

Analysis of the Business Model of e-commerce Companies under COVID-19: Taking Alibaba as an Example

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ABSTRACT

With the increase of Internet usage and the impact of COVID-19 pandemic, the market share of e-commerce is growing rapidly, and various types of e-commerce websites is emerging. Alibaba, as a leading enterprise in China's e-commerce market, has been affected by the environment in this period, and has a lot of representative performance for the e-commerce industry. This paper makes an in-depth analysis of Alibaba Group as a representative of the e-commerce industry. We use SWOT analytics to study the prospects and potential risks of Alibaba's business model. After investigation, we find that Alibaba does have some management and decision-making risks, but the emergence of COVID-19 and live broadcast also provide Alibaba with many new opportunities.

Keywords: COVID-19, Alibaba, SWOT analysis, e-commerce.

1. INTRODUCTION

Since December 2019, Wuhan City, Hubei Province, China, has continued to carry out influenza and related disease surveillance, and multiple cases of viral pneumonia have been detected. On January 7, 2020, the laboratory detected a new type of coronavirus, and 41 cases were initially diagnosed on January 10. As of the end of January 2020, 11,791 cases have been confirmed in China, and countries worldwide have gradually announced the discovery of the same cases. The coronavirus outbreak had led to significant impacts on all aspects of different industries in worldwide areas. Population stability has been dropped. People tried to avoid the risk of being infected by reducing outdoor activities. As human activities decreased, less consumption was made, resulting in the stagnation or even regression of the global economy.

Concerning the definition of e-commerce, different researchers have diverse perspectives. According to Zhang Linying [1], the online transaction exchange platform is provided to individuals or companies in the so-called e-commerce platform. It plays a role in integrating trade information and coordinating the trade process. Shahrzad Shahriari, Mohammadreza Shahriari and Saeid gheiji [2] say that e-commerce was first used

during a campaign by IBM in October 1997. Today, some corporations regard their new culture, capacities and businesses on the Internet as e-commerce. The simplest definition is conducting electric business transactions based on data processing through technologies such as electronic funds transfer, internet marketing, and so on. It involves three major subjects. First, they are the society, organizations and customers. Second, during the trade process, they use visible tools like emails, fax and shopping carts doing invisible transactions in the electric format. In addition, Aleksy Kwilinski et al. [3] identify this type of business as e-commerce because of its unique feature. That is, a different organizational system and entrepreneurial implementation depend on advanced information and communication technologies.

According to Christoph Zott et al. [4] and Zhang Jingwei et al. [5], the business model is a unique operating mechanism and management system formed by integrating internal and external resources to meet the consumers' needs make profits for enterprises. This model includes value proposition, value production, value delivery and value realization. In fact, the business model definition has not reached an academic conclusion since its appearance in 1957. Although many papers have discussed, the definition of the business model has not

been consensus due to different scholars and perspectives. This same situation appears in the definition of e-commerce. Nevertheless, despite the diversity, we found all these descriptions compass the structure of products, information flows and services, and e-commerce customers, partners, and suppliers [6].

Generally speaking, e-commerce has about ten models. Vitalina Babenko et al. [7] proposed that the most common ones are business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), business-to-government (B2G), consumer-to-government (C2G) and mobile commerce (m-commerce). Grounded on the point raised by Webster that industrial marketing is the predecessor of B2B marketing, Gary L. Lilien [8] puts forward that B2B marketing replaced industrial marketing and constructed a relationship of value creation between businesses, government agencies and not-for-profit organizations and the many individuals representing those organizations. Li Yanxin et al. [9] propose that B2B e-commerce has three main characteristics. Since B2B transactions take place in businesses instead of ordinal consumers, their trading partners are relatively fixed. Besides, there is no room for error because business transactions always involve a large amount of money. Thus, their trading processes are complex but regulated. The third feature is a wide range of their trading partners. There are many commodities traded by enterprises that are not ordinary articles, and they can almost trade any articles. Luo Hanyang [10] classifies B2B business models according to different classification standards. Based on trade mechanism, B2B business models are production catalog, auction, transaction and community. Based on relationships between enterprises, they have transaction-centred, supply and demand-centred, and collaborative-centred models. While depending on the buyer and seller's position in the transaction, B2B can be divided into seller-based, buyer-based, and neutral modes.

