

# Analysis of The Transformation in Pinduoduo Based on SWOT Model and 4C Marketing Theory

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**Abstract.** With the rapid development of the Internet in China, the competition in the field of e-commerce is becoming more and more fierce. Under the impact of economic expansion and COVID-19, it is no longer feasible for e-commerce platforms maintain their original competitive strategies. In this context, how to fully grasp the advantages of existing competitive strategies and take advantage of the opportunities brought by the external environment has become an important task for the sustainable development of e-commerce platforms. Under this background, Pinduoduo actively responds to the impact of the epidemic and changes in the economic environment, makes full use of its advantages in the low-end market and unique social marketing strategies, and gradually puts its marketing focus on the investment in agricultural scientific research to adapt to the changes in the e-commerce market and consumer behaviour at the present stage. Guided by the 4C marketing theory, this paper studies consumer habits from the four directions of consumer, cost, convenience and communication. Then the SWOT analysis was applied to study the internal and external environment of Pinduoduo agriculture and community group buying business transformation. The analysis results showed that Pinduoduo has some deficiencies in its transformation. Next, in view of the shortcomings in the transformation, combined with the existing literature and relevant materials, this study put forward optimization suggestions from the four directions of consumer, cost, convenience and communication.

**Keywords:** Pinduoduo; Epidemic; Transformation; SWOT; 4Cs marketing theory.

## 1. Introduction

### 1.1 Research Background

The internet penetration rate in China has been rising steadily in recent years, and the number of Internet users overall has been steadily expanding. Due to the steady emergence of online shopping as a significant aspect of the Internet era and the rise in Internet usage and user numbers, the e-tailing business has been able to sustain a comparatively rapid pace of growth. With the growth of the e-tailing sector in China, there are an increasing number of e-commerce platforms entering the market. The rivalry is becoming severe, and many of these platforms have vanished amid it, gradually developing an e-commerce pattern lead by Taobao and JingDong. Pinduoduo focuses on customers from China's third and fourth tier cities or rural areas, where pricing is the main factor in decision-making and income levels are low. An analyse conducted by Chen, Zhang, and Luo in 2021 found that despite the low rural Internet penetration rate, this growth rate over the past few years suggests that there is still an opportunity for further expansion of the Internet in rural areas (Han et al., 2021). To avoid direct competition with Taobao and JingDong in the same market segment, JingDong has adopted a different user development strategy than Taobao and JingDong, choosing the vast untapped low-end consumer base in third- and fourth-tier cities and rural areas as the entry point for target users.

Pinduoduo focuses on the "low-end market," utilizing agriculture as the entry point into the small-town and rural markets, luring customers in with low pricing, precisely matching user groups, and creating marketing tactics, minimizing rivalry between the two top e-commerce platforms on user groups. The Consumer-to-Business (C2B) strategy was established based on the principle of cheap price and low quality, and via an inventive social grouping strategy, utilizing social media platforms like WeChat as a promotional tool, a low-cost free take activity was introduced. Consumers can share the link of products to their friends through social media (eg. WeChat). Each shared WeChat user clicking on the link may cut the price of products and if the end price can be cut to zero, the products can be obtained for free. Consumers will be the activities of the commodity links conveyed to share to WeChat or other platforms. The new users will be motivated to join and share the product's link among their friends after assisting their peers in lowering the price of the item. With one user at the center of the grouping strategy, the price cutting and grouping activities could spread quickly through this one user's social network, increasing the platform's publicity effect, lowering the platform's customer acquisition costs, and attracting a significant number of new users. As a result, Pinduoduo grew quickly and quickly became one of China's top three e-commerce platform giants.

## 1.2 Research Gap

In 2021, Zhang and He investigated the profitability and financial performance model of Pinduoduo (He & Zhang, 2021). In 2008, Xu analysed Pinduoduo's marketing approach, and in 2009, Wang investigated the company's competitive environment in-depth (Wang, 2019; Xu, 2018). In 2020, Pinduoduo established "Duo Duo Mai Cai" project, which shifted its emphasis to the selling of agricultural products and services in order to compete in the neighbourhood group buying market. Pinduoduo introduced the "10 billion Agricultural Project" initiative in August 2021 with the intention of utilizing its technical advantages to provide distinctive agricultural benefits while funding agricultural research as one of its primary commercial operations. Considering of this, Pinduoduo has started a deliberate strategy move into agriculture to acquire "distribution side" and "production side" competencies that other e-commerce platforms lack. The "producing side" employs people and technology to empower the chain and support local innovation, while the "distribution side" tries to shorten the supply chain of agricultural goods starting at the farm.

