

# Impacts on the Chinese Video Game Industry During the COVID-19 Pandemic

Yuping Dan<sup>1,\*</sup>

<sup>1</sup> Beijing Luhe International Academy, Beijing, China, 101117

\*Corresponding author Email: danyuping@yeah.net

## ABSTRACT

Due to the COVID-19, quarantine has been introduced as a policy to restrain the expansion of the pandemic in China. As the policy successfully controlled the pandemic, it also had adverse effects on the economy of China indicated by decreasing in the Chinese GDP by 6.8% in the first quarter **Error! Reference source not found.** But the video game industry seems to have a different trend than others have: the video game industry has experienced a great expansion during the pandemic. Nearly all analyses about other industries in China are based on the history of SARS in 2003. However, that period of history is meaningless when the video game industry is considered. With the development of new technology, such as the Internet, people have to view the video game industry from a new viewpoint. Through analyzing published data and reports, this paper will present both positive and negative impacts that the pandemic had on the video game industry and provide suggestions that can potentially help middle-sized and small-sized video game companies and independent developers come through the pandemic.

**Keywords:** video game, COVID-19, pandemic, monopoly

## 1. INTRODUCTION

In December 2019, a new, highly contagious disease called COVID-19 or coronavirus was first reported in Wuhan, China. In the following year, this virus arrived and settled on almost every corner of the earth, causing millions of death. In order to combat the pandemic, multiple countries, including China, U.K, U.S, and France, enacted quarantine to restrain the expansion of the pandemic. While this policy did help control the pandemic, the potential impacts it has on the economy, especially the fictitious economy such as the video game industry, are still unknown.

Due to the quarantine, people's levels of anxiety and pressure dramatically increased, boosting the need for entertainment. Meanwhile, as people had difficulties making face-to-face interactions or even were prohibited to leave their homes, most offline entertainments became unattainable, leaving the video game industry a perfect environment to develop. After analyzing existing data including the real sales revenue of the Chinese

game market, the real sales revenue of the Chinese mobile game market, the market value, et cetera, this paper will present the impact of the COVID-19 pandemic on the Chinese video game industry. Further, this paper will present practical suggestions that indicate how middle-sized and small-sized businesses can come through this difficult time.

## 2. ANALYSIS

### 2.1. Potential positive impacts

#### 2.1.1. Bosting of revenue and daily active users

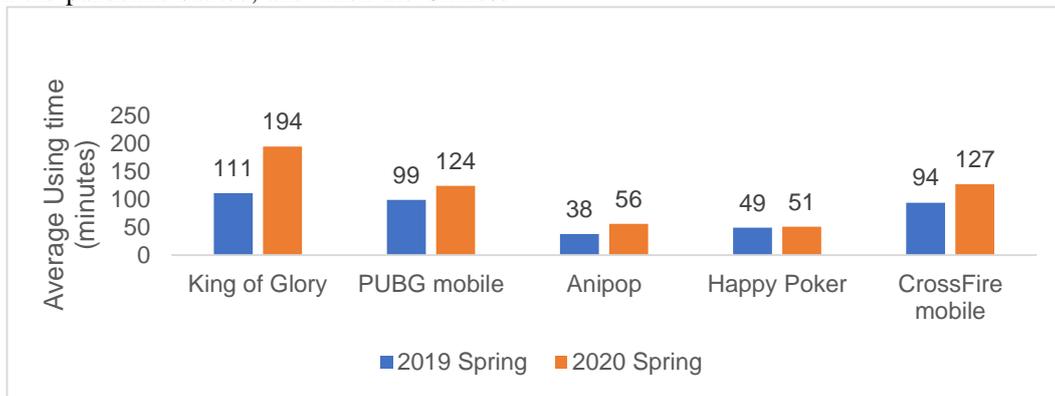
Based on research done by scholars of Middle East Technical University, there was an increase in share values for several large international companies, like Electronic Arts, Activision-Blizzard, Ubisoft, and Capcom, during the pandemic [2]. At the same time, evidence shows the market trend of the Chinese video game industry seems to have the same pattern.



**Figure 1** The total real sales revenue of the Chinese video game industry [3]

In Figure 1, the record of the total real sales revenue of the Chinese video game industry is shown. In the whole year of 2019, the total real sales revenue is varied around 57 billion and 58 billion RMB, without large fluctuations. However, in the first quarter of 2020, the time when the pandemic started, and when the Chinese

started to enact enforcement, a sudden boost of total real sales revenue appeared, shown by a growth rate of 25.22%. Hardly can this sudden increase not relate to the pandemic and the policies enacted by the government.



