

The Economic Impact of Large-scale Sports Events on Developing Countries

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Abstract: Nowadays, more and more large-scale sports events are chosen to hold in developing countries. For example, the 2016 Summer Olympics was held in Rio de Janeiro, Brazil, a South American country, the 2022 Winter Olympics and the 2023 Asian Games be held in China. This paper analyses how big sporting events will bring economic benefits to developing countries. Through the case, the research focuses on the analysis of economic development at and after the competition of the 2022 Beijing Winter Olympics and the 2016 Rio Olympics. It is found that large-scale sports events will certainly bring economic development and tourism development during the holding period, and help the country improve its international status, but this is also closely related to the country's own economic strength. If there is not enough economic strength to improve the infrastructure, it will lead to a series of negative events after the game. Therefore, before deciding whether to apply for sports events, developing countries should first evaluate the overall situation of their countries, including economic development and social stability, to help make better judgments. After the game, host countries need to continue to use the competition venue, continue to develop tourism, ensure economic development, and apply for win-win cooperation with developed countries.

Keywords: Olympics, developing country, large-scale sports events, economic effectiveness

1. Introduction

With the popularity and progress of science and technology, public can see content about sports events on various social media, such as Facebook, YouTube, Instagram. It can be said that social media is the main way for fans to understand relevant information. With the increase of social attention to sports events, more and more people are interested in their impact, the most obvious of which is the economic effect.

Nowadays, developing countries have a deep international discussion and great influence, which has won the attention of people all over the world. The average living standard of developing countries is lower than that of other countries. The economies of developing countries are generally immature, and the lack of living standards lead to low per capita income and a low GDP starting point, but relatively fast growth. Unlike developed countries, most developing countries do not have advanced technological infrastructure and diversified industries or services. Therefore, the most important thing for developing countries is to improve their economic strength and GDP, so as to improve their international status.

Large-scale sports events refer to large-scale events, which usually have a huge impact, such as the Olympic Games, the Asian Games and the World Cup [1], which can usually win the host country from all over the world. High attention from all over the world has brought a lot of benefits. Some people who are supportive of large-scale sports events believe that these events have enough influence to attract a large number of rich tourists, thus bringing economic benefits to the organizers.

The improvement of economic effects can ensure the city's popularity and the continuous growth of tourism, thus improving the city's image and national status. On account of the construction of venues needed for sports events, it will definitely become a place for large-scale activities in the future, thus continuing to bring benefits. In addition, cities must invest in infrastructure and transportation to meet the needs of a large number of tourists, and such long-term investment will also bring good economic effects. Moreover, the construction of venues and other construction requires a large amount of labor to create jobs and revitalize the economy. For example, the 2012 London Olympics created nearly 8,000 full-time jobs and brought nearly 2 billion pounds of economic output growth.

Although the economic advantages brought by large-scale sports events are obvious, it will certainly bring economic development and tourism development during the holding period, but it is also closely related to the country's own economic strength. If there is not enough money to build venues and hardware facilities, it will greatly weaken its economic benefits and will lead to a series of negative factors after the incident. Most of the relevant reports are on specific developing countries, and few studies cover the economic impact of large-scale sports events on developing countries as a whole.

2. 2022 Beijing Winter Olympics

2.1. Background Description

In the summer of 2015, Beijing successfully became the host of the 2022 Winter Olympics. Since then, Beijing has become the first city in the world to host the Summer and Winter Olympics. The 2022 Winter Olympics are scheduled to be held in China from February 4 to February 20. The Winter Olympics consists of 7 major projects, from which it is divided into 109 small projects, which are divided into three different divisions - Beijing Central, Yanqing and Zhangjiakou. Among them, large-scale air freestyle skiing and women's single skiing first appeared in the Olympic Games as medal events. A total of 2,871 athletes participated in the 2022 Beijing Winter Olympics, representing 91 teams, among which Haiti and Saudi Arabia from Middle Eastern countries participated in the Winter Olympics for the first time. The 2022 Beijing Winter Olympics, with the vision of "pure ice and snow happy intersection", encourage people all over the country to participate in winter sports and inherit the spirit and good habits of the 2008 Beijing Olympic Games.

2.2. Economic Impact

If it is purely economic effect, the cost of hosting the Winter Olympics is a huge expenditure. Affected by the control measures implemented in response to the COVID-19 epidemic, the Winter Olympic Games have been banned from watching the event on site since the Winter Olympic Games were held during the COVID-19 pandemic, resulting in an estimated loss of \$118 million in ticket losses. In addition, the huge cost of upgrading and building professional sports facilities such as ski resorts and Olympic villages is often a special burden for organizers. In order to ensure the accurate operation and professionalism of the facilities, long-term capital investment is usually required. In terms of operating costs alone, Beijing has invested \$1.51 billion. However, this is only a small part of the capital expenditure, which does not include transportation construction, equipment installation and subsequent environmental clean-up [2,3].

However, due to the soaring cost of custody, the simple income can only bear a small part of the expenditure. At the same time, the improvement of various facilities in the Winter Olympics, the surge in people's love for ice sports and the expansion of related markets have brought a series of consumption and economic promotion, which is enough to make up for the loss of expenditure. Although offline viewing is limited by the epidemic, the revenue brought by online viewing has exceeded the new high. The rating of the Beijing 2022 Winter Olympics is by far the highest-rated Olympic Games in the world. The broadcasting revenue of the 2018 Pyeongchang Winter Olympics is 900 million US dollars, and the broadcasting revenue of the 2014 Sochi Winter Olympics is 800 million US dollars. It is estimated that by broadcasting the real-time live broadcast of the Beijing Winter Olympics around the world, its revenue will reach 1.1 billion US dollars, breaking the world record. In addition, the Olympic-themed goods represented by its mascot "Bing Dun Dun" have great influence with their unique and lovely appearance, athletes from all over the world are allowed to participate in the competition, reporters, and people around the world to compete to buy related peripheral products, with an income of more than 2.5 billion yuan [4].