There are several research on Pinduoduo's marketing tactics, but there is a dearth of information on the evolution of C2B e-commerce marketing methods. Utilizing marketing methods from traditional sectors would not be effective since the Internet-based e-commerce industry differs greatly from them. Consequently, the primary theoretical contribution of this paper is to analyse the marketing mode transformation of social e-commerce enterprises through the study of the marketing mode of social e-commerce enterprise – Pinduoduo, and propose corresponding improvement measures, with the hope of advancing the concepts of social e-commerce marketing mode transformation research through this case study and offering some useful recommendations for the sustainable development of social e-commerce. This case study is intended to further the concepts of social commerce marketing model transformation research and offer some helpful suggestions for the long-term growth of social commerce firms.

The cheap price and low-quality approach for Pinduoduo has no sustained competitiveness due to the pandemic of COVID-19 and the changes in the market and economic environment. The low-price, low-value business model is very reproducible from a competitive standpoint, and consumer stickiness is easily weakened by competitors' prices. The ability of Internet e-commerce enterprises to compete effectively and sustainably in the highly competitive e-commerce market depends on their ability to adapt to changing market conditions, innovate constantly, and seize market opportunities. With C2B social collocation as the original marketing model and the transformation of agricultural strategy into a new marketing model, this paper chooses the underdog of the e-commerce sector as the case study object. This choice has practical implications for both the Pinduoduo enterprise itself and the social e-commerce sector.

### 1.3 Structure

Based on 4C marketing theory and SWOT analysis, this paper conducts a comparative study on the business model of Pinduoduo before and after its transformation in the context of COVID-19 and establishes a business model canvas. At the same time, it analyses the reasons for Pinduoduo's transformation and summarizes its target user segmentation, cost strategy, convenience strategy and communication strategy in the consumer strategy. On this basis, it studies the problems existing in the transformation process of Pinduoduo and puts forward suggestions. Finally, it provides management inspiration for the transformation and development of other e-commerce platforms under the impact of COVID-19 from the perspective of consumers.

## 2. Literature Review

### 2.1 Definition and Development

The Marketing Theory of the 4Cs, also known as "4C marketing theory", is developed from the traditional 4P marketing theory [5]. The 4C marketing theory was put forward by American marketing expert Professor Lauterburn in 1990 [5]. Different from 4P marketing theory, the core of 4C marketing theory is consumer demand-oriented and resets the four basic elements of the marketing mix: Consumer, Cost, Convenience and Communication (Chen, 2021). With the increasingly fierce market competition, the marketing environment has undergone great changes, more and more consumers begin to pay attention to diversification, individuality and human culture, using 4P theory to guide the enterprise marketing has not reached the best effect (Chen, 2021). It was under this background that Professor Lauterburn first proposed the concept of 4C. Therefore, the 4C marketing theory is inherited and developed on the basis of 4P theory [5]. 4C marketing theory stresses that enterprise should first put the pursuit of customer satisfaction as the first, followed by efforts to reduce the purchase cost of customers, and then to fully notice in the process of customers to buy convenience, finally also should carry out effective marketing communication to consumers as the center (Wei, 2021).

Customer mainly refers to the needs of customers. User demand refers to that enterprises should take user demand as the orientation when designing goods or providing services, and comprehensively grasp the personalized demand of consumers (Ji, 2021).

Cost includes not only the operating costs paid by an enterprise when it produces or provides services, but also the monetary and non-monetary costs spent by consumers when they obtain goods or services (Ji, 2021).. Monetary cost refers to the cost of obtaining a certain commodity or enjoying a certain service, while non-monetary cost refers to the cost of time and energy consumed by consumers in obtaining a certain commodity or service (Ji, 2021).

