

Strategy analysis of e-commerce enterprises under the COVID-19 pandemic

-- A case study of PDD

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Abstract. Due to the emergence of COVID-19 and the rise of the digital economy, the economic environment and trade patterns have completely changed, which has a significant impact on the development of domestic e-commerce enterprises. In this case, the formulation of a scientific enterprise strategy has become the key to the transformation and upgrading of e-commerce enterprises and their maintenance and development. This paper will take PDD, a large domestic e-commerce platform, as a case study and SWOT model as a qualitative indicator to gradually analyze its internal competitive advantages and disadvantages, external development opportunities, and competitors. The financial data of PDD are used as quantitative indicators to analyze its solvency, operating ability, profitability, and future growth trend; To explore the rationality and shortcomings of Duoduo's current corporate strategy from both qualitative and quantitative perspectives. Through the research, it is found that although the existing strategy of PDD enables the enterprise to obtain greater competitive advantages and good solvency and operation ability, it fails to help the enterprise improve the currently low profitability and break through the growth bottleneck, which leads to a slight decline in the investment value of PDD and the profitability method is not favored. Based on the development opportunities of PDD, this paper will put forward suggestions for the improvement of enterprise strategy to help enterprises successfully transform and upgrade.

Keywords: COVID-19; SWOT model; Financial Analysis Model; Strategy; PDD.

1. Introduction

In the context of the long-lasting COVID-19 impact, the direct adverse effects of the pandemic on enterprises, especially retail enterprises, such as supply chain interruption from the supply side and the lack of total demand caused by the decline in people's income on the demand side, have caused traditional retail enterprises to face operational crises. Under this circumstance, formulating a reasonable business strategy is the key to the sustainable development of the retail industry, and this problem has attracted more and more attention from the market.

Taking Yonghui Supermarket as an example, digital transformation with big data and artificial intelligence as the primary measure is the main strategy they are approaching. Whether at the level of supply or demand, the enterprise completes its transformation and improvement by taking advantage of the pandemic's influence under the digital strategy's guidance. Yonghui Supermarket uses intelligent software such as "Tencent Smart Retail" consultation circle, methods such as big data analysis, customer penetration rate, and digital labor to improve the operating rate of the enterprise with the optimization of the supply chain from better route selection and inventory arrangement, and the improvement of labor efficiency. Yonghui Supermarket to achieve a revenue of 27.243 billion RMB in the first quarter of 2022 with year-on-year growth of 3.45% and an operating cash flow of 2.589 billion RMB with a year-on-year increase of 80.02%. It also has a year-on-year growth of 10.1% for the net profit in the first half of 2022.

From this point of view, a reasonable business strategy is crucial to the development of an enterprise. The definition of business strategy mainly refers to forming the core competitiveness of products under different environments according to the characteristics of its own resources and standing out in the market through differentiation. Among all functions of a successful business strategy, its primary highlights are competitiveness and environmental adaptability. Yang Weilong and others believe that the essence of corporate strategy is a game, and the so-called business strategies without competitiveness can only be regarded as business plans that will not practically benefit companies in competition. On the other hand, environmental adaptability is the basis for establishing a business strategy. Because changes in the external environment will affect the shifts in competitive advantages in the market, and only business strategies that can effectively utilize the competitive advantages can help companies stand out from the competition, the adaptability of corporate strategies to the environment is essential.

This research will mainly focus on the case study of PDD's business strategy and will analyze and evaluate the highlights and shortcomings of the strategy. Based on the analysis, suggestions will be made on how to make better business strategies for similar retail enterprises. The main research approaches of this paper are qualitative research based on the SWOT analysis model and quantitative data on PDD's financial indicators and stock price analysis.

