

# E-commerce Economy, Community Operation and Group Shopping: Based on the Theoretical Perspective of First-mover Advantage

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## ABSTRACT

This paper focuses on how to explain the theory of First-mover Advantage through the success of doing more. How does Pin Duo Duo stand out from the other two e-commerce platforms, Jing Dong and Tao Bao, which have achieved great success in China's e-commerce market? It is not hard to find that the success of Pin Duo Duo is determined by innovation, or the development of new markets. So we can explain the theory of First-mover Advantage in terms of Pin Duo Duo success.

**Keywords:** Pin Duo Duo; First-mover Advantage theory; Social E-Commerce

## 1. INTRODUCTION

Pin Duo Duo is a successful social e-commerce platform in China with its distinctive business model. Such success can be explained by the First-mover Advantage theory. According to the First-mover Advantage theory, Pin Duo Duo's advantage as an early mover is reflected in the following two innovations: The large-scale group-buying mode adopted by Pin Duo Duo is a major reason for its success. Under the marketing mode of traditional e-commerce, consumers seem to think that online shopping and offline shopping are almost the same. At this time, the emergence of group mode makes consumers bright at the moment, and participate in them. Pin Duo Duo shows the advantages of online shopping. Furthermore, Pin Duo Duo's choice of market is also a major innovation. While many enterprises tried to develop in the market already occupied by the two giants of Jing Dong and Tao Bao, Pin Duo Duo chose to sink into the market. To sell its products with the strategy of "the countryside encircling the city". This also shows that the first mover advantage theory is not only applicable to the former manufacturing industry, but also applies to the new industry today. However, there are certain problems: For Pin Duo Duo, such success is not expected, and for the First-mover advantage theory, it is not enough to explain only a successful new enterprise. This paper only combines the success of Pin Duo Duo with the theory of first-mover advantage. For other emerging industries, there is no

specific research on its feasibility.

First of all, before explaining the reasons for the success of Pin Duo Duo, we should first clarify what is the first-mover advantage theory. First-mover Advantage theory was proposed by Lieberman and Montgomery in 1988. This theory is based on the thoughts caused by market research and investigation: Can an enterprise form competitive advantage through the choice of market entry timing, or is there another source of competitive advantage, namely "first mover advantage" based on market entry timing? [1] Based on the above problems, scholars have explored and found the First-mover advantage, which is defined as the first to enter the market and sell new products. As time goes by, the definition of the first mover advantage has been continuously broadened, and now the concept of the first mover has been extended to the first to carry out product innovation. The first producer to produce a product or the first to expand the market, etc., has an innovative strategy. The concept of first mover advantage in this report refers to that an enterprise has priority to enter a new market so as to gain an advantage in competition with other enterprises. Earlier, Amazon, a foreign e-commerce platform, had already set a precedent: it launched the second retail revolution. This brings more and more e-shopping into people's view. This is undoubtedly the practice of the theory of first mover advantage: by entering the market first to gain more consumer attention, thus giving it an advantage in terms of customer resources. To sum up, it

is advisable to explain the development of Pin Duo Duo with the theory of first mover advantage. However, all the academic studies in the past have not explained why Pin Duo Duo can be combined with the first-mover advantage. Therefore, the main content of this paper is how Pin Duo Duo can explain the theory of first-mover advantage.