Convenience is to provide customers with the greatest shopping and use of convenience (Ji, 2021). Enterprises should take the convenience of consumers into consideration when designing products or providing services, which specifically includes the convenience of consumers to obtain a commodity or service and to use a commodity or enjoy a service (Ji, 2021).

Communication refers to the two-way communication between enterprises and consumers (Ji, 2021). Through effective communication with consumers, enterprises can master users' needs and suggestions, and optimize their own marketing methods through certain communication and feedback (Ji, 2021).

The reasons for choosing 4C as the theoretical basis of this study are as follows: First of all, 4C theory, as one of the classical marketing theories, has become mature after decades of development and progress, and scholars in many fields have carried out relevant researches based on 4C theory. The second point is that compared with other theories, 4C theory emphasizes the feelings of consumers and optimizes products or services from the perspective of consumers. Pinduoduo's C2B e-commerce model is extremely suitable, and the core of the C2B e-commerce model is consumer-centered. Therefore, this study chooses 4C theory to analyze the marketing strategy of Pinduoduo.

## 2.2 Important Results

Since its emergence, 4C marketing theory has been widely concerned by many scholars, and a lot of scholars use 4C marketing theory as a research tool to develop marketing strategies of some companies in the market.

Liu Zhichao in 2013 mentioned in his research on consumers' online shopping decision-making behavior that enterprises should pay attention to consumers' psychological demands so as to enhance customers' desire to buy (Liu & Buu, 2013). Xu Yuxin and Wu Xiaofei in 2021 pointed out in their analysis of luckin coffee's marketing strategy that it should attach importance to customers' feelings, create convenient consumption conditions and create a good consumption environment for consumers, so as to promote consumption and enhance consumers' purchasing power (X & Wu, 2021). Zheng Pengxiang in 2022 proposed in his interpretation of the marketing communication strategy of bilibili that immersive scene experience should be created for customers to enhance their sense of presence so as to attract a large number of potential users to participate in and experience (Zheng, 2022).

Fu Lei put forward in 2021 that under the guidance of the 4C marketing theory, e-commerce companies can achieve rapid development by cultivating private traffic through measures such as satisfying the sinking market and reducing consumers' shopping costs (Fu, 2021). In 2021, Man Yijing analyzed the marketing strategy of cultural and creative products of museums and mentioned the "combination of measures" to reduce costs. In other words, customers' shopping satisfaction can be improved by setting reasonable price, launching discount promotion activities and reducing the purchase cost of consumers (Man, 2021). A year later, Wu Yuanhao proposed in his research on the development model of community convenience stores based on the 4C marketing theory that the membership system under the new retail could help customers exchange membership points to reduce shopping costs, so as to improve customer satisfaction and strengthen customer loyalty (Wu, 2022).

In his research on Taobao in 2012, Ma Xiaopei believed that the main reason for Taobao's success is that Taobao conforms to the 4C marketing theory in product sales to a certain extent, pays attention to customer demand and improves the convenience of consumers' shopping activities (Ma, 2012). Scholars Shan Wensheng and Xie Ziyu showed in their research on Xiaohongshu brand communication and marketing strategy in 2021 that the operation of the platform should be simple and convenient to save time and cost for customers and pay attention to customer experience (Shan, 2021). Zhang Le in 2022 shows that convenience is an indispensable part of brand formation and customer value in the analysis of we-media marketing strategy taking "Dingxiang Doctor" as an example. Making it convenient for consumers to obtain commodity information and facilitate the way of purchase is the decisive factor for consumers to buy commodities (Zhang, 2022).

In their research on the marketing strategy of Xiaomi community in 2020, Urijasu and Xu Caisu proposed the use of 4C marketing theory to analyze its marketing strategy, and proposed to enhance customer engagement by strengthening information communication with consumers (Urijasu & Xu, 2020). Huang Yu in 2022, in his research on publishing markets in the era of all media, proposes to provide consumers with convenient consumption experience through three-dimensional and upgraded marketing channels (Huang, 2022). In the cross-border marketing analysis based on 4C theory in the same year, Leiliang proposed to understand customers' demands through communication and interaction with customers, and to enhance customers' affinity for brands through online and offline cross-border approaches (Lei, 2022).

