multi-win situation in multiple fields and levels.

Keywords: Digital economy; E-commerce; Live operation

1. Introduction

1.1 Background

The development of e-commerce has changed the way people live and shop. Live e-commerce is a new hot spot in the e-commerce industry. The characteristics of live streaming are "everything can be live", "everyone can be live", and "anywhere can be live". China is the largest e-commerce market in the world. The total size of China's live e-commerce industry reached 433.8 billion RMB in 2019, and the size of China's online live streaming users reached 526 million in 2020. The size of China's live e-commerce market exceeds 3.4 trillion in 2022, and is expected to exceed 4.9 trillion in 2023. 2015 saw the establishment of China's first comprehensive pilot zone for cross-border e-commerce, and 2020 saw the outbreak of the new crown epidemic causing a global economic downturn. Traditional cross-border companies have been under pressure from logistics, capital and other aspects. Traditional offline foreign trade has encountered development difficulties. In such a development dilemma, China live with goods began to go abroad, and live cross-border e-commerce soared.

There is a great potential for economic development in Southeast Asian markets. According to the Southeast Asia Digital Economy 2022 report, the total value of goods traded in the Southeast Asian digital economy is close to $200 billion, a 20% increase from the previous year. Among them, e-commerce has the largest market size, which is expected to reach $131 billion. It can be found that Southeast Asia provides excellent external conditions for the development of Chinese cross-border e-commerce platforms. Chinese e-commerce platforms have great potential for development in Southeast Asia, such as TikTok.

1.2 Significance of the study

The study can improve the marketing efficiency of the live-streaming operation model in Southeast Asian countries. In addition, the research also injects new energy into the future economic and trade cooperation between China and Southeast Asia.
1.3 Research questions

First, the study traces the development of e-commerce. The article examines the development and trends of the e-commerce industry in China and Southeast Asia, respectively. Second, the study focuses on the development of live e-commerce, user scale, take-home scenarios and marketing models. Specifically, the study uses PEST analysis to deeply analyze the four dimensions of policy and legal environment (P), economic environment (E), social and human environment (S) and technological environment (T) for live banding application in e-commerce. Again, the study selects TikTok and Shopee e-commerce platforms as case studies. The development process of Chinese e-commerce live streaming system into Southeast Asia is explored through the cases. Finally, the live streaming model that can improve the marketing efficiency of each country is constructed through empirical research.

1.4 Problem statement

There are more research results on cross-border e-commerce platforms in existing studies, but fewer studies on the development of Chinese cross-border e-commerce in Southeast Asia. As a newly emerged hotspot in cross-border e-commerce platforms, the study has not yet formed an effective system and conclusion. Therefore, this study can better fill the gap in the field. This study focuses on the development of Chinese e-commerce platform live streaming model in the Southeast Asian market.

2. Literature review

The world has entered the era of digital economy. The digital economy, as the most rapidly developing new form of economy, has become an important engine to drive global economic growth and recovery. Therefore, this study actively explores strategies and approaches that are consistent with the development of efficient operation of cross-border e-commerce platforms, which is an inevitable way to promote international cooperation and sustainable development.

2.1 Cross-border-e-commerce

With the gradual expansion of the use of the Internet in international trade, a large number of traditional enterprises have chosen to use the Internet to carry out international trade. Cross-border e-commerce has provided great convenience for foreign trade activities of countries around the world. The use of information and communication technologies worldwide is changing dramatically every day, and consumers’ behavior and perceptions of business activities are bound to change [4]. The debate among Chinese scholars about the future of China's digital foreign trade is intense. Scholars generally agree that the new digital foreign trade will be further developed in global commerce activities under the influence of the epidemic. Therefore, China must strengthen commercial trade cooperation among cross-border e-commerce. Cross-border e-commerce trade can advance the sustainable and healthy development of digital new foreign trade [5]. Cross-border e-commerce is becoming an emerging model for the development of international trade. Cross-border e-commerce not only can significantly reduce transaction costs, but also can broaden trade channels. In addition, cross-border e-commerce can create brand influence with multinational companies themselves [6]. Studies have shown that e-commerce in rural areas in BRICS countries can eradicate poverty [7]. It is evident that e-commerce brings great opportunities to people living in rural and remote areas.