**Figure 2** The average using time of the top 5 mobile games in China during spring vacation [5]

Based on Figure 2, the average using time of several most popular dramatically increased. Some even showed an increase of about 75%. This can be a potential reason that raised the total sales revenue of the whole industry. As the daily active users (DAU) and using time increased, no matter whether the average revenue per user (ARPU) increases or not, the total revenue will definitely increase. This effect could especially help those games called “social games” that are characterized by high DAU and low ARPU.

a small proportion of users will do in-game purchases. During the pandemic, a large number of advertisements were made for Anipop, driving traffic to this app. As a result, the number of users of Anipop significantly raised.

Overall, the pandemic and policies that were enacted provided a perfect environment for the video game industry to grow. As a result, both daily active users and overall revenue had a significant increase.

**2.1.2. Gain benefits from the flourish of short video platform**

Another thing that indirectly promoted the revenue of the game industry is the increase of DAU for the short video platforms, like Tiktok. Those platforms provided a perfect place for free video games to advertise, bring thousands of new users to them. For example, Anipop is a classical free video game that requires a large scale of users to make profits since only

**2.2. Potential negative impacts**

Although there was evidence showing that the video game industry made lots of revenue during the pandemic, it only shows part of this complicated issue. In fact, the pandemic also had certain negative impacts on the game industry.

2.2.1. Small & Middle-sized businesses are bankrupted

Since 2018, when the Chinese government enacted stringent regulations, including the ISBN code policy

which prohibits games without an ISBN code from charging users, the total number of game studios constantly decreased. In 2018, 9705 game companies failed, and this number rose to 18710 in 2019 [4].

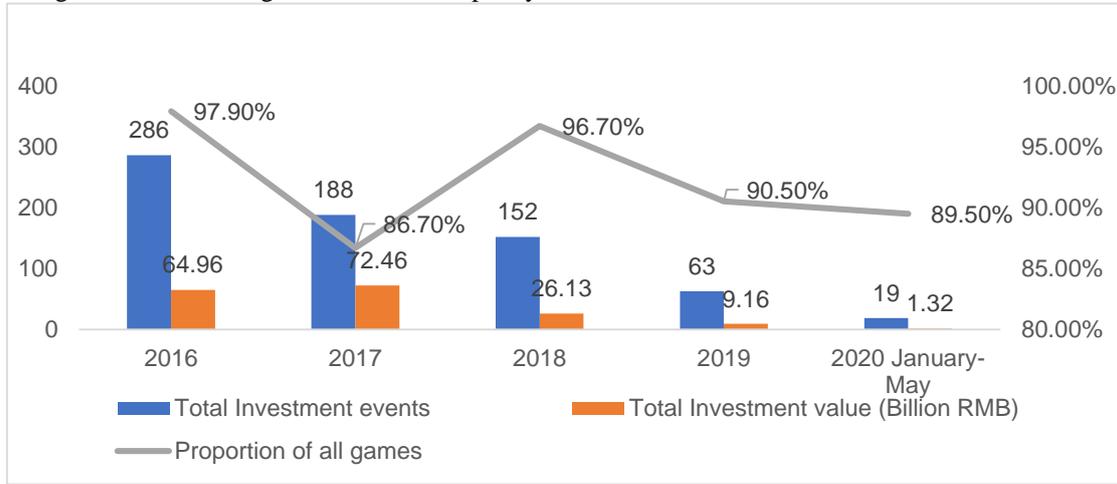


Figure 3 Overview of investment of the Chinese game industry (From 2016 to 2020) [4]

In Figure 3, an overview of the investment condition of the video game industry in China is shown. Based on the report of IResearch, a credible research organization focusing on provide online audience measurement and consumer insights, both total investment event and total investment dropped year by year, from original 64.94 billion RMB in 2016 to 1.21 billion RMB in 2020, indicating that the scale of investment shrunk about 97.97%. Under this circumstance, the difficulty for small-sized and middle-sized studios to gather sufficient funds to keep running the business is becoming harder and harder. Due to the pandemic, the Chinese government prolonged the spring vacation as well as prohibited most offline businesses [9]. These events greatly slowed the developing processes of most video game studios, increasing loss and delaying the releasing date.

2.2.2. High market concentration ratio

Before the pandemic, the Chinese video game industry was already highly concentrated, with a CR10 of 99.63% in 2019, indicating that 96.63% of the total market share was own by the top 10 companies in the industry [6]. This high concentrated ratio created a market without much competition, and competition was mainly between some top businesses such as Tencent and NetEase. Due to the pandemic, thousands of small-sized and middle-sized studios were forced to close, which even made this condition more severe. The video game industry is a perfect example of the Matthew effect, which is expressed that those who begin with advantage accumulate more advantage over time and those who begin with disadvantage become more disadvantaged over time [7]. Those studios that belong

to certain large businesses like Tencent or NetEase could keep surviving during the pandemic, supported by other departments of its parent company. However, independent studios, especially those in a relatively smallscale, might be unable to maintain their funds and forced to close. As the total number of firms within this industry decreases, the competition level will dramatically decline, leaving an uncompetitive industry. An industry that lacks competition will be not innovative and eventually damage the interest of consumers [8].

