

Fission-like Expansion of Consumer Groups: The Market Form of the E-commerce Platform "New Retail"

——Take Pinduoduo as an Example

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Abstract: In the wave of the Internet economy, the use of effective marketing strategies is particularly important for new e-commerce companies. Taking Pinduoduo as an example, based on literature analysis and case analysis, this paper concludes that Pinduoduo uses fission marketing to rapidly expand user clusters and improve user viscosity through various fission marketing activities, successfully shaping a low-cost and affordable brand image. Although fission marketing has shortcomings such as excessive dissemination of information and security risks of leaking users' personal information, it is still an important reason for Pinduoduo's success. Based on the negative impact of fission marketing, this paper argues that e-commerce platforms should first control the excessive dissemination of information and improve the protection of user information, and secondly, each enterprise should formulate a fission marketing plan according to its own specific conditions. Finally, this paper puts forward ideas for the in-depth study of fission marketing theory.

Keywords: e-commerce platform, Pinduoduo, fission marketing

1. Introduction

With the development of Internet technology, the Internet economy has gradually developed and expanded. In 2017, online shopping accounted for 20% of total consumption; in the overall retail industry, the online retail industry accounted for 22.5% of the share [1]. Among them, Ali and JD.com have become the two giants of the industry. JD.com's net income in the second quarter of 2023 reached RMB25.33 billion; Alibaba Group's net income in the first half of the year was RMB412.731 billion. In a competitive market, with fission marketing as the core marketing strategy, Pinduoduo opened up the market and developed rapidly, growing into a giant in China's e-commerce industry.

Fission marketing refers to the process of using the relationship between consumers to market through consumer interaction, joint participation, and influence of words and deeds. At its core, fission marketing is profit-driven. That is, by giving consumers certain rewards or satisfying certain needs, they are encouraged to share products or services to other potential consumers, so as to achieve

the dissemination and sales of products or services. The effectiveness of fission marketing depends on several factors. Such as the quality and attractiveness of the product itself, traffic and rules for the platform used to share the product, the creativity and value of the content shared, trust and relationships between sharers and receivers, among other factors [2-6].

By analyzing Pinduoduo's marketing strategy with fission marketing as the core, this paper explores how it survives and grows when its market share is close to saturation. This paper can also deeply understand the operation mechanism and influencing factors of fission marketing in the social network environment, and provide new perspectives and cases for fission marketing theory. In addition, the relationship between fission marketing and user psychology is explored, and various incentives and influences received by users when participating in fission marketing are analyzed, so as to provide new ideas and data for user behavior research. On the other hand, by evaluating the advantages and disadvantages of Pinduoduo as a social e-commerce platform in market competition, it provides reference and suggestions for the future development of Pinduoduo. This article can also learn from the strategies and methods adopted by Pinduoduo in fission marketing, and provide reference and inspiration for other enterprises or individuals who want to use social networks for fission marketing.

This paper adopts the literature analysis method and case analysis method, takes Pinduoduo's fission marketing as a case, analyzes the relevant views of the existing literature, conducts causal arguments based on marketing theory, and discusses the impact and results of Pinduoduo's use of fission marketing. At the same time, it also paid attention to the analysis of the disadvantages of fission marketing and deeply considered the reasons why Pinduoduo still adopts this strategy.

2. Literature Review

The so-called fission marketing is based on the strengthening of traditional sales terminal promotion, and integrates the methods and concepts of new marketing methods such as relationship marketing, conference marketing and database marketing [6]. In recent years, with the great success of WeChat social marketing and e-commerce platforms represented by Pinduoduo, fission marketing, which is the core of their marketing concept, has attracted more attention.

The published literature believes that fission marketing is a marketing method that uses users' social networks and psychological needs to achieve rapid dissemination and growth of products or services, which is very suitable for the development trend of mobile Internet and sharing economy [2-6]. The article also points out that there are many models of fission marketing, and which model to adopt needs to be selected according to the merchant's own conditions and target customer characteristics [6]. At present, WeChat marketing is currently the most advantageous fission marketing platform due to the foundation of the social circle of acquaintances [5]. Some scholars pointed out that when using the fission marketing model, attention should be paid to not only increasing the stickiness of users, but also ensuring the health of social ecology and protecting users' personal privacy [4].