Farid Huseynov et al. [11] claim that B2C is the most common e-commerce model, penetrating all kinds of businesses in many ways. It can be simply understood as enterprises providing consumers with a new way of purchase through the Internet, namely online stores [12]. B2C e-commerce mainly develops the retail industry through the Internet. The online auction, online subscription, online market research, commodity retrieve, online communication and online service are included [9].

According to Zhu Guangting [13], C2C is an e-commerce model where both sides of the transaction are consumers. Its platforms establish its credit rating system to match trading. Once successfully matched, the buyer and the seller can discuss acceptable transactions and payment methods, but the seller is not responsible for logistics. In C2C e-commerce, one crucial feature is the

indirect exchange based on credit tools and systems [14]. The other feature is small shop size because the crowd running C2C mode is mainly small and medium-sized sellers, and most are self-employed [15]. Although C2C has the same group of consumers with B2C, their different seller side lays down huge differences between these two business models. In B2C models, the seller side is enterprise. Therefore, the seller credit is equivalent to the website credit. And these platforms are equipped with diverse logistics means as well as automatic transaction processes. In contrast, the C2C model is easier to make profits and more types of products and flexible pricing. However, the problem of credit speculation in the C2C model cannot be ignored. The varying level of third-party logistics also brings trouble to buyers and sellers, and there are many "lemon" problems in commodity quality [16]. (The "Lemon" problem is the information asymmetry problem.)

B2G refers to the e-commerce model between business and government, incorporating government procurement, taxation, commodity inspection, administrative regulations, promulgating administrative rules and policies, and the like. This means that in this model, the government has two roles. One is the consumer, by which they can publish their purchasing list through the Internet and complete the procurement in an open, transparent, efficient and clean manner. Another is being the government itself. Thus, B2G enables the government to play a timelier and fuller role in macro-controlling, supervising, guiding, regulating and managing enterprises through the Internet [9].

C2G is another kind of e-commerce that allows government-to-individual activities. However, this emerging e-commerce model currently only has some embryonic forms in developed countries. For example, in the United States, almost all taxpayers report their income on the tax department's website [7, 9].

According to Ren Tinghai et al. [10] mobile communication is one of the biggest businesses in the world's fastest-growing markets. David Tilson et al. [15] also propose that mobile commerce refers to the business transaction that transaction partners use mobile communication technology to initiate, negotiate or perform services. This type of e-commerce has been on the rise and gradually becoming one of the epicenters during our digital life.

Based on the summary of the literature, we find that the researches on e-commerce are very rich. However, the analysis of the e-commerce model mainly focuses on B2B and B2C. Besides, since the past two years, the Covid-19 pandemic has substantially impacted the offline market, which has accelerated the digital transformation of the development model of the entire market. But there is not much analysis on the feasibility of the e-commerce model under the influence of COVID-19. Therefore, this paper discusses six major e-

commerce models and takes Alibaba Group as an example. The aim is to analyze its business model and strategies, as well as the internal and external impacts received and strategies adopted by Alibaba in the current volatile situation, especially the spread of COVID-19 in the past two years.

2. DATA AND METHOD

2.1. Data

Alibaba is one of the most prestigious e-commerce companies in China. As of 2020, Alibaba ranks first in the list of listed companies in China with a market value of 4,09.525 billion yuan. In comparison, Meituan-Dianping and Pinduoduo, ranking second and third, have market capitalizations of 1,456,276 billion yuan and 1,421.624 billion yuan, respectively, about one-third of the market value of Alibaba. [17] Alibaba Group provides a very comprehensive business service. It has offered business-to-business (B2B) sales services by Alibaba.com Limited., Consumer-to-consumer (C2C) sales services and business-to-consumer(B2C) sales services are provided by Taobao. Alipay, a third-party payment platform, ranking 8th nationally in terms of financial brand value, provides fast payment services for users of Alibaba Group. Alibaba Cloud Computing an advanced cloud computing service developer which offers services of data storage and data sharing. Yahoo is China's leading search engine and has been bought by Alibaba Group since 2019. It provides users with searching, community and information services.

