

Alibaba's Business Model During the Epidemic and Innovation

Yilin Ju¹, Shengling Hu², Yilong Wu³

¹School of Financial and Taxation, Zhejiang University of Finance and Economics, Hangzhou, China

²Department of Mathematics & Statistics, American University, Washington DC, United States

³Department of Finance, Pace University, New York, United States

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Abstract: This paper studies the changes in Alibaba's business model in recent years and the innovations made by groups during the epidemic. Alibaba was established in Hangzhou in 1999 and used B2B as its business development model. In the following 10 years, the Group continued to integrate C2C, B2C, O2O, and other business models. The mixed mode of operation has made Alibaba continuously accumulate customer groups and become a leading company in the e-commerce industry. In 2021, in the face of the COVID-19 epidemic, all industries have been severely affected. Alibaba has successfully developed an enterprise-level customer base by opening Ding Talk for free. The group's stable and strong supply chain has ensured the supply of goods and logistics during the epidemic. During the epidemic, Taobao continued to improve the content of its live broadcast business model and cooperated with major official organizations to release PGC programs to meet customer needs, and more than 100 new professions joined Taobao live broadcast. According to the Alibaba Group Financial Report, in the 12 months ending on December 31, 2020, Taobao live broadcast GMV exceeded RMB 400 billion. Taobao live broadcast has become one of the important methods for many industries to increase revenue during the epidemic.

1. Introduction

During the COVID-19 epidemic, many countries have successively promulgated blockade policies to prevent and control the epidemic. Due to these policies transport between the different countries being limited and even restricted among countries has further slowed global economic activities [1]. The global supply chain has been strongly affected, import and export trade is severely affected. The COVID-19 epidemic has caused problems in cross-border e-commerce logistics, and cross-border e-commerce and cross-border logistics interact and restrict each other [2]. The unemployment rates around the world are on the rise. As a leading company in China's e-commerce industry, Alibaba's business involves e-commerce, logistics, cross-border e-commerce, and many other aspects, and Alibaba has actively assumed corporate responsibilities in the fight against the epidemic. The group invested its stable and complete supply chain system in the transportation of COVID-19 materials, which has had a positive impact on China's epidemic prevention. At the same time, its economic development also showed a steady state. According to the 2020 Alibaba Financial Statement, compared with 2019, Alibaba's revenue has increased by 35%. Among the components of revenue, as the core business of Alibaba, the revenue of retail platforms (led by Taobao and Tmall) increased by 15%. Therefore, this article will discuss the positive effects of Taobao and Tmall, and focus on why Alibaba has not been affected by the epidemic and whether Alibaba's business model that has triggered many innovative strategies has played an active role during this period. We will introduce Alibaba's business model through case studies and how its business model can help Alibaba overcome the difficulties of COVID-19.

The platform business model mainly originated from the bilateral market theory of Rochet and Tirole, while Xu Jin, a Chinese scholar, explained the meaning of the platform, and Chen Weiru and other scholars defined the platform as a win-win business model of multi-party cooperation [3]. Over the years, the "platform" has developed together with the offline real economy and online virtual

economy, maximizing the interests of multiple parties and making profits by charging platform royalties [4]. Through the analysis of Alibaba's business model and the research on its innovation, this article can provide a reference for other e-commerce companies to avoid risks and develop steadily in the epidemic

Existing studies have also found that there is an inseparable relationship between business models, investment strategies, resource allocation, and innovation strategies, which are both interdependent and mutually reinforcing. Among them, innovation strategy is considered to be the fundamental driving force for the development of platform business models. Scholars such as Zhang Yan mentioned that Alibaba's innovation path has broken through the "creative destruction" proposed by Joseph Schumpeter, and Alibaba has now achieved "integrated innovation" [5]. This article also analyzes the major innovations during the Alibaba epidemic.

With the rise of the platform business model in China, many scholars pay close attention to the platform model but note that there is relatively little connection between the platform business model and the epidemic, and it is rare to focus on Alibaba's innovation strategy during the epidemic. Therefore, according to the research logic of "business determines finance" proposed by Zhao Yunfang and others, by studying the case of Alibaba, this paper analyzes the relationship between Alibaba platform business model and the epidemic, as well as its innovation strategy during the epidemic [6].

