

On the Impact of the New Type of Coronary Pneumonia on China's Sports Industry: the Development Opportunity of China's Sports Industry after the Epidemic Period

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ABSTRACT. *The new epidemic situation of coronary pneumonia has restricted the development and formation of Sports Science in China. But as far as the sports industry is concerned, it hides the development opportunity under the negative influence. In this paper, the development of China's sports industry from the relevant big data survey, analysis of the impact of the epidemic on China's sports industry. It points out the particularity and new trend of the development of China's sports industry after the epidemic. The Countermeasures for the healthy and sustainable development of sports competition industry, sports goods manufacturing industry and sports training industry are given. Because of the differences between sports industry and other industries, combined with its own particularity and new situation, we should make good use of this opportunity to play a positive role in the overall economic recovery after the epidemic.*

KEYWORDS: *New coronary pneumonia, China, Sports industry, Opportunity*

1. Introduction

In the early stage of 2020, the new type of coronary pneumonia is rampant in China and even in the world. As an international public health and safety emergency, the new coronary pneumonia epidemic will have a negative impact on China and the global economic development, even stagnant, sports industry is inevitable. What kind of attack did the epidemic bring to China's sports industry, how to grasp the theme of improving national physique, scientific fitness and fighting epidemic war, and how to quickly recover the Chinese sports industry after the epidemic. It has become an important issue in China's sports industry.

2. Research Methodology

The research in this paper based on the data of sports resources of the National Bureau of statistics of China, this study analyzes the data collected from various books, periodicals, Internet and related resources.

3. The influence of epidemic situation on sports industry in China

Overall impact

When SARS occurred in 2003, the scale of China's sports industry was very small. 17 years later, the sports industry began to take shape. By the end of 2018, the total scale of China's sports industry reached 2657.9 billion yuan (see Table 1), with the added value accounting for 1.1% of China's GDP, showing a good momentum of development. At present, the new type of coronary pneumonia has a great impact on the sports industry. From 2015 to 2018, the total scale of China's sports industry will grow by 18.41% annually. According to this growth rate, the total scale of China's sports industry will reach 3147219 million yuan in 2019, and 3726622 million yuan in 2020. Now, during the special epidemic period, it will have an impact on the scale of hundreds of billions of industries every month, and also on more than 5 million sports industry employees every month.

Table 1 Total Scale Of China's Sports Industry in 2015-2017

(source: National Bureau of Statistics)

particular year	Total output	Added value	Increase in total expenditure
2014	13574.71	4040.98	
2015	17107	5494.4	26.02%
2016	19011.3	6475	11.13%
2017	21987.7	7811	15.65%
2018	26579	10078	20.88%

Influence of sports competition industry

At present, affected by the new coronary pneumonia, at least 100 events have been cancelled, suspended or postponed. As an important support plate of sports industry, sports competition industry is greatly affected. Professional teams, sponsors, spectators, cultural and creative derivatives, as well as catering, entertainment and accommodation will be affected in a short time. From 2015 to 2018, the average annual growth rate of China's sports competition industry is 25.10%. According to this growth rate, the scale of sports competition industry in 2019 will reach RMB 36.52 billion, and in 2020 it will reach RMB 45.68 billion (see Table 2). It is estimated that the new outbreak of coronary pneumonia will have an impact on the scale of China's sports competition industry of several billion yuan per month.

Table 2 Total Scale Of Sports Competition and Performance Industry in 2015-2018 (Source: National Bureau of Statistics)

	Total scale of sports competition and performance industry (100 million yuan)
2015	149.5
2016	176.8
2017	231.4
2018	292

Influence of sports training industry

This epidemic has a great impact on the sports training industry. Without the end of the epidemic, offline sports training will not be started, and many sports training institutions across the country will fall into a state of "suspension". Even if online training is adopted, it is difficult to generate substantial benefits in the short term due to various conditions. From 2015 to 2018, the average annual growth of sports training industry is 109.8%. Of course, this data is affected by the adjustment of national statistical caliber, with some growth (see Table 3). According to the calculation of the average growth rate of 17.40% in the previous three years, the total scale of the sports training industry in 2019 is 2021.6 billion yuan, and the total scale of the sports training industry in 2020 is 237.33 billion yuan. It can be predicted that the epidemic will affect the scale of the sports training industry of more than 10 billion yuan every month.