2.2 E-commerce platform operation

In the current world economic situation, the application of Internet makes the global economy and trade closely connected. E-commerce is developing rapidly and the number of e-commerce enterprises is increasing. The e-commerce platform provides maximum convenience for communication between cross-border enterprises. The emergence of cross-border e-commerce has greatly increased the trade volume of foreign trade enterprises. The elaboration of e-commerce platforms provides a sales platform for different enterprises to access the global market [8]. Market operation is the most important part of the business development process. For e-commerce firms, it is important to maximize the role and value of market operations [9]. Numerous scholars in China have studied the deficiencies in the development of cross-border e-commerce. Scholars point out that the development of cross-border e-commerce in China has problems such as uneven quality of goods and unsound cross-border logistics [10]. Some scholars believe that there are three key factors that affect the operation of cross-border
e-commerce platforms. The first is the quality of products. The second is the security of the platform. The third is the convenience of the transaction. The cross-border e-commerce platform can only improve the comprehensive competitiveness of the platform if the above three points are continuously improved\(^{(11)}\).

With the rapid development of the Internet, the new media marketing model gradually replace the traditional network marketing model. New media marketing has become an inevitable trend in the future development of e-commerce platform operations. The major e-commerce platforms to use new media for content promotion and dissemination. New media can efficiently improve the visibility of the e-commerce platform. New media marketing will bring unlimited opportunities for the development of e-commerce platforms in the future\(^{(12)}\).

### 2.3 E-commerce live broadcast

With the development of Internet and mobile communication technology, live streaming on e-commerce platforms has generated a new form of economy. Live webcasting with goods is increasingly accepted and used. Live webcasting with goods is an emerging business model that uses the technology of live streaming to broadcast the entire process in real time on the Internet platform. In the process of live streaming, the staff will show the goods and guide customers to buy. The e-commerce platform carries out live streaming with goods, which brings huge revenue to merchants and platforms. The transaction volume of live streaming platforms continues to grow, and the live streaming economy has become the most popular sales model at present. The explosive growth of live-streaming with goods has brought new momentum to economic development. Live streaming can provide a new marketing approach for corporate brands. At the same time, live-streaming platforms also provide new sales channels for some small individual households\(^{(13)}\). Some scholars have predicted the development prospect of live e-commerce in China based on the current development of live e-commerce. They believe that live e-commerce will become a standard feature of e-commerce in the future and will continue to grow upward\(^{(14)}\). In general, with the further popularization of 5G technology, the development of live e-commerce marketing will become more specialized and diversified\(^{(15)}\).

### 3. Research methodology

#### 3.1 Definition of relevant concepts

##### 3.1.1 Cross-border e-commerce

Cross-border e-commerce, referred to as cross-border e-commerce. Cross-border e-commerce is a way for trading parties in different countries to make payments for buying and selling with the help of Internet channels. This buying and selling will be done through cross-border logistics to deliver goods and finalize the transaction. Cross-border e-commerce includes import e-commerce and export e-commerce. Cross-border import e-commerce refers to the purchase of goods from abroad by domestic merchants or individuals, specifically, what people usually call seafood. Cross-border export e-commerce is when a domestic merchant sells goods produced in their home country to a foreign country.

##### 3.1.2 E-commerce live mode

Live mode is a media that records and broadcasts in real time. Live video transmission is the use of one or more communication technologies that allow images and sound to be sent from one location to another. The live mode enhances viewer participation. With the increasing popularity of the Internet, live video broadcasting has become a part of people's daily life. In the context of the rise of universal live streaming, major e-commerce platforms have built their own live streaming platform. Consumers can buy goods while watching live streaming in e-commerce apps.