## 2.3 Summary

From the existing research on 4C marketing theory, more and more attention has been paid to the research and application of 4C marketing theory. By using 4C marketing theory, enterprises have improved their focus on consumers. Based on the above existing studies, it can be seen that the use of 4C theory to adapt to consumers' growing demands is conducive to improving consumers' purchasing power and improving customer satisfaction by reducing consumers' shopping or use costs. In addition, customer loyalty can be enhanced by improving the convenience of shopping activities, operation and access to information, and customers can get a better sense of experience by

strengthening communication with customers. It is not hard to see that the 4C marketing theory can help us to analyze the marketing strategy and business model of Pinduoduo.

### **3. Method**

#### **3.1 Research Design**

Depending on their selection criteria, previous studies have employed various research methodologies. Wang in 2019 examined the competitive landscape of the Pinduoduo e-commerce platform using Porter's five forces model (Wang, 2019). In this essay, Pinduoduo will be studied using the SWOT approach. A SWOT analysis examines a person's or an organization's advantages, disadvantages, possibilities, and threats in connection to project planning or commercial competitiveness. Pinduoduo's marketing efforts have been evaluated using a variety of techniques, each having pros and cons. Utilizing qualitative case studies is a tried-and-true technique. Although the qualitative technique is a useful means of gaining insight into Pinduoduo's marketing strategy and the causes of its transition, the quantitative SWOT approach will be employed in this study. A simple 2x2 grid may be used to depict the results of a SWOT analysis, with one dimension expressing internal vs. external causes and the other exhibiting positive versus negative valence, according to Minsky, Laurence, and Aron, David in 2021 (Minsky et al., 2022). Prior to tackling the internal parts of the business, we should concentrate on the external factors to improve inventory collecting. The four categories of Pinduoduo's strengths, weaknesses, opportunities, and dangers will be thoroughly examined in this article as reported through 2021.

#### **3.2 Data Collection**

This essay will investigate the reasons behind the SWOT quantitative analysis model-based marketing strategy change at Pinduoduo, a Chinese e-commerce platform. By utilizing social media like WeChat for promotion, Pinduoduo, a revolutionary social e-commerce business, has quickly grown to become one of the three largest Chinese e-commerce platforms. And as a result of the economic expansion and the COVID-19 epidemic, Pinduoduo has started along the path of agricultural transformation.

#### **3.3 SWOT Analysis**

##### **3.3.1 Strengths**

Strengths describe what an organization excels at and what separates it from the competition. Limited by the development bottleneck, Pinduoduo is transforming to agriculture and community group buying business in order to expand its advantages.

Pinduoduo, which started with agricultural products and no brand products, has always targeted to the sinking market. It attracts users with its cost advantage and satisfies consumer demand with cost-effective products. The shift to agriculture and community group buying further amplifies this advantage. Direct links to farming production regions save time cost of users (e-commerce platform users & community group purchase users) and transportation cost of Pinduoduo. The 10-billion-agricultural project, which trains more people into agricultural talents, not only reduces the agricultural production cost but also improve the quality of the agricultural products, reducing the time and energy costs of consumers in the face of product quality problems. This increases the stickiness of the original sinking users, and attracts users in the middle and high-end market, especially in the context of the rising prices of agricultural products and takeout food under the epidemic.

During the epidemic, due to policy, many consumers are unable to obtain food for living. Pinduoduo vigorously develops its community group buying business and forms a synergy with its agricultural strategy. It promises to deliver fresh agricultural products within 48 hours during the epidemic, fully taking into account the urgent needs and desires of customers for food. During the

epidemic in Shanghai, according to some users, Pinduoduo became the only platform that could provide food within 24 hours when transportation was affected. This may be the reason why more and more consumers began to use Pinduoduo. In the first quarter of 2022, Pinduoduo's trading services, including commissions and Duoduo Mai Cai achieved a year-on-year growth of 91% with a revenue of 5.59 billion yuan (Industrial Securities Media, 2020).