Table 3 Total Scale Of Sports Training Industry in 2015-2018

(source: National Bureau of Statistics)

	Total scale of sports training industry (100 million yuan)
2015	247.6
2016	296.2
2017	341.2
2018	1722

Influence of sports goods manufacturing industry

At present, the impact of the new type of coronary pneumonia from service industry to manufacturing industry has been inevitable. According to the statistics of China's tianyancha software, most of China's sporting goods manufacturing enterprises have been established for about 5-8 years, with small scale, low technical content, little accumulation of enterprises, and low anti risk ability such as capital reserve. On the one hand, the

sporting goods manufacturing industry itself will cause short-term production lag due to the delay in resumption of work, slowdown in circulation and other reasons; on the other hand, the impact of consumption, service, import and export fields will also spread to the sporting goods manufacturing industry, which will be reflected in the reduction of orders and inventory in the sporting goods manufacturing industry. At the same time, because of the infection way of the new type of coronary pneumonia, everyone gathered at home, which would also inhibit the consumption of sports goods, and online retail, because of a certain degree of “traffic control” and the unusually busy logistics system during the epidemic, the goods could not arrive in time.

According to the PMI index (see Figure 1), as of April 2020, the impact of the epidemic has been shown. In February 2020, the PMI index of both manufacturing and non manufacturing industries decreased by 27.44% and 45.49% year-on-year respectively, which has been reflected by relevant indicators.

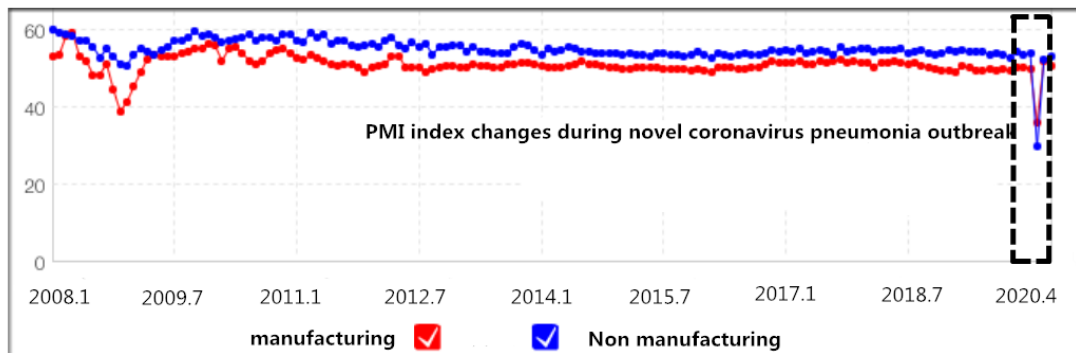


Fig.1 Changes of PMI from January 2008 to April 2020

(source: China Federation of logistics and purchasing)

4. Analysis of the causes of the impact of the epidemic on China's sports industry

Sports competition industry

At present, affected by the new type of coronary pneumonia, there are at least 100 cancellations, suspensions or postponements in China's professional leagues, including the Super League and CBA, among which 15 are more famous sports events (see Table 4). At present, there is even the possibility of canceling this season. Among them, professional teams, sponsors, spectators, cultural and creative derivatives, as well as catering, entertainment and accommodation will be affected in a short time. In some areas, stadiums and gymnasiums have been transformed into shelter hospitals. As an important support plate of sports industry, sports competition industry is most affected.