2.2. Method

We will analyze Alibaba based on the SWOT model. SWOT Analysis is a framework accustomed to facilitate an individual or organization by determining strengths, weaknesses, opportunities, and threats to evaluate a company's competitive position and strategic planning [16].

'S' stands for strength. This paper will analyze Alibaba's Business Model Strength and Search Engine Strength by explaining the development of Alibaba's B2B, B2C, and C2C businesses and how Alibaba took the search engine market when it was not mature. 'W' stands for weakness. This section discusses Alibaba's potential weakness from the three aspects of management mode, business strategy, underage investment, and access strategy. 'O' stands for opportunity. In response to this section, we will analyze the impact and opportunities of covid-19 on the e-commerce industry and combines official data from Alibaba. Covid-19, the long-term pandemic to humanity, allows Alibaba to surge in trading volumes on existing platforms and invest in new business opportunities. 'T' stands for threat. The explanation on this part will focus

on Alibaba's potential risks at the technical and operational levels, as well as fierce competition in its main market, China, and other parts of the world. During our analysis, positivism and interpretivism will be applied as well. We will combine quantitative with qualitative analysis and introduce some secondary data, such as Alibaba's 2020 fiscal year report for research.

3. RESULTS AND DISCUSSION

The feasibility analysis of e-commerce operation mode under the influence of COVID-19 should be representative. In China's e-commerce market, we will take Alibaba as an example and use SWOT analysis to research various aspects such as market share and profitability.

3.1. Strength

Business Model Strength. Known as the world's largest business exchange community and online trading market and one of the three major mainstream B2B foreign trade platforms in China, Alibaba has the most visits among B2B platforms from which it has gained the fastest momentum. Its core business in this area is to provide companies with an exchange and delivery platform for data and information, closely integrating with customers through B2B websites to carry out commercial transactions. In addition, the achievements of Alibaba's B2C and C2C platforms are also evident to all, such as Tmall, Taobao and Hema Xiansheng (fresh hema or freshippo), providing users with various products from all kinds of merchants. With diversified platforms, all types of users can carry out various business activities, no matter individuals or enterprises. Compared with ordinary offline business models, the online trade market is not limited by time and space. Information can be transmitted wantonly. The content of information can also be changed at any time according to the market and needs. Therefore, in theory, Alibaba's e-commerce services can be unlimited expanding. Indeed, the operating cost of the online trade market is much less than other business patterns. Thus, there is no doubt Alibaba has powerful attractions to small and medium businesses.

Search engine Strength. Using the concept of SEO first to occupy the market that was not mature, Alibaba improved its natural ranking in search engines. In this way, it attracted more users and increased the number of visits to the website, meanwhile improved the sales and promotion capabilities of the website and finally enhanced the brand effect.

3.2. Weakness

Management mode. There are a great many frauds and false transactions on the Alibaba platform. Full of complaints from merchants and consumers has mainly

constructed a management problem in Alibaba. Both merchants and consumers are the victims due to this weakness. There are many recorded cases that some merchants don't receive payment for products they have sold, or consumers don't receive purchased goods. In addition, the Alibaba platform allows mass inquiries, but emerging mass invalid inquiries, such as advertisements, spying on intelligence, and more phishing inquiries, similarly. Plus, with its paid membership system, fierce price wars are inevitable. As a result, suppliers hope to obtain customers through low prices and tend to give up quality.

Improper business strategy. On December 24, 2020, the State Administration for Market Regulation of the People's Republic of China filed an investigation into Alibaba Group for suspected monopolistic conduct in accordance with the report. According to Tencent.com, Alibaba's stock immediately plummeted that day, a drop of more than 13%. This means that Alibaba lost nearly 92 billion US dollars by this issue. On April 10, 2021, the State Administration for Market Regulation of China issued a penalty decision, ordering Alibaba Group to stop abusing its dominant market position and imposing a fine of 18.228 billion yuan. At the same time, it issued an administrative instruction. For three consecutive years, Alibaba Group has to make comprehensive rectifications and submit a self-examination and compliance report to the State Administration of Market Supervision and Administration.