The sections of this paper are structured as follows. Section 2 uses the PEST method to analyze the external environment of Alibaba. Section 3 analyzes the development of Alibaba's business model and investment strategies during the epidemic. Section 4 analyzes the impact of the epidemic on Alibaba, Alibaba's economic situation during the epidemic, and Alibaba's innovation in this special period. Section 5 summarizes Alibaba's performance during the epidemic. Finally, conclude the paper in Section 6.

2. Alibaba's external environment analysis (PEST)

2.1 Economic factors

As China is accelerating the promotion of global economic integration (goods, capital, and labor can move freely without any trade barriers). The domestic economy is developing rapidly. Data shows that the scale of global mobile payments is expected to maintain its rapid growth momentum, with transaction volume reaching US\$6.1 trillion in 2019 and nearly US\$14 trillion in 2022. It is foreseeable that the global mobile payment market will continue to increase in transaction volume in the future. The relevant domestic industry space and the mature development of e-commerce abroad have given Alibaba a favorable economic environment.

2.2 Social surroundings

Online shopping, a term that emerged in 2006, is now a household word. The convenience and efficiency offered by online shopping have facilitated online transactions between businesses. The biggest beneficiary of this is Alibaba. It has a near-monopoly on the Chinese consumer market.

2.3 Technological resources

Alibaba is a marketplace through a range of business-to-business and business-to-consumer activities. Together with various banks, Alibaba has created Alipay, an online payment platform, and a series of value-added services that Alipay brings into a huge business service empire that integrates business, logistics, capital, and information flows.

2.4 Chinese government Policy

The problems arising from the disorderly development of the Internet under the aegis of capital are becoming more and more serious, and the state will crack down more and more on monopolistic industries. This is undoubtedly a blow to Alibaba, but this blow also allows Alibaba to gradually return to the right track in its big development. After all, without a good ecology of fair competition, the platform economy will lose its strong vitality for innovative development. China splits Ant Financial

Alipay, while Alibaba's IPO in Hong Kong and Macau falls through due to a change in Chinese policy. These various crackdowns are also a reflection of China's determination to fight monopolies. Today, Ant Financial Services Alipay has become a kind of private bank, but the financial qualifications taken by Alibaba are not bank level. At the same time, it is stating one thing: China does not want or allow restrictions from big business.

3. Development of Alibaba's business model

3.1 The evaluation of Alibaba Group's e-commerce

In 1999-2003, Alibaba has formed B2B (Business to Business) model. The Internet has just been introduced into China, the spread of informatization is not high, and the concept of e-commerce has not yet been formed. Domestic Internet e-commerce companies are basically in a state of groping and have not formed a complete e-commerce operation system. In 1999, Alibaba officially launched its first B2B platform in Hangzhou to provide suppliers with additional online and offline services by charging membership fees. Among the trading platforms, Alibaba has a lower barrier to entry. In 2002, Alibaba achieved a balance of payments for the whole year.

In 2003-2008, Alibaba combine B2B and C2C (Customer to Customer) model. With the outbreak of SARS in 2003, many offline transactions and business activities were forced to terminate. Consumers began to enter online shopping websites, and the derived C2C model was developed. E-commerce found an opportunity to move forward in this special period. At the same time, Alibaba invested 100 million to establish Taobao. In the same year, it established a third-party payment platform-Alipay. Alibaba used the same free strategy to compete with the mainstream C2C business platform eBay. Finally, in 2005, eBay's market share fell to 1/3, and Taobao's market share increased to 60%.