However, the published literature does not fully consider the external environment and competitive pressure faced by Pinduoduo fission social marketing, and pays more attention to internal factors. And there is a lack of analysis of the fundamental problems and long-term goals that Pinduoduo fission social marketing needs to solve, but only some superficial and short-term improvement measures are proposed.

3. The Development Process and Current Situation of Pinduoduo

Pinduoduo was officially launched in September 2015, founded by former Baidu executive Huang Zheng, positioned as a social e-commerce platform, mainly for users in third- and fourth-tier cities

and rural areas, providing low-priced, preferential and convenient shopping services. Pinduoduo initially mainly relied on WeChat mini programs as the entrance, using WeChat's huge user base and social attributes to quickly attract a large number of users and accumulate a number of seed users. During this period, Pinduoduo mainly promoted haggling activities. This activity hits the price demand of customers and leverages its vast social network, allowing users to actively spread the platform's information and offers to more people, thus achieving user growth and order growth. In 2016, Pinduoduo began to promote fission marketing on a large scale, allowing users to actively share links, invite friends, initiate groups and other similar ways through various forms of rewards and incentives, to spread the platform's information and offers to more people. Because users actively participate in and share the activities of the platform, user stickiness and activity have been greatly improved. Pinduoduo also increases users' sense of fun and participation by designing interesting interactive experiences. For example, the fruit farm activity, which allows users to get real fruits for free by planting virtual fruits and inviting friends to water, users actively interact with the platform and friends to increase user fun and establish brand reputation. These fission marketing methods have enabled Pinduoduo to achieve amazing user growth and market share in a short period of time. Pinduoduo was successfully listed on NASDAQ in July 2018, becoming the fastest company to go public in the history of e-commerce in China.

Since 2019, Pinduoduo has been upgrading its brand and strategic adjustment, transforming from a simple social e-commerce platform to give itself the attributes of a technology research and development-based e-commerce platform. At the same time, Pinduoduo has increased investment and support for the agricultural industry chain, launched "Agricultural Goods Festival", "Tens of Billions of Subsidies" and similar activities, and improved the platform's product quality and brand image. Pinduoduo has also begun to expand its market to first- and second-tier cities and high-end users, providing more abundant and efficient e-commerce services.

There are also some problems in the development of Pinduoduo. On the one hand, due to the price advantage, the product quality is uneven; On the other hand, fission marketing has led to the excessive dissemination of information to a certain extent, affecting the user's consumption experience.

4. Success Factors for Pinduoduo's Fission Marketing

4.1. Use WeChat As a Platform to Carry Out Fission-Type Expansion of Consumer Groups

As a mature social platform, WeChat has a large user community and relatively good operation. By 2023, WeChat users will reach 1.26 billion. Pinduoduo uses WeChat's social attributes to allow users to obtain coupons, cash red envelopes and even free goods by sharing goods, inviting friends, participating in grouping, haggling and other similar activities. This strategy applies pricing in the 4P theory to amplify the price advantage, so these rewards in turn attract more users to Pinduoduo's platform. Pinduoduo also flexibly uses WeChat groups to establish user communities and increase user stickiness and activity, thereby further expanding the scope of fission [2,7]. At the same time, Pinduoduo also avoids the use of WeChat sensitive words, such as "follow", "receive", "click" and other similar words, to avoid being blocked or banned by WeChat.

4.2. Fission Marketing in Line with Consumer Behavior and Psychology

The consumer buying behavior process includes identification-search-comparison-decision-making. Pinduoduo influences every stage of the consumer buying process based on fission marketing. First of all, Pinduoduo selects the target market based on STP theory, pays attention to third- and fourth-tier users, and gives full play to the different characteristics from JD.com and Ali [1]. Pinduoduo's target users are mainly price-sensitive groups, so Pinduoduo adopts the C2M model to directly connect consumers with manufacturers, reduce middleman profits, thereby reducing product prices.

This model also satisfies the user's desire to save and belong [8]. In the purchase process, Pinduoduo strengthens users' purchase motivation and participation motivation by setting various reward mechanisms. In order to influence the decision-making process of consumers by enhancing the herd psychology and competition psychology of users, Pinduoduo adopts social fission strategies such as multi-person group haggling and helping free groups.