Inappropriate investment and acquisition strategy. Alibaba has been trying to control all areas of the Chinese market and become an oligarch, leaving rival companies and even small businesses with nowhere to go. We found that since 2005, Alibaba has invested in and acquired many companies. These include the early Chinese Yahoo and Koubei, China's leading timely delivery and local life platforms Meituan and Ele.me, social media Sina Weibo, Amap for traveling, the Chinese import e-commerce platform Koala and other leading companies in all kinds of industries. As a result, they have formed their so-called ecological chain, controlling almost the entire Chinese people's consumption, behavior, assets and other data, which has severely undermined market fairness and even threatened the status of the Chinese government.

3.3. Opportunities

Covid-19 effect. An epidemic of a novel coronavirus suddenly spread worldwide and has had a considerable

impact on global economic growth and social governance. The epidemic has caused comprehensive and irreversible effects on the offline economy, but it has injected new momentum into the development of Alibaba. To support the everyday life of residents in Hubei, other provinces and cities of China and even overseas regions, Alibaba's Hema, Cainiao Station, Ele.me and other e-commerce platforms continue to operate. They ensured that the public could enjoy adequate fresh food and various types of life during social restrictions. Alibaba's 2020 fiscal year report shows that for the year ended March 31, Alibaba's core business performance in 2020 was 436.04 billion yuan, and the total operating performance was 509.711 billion yuan. In 2019, these two data were 323.4 billion yuan and 376.844 billion yuan. After deducting various costs, Alibaba's 2020 operating profit was 91.43 billion yuan, a year-on-year increase of 60% compared with the 57.084 billion yuan in 2019. [17]

The emergence of live streaming mode. The live broadcast industry originated in 2005 and broke out in 2016. The live broadcast battlefield shifted from PC to mobile during the period. Live broadcast content penetrated from a single show live to e-commerce, sports, education, social networking, and other fields. Live streaming is essentially a tool that can be integrated with multiple formats. The current live broadcast companies can be roughly divided into pan-entertainment live broadcast and "live broadcast +". According to data analysis such as the number of users and revenue status, the pan-entertainment live broadcast and live broadcast e-commerce market are developing rapidly. In 2016, a number of online live broadcast platforms and MCN agencies sprang up in China, laying the foundation for the industrial development of live broadcast e-commerce in the later period; in the second half of 2019, with the opportunity of Double Eleven, live broadcast e-commerce ushered in a period of total prosperity. We found that user scale and utilization rate of live streaming in China demonstrated somewhat differently during these years, in which these two figures in 2016 were 433.31 million and 47.1%. In contrast, in 2020, they were 559.82 million and 62.0%, separately. The registrations of China's live broadcasting enterprises witnessed a boom, climbing from 237 registered enterprises to 2877. See Figure 1, which is made by ourselves based on the data from askci.com. The figure aims to show the statistics mentioned above.