2. The data of PDD

In recent years, due to the technological advancement in online payment systems in China, the e-commerce industry expanded significantly, and it continues to grow as COVID-19 still imposes an effect on society. PDD is a mainstream e-commerce platform. It was founded by Huang Zheng in September 2015 and listed on Nasdaq in the United States in July 2017. PDD uses the C2M business model and combines e-commerce and social networking to create its business pattern. One of the signs in PDD is “the more people you group together, the cheaper you get”. When shopping in PDD, people can buy the goods they want at a lower price by grouping them. In this way, PDD has also been publicized and known by more people. By combining with the social application, PDD gains a broad range of users. In addition, PDD focused on targeting China's forgotten consumers with lower incomes, which are the population in the third and fourth city tiers. On the one hand, through the activities of billion subsidies, PDD 's daily active volume of users has reached 259 million at maximum, exceeding Taobao. On the other hand, PDD has made social contributions in helping agriculture and poverty alleviation and fighting fake goods. Specifically, PDD launched its New Brand Initiative in December 2018, which aimed to support factories and manufacturers in developing their brands. Those things make PDD become one of the leaders in the current e-commerce platform. However, in 2020, PDD faces a profit of -7.18 billion RMB. Therefore, in the passage, we will use the SWOT model to analyze the strategies for PDD 's future development.

3. Method

3.1 SWOT model

SWOT model is one of the commonly used models in enterprise strategy making, the four letters of SWOT respectively represent the Strengths, Weaknesses, Opportunities, and Threats. Among them, the first two analysis objects mainly focus on the internal environment of the enterprise, including the analysis of internal resources, capabilities, and other advantages and disadvantages; the latter two pay attention to the external competition conditions of the enterprise, focusing on the development opportunities of the enterprise and the existing and potential competitors. This means that enterprises can have a more comprehensive, complete, and systematic understanding of the overall competitive environment and competitive situation by using the SWOT model, and lay a solid theoretical foundation for the subsequent formulation of reasonable corporate strategies.

SWOT model has more structural and systematic conclusions and avoids the inconvenience caused by a large number of data references. It is easy for enterprises to structure and clarify the internal and external complex environmental situation into four elements: advantages and disadvantages, opportunities and threats, and analyze them, to serve as the scientific basis for enterprise strategy formulation or management.

3.2 Financial analysis

Financial data is information that reflects the financial health and operational performance of a business. The following contents make up the majority of it:

(1) Financial book and statement data; these financial data are based on actual business financial information, statistical accounting, and then registered data; Statement data primarily include a balance sheet, income statement, and cash flow statement data, which are the fundamental financial information of an enterprise.

(2) Analysis data of various enterprise indicators that are determined by mathematical models or corresponding formulas, such as responsibility assessment data for different enterprise departments, financial management data for analyzing various enterprise indicators, and decision analysis data for investment decisions

Through analyzing the financial data, the company's advantages comparing with the other company will be shown, such as costs, technology, and scale. Those data will be show in the financial statement data. Also, we can analyze the financial ratio by analyzing financial data. Financial ratio analysis is the technique of determining certain financial ratios by straightforward calculation and comparing these financial ratios using internal relationships between financial accounts. Generally speaking, by analyzing financial ratios, we may comprehend the profitability, solvency, and operating ability of the business and, based on these three criteria, reach a scientific conclusion about the business's overall capacity.

4. Result and discussion

4.1 SWOT

Strength Analysis:

Advantages of Marketing strategy. Users of PDD could be entitled to a lower price by sharing the link of the product with their friends. This strategy helped PDD attract more customers at an exponential rate: The initial buyer might share the link with two people, and the two new users might share the platform with another four people, and the trend will continue. Mainly under the effect of the marketing strategy, PDD 's active users increase from 289.7 million people in the first quarter of 2019 to 751.3 million people in the first quarter of 2022, maintaining its position as having the most active users in the e-commerce industry in China [11].

Advantages of Marketing way. PDD provides the users with a convenient way of purchasing using the mini program of an already developed social media platform — WeChat. Wechat has more than 1.2 billion active users monthly, so PDD 's users do not have to download another application to buy items from PDD [12]. Instead, they can use PDD 's mini program in Wechat, which the users are already familiar with. This strategy might attract people who cannot operate smartphones well, especially older people, because it is easy to operate. Moreover, the design of the mini program is simple, promoting more sales and activeness of the platform.

Weakness Analysis:

Low product's quality. PDD has always had a bad reputation for its bad-quality goods. While PDD 's products with meager prices are attractive to consumers, one can always find negative comments under the products. Consumers of PDD often complain that either the product has bad quality or it is a fake product. While this bad reputation is spreading, more and more people will be turning to traditional e-commerce platforms such as TaoBao under Alibaba and JingDong.

Poor merchant management. PDD has an undemanding merchant's registration system. Everyone, without any stipulations, has access to register as a merchant through the PDD platform, and the process only takes about 6 minutes. This lax control allows many low-end merchants to register in PDD, making the platform hard to regulate. It further leads to many bad-quality goods, bad services provided by the merchants, and a slow shipment process.