Table 4 Information on Postponement of Domestic Sports Events

(source: General Administration of sport of the people's Republic of China)

Partial postponement or cancellation, change of venue events	Original venue	Original time
2020 CSL (postponed)	Nanjing	2020.2.22
2020 CBA (postponed)	Dongguan	2020.2.1
2021 The thirty-first Universiade (postponed)	Chengdu	2021.8.8-8.19
Asian Indoor Track and Field Championships (cancelled)	Hangzhou	2020.2.13-2.14
2022 Yanqing stop of skiing World Cup in Winter Olympic test	Yanqing	2020.2.15-2.16
2020 World indoor track and Field Championships (one year later)	Nanjing	2020.3.13-3.15
2020 Asian wrestling qualification of Tokyo Olympic Games (Change the venue)	Xi'an	2020.3.27-3.29
Table tennis Asia Cup (postponed)	Wenchang	2020.2.28-3.1
Women's basketball Olympic Qualification (Change the venue)	Foshan	2020.2.6-2.9
2020 World Snooker China open (postponed)	Beijing	2020.3.30-4.5
2020 Tokyo Olympic women's Asian qualifier (Change the venue)	Wuhan	2020.2.3-2.9
Golf Ying Fung Bank Hong Kong Women's open (postponed)	Hong Kong	2020.2.28-3.1
2020 Super cup of China Football Association (postponed)	Suzhou	2020.2.5
The Fourteenth National Winter Games (postponed)	Neimenggu	2020.2.16-2.26

Diving World Cup series (cancelled)	Beijing	2020.3.6-3.8
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Sports training industry

1) Stores are at risk of closing.

Most of the sports venues in epidemic areas face the risk of closing and opening, while those in other areas, even if they are not closed, from the perspective of self-protection, the willingness and frequency of the masses to go out for fitness will be greatly reduced.

2) Increased cash flow pressure.

Sports training industry is a human intensive industry, with high investment cost and high rent cost. Therefore, sports training industry is an industry with high cash flow requirements. Affected by the epidemic, if the situation continues for more than half a year, there will be a large number of sports stores closed.

3) Facing the risk of member loss and layoff.

Although the sports training industry has announced the synchronous postponement of relevant training, the lack of “links” for a long time will lead to the loss of a large number of users, which may be a more long-term event than the impact of the closure of stores related to the sports training industry, resulting in layoffs or even large-scale closures.

Sporting goods manufacturing

1) Rising cost of sporting goods manufacturing.

The epidemic broke out during the Spring Festival holiday, China extended the holiday, enterprises shut down and shut down, almost all provinces started the first level emergency response mechanism, many places “closed the city”, some railways, aviation, cross provincial long-distance passenger transport, provincial passenger transport, city and county public transport stopped using, necessary “management” increased during the emergency period, etc., as well as workers' rework delay, sports goods manufacturing industry production will be seriously affected influence.

2) Export of sporting goods blocked.

After the new type of coronary pneumonia was listed as “public health emergency of international concern” by the World Health Organization, people's worries about import and export trade are further intensified. Although the World Health Organization “does not recommend restrictions on Trade and the flow of people”, then many countries issued tourism warnings, closed the border with China, partially cancelled flights with China, and the physical connection of economic exchanges between countries around the world was inevitably blocked.

3) Increased risk of layoff in sports manufacturing industry.

According to the employment rate function $I = LNL = LNA + \alpha LNY$ (I is the employment growth rate, y is the economic growth rate, a is a constant, α is the employment growth elastic coefficient), although social employment is related to the employment growth elastic coefficient, it is more closely related to the economic growth rate. In the case of a certain employment elasticity coefficient, the more prosperous the economy is, the better the employment situation will be, and vice versa. As a result, the sporting goods manufacturing industry will shrink its business, reduce investment and increase the risk of layoffs.

4) Attention should be paid to the damage of famous sports equipment brands.

Stock market is the barometer and leading indicator of economic development. After the outbreak, the stock prices of famous Chinese sports goods brands Li Ning, Anta, Tebu, 361 and so on fell collectively. It will take some time for the capital market to transmit to the real economy, but the epidemic can not be controlled in a short time, which will have a great impact on several famous sports equipment brands, and then affect the development of the whole sports goods manufacturing industry in China.

5. Particularity and new trend of sports industry development after epidemic period

Particularity of sports industry development after epidemic period

1) The trend of sports consumption heat after epidemic period with the increase of people's sports demand.

According to relevant research results and Zhong Nanshan, academician of Chinese Academy of engineering, said in a video interview with CNN on May 16, 2020 that physical exercise is an extremely effective way to

improve immunity. After all the major epidemics, people will pay close attention to their own health, so that people's desire to take part in physical exercise and improve their health will be stronger, and sports consumption will be more hot.