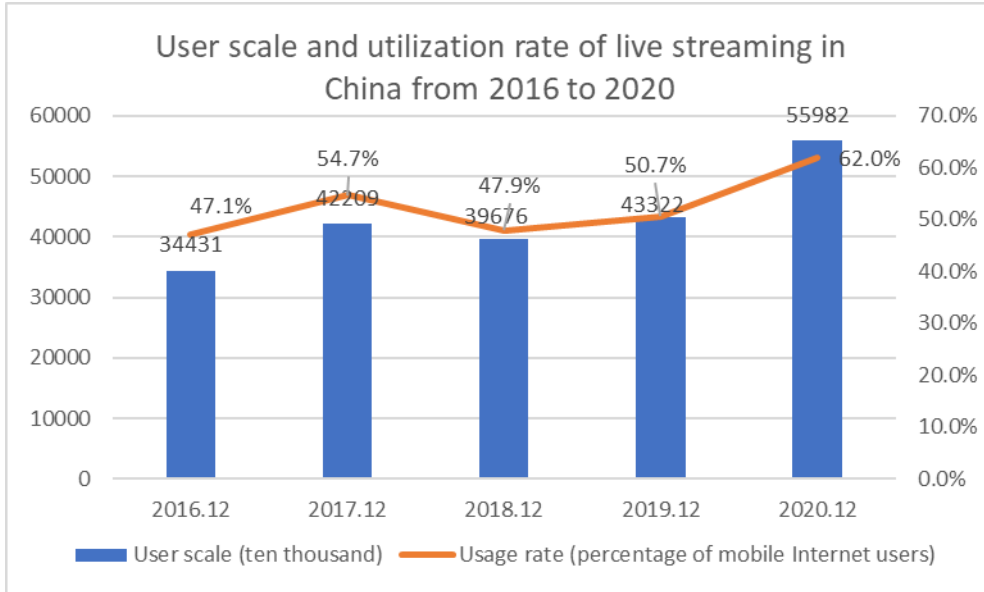


Figure 1. User scale and utilization rate of live streaming in China from 2016 to 2020. Data Source: www.askci.com/

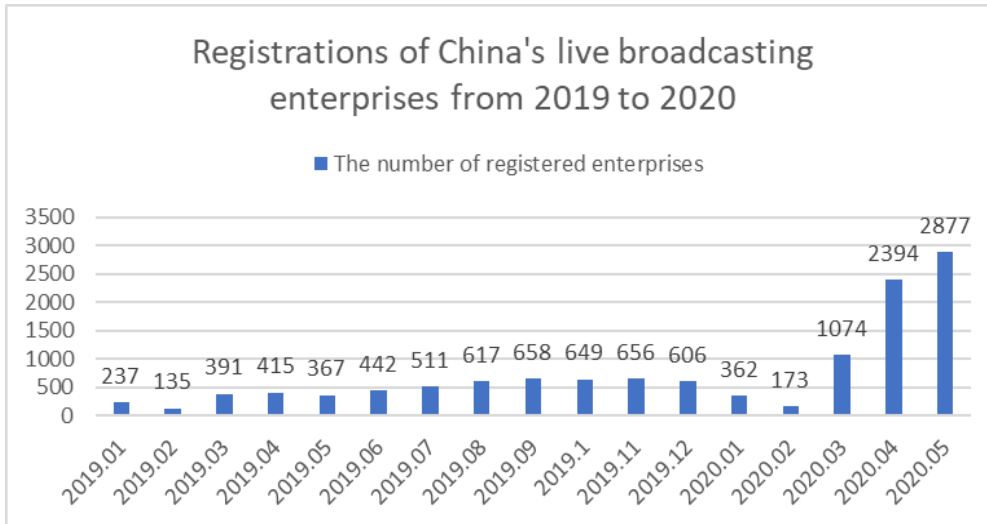


Figure 2. Registrations of China's live broadcasting enterprises from 2019 to 2020. Source: www.askci.com/

Alibaba's retail e-commerce platforms such as Taobao and Tmall have also launched live streaming models to meet the shopping needs of the public, promote economic recovery, and added a thick and heavy color to Alibaba. Take Taobao live broadcast as an example. From 2019 to 2020, the user scale showed an explosive growth trend. The number of active users increased from 658 thousand in the third quarter of 2019 to 3.756 million in the same quarter of 2020, with a year-on-year rise of 470%. The average number of daily live broadcasts per month has also increased from less than 10,000 in 2019 to 100,000, and users could watch more than 500,000 live shows a day. Furthermore, live broadcast e-commerce can also promote the blowout development of the anchor industry. Shopping guides, Internet celebrities, celebrities, hosts and even presidents have all started broadcasting. In 2020, Taobao lives

broadcasts increased by 666% year on year and created nearly 1,000 live broadcast rooms with more than 100 million yuan, with the annual GMV increased by 100% year on year. Among them, the number of merchants' live broadcast rooms accounted for more than 55%, and the proportion of individual live broadcast rooms was slightly lower than that of merchants. It is worth noting that live broadcasts for new brands of the merchant team showed surprising results in 2019, with a substantial increase in the transaction amount. By 2020, the new brand's sales in the live broadcast room were not only unaffected by the epidemic but have increased year-on-year by 329%. See figure 2 and 3, made by ourselves based on the data from askci.com and Mob Research Institute. They illustrate the relevant statistics of China's live broadcasting that are needed in our analysis.