Table 1. The evaluation of Alibaba's Business model

| Period | Business model | Development status |
|--------------|--------------------------|--|
| 1999-2003 | B2B Platform | Providing suppliers with additional online and offline services by charging membership fees. |
| 2003-2008 | B2B+C2C Platform | Alibaba established Taobao and Alipay. Competing with eBay, Taobao' market share increased to 60% |
| 2008-present | B2B+C2C+B2C+O2O Platform | Established B2C platform Tmall in 2012; Created O2O platform Alipay. During this period, Alibaba carried out a series of cross-border acquisition services and completed the establishment of the digital economy ecological chain system. |

In 2008 to present, Alibaba combine B2B, C2C, B2C (Business to Customer), O2O (Online to Offline), 2008 was a year of explosive growth in online shopping models. In 2008, China's online shopping transaction volume reached 128.18 billion yuan, breaking the 100 billion barriers, an increase of 128.5% compared to 2007. The scale of C2C transactions is as high as 119.47 billion, accounting for 93.2% of the overall network transactions. As of 2020, China's e-commerce transaction volume has reached RMB 37.21 trillion. Under this circumstance, Taobao created a new B2C platform Tmall in 2012. In 2014, Alibaba Group announced that Tmall International was officially launched to provide domestic consumers with imported products from overseas. On November 11, 2020, the total turnover of Tmall's Double 11 shopping carnival totaled 498.2 billion yuan. At this time, the business model of Alibaba Group evolved into a hybrid model of B2B+C2C+B2C. In 2014, Alibaba Group established a new O2O business model. Alipay has a great significance in the new O2O business model, enabling the common use of membership system data, product data, and user payment links in the new business model. Taobao's abundant and fixed customer resources have laid the foundation for Alibaba's O2O business development. At the same time, Ali continues to expand its business scope. So far, Ali Group's business covers multiple industries including retail, wholesale, medicine, finance, and cloud

computing. Based on the data of the *2020 Alibaba Financial Statement (2021)*, 86% of the revenue of Alibaba Group in 2020 comes from core commerce, and the revenue of China commerce retail accounted for 86% of total core commercial revenue (As shown in Figure 1 & Figure 2). According to the *2020 Alibaba Financial Statement (2021)*, “Taobao Live become one of the formats of the fastest-growing sales on Alibaba China retail marketplaces”.

