

Prospect of the Olympic Games in the Post-COVID-19 Era

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Abstract: In the Post-COVID-19 era, the global pattern is full of crises and opportunities. As the world's largest and most well-known comprehensive sports event, the Olympic Games is deeply influenced by global politics, economy, culture, science and technology, which together constitute opportunities and challenges for the development of the Olympic Games. The opportunities are mainly reflected in: the Olympic Games have the opportunity to promote the concept of sustainable development on a global scale by promoting environmental protection, promoting balanced regional development and improving the quality of life; By introducing new technologies such as virtual reality and electronic games, strengthening digital interaction and encouraging the development of virtual sports, the Olympic Games can not only attract the attention and participation of more young audiences, but also promote the application and development of new technologies in sports events. The Games can play a greater role in promoting social harmony, enhancing public well-being and strengthening support for displaced refugees and people through cooperation with various international and local organizations; Increased economic and fiscal resilience; The rise of emerging economies. The challenges are mainly reflected in the pressure of world economic development, the interference of political factors, the defects of technological innovation, and the troubles of social and cultural diversity.

Keywords: Post-COVID-19 Era; The Olympic Games; Sustainable Development; Scientific and Technological Innovation; Cultural Diversity

1. Introduction

Before the outbreak of the COVID-19, due to the worldwide economic downturn and the

decline of people's willingness to bid for the Olympic Games, the host city of the 2024 Olympic Games was determined after the 2016 Rio Olympic Games, but it is embarrassing that Boston, Hamburg, Rome and Budapest withdrew one after another. Only two remain, in Paris and Los Angeles. The International Olympic Committee can only postpone the time to decide the host city until September 2017, and in order to prevent Paris and Los Angeles from bidding for the following 2028 Olympic Games no matter who failed to bid, and even break the convention, and negotiate with the two cities to let them host the 2024 and 2028 Olympic Games respectively, to give the International Olympic Committee more buffer time. On June 26, 2019, at the 134th session of the International Olympic Committee held in Lausanne, Switzerland, the IOC Executive Board adopted the proposal for multiple cities and even countries (regions) to jointly host and implement the invitation system. But the crisis of no one bidding in the future has not been lifted. Since the outbreak of the novel coronavirus, Western countries led by the United States have increased their "anti-globalization" actions and stirred up geopolitical tensions, eventually triggering the Russia-Ukraine military conflict, which caused global energy crisis, food crisis and humanitarian disaster, and further aggravated the global economic crisis and geopolitical tensions. And the Olympic Games is deeply affected by international politics and economy, which will also cause a great crisis to the development of the Olympic Games. Crises are two sides in one body, and opportunities lurk in danger.

"At present, the changes in the world, the changes in The Times, and the changes in history are unfolding in an unprecedented way" [1]. At the beginning of the outbreak, the famous American writer Thomas Loren Friedman pointed out that the COVID-19 pandemic will change the course of human history, or will become "the world Before COVID-19 (B.C. : Before Corona) and the world after COVID-19

(A.C. : The historical demarcation point of the World After Corona. [2] The COVID-19 epidemic is not only a global public health emergency, but also has profoundly affected and changed the evolution trend of the global landscape (including politics, economy, culture, science and technology) [3]. In the post-COVID-19 era, the global landscape is full of dangers and opportunities. As the world's highest level and highest standard event, the Olympic Games has always been deeply influenced by global politics, economy, culture, science and technology [4] [5].

As the world's largest and most well-known comprehensive sports event, the future development of the Olympic Games includes promoting sustainable development, promoting scientific and technological innovation, and enhancing public participation. The challenges it faces involve economic pressure, political factors, and technological innovation.

2. Opportunities for Olympic Development

2.1 Promotion of Sustainable Development

The Olympic Games have the opportunity to promote the concept of sustainable development on a global scale by promoting environmental protection, promoting balanced regional development and improving the quality of life. The International Olympic Committee has taken sustainable development as its core strategy, combined with the Sustainable Development Goals of the United Nations, and is committed to using the platform of the Olympic Games to promote the realization of these goals [6].