2) The purpose of national fitness after epidemic period.

From the perspective of conventional needs, after the Spring Festival, it has become the direct purpose of the vast majority of fitness participants to reduce fat and shape through physical exercise. In addition, under the epidemic situation, the inconvenience of home-based fitness will cause the enthusiasm of the public to participate in national fitness activities to continue to rise. Of course, the public will also be more clear about the purpose of enhancing physical fitness through national fitness. Sports consumption will increase significantly.

The new development trend of sports industry after epidemic period

Peter Drucker once pointed out that “the greatest danger in turbulent times is not the turbulence itself, but still doing things with the logic of the past”. From the perspective of commercial law, the cause analysis of the new type of coronary pneumonia has an impact on the overall economy, but the impact depends on the progress and effectiveness of the epidemic prevention and control. In the future, China's sports industry will present the following new development trend.

1) The country pays more attention to people's health, which will bring good driving force for the development of sports industry.

Economic development, in the final analysis, should serve the overall development of the people. After the epidemic crisis, the state will pay more attention to the health of the people and the health of the living environment. It will focus on improving the health index and happiness index of the people in an all-round way, and will increase the support for the group health in terms of people, finance and materials.

2) People pay more attention to health, which will provide strong impetus for the development of sports industry.

The new type of coronary pneumonia has a great impact on people's life style, ideology, social relations and other social factors, which has a great impact on sports. (see Figure 2) the masses will devote more time to sports in order to improve their immunity and resistance to viruses.

3) The epidemic situation affects the formation of sports values, and people's enthusiasm for sports participation will be improved unprecedentedly.

Heraclitus, the ancient Greek philosopher, put forward that “life lies in motion”. The rampant epidemic situation promotes people to form correct and reasonable sports values. Sports consumption will increase significantly.



Fig.2 Impact of the New Crown Epidemic on Individuals and Response

(source: Based on various data)

6. Suggestions and Countermeasures for the development of China's sports industry after the epidemic period

Suggestions on the development of China's sports industry after the epidemic period

1) Sports industry develops towards diversification, digitalization and integration

The new technology will further penetrate into the sports field, making the sports industry continue to integrate education, medical treatment, tourism, culture and other resources, and develop towards the direction of globalization, diversification and digitalization.

2) Precise, personalized and agile production will become the trend

Carry out service mode and business mode innovation based on personalized products, and through professional and comprehensive sports fitness equipment and services, commit to providing users with professional and scientific sports health solutions.

3) New cross domain platform development system of sports industry has been built

Cross industry and cross field sports industry interconnection platform will be formed to promote the agglomeration and docking of sports industry innovation, and the wide application of new technology means will provide strong creativity for the development of sports industry.

Countermeasures for the development of China's sports industry after the epidemic period

1) Sports competition

It is the most effective way to seek professional advice from the perspectives of clinical treatment, disease control medicine, combination of physical medicine and health management. Zhang Wenhong, head of novel coronavirus pneumonia treatment unit and director of infectious diseases department of Huashan Hospital Affiliated to Fudan University, said when he restarted the sports events, the zero audience spectator game could be started at the beginning. After the resumption of sports events, the epidemic prevention should be closed loop management. "Zhang Wenhong"

2) Sports goods manufacturing

Online consumption may be the mainstream of sporting goods manufacturing in the future. Sports manufacturing and retail enterprises should promote the development of producer services, promote the operation mode of online and offline deep integration from the value chain level, and grasp the good opportunity of intelligent manufacturing and intelligent retail development.

3) Sports training

The sports training industry can use the network to carry out online publicity, so as to maintain customers, online media and communities, and then increase stickiness, reserve "food" for offline services; at the same time, actively carry out online fitness, online training and other sports, promote the combination of online and offline sales, improve the diversification of sales, and reduce costs.

7. Conclusion

Although the new coronary pneumonia epidemic has caused losses to the global economy and even China's sports industry in the short term, due to the differences between the sports industry and other industries, combined with its own advantages, we should seize the development opportunity to play a positive role in the recovery of the world economy after the epidemic.

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