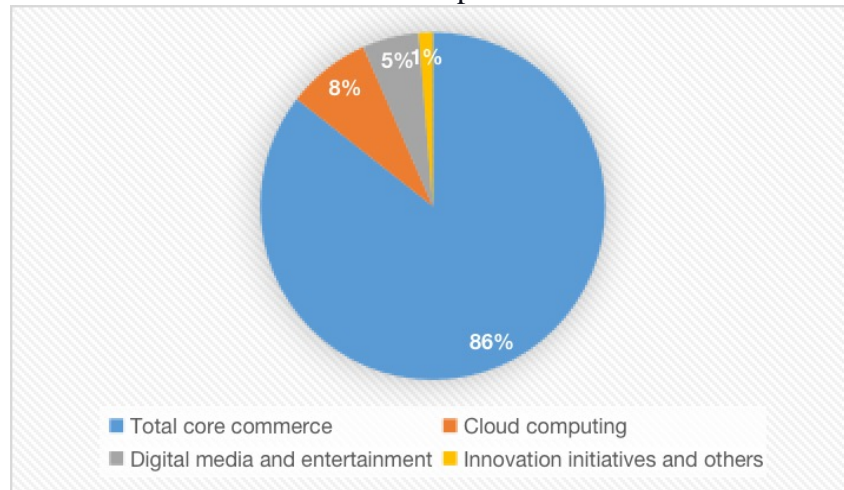


Figure 1. The principal components of Alibaba Group’s revenue for 2019

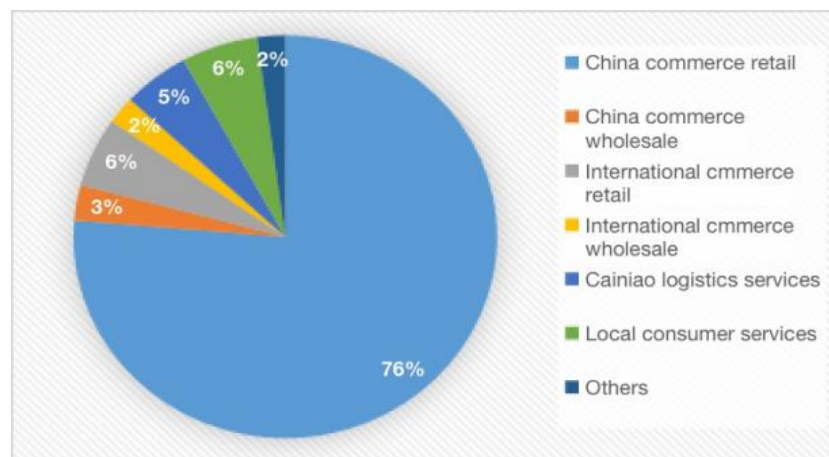


Figure 2. The principal components of Alibaba Group’s core commercial revenue for 2019

3.2 Investment strategy

First, the import period (1999-2003). At this stage, Alibaba's main investment activities include the establishment of Alibaba company and Taobao and creating a B2B centric platform business model.

Second, the rapid development period (2004-2008). During this period, Alibaba established Alipay, AliWangwang, Taobao, and Alimama, and bought YAHOO China and Koubei. In 2006, Taobao ranked first with a market share of 65.2% and became the largest retail complex in China with a transaction volume of 99.96 billion yuan in 2008. Alibaba established its leading position in the industry, and its investment was, therefore, more specialized.

Third, the diversified development period (2008-). At this stage, Alibaba established Alibaba cloud computing, the group-buying site Juhuasua, Alibaba Health Information Technology Limited, etc., acquired HiChina, and successively invested in UC Browser, Amap, Meizu, Tudou, Damai, ELEME Takeout, etc. Alibaba's investment at this stage, compared with the specialization of the previous period, is more diversified, covering 13 industries such as e-commerce, logistics, O2O living platform, and offline physical stores, with a capital of more than 400 billion yuan [5].

Alibaba's investment scope shows a diversified trend, and the investment mode is mainly indirect equity investment and long-term investment (Table 2).

Table 2. Alibaba's investment strategy (2019-2021)

| Assets(¥million) | 2019-3-31 | Promotion (%) | 2020-3-31 | Promotion (%) | Growth rate(%) | 2021-3-31 | Promotion (%) | Growth rate(%) |
|--|-----------|---------------|-----------|---------------|----------------|-----------|---------------|----------------|
| Short-term investment | 13,189 | 1.37 | 32,712 | 2.49 | 148.02 | 162,183 | 9.60 | 395.79 |
| Equity investment and long-term investment | 241,544 | 25.03 | 350,961 | 26.79 | 45.30 | 437,410 | 25.88 | 24.63 |
| Total assets | 965,076 | | 1310,000 | | 36.05 | 1690,000 | | 28.73 |

3.3 Resources distribution

Alibaba's resources are divided into balance sheet assets and off-balance sheet assets according to whether they are listed in the balance sheet. We will focus on Alibaba's off-balance-sheet assets.

3.3.1 Brand and Public praises

As the first integrated economic and business development platform established in the world, Alibaba can cope with the rapidly changing consumption pattern in China. Therefore, Alibaba can form a strong financial and social bond with customers, resulting in a huge network effect and enhanced customer stickiness.

3.3.2 Human resources

Alibaba established its talent supply college in October 2016, enabling it to gather global scientific research talents. By 2018, Alibaba ranked first in the number of scientific research and innovation personnel in the world. This also provides a strong backing for Alibaba's continuous innovation during the epidemic.