## **2. E-COMMERCE IN THE DIGITAL ECONOMY**

With the development of electronic network, eCommerce is a major product of its development. E-commerce refers to a business operation mode in which buyers and sellers carry out various business activities based on the Internet and realize consumers' online shopping, online trading and online payment, as well as various financial activities and related comprehensive service activities. [2] In China's eCommerce market, Jing Dong and Tao Bao can be said to be the two largest. Under such market conditions, Pin Duo Duo has developed at an amazing speed and quickly attracted the attention of consumers. On December 9, 2017, according to the latest eCommerce APP data released by Cheetah, The weekly active penetration rate of Pin Duo Duo, Tian Mao, Su Ning, Vip shop and Jin Dong is second only to mobile Tao Bao, ranking second among all eCommerce apps. [3] According to existing studies, Pin Duo Duo can quickly attract customers because of its innovation of value delivery chain. Pin Duo Duo value transfer can be divided into two modes: "B2C" value transfer chain and "C2B" value transfer chain. B2C is the operation mode of traditional retail and e-commerce, also known as spot mode, that is, merchants create product value through pre-production, sell through retail channels, and customers obtain product value through consumption. Another chain of value transfer is the "C2B" model, also known as mass customization model. In this mode, customers feedback their needs to the platform or manufacturer, so as to achieve production according to the customer's needs. [4] B2C and B2B are traditional eCommerce models. Pin Duo Duo combines B2C and C2B models. This is known as the group-purchasing model, in which the more people in a group, the lower the price of the product. Meanwhile, Pin Duo Duo's success is not only reflected in its innovative model. Pin Duo Duo's market positioning accurately targets consumer groups in third-tier and fourth-tier cities and finds the most suitable consumption platform for consumer groups with a large base. According to relevant data, there are 15 new first-tier cities and 49 second-tier or above cities in China, while other cities belong to the category of sinking market. According to incomplete statistics, the sinking market covers 95% of China's land area and covers nearly 1 billion people. Therefore, although the first and second tier cities have always been considered as the mainstream market by traditional eCommerce, the sinking market is worthy of the mainstream market in terms of

consumption potential and total number of customers. [5] To sum up, the success of Pin Duo Duo can be roughly divided into innovative group-buying mode and accurate grasping of market vacancies.

## **3. PIN DUO DUO: PIONEER OF COMMUNITY OPERATION MODEL**

Pin Duo Duo is also beginning to use the community eCommerce operation model. For the traditional e-commerce operation model, its focus is on how to let customers have better products. But the community operation model is more focused on logistics time. As the name suggests, faster delivery means more fresh food for the community business model. The community model has always made life faster: people don't even have to go downstairs to buy plenty of fresh food. At the same time, such a model can be said to be compatible with Pin Duo Duo because of its ability to attract customers, low cost. [6] For Pin Duo Duo, the cost of adding community operation mode does not need to be very high. Selectively allowing businesses with a community operation model to join can gain profits while gaining more consumers.

The community operation model also promotes the development of social eCommerce. Because the feedback of the client is the most important for the community operation mode, the community operation mode usually leads to more communication among customers in a community, which also promotes the development of social eCommerce. Such dialogue makes a shopping platform not only for shopping, but also to meet the social value of customers.

To sum up, the development history of Pin Duo Duo and the reasons for its success are clear. However, there is still a little deficiency: what kind of reasons can promote the development of Pin Duo Duo? If only relying on innovative business model, no publicity, then it is difficult to succeed.

Of course, Pin Duo Duo emphasized its group shopping mode in its initial publicity. Such a model is not new, Pin Duo Duo is indeed the first enterprise brave enough to use it on a large scale. Moreover, Pin Duo Duo also integrates social networking into traditional e-commerce, turning the traditional e-commerce platform into a social e-commerce platform. Pin Duo Duo is a model of social e-commerce platform. Social e-commerce refers to the social media situation using social networking sites, social media, network media, such as transmission way, using social media technology, business information interaction of human relationships, through social interaction and user content and methods to assist in the buying and selling of goods behavior of new type of electronic commerce. [7] In the social e-commerce platform, customers' demands can be fed back to the platform more quickly, so that the platform can have more accurate control over the sales quantity of

goods, so that the production cost will be further saved. Consumers can also get the following experience from social e-commerce: first, social value, shopping process itself can make consumers closer to their relatives and friends, even shopping itself is a social tool. At the same time, the entertainment value is extremely prominent. Shopping itself is entertainment, and Pin Duo Duo will provide customers with diversified shopping fun through various ways such as check-in and mini-games. The second is the experience value. Through red envelopes, haggling and other forms, PDD greatly increases the pleasure of consumers in the process of consumption. Finally, there is the sense of achievement. "Cheap in itself will not bring you fun, but the feeling of being cheap will stimulate your sense of achievement." [8] From the above four values, we can see that Pin Duo Duo consumption value is different from other platforms from the very beginning.