The Beijing 2022 Winter Olympics is a case in point, which strives to achieve sustainable development goals in three aspects: environmental, economic, and sociopolitical. For example, the Beijing Winter Olympics sought to reduce its environmental impact by using clean energy, promoting green transportation and sorting waste. In terms of environmental protection, the Beijing Winter Olympics has taken a number of measures to reduce carbon emissions and environmental pollution. Renewable energy sources, such as wind and solar power, are widely used at the event venues to ensure a clean energy supply. At the same time, the organizers also vigorously promoted green transportation programs, including encouraging the use of public transportation, providing electric vehicle rental services and

optimizing traffic flow management, which significantly reduced traffic emissions during the event. In addition, the Beijing Winter Olympics also implemented a strict garbage sorting policy, improved the waste recovery rate, and adopted environmentally friendly materials for venue construction and event operation, further reducing the burden on the environment [7]. In terms of promoting balanced regional development, the preparation and hosting of the Beijing Winter Olympics has brought significant economic and social benefits to the host city and its surrounding areas. The infrastructure of the event, such as new transport networks, sports facilities and accommodation services, not only improved the living conditions of local residents, but also laid the foundation for future tourism and business activities. In addition, the hosting of the Winter Olympics has also promoted local employment, provided a large number of job opportunities, and led to the development of related industries, such as sporting goods manufacturing, tourism services and cultural and creative industries. At the socio-political level, the Beijing Winter Olympics showcased China's positive image on the global stage and promoted international exchanges and cooperation through sporting events. During the event, athletes and spectators from all over the world come together to celebrate sportsmanship, and this cross-cultural interaction helps to promote mutual understanding and respect. At the same time, the Winter Olympics also provide a platform for the host country to showcase its cultural, historical and development achievements, and enhance the international community's understanding and goodwill toward China.

The IOC also stressed the importance of "new norms" in the organization of events, including sustainability and flexibility, which will help future Olympic Games better adapt to changing circumstances in the preparation and operation of the Games. This new code requires that the host city of the future Olympic Games must take into account various factors such as environmental protection, social responsibility and economic sustainability in the planning and implementation process [8]. For example, event venues should be designed and built with renewable materials, event operations should minimize energy consumption, and post-event venues should be versatile enough to continue to serve the public and communities.

2.2 Promotion of Scientific and Technological Innovation

Virtual reality technology provides the audience with a new experience, so that they can feel the intense atmosphere of the game. Through virtual reality technology, the audience can enjoy the experience of watching the game at home, which is a huge boon for the audience who can't watch the game live. The combination of the video game industry and the Olympic Games has brought more entertainment elements and commercial value to the Olympic Games. Through video games, the audience can interact with the athletes outside the competition, increasing the audience's sense of participation and belonging to the Olympic Games.

The Olympic Agenda 2020+5 highlights the importance of digital interaction and proposes to enhance online interaction with audiences to increase audience engagement and satisfaction. Through digital platforms such as social media and mobile applications, the Olympic Games can interact with the audience in real time to share the wonderful moments and behind-the-scenes of the games [9]. "Olympic Agenda 2020+5" also proposes to encourage the development of virtual sports, including e-sports and other emerging sports into the consideration of the Olympic Games. The inclusion of virtual sports will bring new vitality and competitiveness to the Olympic Games and attract more young people's attention and participation. Future Olympic venues will pay more attention to intelligent construction, using advanced sensors and Internet of Things technology to achieve automated management of venues and optimize operations. Intelligent venues will provide more convenient and comfortable service experience for athletes and spectators, and improve the quality and level of the overall event.

Artificial intelligence technology can help athletes with accurate training and competition strategy. By analyzing vast amounts of sports data, AI can identify an athlete's strengths and weaknesses to provide personalized training recommendations. For example, AI can help coaches develop more scientific training plans and improve athletes' competitive level by analyzing athletes' motion capture data [10]. Artificial intelligence technology can be applied to the referee system to improve the fairness and accuracy of the game. Using data collected by

high-speed cameras and sensors, AI can determine in real time whether an athlete's movements are compliant, reducing the possibility of human error. This kind of intelligent referee system has been applied in some sports events and achieved good results. Artificial intelligence technology can provide a richer spectator experience. Through virtual and augmented reality technology, viewers can enjoy the experience as if they were there at home. In addition, AI can also recommend relevant competition content and information according to the interests and preferences of the audience, improving audience participation and satisfaction. The application of artificial intelligence technology in the Olympic Games can promote the development of related industries.

2.3 Enhancement of Public Participation

The Olympic Games is a global sporting event that attracts athletes and spectators from all over the world. By holding various cultural activities and exhibitions, the Olympic Games can promote exchanges and understanding among different cultures and enhance friendship and mutual trust among people of all countries. For example, events such as cultural festivals, art exhibitions and concerts can be held during the Olympic Games, giving peoples the opportunity to learn about each other's cultural traditions and values. The Olympic Games advocate the "faster, higher, stronger" sportsmanship, emphasizing the importance of fair play, teamwork and self-transcendence. This spirit can stimulate people's patriotic enthusiasm and social responsibility, and promote the harmonious development of society. At the same time, the Olympic Games can also promote sportsmanship through various public welfare activities and charitable projects, such as donating sports equipment to poor areas and organizing youth sports training camps.