4. The impact of the epidemic on Alibaba

4.1 Operating condition

China launched COVID-19 outbreak in early 2020, but according to 2020 *Alibaba's Financial statement*, Alibaba's revenue was 509 billion 711 million yuan, an increase of 35% over the same period last year, and the income in the fourth quarter from January 1, 2020, to March 31, 2020, was 114 billion 314 million yuan, up 22% over the same period last year. In the fiscal year 2021, Alibaba's revenue was 717.289 billion yuan, a year-on-year increase of 40.72%. In the fiscal year 2020, the GMV of Alibaba's consumer business in the digital economy reached 7.053 trillion yuan, more than 1 trillion dollars. Specifically, for online platforms, Taobao and Tmall, the GMV of Taobao live sales increased by 100% year-on-year, and during the pandemic, Taobao Tmall and Cai Niao Courier set up 1 billion yuan special fund to subsidize supply chain and logistics; ELEME Takeout and Koubei cooperated with more than 500 brand merchants throughout the country to send free meals to 37 cities and 182 hospitals during the pandemic; Alibaba cloud's revenue exceeded 10 billion for two consecutive quarters and during the pandemic period, Alibaba cloud supported 28 provinces across the country to quickly establish a digital epidemic prevention system. The health code covered 25 provinces across the country. More than 560 hospitals across the country used Alibaba DAMO Academy for Discovery, Adventure, Momentum, and Outlook's AI technology to diagnose suspected cases; Ding Talk users exceeded 300 million and the number of enterprise organizations exceeded 15 million, and it significantly increased during the pandemic; the average daily number of packages

handled by Cai Niao Courier increased by more than 100% year-on-year during the pandemic period. Cai Niao Logistics delivered more than 130 million medical materials to 147 countries and regions around the world [7].

4.2 Financial condition

Large financing includes more than 200 million yuan of pre-A financing and 12 billion yuan of financing yuan financing, round B financing of \$4.5 billion, and pre-IPO Financing of \$14 billion, as well as some small-scale financing from different companies [8].

Revenue from cross-border and global retailers for FY2020 was RMB24,323 million, an increase of 24% compared to RMB19,558 million in FY2019. The growth is mainly attributable to Lazada.

Cross-border and global wholesale commercial revenue for FY2020 was RMB9,594 million, an increase of 17% compared to RMB8,167 million in FY2019. The growth is mainly attributable to Alibaba's foreign trade wholesale trading marketplace.

The release of the quarantine policy during the epidemic has led to a sharp decrease in the source of many offline shops. In this case, the number of Taobao live broadcast merchants surged during the epidemic, and the number of new active merchants on Taobao in Alibaba's 2021 fiscal year reached the five fiscal years since 2017 The highest value.

During the epidemic, restrictions on cross-border routes have caused slow sales of goods, the accumulation of commodities, and the increase in operating costs have brought challenges to the e-commerce industry. However, Alibaba's revenue from cross-border and global retailers for FY2020 was RMB24,323 million, an increase of 24% compared to RMB19,558 million in FY2019. Cross-border and global wholesale commercial revenue for FY2020 was RMB9,594 million, an increase of 17% compared to RMB8,167 million in FY2019.

4.3 Innovations of Alibaba in the epidemic period

4.3.1 Supply chain

Alibaba's perfect and stable supply chain has laid the foundation for Alibaba's stable income during the epidemic. In the face of the epidemic, Alibaba's global supply chain showed strong supply chain flexibility, greatly supported the domestic and international anti-epidemic work and economic recovery, and provided a model for the adjustment of the global supply chain [9].

On January 25, 2020, the day after Wuhan was officially closed on January 23, Zhang Yong, chairman of Alibaba's board of directors, asked rookie logistics to immediately change from "civil" to "Military" to carry out the transportation of relief materials. Ali rookie undertook the donation and transportation of medical materials sent to the epidemic area worldwide free of charge. Within 2 hours, the green channel for free transportation of rookie Wuhan rescue materials was opened. In order to maintain an adequate supply of emergency medical supplies, rookies, together with Alibaba, T-mall, and other major e-commerce platforms, have expanded the search scope to the world. Rookies have proposed and organized effective solutions to the supply chain to ensure the interconnection between upstream and downstream and connect the demand side and supply side. Even if a large number of logistics are shut down during the Spring Festival, they can still send scarce resources to all places. The rookie has also opened a 24-hour rescue hotline to summarize the donation demand worldwide, analyze the road conditions and logistics configuration in different regions through the rookie intelligent supply chain, and allocate the existing transportation capacity in time. Rookies optimized the traditional logistics model of layer-by-layer distribution and adopted the point-to-point trunk transportation mode with several other express companies to directly deliver relief materials to hospitals and other places. At the same time, it has arranged several storage spaces throughout the country. In the case of lack of materials in Wuhan, it has deployed three parks in East China, North China, and South China in Zhejiang, Tianjin, and Guangdong to provide reserves for Wuhan and cooperate with DanNiao and others.