On this basis, Pin Duo Duo's propaganda slogan has changed from offline advertising to more detailed online promotion. With Tencent as an investor, wechat has played a crucial role in promoting Pin Duo Duo: by 2018, the number of active wechat clients had reached 10.98, covering nearly 78% of China's population, according to statistics. Wechat's public accounts, moments of friends, mini programs and other contact points are also the contents that almost every consumer will browse or pay attention to for a long time. Wechat mini programs cover more than 200 service industries, with daily per capita visits increasing 54 percent year-on-year in 2018. With the improvement of payment function, wechat has realized the complete consumption chain from user link, content release, mall display to payment function. [9] With such a large number of Wechat users, Pin Duo Duo is undoubtedly a most suitable platform for publicity.

#### **4. PIN DUO DUO: THE PERSPECTIVE OF FIRST-MOVER ADVANTAGES**

In the past, the theory of first mover advantage was more applied in the manufacturing industry, and how to operate production lines in a more efficient way to attract consumers was the main innovation point. Nowadays, with the rapid development of the Internet, a new economic model is also born. In such a new economic model, e-commerce occupies a larger share in the market, e-commerce enterprises will pay more attention to the development of new sales model and attract customer resources. Under such circumstances, can the theory of first mover advantage still explain the development of Pin Duo Duo? The first is the resource advantages. According to the resource-based theory, resources can be broadly divided into assets and capabilities or specifically including tangible assets, intangible assets and organizational capabilities. [10] For Pin Duo Duo, the accumulation of customer resources brought by occupying the market first is a huge advantage. At the

same time, Pin Duo Duo has also accumulated numerous business resources. After a large number of low-priced merchants were forced off the shelves by Jing Dong and Tao Bao, many merchants with cheap products could quickly connect to the platform of Pin Duo Duo, thus enabling Pin Duo Duo to quickly obtain merchant resources. Therefore, it can be seen from the accumulation of resources of merchants and consumers that Pin Duo Duo has a major advantage as a pioneer. Secondly, the cost advantage is also a major factor that Pin Duo Duo can have such a good reputation. By reducing the production cost to make a product to achieve the reduction of unit cost, so as to maximize the profit of the enterprise, which not only ensures that the loss of the enterprise will be minimized, but also allows customers to enjoy more affordable products. [11] While other platforms are pursuing high quality, Pin Duo Duo chooses to compete with them in a low-cost way. Such a strategy is undoubtedly extremely challenging. Pin Duo Duo's control of product price gives Pin Duo Duo another advantage as a pioneer.

To be specific, Pin Duo Duo's resources not only come from the investment of various enterprises behind it, but also because of the attractiveness of its platform. After Jing Dong and Tao Bao remove a large number of low-price merchants from the platform, many low-price merchants only have to raise their prices or find another platform. However, under the situation that Jing Dong and Tao Bao are dominant, it is difficult to find another platform. The emergence of Pin Duo Duo makes a large number of low-price merchants have a reliable platform. For the platform itself, there is already a considerable amount of merchant resources. For merchants, the emergence of platforms has given them the possibility to continue operating. How to attract customer resources is also an important problem when the merchant resources already have a certain foundation. Pin Duo Duo also has its own unique strategy: group purchase mode. Group-purchasing is not a new concept, but a lot of spelling is the first to spell group shopping mass used in practice and innovation of the electric business platform, the use of the principle is "more purchase, more discount", similar to what we often said "wholesale", merchants meager profit but high turnover, customers get more preferential, when low prices so as to achieve a win-win situation. [12] As Pin Duo Duo is the first enterprise to apply the group-buying mode into practice on a large scale, it can be known that Pin Duo Duo can obtain a large number of customer resources in the first time by taking advantage of first-of-all resources. At the same time, it is also Pin Duo Duo's specific advantages as a pioneer.