#### 3.2 Relevant theoretical basis

##### 3.2.1 Theory of consumer behavior

According to the American Marketing Association (AMA), consumer behavior is the basis of human behavior in performing the exchange function in life. In the field of microeconomics discipline, consumer behavior theories mainly include the basal and ordinal utility theories. Utility is the degree of
satisfaction a person receives from consuming a good. Utility is subjective and varies depending on the person, time and place. Therefore, to study consumer behavior is to promote utility maximization.

Consumer behavior theory can help live platforms to launch products that cater to consumers' needs and adopt marketing strategies that are applicable to the local consumer market. Overall, the theory can maximize the value of marketing.

3.2.2 Market Positioning Theory

In 1981, Rees and Trout published Positioning: The War on Your Mind, the first book on marketing positioning. In 1984, Phillip introduced the process of strategic marketing positioning in his book "Marketing Management Analysis, Planning and Control". He argued that a series of marketing activities are based on STP marketing theory. He divides the process of marketing strategy formulation into three stages: segmenting the market, selecting the target market and conducting market positioning. Meanwhile, he summarizes the market positioning process into three steps. First, identify the possible competitive advantages. Second, select the appropriate competitive advantage. Third, communicate and deliver the selected market positioning. Market positioning theory can help this study explore how Chinese cross-border e-commerce live platforms can achieve better growth in Southeast Asian markets.

3.2.3 Transaction Cost Theory

The theory of transaction costs was first developed by economist Coase. He wrote "The Nature of the Firm" in 1937. In this article, transaction costs were summarized as the cost of price discovery and the cost of negotiating a contract. Cross-border e-commerce is a new industry emerging from the digital transformation process. Online transactions through cross-border e-commerce platforms can reduce transaction costs and thus increase business revenue.

4. Results & discussion

4.1 China and southeast Asia live e-commerce development and trends

Live e-commerce is a form of e-commerce that is marketed by means of live streaming. In the digital context, the two-way integration of e-commerce and live streaming has produced this new e-commerce model. Live streaming with goods need to shape a Key Opinion Leader (KOL) to match the shopping environment of diversified scenarios. In other words, the live e-commerce industry can not live without three elements is "people, goods, field". This study believes that live e-commerce should be reconstructed and optimized from the following three aspects: people, goods and field.

4.2 Analysis of the macro environment of live e-commerce in china and southeast Asia

This paper analyzes the macro environment of live e-commerce in China and Southeast Asia using PEST analysis, which is a research method that analyzes the external environment to predict the future market and industry trends. This method will study the business environment of live e-commerce in four parts: political and legal environment, social and cultural environment, economic environment and technological environment.

4.2.1 Political and Legal Environment

The political and legal environment mainly considers the degree of government intervention.

In China's social development plan, the content of digital development is specifically planned, and it is clearly proposed to vigorously develop the digital economy. China has to make every effort to promote the development of digital industrialization of industries and make digital industry clusters more competitive internationally. At the same time, various local governments in China have responded to the call by issuing relevant policies and plans. Local governments are trying to make digital technology work for local economic development and accelerate local economic recovery. Through digital development and innovation in digital economic models, the negative impact of the new crown epidemic is being mitigated. Overall, the construction of China's digital government and smart cities will fully drive the development of society and people's livelihoods, and more and more cities are building high-quality digital economy platforms.

4.2.2 Economic Environment

From a detailed analysis of the Southeast Asian digital economy market, Indonesia still tops the
entire Southeast Asia in terms of total GMV, far surpassing other countries. Both Thailand and Malaysia are developing more steadily. Malaysia's GMV is smaller than Thailand's, probably because Malaysian consumers are not as enthusiastic about online shopping as Thai consumers are. In terms of GMV annual growth rate, Vietnam and the Philippines will be the future leaders. (See Table 1 and Figure 1)

Figure 1: The expected growth trajectory of Southeast Asia's digital industry.