4.3. Improve User Loyalty and Retention and Form Brand Image

Pinduoduo seeks long-term development in the highly competitive market, focusing on increasing customer stickiness and eventually forming a brand image. Pinduoduo pushes users with different consumption preferences and styles through big data analysis, optimizes the shopping process and operation steps, reduces users' online shopping costs, improves the convenience of online shopping, and provides users with high-quality logistics and after-sales service, ultimately gaining the trust and reputation of users [1,9]. The implementation of these strategies has greatly increased users' willingness to recommend and repurchase, and Pinduoduo has thus obtained a more solid loyal user cluster. In order to form a brand image, Pinduoduo launched commercial advertisements in multiple locations, including media publicity, online live broadcasting, etc., which deepened consumers' psychological impression of the brand.

5. The Impact of Pinduoduo's Large-Scale Fission Marketing

5.1. Positive Impact

Pinduoduo has formed its own brand characteristics by fission marketing, successfully created a cheap and affordable brand image, established brand reputation and improved its influence, and further improved user trust and satisfaction. At the same time, based on the high efficiency and low cost of fission marketing, Pinduoduo has expanded its user base and gained a group of loyal fans, with a geometric growth rate. From 2018 to 2020, the number of active buyers of Pinduoduo has almost doubled from 418.5 million to 788.4 million [10,11,12].

Based on diversified integrated fission marketing, Pinduoduo's operating income has increased significantly since its establishment. And from 2018 to 2020, its operating income has increased from 13.12 billion yuan to 59.49 billion yuan, an increase of more than 300% [10,11,12]. Finally, under the diversified marketing with fission marketing as the core, Pinduoduo enhanced the platform value, attracted large investment, and provided financial support for the subsequent transformation. For example, on April 11, 2018, Pinduoduo obtained D round financing of US \$1.369 billion, accounting for 11% of the shares, with a total valuation of US \$12.445 billion. The investors were Tencent Investment and Sequoia Capital China [10].

5.2. Negative Impact

5.2.1. Loss of User Favorability and Trust

Although Pinduoduo's fission marketing has achieved great success, it is not perfect, and its essence is to use the acquaintance chain between users. According to the data in the paper "Research on the Effect of User-Based Pinduoduo Social Fission Marketing", the overall average score of Pinduoduo in terms of user satisfaction is 2.6 from satisfaction to dissatisfaction. It can be seen that user satisfaction is generally low. In terms of user feedback, 77.18% of users think that bargaining activities consume patience. 74.5% of users believe that fake activities will reduce consumers' trust in the platform [8]. In this case, users' favorability and trust will decrease with the increase of sharing times, which will have a negative impact on Pinduoduo's brand image and word-of-mouth. This

phenomenon can be explained by the social exchange theory, that is, people will decide whether to continue the exchange relationship according to their own costs and benefits in social interaction. If users feel that their costs outweigh the benefits, for example, sharing activities bring more trouble to their friends than the benefits they get, they will reduce or stop sharing behaviors, and even turn against the provider, Pinduoduo.

5.2.2. Potential User Loss and Illegal Problems

Security risks of users' personal information may lead to potential user loss and illegal problems. Pinduoduo's fission marketing is highly dependent on social platforms and generally requires users to share links or invite friends to participate in activities through social platforms such as WeChat, which usually leads to the abuse or leakage of users' personal information and brings potential risks to users' privacy security. For example, some criminals may use Pinduoduo's activity links to phishing or fraud, or obtain sensitive information such as users' consumption habits, preferences and locations by analyzing users' shared data. In this case, users' personal information security will be threatened, resulting in a decline in users' trust in Pinduoduo. People have certain control and protection needs for their personal information. If users feel that their personal information has been violated or leaked, their low trust in network companies will decline sharply, and then reduce or stop using relevant services, which will inevitably lead to user loss, and increasingly stringent laws and regulations. For example, the implementation of the GDPR will lead to more serious illegal problems [13].

5.2.3. Lack of User Engagement and Loyalty

Pinduoduo's fission marketing mainly relies on WeChat, which is a huge traffic entrance, but it makes it difficult to establish its own independent traffic pool and user relationship while reducing the basic cost. Some users download Pinduoduo just to participate in activities to obtain low-priced goods, but do not really become loyal users of Pinduoduo. Once other marketing activities occur, they are easy to be sucked away by other platforms or channels. For example, according to the customer relationship management theory proposed by Gartner Group, enterprises need to improve customer satisfaction and loyalty by establishing and maintaining long-term and stable relationships with customers. If users feel that there is a lack of interaction and communication between themselves and service providers, they will reduce or stop using relevant services, or even change service providers [14]. In this case, the stickiness and loyalty of users will decrease with the end of the activity, and the lack of loyal customers will lead to the lack of elements for stable development of Pinduoduo.