#### **5. PROBLEMS AND MEASURES**

The great success of Pin Duo Duo in the rapid development of these years is undoubtedly amazing, but there are still some problems: First of all, the product

price is too low, the traditional retail enterprise in the marketing prices usually give priority to in order to compare prices, with the lowest price to get the favor of consumer market, and under the background of electronic commerce, e-commerce mode prompt enterprise will face a global market, at the same time facing the globalization of competition, so how to use information advantage of electronic commerce to bring huge market pricing, the reasonable price advantage in the price of enterprises under the background of e-commerce marketing a key to gain a competitive edge. [13] to ensure the goods cheap enough to attract businesses, but a large number of product quality problems really worrying, Even many products can only be used as disposable products. Secondly, inductive publicity is easy to lose the trust of customers. Pin Duo Duo often uses various gimmicks to attract customers, which seems to be an effective way, but may not be long-lasting. All the prerequisite of cutting a knife or buying 0.1 yuan is to forward it to enough Wechat friends and ask them to click the link for help to complete the bargain. But as the number of clicks needed to bargain increases, more and more people will give up if they find they can't get those clicks. Then more and more customers will leave.

Therefore, the future development direction of Pin Duo Duo needs to be discussed. In the author's opinion, first of all, if the platform needs to improve the quality of products, it must raise the threshold for merchants. The threshold needs to be set at a low price that most merchants can accept. At the same time, the platform needs to accept more constructive suggestions from customers and modify them according to their needs, so as to ensure customer repurchase. At the same time, for inductive publicity, the platform can make the price of one cut too high, so that consumers can have a concept of the lowest price of a product, so as to avoid many customers' high expectations of low price inconsistent with the actual price, resulting in customer loss.

At the same time, it is also an efficient solution to improve the group mode. Give more opportunities to merchants, and promote all commodities. For goods with high sales volume, it can be put on the home page for push, for goods with low sales volume, it can be put on the later position of the recommendation page, but consumers need to see it before deciding whether to buy. This will not only allow consumers to see more products, but also allow merchants to spend more experience operating on the platform.

## 6. CONCLUSION

In the group buying model, consumers can get products at a lower price. At the same time, for most customers want to buy almost all products can be grouped. Group mode attracts a large number of consumers for shopping. After having a consumer group, Pin Duo Duo can use the existing customer group to carry out more

publicity. It is undoubtedly an extremely efficient way for Pin Duo Duo to send the link of the group to friends around. Pin Duo Duo not only gains more customer groups but also does not need to spend more advertising. For Pin Duo Duo, the main purpose is to acquire customers at a relatively low cost and consume them. For consumers, if the friends around do not want to participate in the group, then customers themselves do not need to worry too much, other customers who need to buy goods will also participate. This is a considerable guarantee for customers. Almost all goods in Pin Duo Duo are lower than the price of Tao Bao goods. At the same time, in the case that consumers have a greater sense of experience, the platform can also determine which commodities will be grouped more and which commodities will be grouped less according to the clustering data. With such feedback speed, consumers do not need to fill in any information, they need to do in the group purchase to find their favorite products.

The operation mode of large-scale group-purchasing is also challenging: for the company, such an operation mode is bound to incur great losses. How to retain merchants and consumers is a major issue that the platform needs to consider.

For the company, if the initial group purchase model continues, continuous losses will certainly make the company into a dilemma. However, as one of the features of Pin Duo Duo, it would be a loss for the company if Pin Duo Duo were simply abandoned. This has become a major problem for the sustainable development of Pin Duo Duo.