3. PRACTICAL SUGGESTIONS FOR MIDDLE-SIZED AND SMALL-SIZED BUSINESSES

Although the pandemic has already nearly gone in China, it is still important to reflect on this event, since the pandemic is still a serious disaster in other countries besides China, and lessons we learned from this “black swan” incident can help us in the future when similar events appear again to reduce the cost that human society will pay.

3.1. Utilizing telecommuting

The pandemic only prohibits people from making face-to-face communication and working offline. However, that does not necessarily mean that people are unable to work. If there is a way that people can keep working but online, the loss due to pandemics can be reduced. For example, some of the leading businesses in the industry have already started utilizing telecommuting during the pandemic. Code management and development tools like GitLab and Jenkins can be

used to make employers have the ability to program a project remotely; online document tools can allow employers to plan their working processes; online communication tools make exchanging ideas remotely and even call a meeting online become possible. In order to avoid prolonging the timescale of projects and delaying product releasing, it is highly recommended to those small-sized and middle-sized to prepare a plan for telecommuting and enact it on time.

### **3.2. Paying more attention to innovation**

Nowadays, in video game industry, only two types of games can win the market. The first type is commonly called “social game” which focuses on providing a good environment for players to socializing. The most popular mobile in China called “King of Glory” of Tencent is a perfect example. However, only can those companies who have their own channels to promote and have high user bases can develop this kind of game. The reason why “King of Glory” could succeed is that Tencent owns the largest social media, WeChat, in China. It is nearly impossible for small-sized and middle-sized studios to develop a “social game” and succeed. In this way, small-sized and middle-sized companies can only focus on the other type of game, games with innovative features. For example, *Arknights* is developed from *HyperGryph*, an independent studio. It had little advertisement but due to its new features, the game quickly gain about 6 hundred million RMB within one month.

## **4. CONCLUSION**

The COVID-19 pandemic has influenced the video game industry in multiple demensions. For positive side, the pandemic has increased the time that people spend on palying video game, the active users, and potential users due to the absence of other way to entertainment and the flourish of short video platform. For the negative side, the pandemic has aggregated the finicial burden of small-sized and middle-sized studios, forcing many of them close down. Besides, due to decreasing of total businesses, the overall competitive level of the industry declined, resulting a high concentrate ratio. In order to reduce the loss causing by the pandemic, telecommuting should be introduced, as well as innovation should be the main focus of small-sized and middle-sized studios.

## **AUTHORS’ CONTRIBUTIONS**

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## **REFERENCES**

- [1] National Bureau of Statistics of China. Preliminary Accounting Results of GDP for the First Quarter of 2020. National Bureau of Statistics of China, April 20, 2020. [http://www.stats.gov.cn/english/PressRelease/202004/t20200420\\_1739811.html](http://www.stats.gov.cn/english/PressRelease/202004/t20200420_1739811.html).
- [2] Şener, D., Yalçın, T., & Gulseven, O. The Impact of COVID-19 on the Video Game Industry, 2021. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3766147>.
- [3] GPC, & IDC. China game Industry Report for the first quarter of 2020, April 17, 2020 CGIGC Official Website. <http://www.cgigc.com.cn/gamedata/21837.html>.
- [4] IResearch. 2020 China mobile Game Industry Research Report. IResearch, November 6, 2020. <https://www.iresearch.com.cn/Detail/report?id=3679&isfree=0>.
- [5] Quest Mobile. QuestMobile 2020 Chinese Internet report. QuestMobile, February, 2020. [https://mp.weixin.qq.com/s/1HsuUnqI\\_b6dIOrPX73iLg](https://mp.weixin.qq.com/s/1HsuUnqI_b6dIOrPX73iLg).
- [6] Zhu, X. Competition pattern and market share of the Chinese game industry. Forward; Forward, July 13, 2021. <https://www.qianzhan.com/analyst/detail/220/210713-3a9f03be.html>.
- [7] Kenneth, L. F. Handbook of Aging and the Social Sciences (Handbooks of Aging) (Eighth Edition, pp. 3 - 22). Academic Press, 2016.
- [8] Reinganum, J. Uncertain Innovation and the Persistence of Monopoly. *The American Economic Review*, 1983, 73(4), 741-748. Retrieved September 8, 2021, from <http://www.jstor.org/stable/1816571>.
- [9] General Office of the State Council of the People’ s Republic of China. Notice of General Office of the State Council of the People’ s Republic of China on extending the 2020 Spring Festival holiday. The Official Website of Chinese Government; General Office of the State Council of the People’ s Republic of China, January 26, 2020. [http://www.gov.cn/zhengce/content/2020-01/27/content\\_5472352.htm](http://www.gov.cn/zhengce/content/2020-01/27/content_5472352.htm).