5.2.4. Increase in Operating Costs and Risks

Finally, and most fatally, fission marketing requires a high level of resource input, which increases operational costs and risks. Pinduoduo needs to invest a lot of capital and human resources to design, implement, monitor and optimize various activities, and even bear certain legal risks and public opinion risks brought by the activities, such as suspected violation of anti-monopoly law, inducing consumer misunderstanding and violating consumer rights and interests. It can be seen from the financial statements of Pinduoduo during its expansion period that from 2016 to 2018, the total revenue accounted for 33.5% to 102.5% of sales and marketing expenses, barely breaking even, not counting other investment and maintenance expenses. In 2018, the total revenue of Pinduoduo was 13.12 billion yuan, while the total expenditure reached 23.91 billion yuan. Such huge operating costs mean rapid increase in liabilities and greater risks [10].

6. Recommendations

6.1. Simplify the Procedure and Optimize the User Experience

E-commerce platforms should adhere to the principle of user first and try their best to optimize user experience. They need to simplify the operation process in mini programs, provide clear guidance or tips, and increase interaction and feedback. In that way, platforms can reduce the difficulty and threshold of user participation, further improving the conversion rate and retention rate. User experience is one of the important factors that affect the success of fission marketing. If users encounter complex and tedious or unclear and unclear operation steps when participating in the activity, they will feel frustrated or confused and give up the activity. Therefore, it is necessary to optimize the interface design and function Settings of mini programs, so that users can easily and quickly complete activities, and at the same time provide users with timely feedback and rewards, so that users can feel a sense of achievement and satisfaction, so as to increase user engagement and loyalty.

6.2. Strengthen the Protection of Users' Personal Information

E-commerce platforms should pay attention to improving user privacy policies and agreements. They also need to let users know how their personal information will be used and protected with clear warning signs, and strengthen the protection and management of users' personal information. It is necessary for platforms to promote the construction of information database firewall, and improve users' sense of security and trust. E-commerce platforms can adopt a more secure and reliable technical punishment mechanism to prevent users' personal information from being abused or leaked; An effective complaint and feedback mechanism can be established so that users can be solved in time when they encounter problems, thus reducing user churn.

6.3. Targeted Improvement of Brand Services

To solve the problem of user stickiness and lack of loyalty, e-commerce platforms can strive to improve their brand value and service quality, and create users' sense of identity and loyalty as platform fans. At the same time, by strengthening the publicity and display of their core advantages and features, users can understand the reasons and benefits of choosing this platform. It can constantly optimize its product functions and service processes, so that users can enjoy a more convenient and comfortable shopping experience. Platforms can establish a closer and lasting customer relationship, so that users feel more intimate and professional service. Most importantly, the platform should choose the fission model that suits its product and target audience, not blindly follow the trend or copy the gameplay of other platforms. Different products and users have different needs and preferences, so it is necessary to design a suitable fission scheme according to their market positioning and competitive strategy. At the same time, platforms should pay attention the analysis of data and effects, constantly adjust and optimize the fission strategy, and find the most suitable fission method and parameter setting for themselves. This can improve the targeting and effectiveness of fission marketing and avoid wasting resources and time.

6.4. Look for Sustainable Marketing Model

Every e-commerce platform must find a more reasonable and sustainable marketing model and strategy, so as to reduce its own cost pressure and risk taking. For example, data analysis and market research can be used to find out the most potential and valuable target customer groups and improve marketing efficiency and effectiveness. Partners and third-party platforms are also an important part

of the industrial chain, which can be used to expand their own traffic sources and channels and reduce their dependence on social platforms such as WeChat. Platforms should also strictly abide by relevant laws and regulations and social ethics to avoid possible legal disputes and public opinion crises.

6.5. Design Reasonable Incentive Mechanism

Incentive mechanism is the core element of fission marketing, which can stimulate the participation motivation and behavior of users. E-commerce platforms can ensure the quality of users while attracting more users by designing reasonable incentive mechanisms. Adhering to the incentive and controlling the "degree" of the incentive mechanism can make users feel the value and significance of sharing or invitation, so that users can always maintain the interest and motivation to participate in activities, improve the participation rate and conversion rate of fission marketing, and avoid malicious orders or low-quality users caused by excessive rewards.