The Games can also provide humanitarian assistance to displaced refugees and people through cooperation with international organizations. For example, they can be provided with food, water, medical supplies and other basic necessities of life. In addition, the Games can also support relevant humanitarian projects and organizations through donations and fundraising activities. The Olympics can use its international clout to push for policy change. For example, governments can be called upon to

increase investment and support for refugees. The international community should strengthen cooperation to jointly cope with the refugee crisis. In this way, the Olympic Games can fight for more rights and welfare protection for the displaced refugees and people.

2.4 Increased Economic and Fiscal Resilience

Despite the huge impact of the pandemic on the global economy, the Olympic Games can still maintain its economic and financial resilience in the global sporting event by innovating revenue generation models and optimizing cost management. The IOC plans to strengthen the economic base and global reach of the Games through more flexible use of the Olympic brand and support for the participation of athletes and sponsors. The innovative revenue generation model mentioned in Olympic Agenda 2020+5 provides a new economic direction for the Olympic Games.

The preparation and holding of the Olympic Games requires a large amount of infrastructure construction and service investment, which will directly drive the development of construction, transportation, tourism, catering and other related industries. The development of these industries will create more jobs and tax revenue, thereby boosting economic growth locally and nationally. The brand influence and global attention of the Olympic Games make it a popular platform to attract domestic and foreign investment and enterprise cooperation. Through cooperation with various kinds of enterprises, the Olympic Games can obtain more financial support and resource investment to further promote its economic development.

By innovating revenue generation models and optimizing cost management, the Olympic Games can not only maintain its economic and financial resilience, but also promote the development of social harmony. By promoting economic growth and employment, promoting cultural exchanges and integration, and strengthening social welfare and philanthropy, the Olympic Games can make greater contributions to the progress and development of human society. In the future, with the deepening of globalization and the continuous strengthening of international cooperation, we have reason to believe that the Olympic Games will play a more important role in injecting more positive energy into world peace and development.

2.5 The Rise of Emerging Economies

In the Post-covid-19 era, the world situation is undergoing drastic changes, which are mainly reflected in the decline of the comprehensive strength of developed countries in Europe and the United States and the continuous growth of the national strength of emerging economies led by China [11]. Compared with Europe, the origin of the ancient and modern Olympic Games, most of the emerging economies come from the same civilization with a long history and cultural heritage, they have different sports culture, their development and rise will inject new blood and strength into the Olympic Games. The COVID-19 pandemic has exacerbated social and economic problems in Europe and the United States, such as unemployment, poverty and inequality, which have had a negative impact on the overall strength of developed countries in Europe and the United States. With the deepening of globalization, the influence of European and American countries in international affairs is gradually declining, and the status of emerging economies is rising. As the largest emerging economy, China's economic aggregate has surpassed that of the United States to become the world's largest economy. Other emerging economies, such as India and Brazil, have also made remarkable achievements in the fields of economy, science and technology, and military affairs, and their international status is constantly improving. With the rise of emerging economies, the international order is undergoing profound changes, and the trend toward multipolarity is becoming more obvious. The voice of emerging economies in international organizations is gradually increasing, and the formulation of international rules is more just and reasonable.

Most of the emerging economies have a long history and rich cultural heritage, and these cultural traditions add a unique charm to the Olympic Games. By participating in the Olympic Games, emerging economies have the opportunity to showcase their own cultural characteristics and promote exchanges and integration between different cultures. Emerging economies have their own unique traditions and advantages in the field of sports, such as China's martial arts and India's yoga. If these sports culture can be integrated into the Olympic Games in the future, it will not only enrich the

content of the Olympic Games, but also attract more audience's attention and interest.

The participation of emerging economies has brought new vitality and competitiveness to the Olympic Games and promoted the development of the Olympic movement. As the national strength of emerging economies increases, their input and influence in the Olympic Games will also continue to increase, injecting new impetus into the future development of the Olympic Games. In the future, with the further development and growth of emerging economies, the Olympic Games will be more diversified and inclusive, bringing more wonderful and fun to people around the world.