Similarly for this article, Pin Duo Duo, as a unique enterprise, its data universality may be relatively small. If only this enterprise is investigated, then the conclusion may not be applicable to all other enterprises, especially for the high-speed development of the Internet, a variety of marketing modes will be explored, and may even be an unexpected way. The theory of first mover advantage may be extended in new models.

For the issues raised in this article, there is a lack of interviews with business leaders. This makes it impossible to have a deeper understanding of Pin Duo Duo's future planning for gambling. For Pin Duo Duo, many loopholes need to be improved. Such perfection is not easy, perhaps a few mistakes will be infinitely magnified by consumers. Under such circumstances, Pin Duo Duo needs to be extremely careful to maintain its existing achievements. There is no way to interview strategic leaders, which makes it impossible to think about how to improve the community operation mode from a strategic latitude at the present stage.

For Pin Duo Duo, if it can maintain its current base of large numbers of consumers in third-tier and fourth-tier cities in the future, it will undoubtedly be easier for Pin Duo Duo to tap into potential high consumer groups. In

this way, when the market covers consumers from the first to the fourth tier cities, Pin Duo Duo will certainly enhance its own strength. However, the problems that Pin Duo Duo may encounter in the future are the key to Pin Duo Duo's development. The group-buying model is a huge loss for the company. Furthermore, the induced publicity brings traffic to the platform, but also is not conducive to the long-term development of Pin Duo Duo. Pin Duo Duo needs to develop other ways to make up for losses in the group model. That pattern is hard to replace. The best way to deal with this is to develop new ways to minimize this loss.

For short video platforms, the growing traffic also sees business opportunities for short video platforms. More and more e-commerce platforms or big brands are looking for vloggers on short video platforms to represent them. In today's situation, celebrity endorsement is not the only way to let the masses know about products. For bloggers with a large fan base, their traffic on short video platforms even exceeds that of some stars. At the same time, many stars also began to broadcast live and endorsed products for major businesses in the live broadcast. The increasing ways of publicity provide many opportunities for major e-commerce platforms. But it also makes the competition more intense. Major enterprises also need to focus more on how to effectively advertise their products.

Enterprises need to think about what kind of vloggers are suitable for what kind of products and how to publicize them so as to stand out from the competition. This is certainly another area that has never been explored before. For the eCommerce industry, is an extremely challenging combination. The combination of social eCommerce and short video platform with other factors may be a new development direction, or eCommerce may also develop into another model that has nothing to do with video platform and cannot be combined.

## REFERENCES

- [1] Youlan. Another Source of Competitive Advantage - "First mover Advantage" Based on Market Entry timing [J]. *Economic Management*, 2003(4):5.
- [2] Quan Miao. Analysis of Mobile E-commerce Network Marketing Strategy [D]. Chang 'an University. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD201802&filename=1018815521.nh>
- [3] Ding Yu. Social E-commerce of Pin-Duo Duo Curves overtaking [J]. *Shanghai Information Technology*, 2018(3):3.
- [4] Xie Keke. Research on marketing Strategy under the business model of social E-commerce ----- Take Pinduoduo as a case [D]. Shanxi University. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202101&filename=1020626741.nh>
- [5] Li Wei, SUN Liang. Research on business Model of community Group purchase [J]. *E-commerce*, 2020(8):3.
- [6] Zhu Xiaodong, Chen Jie. Review of Social E-commerce research in China [J]. *Modern Information*, 2016, 36(1):6.
- [7] Xu WENhui. Marketing strategy analysis of Pinduoduo [J]. *Modern Commerce & Trade Industry*, 2018, 39(33):2.
- [8] Wu Ruixia. On Maintaining The Competitive Advantage of Retail Enterprises in e-commerce Environment -- Based on the Perspective of Marketing Strategy Innovation [J]. *Journal of Business Economics*, 2016(12):3.