Table 1 Southeast Asia Digital Economy Market Overview

<table>
<thead>
<tr>
<th>Country</th>
<th>GMV</th>
<th>GMV growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>77 billion</td>
<td>22%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>21 billion</td>
<td>13%</td>
</tr>
<tr>
<td>Philippines</td>
<td>20 billion</td>
<td>22%</td>
</tr>
<tr>
<td>Singapore</td>
<td>18 billion</td>
<td>22%</td>
</tr>
<tr>
<td>Thailand</td>
<td>35 billion</td>
<td>17%</td>
</tr>
</tbody>
</table>

4.2.3 Social cultural environment

The Southeast Asian region has unique characteristics in terms of its social and cultural environment. First, Southeast Asia is a linguistically rich region. This poses certain challenges to the development of cross-border e-commerce. The rich language environment in Southeast Asia requires e-commerce platforms to build a team that knows multiple languages to provide translation services in product introduction and pre-sales and post-sales communication. This also raises the difficulty for small and medium-sized e-commerce platforms to operate across borders. Secondly, the currencies of Southeast Asian countries are not unified, and each country has its own different official currency, which makes the settlement and payment business of e-commerce more difficult.

4.2.4 Technical Environment

The analysis of the technological environment mainly examines the changes that have occurred in the technical means of the field in which the industry is located. 2019 saw the official issuance of 5G commercial licenses by the Chinese authorities. 5G is used in the media industry to make live video streaming in ultra-high definition a reality. Live streaming images will be clearer, and merchandise will be displayed with more realism and detail. In the future, with the emergence of new technologies such as AR and VR, users can feel what it is like to shop in a physical store during a live broadcast with goods. The application of virtual reality will not only allow buyers to observe and touch the goods up close, but also interact with the store staff in real time. The use of these technologies will create a better shopping experience for live e-commerce users.

4.3 Case study of Chinese cross-border e-commerce platforms in Southeast Asia market

4.3.1 TikTok’s development in Southeast Asia

TikTok is a short-form social video app developed by Byte Dance.com. TikTok was officially launched overseas in May 2017. TikTok has been the top app download in many countries. TikTok has become the most visited internet site in the world, with 690 million users worldwide, accounting for 11.3% of the global population. TikTok Shop is the core product launched by the platform, which includes five main functions. First, the integration of resources from product uploading to sales logistics for merchants in all aspects. Secondly, the app cooperates with third-party platforms. Third, the platform implants links to product advertisements on the page, so that users can easily and directly check the product information. Fourth, the user through the live immersive communication with the
brand business, in a more intuitive understanding of product details to buy. Fifth, the platform advertising dynamic display. Brands can implant product information in numerous brand advertisements according to users' preferences, providing targeted and personalized advertisements for users.

Live Shopping is the most important part of TikTok Shop's five main features. It uses the "content + e-commerce + live streaming" model to e-commerce the platform, and LIVE Shopping is launched to enhance the shopping experience of the platform users by using live streaming and real-time communication and interaction. In 2020, TikTok partnered with Wall-Mart Stores Ltd. to bring in goods. Ten TikTok KOLs with more than one million followers are live-streaming and selling US-based fashion items. In this partnership, the live-streaming approach drove consumer interaction and developed new potential customers. After this experiment, TikTok has shown its advantages to the world. First, the volume of users is growing fast. Secondly, the platform can precisely target customers. Third, the promotion cost is low. Fourthly, the platform has huge traffic advantages and the ability to realize. Fifth, the platform has a wide space for development.

The Southeast Asian market has a huge platform for e-commerce development. Among the many countries in Southeast Asia, TikTok first launched its live e-commerce feature primarily in Indonesia. 2020 saw 222 million TikTok users in Indonesia and a high level of ad acceptance among 90% of users. TikTok then made its first live-streaming lead in Indonesia on March 9, 2021. The two KOL anchors interacted with the audience during an hour and a half live event, which was watched by more than 300,000 people in total. The products featured in the live broadcast were mostly popular with female users, such as skincare and beauty products. With the success of TikTok Shop's first live broadcast in Indonesia, TikTok has introduced a multi-format operation method such as short video, live streaming, advertising, and cultivation of celebrities, allowing TikTok users in Southeast Asia to quickly form the habit of live shopping. With the increasing penetration of e-commerce in Southeast Asia, user interaction and repurchase rates are growing significantly, and consumers are increasingly enjoying this new way of shopping.