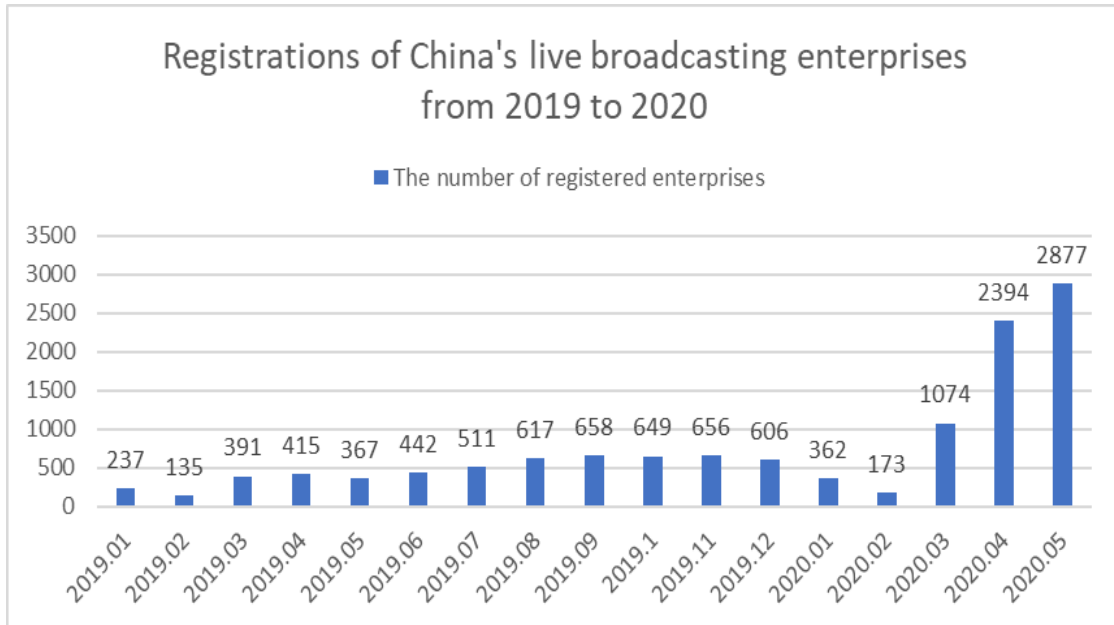


Figure 3. Active users of Taobao Live APP

Data Source: Mob Research Institute

3.4 Threats

Operational risk. The most popular service platform of Alibaba Group is Alipay. Although Alipay was separated from the Group in 2011, most e-commerce transactions and guarantee services on the Alibaba platform are still and only provided by Alipay, which means that Alibaba has operational risks that are hard to ignore.

First of all, Alipay has a strong opponent in China, WeChat Pay, which is the second-largest mobile payment company. Once Alipay has problems such as fraud, security breaches, technical errors, system failures, and the like, the relevant e-commerce platform will not be able to process transactions. If the user's funds are improperly managed or even lost, Alipay will lose the user's trust and cause the user to transfer to WeChat Pay. As a result, the number of users and the transaction volume of Alipay and its related e-commerce platforms will suffer a heavy setback. In addition, the sanctions against Alibaba have had an impact on Alipay users. There was a topic on the well-known Chinese social media, Sina Weibo, "Should we withdraw money from Alipay under the sanctions?" viewed and discussed by more than 10 million users and rose to the top of the hot topic search list at that time. If the incident continues to ferment and users withdraw the virtual currency stored in Alipay, its capital chain will face significant risks, and Alibaba will also experience operational difficulties. The third distribution will also have a certain impact on Alibaba. As a mega economic group, Alibaba may get tighter supervision in business to prevent using the Internet to create wealth savagely. In terms of philanthropy, although the driving factor is social

morality without mandatory measures, once Alibaba, as a leading enterprise, fails to satisfy the public, its platform users will lose due to moral condemnation. Therefore, its position in the market will gradually weaken.