3. Challenges of Olympic Development

3.1 Pressure on World Economic Development

The coronavirus pandemic has had a significant impact on the global economy, which has directly led to a huge financial strain on the Olympics. The postponement of the Tokyo Olympics and preparations for the Beijing Winter Olympics have taken on additional financial burdens. The IOC expects to incur hundreds of millions of dollars in extension costs, and all services will need to be reviewed and adjusted to the new economic situation. [12] In the Post-covid-19 era, the financial war, trade war and scientific and technological war carried out by the United States to suppress its strategic rivals have exacerbated the difficulties of global economic recovery, which has also increased the economic burden for countries to host the Olympic Games in the short and medium term. Therefore, all countries should adhere to the principle of multilateralism and resolve international disputes and issues through dialogue and consultation. In the economic field in particular, policy coordination and cooperation should be strengthened to jointly address global challenges. In addition, the improvement and development of the global governance system can be promoted through participation in international organizations and mechanisms. In addition, in order to reduce their dependence on the US market and reduce its impact on their own economies, countries can actively expand diversified markets. For example, cooperation with countries along the Belt and Road can be strengthened; Or promote intra-regional trade and investment liberalization

and facilitation through regional trade agreements and other means. At the same time, emerging business forms such as digital economy and cross-border e-commerce can also be used to expand the international market space.

3.2 Interference by Political Factors

The Olympic Games are often influenced by the international political environment. In the wake of the pandemic, the possible trend towards nationalism and protectionism, as well as the deterioration of international relations, could have a negative impact on the organization and operation of the Olympic Games. In addition, political rivalries may also seep into the field of sports, affecting the fairness and neutrality of the Olympic Games. The IOC needs to uphold the Olympic values while responding to pressure from different political forces to ensure that the Olympic Games remain an international sporting event that transcends politics. The United States and European countries have a significantly stronger voice in the International Olympic Committee than other developing countries, and the International Olympic Committee has obvious double standards. In the 2024 Paris Olympic Games, in the face of countries that have also committed war, Israel was invited but Russia refused to participate, which caused a huge controversy [13]. These also pose a potential threat to competitive sports in various countries. In addition, in this Olympic Games, Chinese swimmers have been subjected to many times more doping tests than European and American athletes, which has seriously affected the competitive state of Chinese athletes. In addition, European and U.S. countries have used the IOC to restrict some of China's traditional strengths, such as weightlifting. Weightlifting events in Paris have been reduced from 14 events in Tokyo to 10 events, and the maximum number of participants per country has been reduced from eight to six. Therefore, in the face of changes and challenges in the international political environment, the IOC should firmly safeguard the status of the Olympic Games as an international sports event that transcends politics. By strengthening communication and cooperation with governments and international organizations, we will promote consensus and support from the international community. At the same time, we should actively respond to pressure and interference from different political

forces to ensure that the independence and impartiality of the Olympic Games are not undermined.

3.3 Defects of Technological Innovation

The shortcomings of technological innovation are particularly complex and multi-dimensional in the Olympic Games, a sporting event that attracts worldwide attention. Although technological innovation, like a strong driving force, has injected unprecedented vitality and possibility into the Olympic Games, greatly enriched the spectator experience, and improved the organizational efficiency and global communication of the event, the hidden defects and challenges behind it cannot be ignored.

First of all, privacy leakage has become a dark side of technological innovation that cannot be ignored. With the wide application of big data, artificial intelligence and other technologies, the massive personal information collected during the Olympic Games, including spectator behavior data, athlete training data, etc., if mismanaged or subjected to illegal intrusion, it is easy to lead to personal privacy disclosure, which not only infringes on personal rights and interests, but also may lead to a crisis of public trust in technology application.

Secondly, the issue of network security has become increasingly prominent. As the focus of global attention, the Olympic Games' information systems and network facilities have become the key targets of hacker attacks. Once it is attacked, it may not only affect the normal progress of the event, such as tampering with the results of the game, interruption of live signals, etc., but also cause significant economic losses and reputation damage, posing a threat to the overall image and long-term development of the Olympic Games.

In addition, increased competition from technological innovation, especially from emerging sports such as e-sports, makes the Olympics a huge challenge to capture the attention of young viewers. As natives of the digital age, the younger generation has a natural affinity for emerging forms of sports such as e-sports. If the Olympic Games cannot keep up with the pace of The Times and deeply integrate traditional sports with modern science and technology through technological innovation and mode reform, it may gradually lose the attention and support of young audiences, thus affecting its future survival and development.