Pinduoduo has been attracting users with various social marketing activities, such as "bargain for free", but such marketing tactics have been widely questioned, causing a crisis of consumer trust and deteriorating brand image. The transformation towards agriculture and community group purchase is a good time to change the corporate image. The launch of the 10 billion agricultural project enlarges Pinduoduo's advantages in cost, promotes the agricultural industry upgrading under the background of national agricultural digitalization, and shoulders corporate social responsibility. This helps Pinduoduo establish a good corporate image in the eyes of consumers. By making consumers believe that Pinduoduo is an enterprise that pays attention to product quality and has a sense of social responsibility, it can guide users to try some brand products, not limited to the previous agricultural products and no brand products, expand the mainstream products and user groups, and realize a positive and effective communication with consumers.

### 3.3.2 Weaknesses

Weaknesses are areas where the business needs to improve to remain competitive. Pinduoduo has been criticized in terms of reputation and product quality due to its low price and low value competition strategy at the beginning of its development. As a result, the growth rate of Pinduoduo's number of consumers has slowed down significantly in recent years and Pinduoduo cannot maintain its user stickiness. Although this strategic transformation is an effective communication with consumers that can help optimize the corporate image and improve the quality of agricultural products, Pinduoduo has the problems of "too many fake goods" and "poor quality" in other products, which makes many consumers take a wait-and-see attitude towards it. Moreover, good corporate image and high-quality agricultural products cannot be accomplished overnight. Therefore, the quality problems of products and the bad reputation are still the weaknesses that Pinduoduo needs to actively make up for in the future.

### 3.3.3 Opportunities

Opportunities refer to favorable external factors that could give an organization a competitive advantage.

Since the outbreak of the COVID-19, life services such as takeout are gradually transforming into online services. This not only boosts Pinduoduo's e-commerce business, but also brings opportunities for Pinduoduo's community group purchase business.

In terms of e-commerce business, as local governments have introduced measures such as the local Spring Festival, online shopping has become one of the ways for young migrant workers and rural parents to care about each other. A large number of gifts are sent to parents by express delivery, which stimulates the overall e-commerce market. Pinduoduo further expands its e-commerce market by matching its price level (cost advantage) with the consumption level of young migrant workers.

In terms of community group purchase business, affected by the epidemic, many regions have implemented home control policies, and consumers cannot go out to purchase daily necessities. This increases the demand for community group purchase business largely. Pinduoduo seized this opportunity to transform to community group buying business, realizing rapid distribution in the controlled area, and attracts consumers at all levels.

#### Improvements in macro environment

With the popularity of the Internet, the number of netizens and online shopping users is increasing year by year, and the consumer base of the e-commerce market is increasing. Combined with Pinduoduo's existing advantages as well as the disposable income and consumption level of Chinese residents, it is expected that more and more netizens will become Pinduoduo's consumers in the future.

With the continuous construction of e-commerce logistics, by 2020, 2120 county-level e-commerce service and logistics distribution centers and 137000 village-level e-commerce service stations have been built, basically realizing the full coverage of express logistics (Ministry of Commerce of People's Republic of China, 2020). This makes express delivery no longer an obstacle to consumers' online shopping. On the contrary, the increasing speed of logistics greatly improves the convenience of online shopping, enabling more and more netizens to become consumers in the e-commerce market.

Under the background of Rural Revitalization and agricultural modernization, The CPC Central Committee and the State Council attach great importance to rural e-commerce and have issued a series of policies to promote the development of rural e-commerce. This provides great convenience for Pinduoduo's agricultural strategy, helps solve the problems of the direct connection of agricultural production areas and agricultural talents, and promotes the industrial upgrading of agriculture and the improvement of transportation efficiency. Thus, the cost of purchasing agricultural products can be reduced, the convenience of purchase can be improved, and the needs of consumers for high-quality and low-price agricultural products are met.

### 3.3.4 Threats

Threats refer to external factors that have the potential to harm an organization.

Due to the outbreak of the COVID-19, the size of the community group purchase market has experienced explosive growth. However, in the post-epidemic era, people's life is gradually returning to normal, and consumers' demand for community group-buying may decline significantly. The growth rate of community group purchase scale slowed down significantly from 2020(111.8%) to 2022(15.9%) (Industrial Securities Media Industry, 2020). Once the quantity of community group purchase is difficult to maintain in the future, Pinduoduo will find it difficult to develop community group purchase business.