4.3.2 Shopee in Southeast Asia

Shopee was founded and launched in 2015 in Singapore. It is the e-commerce platform of Sea, the largest local Internet group in Southeast Asia. The Singaporean e-commerce company was financed by Tencent to the tune of $550 million. In recent years, the business has expanded to seven major markets: Indonesia, Malaysia, Thailand, Vietnam, the Philippines and Taiwan, China. Shopee completed $1.9 billion in transactions in its first year of existence and $2.6 billion in the second year. Shopee is growing very well and has become the fastest growing e-commerce platform in Southeast Asia. in 2019, according to a survey shows that 89% of Singaporeans watch videos through their cell phones every day. It is evident that more and more people are relying on social media for their entertainment. With such a social culture, Shopee has started to switch its strategy by using the "e-commerce + live streaming" model to launch the live streaming feature on its platform. This initiative is in line with market trends and has attracted a large wave of traffic, generating user traffic and brand revenue.

In March 2019, Shopee officially launched Shopee Live at Great Shopee's marketing event in Singapore and Shopee Quiz, among other features. The total merchandise sales on the Shopee platform through Live Lead 2019 increased significantly by 75%. Later, Shopee launched Shopee Live's live streaming feature on other sites in Southeast Asia. The live streaming feature brings consumers closer to their favorite brands and changes the traditional platform merchandise buying model. This model provides the platform with Customers are provided with richer real-time new media content. Among them, product demos and reviews by KOLs make users willing to Spending more time staying on the shopping app. shopee in the process of implementing live with goods, on the one hand, to cater to sellers online expansion needs. On the other hand, by combining the KOL Netflix effect, it enhances consumers' immersive shopping experience and increases users' user stickiness to the app. The live-streaming model has also boosted traffic on Shopee's platform, and in 2020, Shopee's merchandise house transactions reached $35.4 billion, up 101.1% year-on-year. During the "Double 11" and "Double 12" promotions, Shopee Games had 2.7 billion experiences and brought over 2 billion rich products to consumers. Shopee Live had 450 million viewers and 20 million hours of live streaming, a record for Shopee in all areas.

4.3.3 Analysis of the current situation of live streaming with goods based on SWOT analysis

Based on the development of live-streaming operations on Chinese cross-border e-commerce platforms, TikTok and Shopee were selected as the study cases. In this paper, SWOT analysis is used to analyze the situation of live-streaming e-commerce in Southeast Asian countries for live-streaming
with goods. Based on the results of the analysis, it is further studied by combining the competitive situation of live streaming in Southeast Asia and the comparison of scenario strategies. (See Table 2)

Table 2 SWOT analysis of the current situation of live streaming sales in Southeast Asian countries.

<table>
<thead>
<tr>
<th>Strength</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New sales method to attract more users and get more traffic.</td>
<td>1. The product differentiation of each live e-commerce platform is not strong.</td>
</tr>
<tr>
<td>2. Platform, brand, anchor tripartite synergy to improve operational efficiency.</td>
<td>2. Low barrier to entry causes homogeneous competition.</td>
</tr>
<tr>
<td>3. Incremental information and instant interaction optimize the shopping experience.</td>
<td>3. The payment method is not integrated with the popular local electronic payment method and is not convenient enough.</td>
</tr>
<tr>
<td>4. Accurately track the effect of bringing goods.</td>
<td>4. Cross-border live streaming involves language, time difference, cultural differences, etc.</td>
</tr>
<tr>
<td>5. Promote brand awareness.</td>
<td>5. The corresponding institutional control body is not perfect.</td>
</tr>
</tbody>
</table>

Opportunity

1. Southeast Asia has a large and highly youthful population base.
2. Young people in Southeast Asia are highly dependent on social media, and they follow celebrities and love Netflix.
3. The digital economy market is huge, and the mobile Internet penetration rate is increasing.
4. Greater government support

Make full use of the "e-commerce + live broadcast" model and give full play to the demonstration ability of KOL's net celebrities. Combined with the huge volume of e-commerce and market prospects in Southeast Asia, we will fully release the digital economy dividend. Thus, while China's cross-border e-commerce is the new engine, China's international business and international influence will be expanded.