Opportunities analysis of PDD:

(1) The globalization of digital economy can drive PDD to cross-border e-commerce.

As digital technology promotes economic digitization and reduces the cost of "face-to-face" communication, economic digitization may enter the stage of "digital economic globalization". The original driving characteristics of economic globalization will gradually change from "international trade" and "international finance" to "data elements". As a model of successful digital transformation of domestic e-commerce platform, PDD will have access to go abroad and exploring overseas markets in this trend. In China, PDD has utilized cutting-edge digital technologies such as big data, distributed artificial intelligence and cloud computing to converge agricultural production capacity into a "Cloud Farm", which means the supply scope of agricultural products can be gradually expanded. If PDD opens the agricultural market abroad, develops the technology of "agricultural land cloud integration" to the international level, and cooperates with foreign suppliers of agricultural products through digital technology, it can effectively promote domestic and foreign economic exchanges and greatly meet the demand of domestic consumers for imported agricultural products. At the same time, PDD itself can also gradually transform and upgrade, stepping into the ranks of cross-border e-commerce.

(2) National agricultural support policies can promote the development of PDD agricultural projects.

Agriculture is the foundation of the national economy. The government has improved the policy of poverty alleviation for farmers in some poor areas and the policy of supporting agriculture year by year. Planting agriculture projects, breeding agriculture projects and processing agricultural circulation projects will receive different degrees of government policy support and financial subsidies. PDD, as a typical agricultural e-commerce for the development of planting agriculture projects, its "Duoduo Agricultural park" and "10 billion-yuan subsidy" projects for agricultural products have become the benchmark of the industry. PDD has made significant achievements in supporting the production of "vegetable basket" and promoting agricultural products. Therefore, it can obtain policy support and financial subsidies from the national government to a large extent. This can not only help PDD alleviate the economic pressure on account of the high investment in agricultural projects, but also obtain financial support to continue to optimize digital technology. At the same time, it can also make PDD have deep development in the agricultural field and gain more trust from agricultural suppliers.

Threat Analysis:

(1) Fierce peer competition. PDD has always faced fierce competition in the e-commerce market in China. Among several leading platforms and thousands of small platforms and individual sellers, TaoBao under Alibaba and JingDong stand out as the two strongest competitors of PDD — TaoBao being the best e-commerce platform for the clothing category while JingDong is known for its high-quality electric appliances. While these two platforms have already gained many loyal customers, PDD is losing a large proportion of its users, who again turns to traditional e-commerce platforms like TaoBao and JingDong, due to the bad-quality goods.

(2) The appearance of the new company. Other than the traditional competitors mentioned, new and similar platforms are also PDD's strong opponents. DouYin, China's biggest short video platform, has recently developed its e-commerce system. Similar to the strategy of PDD, DouYin provides products at low prices, and the platform holds a massive number of merchants. Meanwhile, users of DouYin can find the links to the products while they are viewing short videos, providing a more convenient way of purchasing than PDD by allowing the users to buy products using less time and effort. This strategy can also promote the sales of PDD because many people will be more convinced to pay for the products after viewing the advertising videos. While the number of active users of the

DouYin Commerce platform is constantly increasing, PDD faces decreasing sales due to its bad quality goods. In the broad e-commerce industry in China, hundreds of platforms use similar strategies to PDD other than DouYin Commerce. These platforms are essential threats to PDD because of their similar low-price strategy and better qualities compared with PDD.

4.2 Financial analysis

This is the financial analysis of Pinduoduo and the data is from Yahoo Finance and Tencent Finance in RMB.

The author is going to conduct financial analysis on PDD through four aspects: solvency, operating capability, profitability and growth.