On a global scale, Amazon is also a strong competitor of Alibaba. Through continuous strategic investment, Alibaba became the actual controller of Lazada, a local e-commerce company in Southeast Asia, and invested in Flipcart and Snapdeal, India's most prominent local e-commerce company. The group has taken control of Paytm, the parent company of India's local online payment platform, through three rounds of investment. Paytm has launched its own e-commerce platform Paytm Mall afterwards. India and Southeast Asia will be the main battlefields between Alibaba and Amazon. Alibaba wants to use India and Southeast Asia as a starting point for developing international business. And Amazon's sales performance in India is also very outstanding. According to a report released by the Royal Bank of Canada Capital Markets, by 2023, India will account for 13% of Amazon's global sales and 4% of total sales. In addition, the Indian market is expected to provide Amazon with \$18 billion in revenue opportunities. Because of the lack of sufficient experience in foreign markets, Alibaba's strategy will be biased towards holding local companies. The advantage of this strategy is that it can quickly enter the foreign market and make localized functions more convenient without worrying about integrating domestic products. However, the scale and efficiency of these local companies still lag far behind the giants in China and the United States. The strategy Amazon will adopt is to enter the market on its own. The advantage of this is that Amazon itself has a

high brand influence. The new product line can promote various markets more quickly and directly improve Amazon's local competitiveness. However, entering new markets requires more preparation, and there is a risk of missing the window period in a highly competitive environment. The biggest difference between the two strategies is whether it is more localized. In this competition, Alibaba has a first-mover advantage in Southeast Asia, but it has not yet established a very stable business model in India.

4. CONCLUSION

Overall, there is no doubt that Alibaba takes the lead in the e-commerce area in part on its business model and search engine strength. In addition, COVID-19 and the emergence of live streaming also provide a lot of new opportunities. However, Alibaba has been self-inflicted due to its improper management model, business strategy, investment and acquisition strategy. What is worse, Alibaba has operational risk and is facing fierce competition now, keeping threatening Alibaba's e-commerce.

In view of the above problems, we put forward some suggestions below. First, Alibaba needs to strengthen the control of e-commerce operators within the Group, effectively prohibiting improper price behavior. Alibaba was penalized for its dominant market position as a big platform, allowing merchants to choose only one platform to sell. This "qualifying deal" is essentially a monopoly. To avoid persistent penalties in the future, Alibaba should stop such behavior and allow merchants to set up their products on Alibaba platforms while also rack their products on other sales platforms. In addition, Alibaba can reduce mergers and acquisitions. The Group could use a strategy of investing in potential companies as an alternative to mergers and acquisitions. If these measures can be implemented, Alibaba's monopoly on the market will be reduced. As a result, effective competition in the market will increase. This would improve the order of the e-commerce market as a whole and be more beneficial to the interests of consumers.

In the short term, Alibaba's monopoly on the market has been broken by recent fines for alleged monopoly practices and a collapse in its share price. The e-commerce market is sure to open up competition, which is a disadvantage in a short period for Alibaba. However, on the day of the decision to respond to the administrative penalty, Alibaba's Hong Kong shares surged, rising 7.16 per cent to HK\$233.60 by midday, with a market capitalization surge of HK\$338.3bn. Therefore, this penalty would not have a significant negative impact on practice. Despite the rise in Hong Kong stocks, Alibaba's main market is still the Chinese mainland. If Alibaba plans to continue to expand in China, it will need to overhaul the Group's business

model and internal management in response to Chinese laws and regulations.

Furthermore, Alibaba needs to improve its competitiveness against competition from China and abroad. For example, to cultivate users' habits and increase their usage time, Alipay can be automatically activated when the user is powered on by default when downloading. It will therefore have no disadvantage when competing with its competitors, WeChat Pay, which is attached to social software. In addition, as Alipay has more and more features, the start-up speed is getting slower, and mobile phones' performance requirements are getting higher and higher. This is an issue that Alipay designers should focus on improving. Only by enhancing Alipay's convenience and smoothness can its competitiveness be fundamentally increased.

Finally, to improve its competitiveness, Alibaba can consider expanding its business in India and Southeast Asia, similar in size to the Chinese market. However, due to the low efficiency of logistics and transportation systems, India's express delivery loss rate has remained high, ranging from 15% to 18%, much higher than the global average of 8%. In this regard, Alibaba can establish its efficient distribution logistics line in India to solve logistics and distribution problems. At the same time, Alibaba can consider cooperating with efficient domestic manufacturers to help Indian domestic manufacturers improve product quality and productivity.

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