Threats

1. Southeast Asia's e-commerce market is highly competitive.
2. E-commerce-related laws and regulations are changing rapidly.
3. There are many countries in Southeast Asia, and there are differences in language and time.
4. Southeast Asia has a wide range of islands, resulting in slow logistics.
5. The payment system is not perfect and the penetration rate of digital payment methods is low.
6. High level of import and export duties and taxes.

Live e-commerce has the characteristics of immersive and interactive bringing goods. The live broadcast approach makes use of users' fragmented time and breaks the inherent barrier in terms of scenarios. Live-streaming with goods should actively integrate Southeast Asia's unique consumer market and e-commerce environment, implement innovation-driven, and continuously improve and advance the material Streaming system construction and the spread of digital payment methods.

Live e-commerce should improve the construction of the ecosystem and regulate the institutional control of the live e-commerce industry. At the same time, Chinese cross-border e-commerce should maintain good relations with governments and media in Southeast Asia. This requires major platforms to respond positively to the implementation of e-commerce policies and laws and regulations in Southeast Asia and improve social responsibility.

According to the results of the SWOT analysis model we can find that live e-commerce to take advantage of the opportunities and advantages to actively play the new trend of e-commerce internal advantages. Live e-commerce development process to solve the disadvantages, clever use of external resources to make up for their own go defects. Live-streaming with goods to use their own advantageous features to maximize the avoidance of threats brought by the external environment.

5. Conclusion

The study shows that e-commerce development in Southeast Asia has been doubly impacted by the new crown epidemic and the development of live-streaming of e-commerce in China. The Southeast
Asian region has driven the journey of the emerging consumption model through live-streaming with goods, creating a new e-commerce industry chain.

This study provides a better understanding of the current situation of the Chinese cross-border e-commerce market in the Southeast Asian market. The application of the Internet and the popular development of e-commerce have provided a wider scope for the development of traditional business activities. In the Internet era, the new form of trade, e-commerce, has strong advantages and innovation. In such a context, combined with the essential characteristics of e-commerce global, open, high efficiency and low cost, Chinese e-commerce gives full play to the huge advantages it possesses. The innovative development of new e-commerce formats has had a huge impact on the cross-border e-commerce platform market in Southeast Asia and even globally. Especially in the post-epidemic era, live-streaming with goods from China's domestic to overseas, cross-border live-streaming with goods has become a new windfall of development. At this stage, cross-border live streaming can not only quickly and intuitively convey brand image and expand the influence of brands overseas, but also create amazing conversion rates through websites with top-notch traffic to bring goods.

Therefore, the application of cross-border live broadcast promotes the rapid development of cross-border e-commerce platform innovation-driven, so that it can better analyze the situation and development trend of global e-commerce trade exchanges. Finally, China's cross-border e-commerce live streaming platform also needs to improve the development system of live streaming platform, promote the development of cross-border e-commerce live streaming platform, and create an international, professional and diversified live streaming cross-border e-commerce platform. Chinese e-commerce platforms should further strengthen the localization practice in Southeast Asian market and improve the live broadcast mode of Southeast Asian marketing efficiency. The localization practice team has important practical significance in building up a live streaming environment for sustainable development of cross-border e-commerce. From the perspective of a Southeast Asian student with dual cultural backgrounds of China and Southeast Asia, it is hoped that this study can inject new vitality into the future economic and trade cooperation between China and Southeast Asia, and achieve win-win cooperation among multiple parties in multiple fields and at multiple levels.

References