4.2.1 Solvency analysis

Table 1. Current ratio and debt-to-asset ratio

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------|------|--------|--------|--------|--------|--------|
| current ratio | 124% | 108.5% | 165.8% | 159.5% | 176.2% | 188.5% |
| debt-to-asset ratio | | 90.95% | 56.41% | 67.59% | 62.13% | 58.55% |

Data resource: <https://finance.yahoo.com/quote/PDD/balance-sheet?p=PDD>

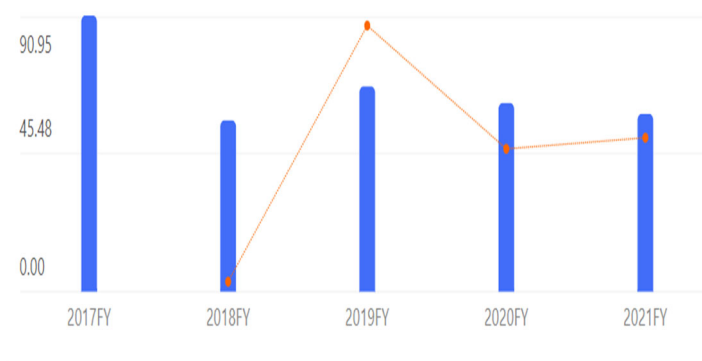


Fig. 1 Debt-to-asset ratio (Data resource: <https://gushitong.baidu.com/stock/us-PDD?mainTab>)

It can be found that PDD 's current ratio has been maintained at more than 160% since 2018, and shows a rising trend. After calculation, the average quick ratio of PDD from 2016 to now is 165.8%. The median for the retail sector was 75.2 percent. Therefore, it can be concluded that PDD has strong short-term solvency. However, a large part of PDD 's current assets are deposits paid by merchants and users, which cannot be used at will. This may undermine PDD 's short-term solvency [10].

PDD 's debt-to-asset ratio has been relatively stable at around 60% since 2018, showing a slight downward trend. The reason is that the growth rate of PDD 's total assets is higher than that of its total liabilities. Generally speaking, it is maintained in a reasonable range. Therefore, its long-term solvency is also strong.

4.2.2 Operational capacity analysis

Table 2. Total asset turnover

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------|------|------|------|------|------|
| total asset turnover | 0.23 | 0.46 | 0.5 | 0.52 | 0.56 |

Data resource: <https://finance.yahoo.com/quote/PDD/financials?p=PDD>

PDD 's total asset turnover rose gradually after experiencing lows in 2016 and 2017, and stabilized at around 0.5 in 2018-2021, although it was still below the industry average of 1.26. PDD 's low asset turnover rate indicates that its efficiency in using funds is not ideal. The reason for PDD 's low index is that it invested a large amount of working capital in marketing in the early days of its establishment, but this investment failed to have an equal positive impact on its earnings. However, total asset turnover is consistently on an upward trend, showing signs of gradual improvement.

4.2.3 Profitability analysis

Table 3. ROA,ROE and gross profit margin

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------|--------|-------|---------|--------|-------|-------|
| ROA | -16.5% | -7% | -35.8% | -11.6% | -6.2% | 4.6% |
| ROE | -0.7% | -68% | -101.8% | -31.8% | -17.3 | 11.6 |
| gross profit margin | -14.5% | 58.6% | 77.9% | 79% | 67.6% | 66.2% |

Data resource: <https://finance.yahoo.com/quote/PDD/financials?p=PDD>

ROA and ROE reflect the company's ability to generate profits by using shareholders' equity or liabilities. PDD 's ROA and ROE showed a similar pattern. They all showed a downward trend until 2018, when they reached their lowest. The lowest ROA is -35.8%, and the lowest ROE is -101.8%. After experiencing the inflection point in 2018, PDD 's ROA and ROE values continue to rise. ROA reached 4.6% in 2021, outstripping the industry average of 3.6%. Correspondingly, ROE reached 11.6 in 2021, outperforming the industry average of 8.3%. But for a leading enterprise in the e-commerce industry, such profitability is still poor.

To find out the reasons for PDD 's poor profitability, the author studies its gross profit margin. The gross profit margin is the percentage of the company's gross sales profit in the operating income, which reflects the profitability of the company's business itself. PDD 's gross profit margin has consistently been above 65% since 2018, and sometimes even close to 80%. This shows that the profit of PDD 's main business is actually not low. However, PDD used a large amount of capital to attract users in 2018 and before, specifically including marketing expenses such as advertising, endorsements, and subsidies for commodities to keep them low [10]. With the gradual stabilization of PDD 's user base, this expenditure will also be reduced. It can be predicted that PDD 's profitability will continue to rise.