Logistics continuously transports all kinds of materials to Wuhan. By the beginning of March 2020, the green channel opened by rookies has helped transport nearly 50 million materials free of charge to

72 hospitals and 66 other receiving units in 11 provinces across the country, solving the urgent shortage of protective articles. These materials come from China and 38 countries and regions in the world.

Facing hitherto unknown COVID-19, Alibaba's supply chain has shown strong innovation vitality. In China, the obstruction of personnel flow and logistics caused by the epidemic has led to a crisis in the sales of domestic agricultural products. Therefore, Alibaba Group has jointly created a digital supply chain with relevant government departments. Due to the epidemic situation, purchasers cannot arrive at the warehouse to check the quantity and quality of goods. Therefore, the quality assurance of goods and whether the quantity is short have become a key problem. In this regard, the solution given by Alibaba's supply chain is to conduct remote online and offline combined quality inspection and quality control. In this process, the government will participate in the whole process. Alibaba can monitor the product quality in real-time and dynamically through cloud platform technology and consumer after-sales feedback, and timely adjust the corresponding purchase promotion support according to the quality of commercial product evaluation, The stores with good reputation and quality will be pushed first, while the products with poor quality will be pushed or even removed from the shelves [4].

4.3.2 Expansion of Ding Talk

During the epidemic, Alibaba made its online office platform Ding Talk for free. As of January 2021, Ding Talk users exceeded 400 million. In order to respond to the national call and ensure the "online office" needs of enterprise organizations, education, medical care, and government institutions, Ding Talk was urgently developed. The employee health function was fully released at 5 a.m. on January 29, 2020 (the fifth day of the year). Employees can punch in health cards to "report safety" and organize health management to realize online and digital. It also opened the video conference function for 302 people for free and opened a full set of "office at home" systems to tens of millions of enterprises for free, to tide over the difficulties of the epidemic. Including "employee health" products, Ding Talk officially released a full set of free solutions to support "work at home" to tens of millions of enterprises and organizations on January 29, 2020 (the fifth day of the year). The main functions include remote video conference, group live broadcast convenient for educational institutions and schools, Ding Talk function to ensure accurate access to information during the epidemic period of enterprise organization, schedule sharing, task collaboration, online document collaboration, remote clock out function to ensure decentralized office efficiency of the organization, as well as log reporting, office OA, approval, intelligent personnel, announcement, check-in Project group and other basic functions of the online office, are fully open for free. Help the normal operation of the whole society in a special period of epidemic.

In addition, the digital working mode of Ding Talk has also become a strong guarantee for the resumption of work and production. On February 3, 2020, 200 million people will realize online remote collaboration and work at home through Ding Talk; More than 30 provinces have built efficient and intelligent anti-epidemic command platforms and epidemic digital epidemic prevention systems based on Ding Talk.

Together with Hangzhou municipal government, Ding Talk has also developed an enterprise resumption declaration platform. Hangzhou requires all enterprises to return to work. They need to report for filing 3 days in advance. Enterprises can report for approval through this platform. After passing the audit, the employees of the enterprise must punch in the health card every day. This is equivalent to opening a "white list" channel, which can effectively prevent and control the epidemic while ensuring that the "accurate resumption of work" in stages and batches will not affect production. The platform was then launched in Zhejiang Province and promoted throughout the country.

4.3.3 Taobao Live

In 2020, Taobao Live's annual turnover exceeded 200 billion, and the number of live broadcast merchants surged, which promoted the mature development of the live broadcast business mode.