Although Pinduoduo launched the 10 billion agricultural project to improve food production, quality control, food safety and sustainability, the improvement of food quality cannot be achieved overnight. At present, Pinduoduo's food is mostly sold by farmers themselves, and the platform lacks control over the overall quality, especially that there are many no brand foods on Pinduoduo. Once the national attitude towards food safety changes and a series of strict food policies are introduced, Pinduoduo is likely to pay a high cost of quality control, which will affect consumer cost, consumer needs and corporate image (Communication) adversely

## 4. Result and Discussion

### 4.1 Results

In short, combined with its own advantages, Pinduoduo seized the opportunity of the external environment and policies, and is transforming to agriculture and community group purchase business gradually. Although there are defects in the internal management of product quality and corporate image as well as external threats of market tightening and policy risks, the ongoing transformation has been successful so far. The transformation helps Pinduoduo expand its existing cost advantages, enlarge its target consumer groups, and communicate with consumers effectively.

### 4.2 Discussion

Pinduoduo's transformation has improved consumer, cost, convenience and communication to some extent, but there are still deficiencies in these four aspects. Some suggestions for Pinduoduo's transformation are provided below.

In view of the trust crisis caused by too many marketing activities, the marketing tactics should be ameliorated. For example, small prizes or vouchers can be given to customers, even if the activity of bargain is not wholly reached, so that customers can have a certain psychological comfort. so that customers can have some psychological comfort. In this way, consumers' psychological expectations

are met, and the risk of word-of-mouth can be reduced. This can enhance the stickiness of existing users, improve the corporate image and achieve good communication with consumers.

For the problems of product quality, firstly, the platform should strengthen supervision, increase the control of product quality, and review the qualification of merchants to test whether their products meet the quality standards. At the same time, for food, user feedback channels should be set up. If customers have problems with food quality, they can feedback to the platform at any time for timely investigation and rectification. This can not only deal with the possible threats of food safety policies, but also improve the product quality on the platform and make up for the existing shortcomings, attracting more consumers.

In the post epidemic era, the number of community group purchase orders may be reduced. Faced with the threat of market contraction, Pinduoduo can try to cooperate with community stores by paying higher commissions so as to realize the agency retail of agricultural products in stores and improve convenience of consumers. In addition, Pinduoduo can consider building its own community group by utilizing the social relationship of the head of community buying group. And these groups should be operated and maintained by the staff of Pinduoduo platform so that the connection between consumers and the platform will be strengthened and stabilized, and better communication between enterprises and consumers will be reached.

## 5. Conclusion

This paper mainly studies the transformation of Pinduoduo's business model and its impact on consumers. It analyzes the internal and external factors during Pinduoduo's transformation, evaluates the impact on consumers by using the SWOT model and 4C marketing theory, and draws the following conclusions. In a changing environment, commercial companies should learn to have an insight of and seize external opportunities, such as epidemics or favorable policies, and then combined with their own strengths, like cost advantage or time efficiency, actively take proper measures to meet the changing needs of consumers, so that the company can maintain stable or even rapid development under such relatively changing economic environment.

This paper studies the transformation of Pinduoduo and puts forward relevant suggestions on the weaknesses and threats of Pinduoduo, hoping to help enterprises in the field of e-commerce make full use of their own advantages to achieve better respond when facing changing demands of market and consumers, accelerate the concept of social e-commerce marketing model transformation theory, and promote the sustainable development of social e-commerce. In addition, this paper reviews relevant literature and verifies the practicability of 4C marketing theory through the combined application with SWOT model. However, this theory has some insurmountable defects. A successful enterprise should not only see the needs of the consumers, but also pay attention to its competitors, or it is easy to over-rely on consumers and lose its own direction. Therefore, further improvements should be made to the 4C marketing theory to guide the strategic choice of enterprises comprehensively.

Although this paper takes Pinduoduo as an example to analyze the enterprise transformation and provide several optimization suggestions in order to facilitate the sustainable development of similar enterprises and the whole e-commerce field, there are still some limitations. On one hand, this paper is based on the author's own summary and analysis, which may be subjective, and is personal views and assessments; On the other hand, this paper mainly focuses on a series of changes during the epidemic, so it has certain limitations in the time period.

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