4.2.4 Growth analysis

Table 4. Operating Revenue Growth and net capital growth rate

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------|--------|--------|---------|--------|--------|-------|
| operating Revenue Growth | -99.5% | 262.5% | 620.5% | 125.5% | 111.7% | 62.1% |
| net capital growth rate | -99.6% | 254.8% | 1396.2% | 28.5% | 161.9% | 28.2% |

Data resource: <https://finance.yahoo.com/quote/PDD/financials?p=PDD>

The change trends of revenue growth rate and net capital growth rate are also similar: before 2018, it showed an upward trend, and from 2019, it showed a downward trend. Among them, the net capital growth rate even reached 1396.2% in 2018, indicating that PDD is very popular in 2018.

However, the reasons for this trend are different. As for the revenue growth rate, its recent sluggish growth is due to the closing of the development of the sinking market. Moreover, its competitors have also launched their own products competing with them in the third and fourth tier cities, resulting in PDD 's competitive advantage no longer being significant.

As for the growth rate of net assets, the reason for the decline of the growth rate is that the capital market is not optimistic about it gradually, resulting in the decline of the stock price. The capital circle has doubts about PDD 's profit model. Its mode of high cost and low customer unit price has caused controversy.

What is more, one of the largest constraints of Pinduoduo's growth is its bad reputation of counterfeit goods [11]. Because its target consumers are people living in 3 or 4 tiers cities of China, it is inevitable that its commodities must be affordable enough, which could support the sales of low-quality and counterfeit goods. However, Pinduoduo has already attempted to reverse its bad reputation by alleviating poverty and helping farmers [12]. Pinduoduo connects farmers and consumers by creating an integrated upstream and downstream agricultural product industry chain, directly increasing farmers' incomes. At the same time, by opening "Duoduo University" to teach farmers the most advanced agricultural technology and the process of opening online shops, so as to truly help farmers out of poverty independently.

PDD 's development has entered a bottleneck period, but PDD still has a large user base comparable to Taobao, and PDD is integrating all aspects of production in order to have a stronger cost advantage. It is expected that PDD will further improve its growth ability after completing the transformation.

5. Conclusion

In this article, the author first gave an overview of PDD 's business model and briefly introduced PDD 's information. Subsequently, the author uses SWOT analysis to analyze PDD 's strengths, weaknesses, threats, and opportunities. Finally, the author analyzes the financial situation of PDD from the four aspects of solvency, operating ability, profitability, and growth ability, and gives suggestions on the enterprise development strategy of PDD based on the known information.

From the perspective of advantages, firstly, PDD has the largest number of active users among the current e-commerce platforms in China, which indicates that PDD has great growth potential; At the same time, PDD 's marketing method of combining social networking and shopping has unique advantages in China and has achieved great success. In terms of target customers, PDD is targeting the forgotten "sinking market", that is, the market in China's third - and fourth-tier cities. PDD is naturally attractive to the people of those cities because of its low commodity prices; Although PDD has a poor reputation due to the frequent phenomenon of fake goods, it is also trying to reverse its reputation by helping farmers and reducing poverty and has achieved good results. Finally, from the perspective of financial data, PDD 's solvency and growth ability have been very good. Although its operating ability and profitability have performed poorly in the past, they have been showing a good trend in the past five years.

From the perspective of disadvantages, PDD 's reputation has always been bad. On the one hand, there are more fake goods on the platform than other competitors, and the price is lower, giving people a feeling of poor quality. On the other hand, viral marketing on social media has caused a lot of people disgust; In addition, PDD is facing fierce market competition. On the "sinking market" track where PDD is good, its competitors Taobao and Jingdong.com have also launched corresponding products to fight; Finally, PDD 's profit model has been questioned all the time. Saturated marketing, unimaginable low price, high expenditure, and low-profit margin have led to its net profit rate being negative in the first few years.

In the view of the above analysis, the author believes that PDD should adopt the following strategies to break through the bottleneck period.

(1) Reverse the reputation of PDD and consolidate the user base by cracking down on fake goods, raising the threshold of merchant review, helping farmers and poverty alleviation, etc

(2) Reduce the cost in the production, transportation, and sales process by integrating the long downstream industrial chain, and improve the price advantage of its products, to continue to maintain its dominant position in the sinking market

(3) As the current user base of PDD is stable, we should abandon the previous saturated marketing mode, and reduce the costs of various stages including transportation, production, and marketing. Those measures can also largely improve PDD 's profitability.

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