6.6. Reduce User Social Costs

E-commerce platforms should also consider users' social costs and try their best to adopt schemes that can preserve or increase the value of users' social relationships, such as providing interesting, useful and valuable content or experience, so that users do not think there is a problem of "losing face," so that they are more willing to share with their friends. If the social cost is too high and affects the original social relationship, users will reduce or stop sharing or inviting behavior. Therefore, it is necessary to provide attractive or valuable content or experience to reduce the social cost of users, so that users feel that sharing or inviting is a kind of help or contribution, rather than a kind of interruption or exploitation.

7. Conclusion

With fission marketing as the core, Pinduoduo has embarked on a completely different path from the traditional e-commerce platform and achieved success, which merits a profound analysis. This paper uses the literature analysis method and case analysis method to analyze the case of Pinduoduo, and proves that the fission marketing makes Pinduoduo achieve the success today. It analyzes the positive impact of Pinduoduo's use of fission marketing, including forming brand characteristics, shaping brand image, establishing brand reputation, etc., which further improves user trust, increases operating income and expands the scale of the company through financing. The negative impact mainly includes the loss of user goodwill and trust, the security risks and derivative problems of user personal information, the lack of user stickiness and loyalty, and the increase of operating costs and risks. Finally, it gives some suggestions for the future e-commerce platforms to adopt similar marketing strategies. They should simplify the procedure and optimize the user experience and strengthen the protection of users' personal information. Moreover, they are ought to improve targeted brand services and look for sustainable marketing model. They also need to design reasonable incentive mechanism and reduce user social costs. This paper promotes the research on the purchasing behavior process of consumers, and also adds cases about fission marketing, which helps e-commerce platforms better apply the effective strategy of fission marketing.

At the same time, this paper focuses on the pros and cons analysis of fission marketing, without considering the changes of external environment and competitive pressure, and less considering the impact of other marketing strategies adopted by Pinduoduo on its development. In the future, more comprehensive data can be collected, supplemented with interviews and other research forms to further study the theory of fission marketing. A more comprehensive analysis of the deep reasons for the success of the new e-commerce platform represented by Pinduoduo.

Authors Contribution

All the authors contributed equally and their name were listed in alphabetical order.

References

- [1] Tang, J.T. (2023) *Research on Marketing Strategy of Pinduoduo E-commerce Platform*. Shanghai Commerce, 04, 42-44.
- [2] Zhang, C.L., Zhang, X.S., Zhu, L. (2022) *Core Logic Analysis of Pinduoduo's Cracking Social Marketing*. China Collective Economy, 699(07), 63-64.
- [3] Gao, W.H., Meng, Y.Y., Xiao, N. (2022) *The Impact of Fission Marketing on Users' Purchase Intention: A Case Study of Pinduoduo Bargaining Activity*. Brand Marketing, 23, 11-13.
- [4] Pang, Y.Y. (2019) *Social Fission, A New Model of E-commerce Marketing*. Financial Expo (Fortune), 01, 76-77.
- [5] Liu, S.H. (2019) *Ningbo Economy (Financial View)*, 495(05), 60.
- [6] Wang, Z.C., Wang, X.L. (2022) *Sharing Economic Fission Marketing Model under Study*. China Business Theory, 866(19), 126-128.
- [7] Chen, Y.F. (2023) *Research on Marketing Strategy Based on Consumer Psychology and Purchase Behavior in E-commerce Consumption Environment*. 06, 117-120.
- [8] Chen, X.J., Li, Y.Z. (2023) *Research on the Effect of User-based Pin-duo Social Rift Marketing*. Media Forum, 6(15), 55-58.
- [9] Guo, X.Y. (2023) *Discussion on Marketing Strategy of Retail Enterprises in Digital Economy Times: Taking Pinduoduo as an Example*. Chinese Business Theory, 12, 36-39.
- [10] PDD Holdings, 2018 Annual Report, April 24, 2019, <https://investor.pddholdings.com>
- [11] PDD Holdings, 2019 Annual Report, April 25, 2020, <https://investor.pddholdings.com>
- [12] PDD Holdings, 2020 Annual Report, April 30, 2021, <https://investor.pddholdings.com>
- [13] Anant, V., Donchak, L., Kaplan, J., Soller, H. *The consumer-data opportunity and the privacy imperative*. April 27, 2020. <https://www.mckinsey.com/>
- [14] Buttle, F., Maklan, S. (2015). *Customer Relationship Management: Concepts and Technologies (3rd Ed.)*. Routledge.