With the outbreak of the COVID-19 epidemic, some areas of China have successively announced blockade policies, which lead to the decrease of the offline real economy. During this period, live

broadcasts became a new business development model encouraged by the government. Taobao Live has launched a no-threshold entry mode, and merchants do not need to pay any handling fees and deposits when they want to enter the live system. Relying on the huge user base accumulated on various platforms for many years, Taobao is still in an absolute leading position in the increasingly competitive e-commerce industry. According to the *2020 Taobao Live Broadcasting New Economy Report*, during the epidemic, in addition to the steady development of traditional live marketing models, Taobao Live also united various industries and organizations to produce numerous PGC programs to meet customer needs and stabilize customer sources. With the development of "Internet +" and new media, the e-commerce industry is scarce of talents, and the demand for higher numbers of people is increasing [10]. According to statistics, more than 100 offline occupations have joined the Taobao live. The addition of diversified talents has contributed to the increase in the richness of live materials. Traditional business models such as car sales, fitness, travel, and sightseeing have become new live materials. In 2019, the daily average number of users watching Taobao Live has increased by more than 150%. According to the *2020 Taobao Live New Economy Report*, up to February 2020, the number of new merchants on Taobao Live has increased by 719% month-on-month compared to January. Under the epidemic, Taobao live broadcast promoted the further stable development of the e-commerce industry, becoming the first emerging economic format to break out.

5. Discussion

Overall, our research identified several factors that contributed to Taobao's success during the outbreak. Firstly, it was Alibaba's success in overseas markets. revenues from cross-border and global retailers were RMB24.323 billion in FY2020, up 24% compared to RMB19.558 billion in FY2019. This growth was mainly attributed to Lazada. revenue from cross-border and global wholesale commerce in FY2020 was RMB9,594 million, an increase of 17% compared to RMB8,167 million in FY2019. This growth was mainly attributable to Alibaba's foreign trade wholesale trading marketplace.

Secondly, the epidemic also provided an opportunity for Alibaba. When everyone was closed, online shopping became the only option for people to buy things. At the same time, merchants chose to promote and sell their goods in a different way than usual. Live marketing and selling became a common choice for merchants. Therefore, the number of Taobao Live merchants has increased dramatically during the epidemic. Alibaba's fiscal year 2021 saw the highest number of new active merchants on Taobao in the five fiscal years since 2017.

Third, Alibaba's complex business model had its own effect during the epidemic. Alibaba Inc. itself is a B2B business model. Its' Taobao and Tmall, on the other hand, are B2C as well as C2C. the UI interface of Taobao will offer products from Tmall. Tmall will also offer products from Taobao. By relying on this approach, it is difficult for Alibaba to have a barrel effect.

6. Conclusions

The sudden epidemic has changed people's lifestyles but also promoted the further rapid development of the e-commerce industry. As a leader in the e-commerce industry, Alibaba has maintained a stable state of development in the situation of difficult global economic development. According to *Alibaba 2020 Financial Statement*, "Alibaba Group's total revenue increased by 51% from RMB250,266 million in the fiscal year 2018 to RMB376,844 million in the fiscal year 2019, and further increased by 35% to RMB509,711 million (US\$71,985 million) in the fiscal year 2020". The steady development of Alibaba's business benefits from a strong supply system, a stable logistics system, and a reliable payment business platform. The free opening of Ding Talk during the epidemic has created favorable conditions for Alibaba to further expand its corporate customer base. The introduction of diversified talents and the continuous innovation of content on Taobao's live broadcast service platform continue to attract new users for Taobao based on satisfying existing customers.

Overall, Alibaba has integrated several traditional business models into one. The various sections work in tandem with each other to create a marketing model that is unique to Alibaba. But this advantage will not last long. Excellent business models will be copied by other companies, and this will allow Alibaba's market share to be continuously eroded. Therefore, Alibaba will need to innovate to maintain its position as a leader. At the same time, Alibaba needs to be proactive in preventing possible "bottlenecks" in the complex and dynamic economic environment of the future and to be more proactive in business model innovation.

For existing companies in China. We have become trapped in a cycle of constant innovation as well as imitation. It is a virtuous circle that has had a progressive effect on the Chinese market. However, this paper does not analyze the specific impact of the hybrid business model on Alibaba, and the interaction between business models during the epidemic.

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