In addition, technological innovation may present challenges of fair competition. Although the application of high-tech equipment and training means has improved the competitive level of athletes to a certain extent, it has also caused concerns about "technological cheating". How to ensure the fairness of technology application and prevent it from becoming a tool to destroy sportsmanship is an important issue that the Olympic Games must face and solve.

3.4 Problems of Social and Cultural Diversity

The problem of social and cultural diversity in today's increasingly diverse and globalized world has become an important issue that the Olympic Games, a global sports event, must confront. The success of the Olympic Games as a bridge between different countries and cultures depends to a large extent on their ability to effectively respond to and promote this diversity. Especially in the wake of the pandemic, the global community is generally eager to strengthen solidarity and understanding, which puts higher demands on the organization and operation of the Olympic Games.

First, diversity in the schedule is key to meeting the needs of different cultures and societies. The IOC needs to ensure that the Olympic programme retains traditional strengths while actively introducing new sports to reflect the diversity and inclusion of global sports development. At the same time, in the selection of competition time, location and the formulation of competition rules, the cultural customs, religious beliefs and climatic conditions of different countries and regions should also be fully considered to ensure the fairness and participation of the event.

Secondly, cultural activities, as an integral part of the Olympic Games, also need to reflect the spirit of diversity and inclusiveness. By holding a variety of cultural exchange activities, art exhibitions, music festivals, etc., we can not only show the unique charm of different cultures, but also promote exchanges and understanding between different cultures. These activities should encourage the participation and contribution of all participants, so that everyone can feel the value and status of their own culture. For example, the LGBTQ-related performance at the opening ceremony of the Paris 2024 Olympic Games, while raising the public's attention and awareness of this community, the participation of the LGBTQ community has

enriched the cultural content of the Olympic Games and the content of the Games. Their presence and performance not only added new highlights to the Olympic Games, but also demonstrated the diversity and inclusiveness of sportsmanship. However, the display of LGBTQ on occasions such as the Olympic opening ceremony has also caused controversy, especially in some countries and regions with conservative attitudes towards LGBTQ issues [14]. In addition, banned by the International Boxing Federation with XXY gene of Taiwan and Iran, in this Olympic Games were allowed to participate in the women's event, and respectively won the corresponding heavyweight championship, which also caused a huge controversy. The controversy could affect the image and reputation of the Games and even trigger some negative reactions. How to maintain the inclusiveness of the Olympic Games while avoiding unnecessary controversy is an issue that Olympic organizers need to seriously consider. As a grand event of sports, the core of the Olympic Games is to show the athletes' competitive level and sportsmanship. However, with the increased emphasis on diversity and inclusion in society, how to appropriately reflect social diversity while maintaining sportsmanship has become a balancing act. Overemphasis on social issues may distract viewers from the sport itself and ignore the essence of the Olympic Games. Therefore, the right balance needs to be struck when it comes to showing LGBTQ elements in the Olympics.

4. Conclusion

The Olympics face multiple opportunities and challenges in the post-pandemic era. Olympic organizers need to control costs precisely and plan budgets wisely. By optimizing the construction of venues, reducing unnecessary expenses, and improving the efficiency of capital use, the overall cost is reduced. In addition to traditional ticket sales, television broadcasting rights, sponsorship income, but also can develop licensed goods, tourism projects and other diversified income channels, increase revenue sources. The government can support the Olympic Games through tax incentives, policy support and other ways, while enterprises can obtain brand exposure and market expansion opportunities through sponsorship. The Olympic Games is a global

sports event that requires the support and cooperation of governments and international organizations. By strengthening international communication and cooperation, the influence of political factors on the Olympic Games can be reduced. The organizers of the Olympic Games shall adhere to the principle of neutrality and impartiality, and shall not participate in any political disputes or controversies to ensure the fairness and impartiality of the Games. In response to possible political and security incidents, Olympic organizers should formulate contingency plans and strengthen security measures to ensure the safety of athletes, spectators and staff. The Olympic Games should also actively introduce advanced technologies, such as artificial intelligence, big data, 5G, etc., to enhance the enjoyment and participation of the games. The Olympic Games is an important platform for cultural exchange, which should be made full use of to promote the exchange and integration of different cultures. Cultural exhibitions, art performances and other activities are organized to showcase the cultural characteristics and artistic charm of various countries. During the Olympic Games, the cultural traditions and customs of all countries should be respected and cultural conflicts and misunderstandings should be avoided. To promote awareness of and respect for multiculturalism through enhanced cultural education and publicity. Through continued reform and innovation, and by upholding the Olympic values, the Games are expected to not only overcome these challenges, but also play a more important role on the global sports stage.

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