In terms of stadium construction, compared with 2015, the number of skating rinks in China will increase by 317% by 2021. 654 standard skating rinks have been built across the country, an increase of 317% over 2015, and 803 indoor and outdoor ski resorts, an increase of 41% over 2015. As the largest proportion of GDP, the construction of infrastructure led to the development of the economy at that time. The improvement of facilities and the influence of the Winter Olympics have stimulated the participation of winter sports. Since 2015, the number of people participating in winter sports has reached 346 million. Public interest in ice projects can help China achieve a value of 5 trillion yuan in the sports industry by 2025. Objective. The tourism industry has also undergone great changes. According to the China Tourism Research Institute, China's winter tourism industry is expected to receive more than 520 million tourists during the ice and snow season from 2024 to 2025, with an income of more than 720 billion yuan (about 107 billion US dollars). The development of tourism has also brought a chain reaction. For people living in the surrounding areas of the stadium, the Olympic Games has created about 81,000 new jobs. More and more Chinese schools have begun to attach importance to the education of winter sports. It is expected that by the end of 2025, 5,000 schools across China will include winter sports in their curriculum [5].

Due to the 2022 Beijing Winter Olympics, not only the material conditions have been improved, but also the spiritual level of the people has been improved. The influence brought by the Winter Olympics and the star effect brought by Gu Ailing have further promoted China's national sports. The government has further improved some healthy public service systems, such as sports and fitness equipment, facilitated the masses to participate in sports activities, stimulated the enthusiasm of the masses, promote the development of the sports industry into a higher-quality enterprise, and improved the living standards of the Chinese people.

3. 2016 Rio Olympic Games

However, not all the reactions brought by the Olympic Games are positive. The 2016 Rio Olympic Games can be said to be unsuccessful.

3.1. Background Description

On October 2, 2009, at the 121st International Olympic Committee (IOC) meeting, Rio de Janeiro was declared the host city of the 2016 Rio Olympic Games and the 31st Olympic Games in history. It was an international comprehensive sports event held in Rio de Janeiro, Brazil, from August 5 to 21, 2016. The 2016 Rio Olympic Games was the first Olympic Games held in South America and the first held in Portuguese-speaking countries. The event was held in 33 venues in 5 different

independent divisions, namely Belo Orissanta, El Salvador, Bras, Elijah and Manaus. 11,238 athletes represented 207 countries in the 2016 Olympic Games. However, due to the political and economic crisis in Brazil and the epidemic of the Zika virus, the Olympic Games are full of controversy.

3.2. Negative Influence

The preparation of the Rio Olympic Games has encountered more problems than any recent Olympic Games. First of all, large-scale cost over-budget and construction are far behind schedule. The Rio Olympic Games cost \$13 billion and are jointly paid by public and private funds. The main expenditure is reflected in the construction of the Olympic venue, the development of new subway lines, the manufacture of doping laboratories, the improvement of ports and the cleaning of Guanabara Bay. However, many expenses exceeded the budget. The actual construction cost of the subway line was \$2.9 billion, the excess cost was 25%, and the Malacana Stadium owed \$930,000 in debt. Due to financial problems, there was a dispute between the International Olympic Committee and the municipal government of Rio. At that time, the circuit of a city in Rio was completely cut off and turned into an empty city. Such a huge expenditure is inconsistent with the local economic situation. Moreover, the Zika virus outbreak affected the participation of many athletes, and famous golfers such as Rory McIlroy and Jordan Spieth had to withdraw from the game because of the virus. Because the municipal government has not taken good defensive measures, the urban waterways have been seriously polluted. The World Health Organization has also put forward relevant suggestions. Athletes who use open water should take precautions to avoid swallowing virus fragments, cover exposed wounds with waterproof bandages to avoid infection, disinfect in time, and clean up immediately after leaving the scene. Because the actual cost of construction in Rio far exceeds the budget and owes debt, the state of Rio de Janeiro owes teachers and hospital staff salaries and pensions after the Olympic Games. The crime rate in this already rampant city has almost risen to a record level. Moreover, the impact of the Olympic Games on local residents is greater than the economic benefits it brings. The middle class in the city has intensified, the cost of living has become higher, the daily facilities are not maintained, and the traffic is crowded [6,7].

3.3. Economic Impact

Even if it is not a successful event, the people of Rio have benefited a lot from it. Due to the construction needs of the Olympic Hotel and other infrastructure, about 16,000 employees need to participate in it and complete the construction tasks. As a result, these two construction tasks also provide opportunities for many people who can't find jobs. Job creation has a great impact on the local economy of Rio, contributing 82% to the economic increase, and also raising the average income and happiness index of the Brazilian people. The occupational income of the poorest 5% increased by 29.3%, while the occupational income of the richest 5% also increased a lot, nearly 19.96%.

There has been a significant improvement in tourism. The 2016 Olympic Games brought a large flow of people to Brazil, because Brazil's tourism industry has developed well. In 2016, it created a new height of tourism data, receiving a total of 6.6 million foreign tourists, an increase of 4.8% over the previous year, and the total revenue brought by the development of tourism was 6.2 billion. The US dollar increased by 6.2% over the previous year. Not only is there a significant advantage in the tourism industry, but the hosting of the Olympic Games has also promoted cooperation between enterprises, so that Brazil's experience has also developed accordingly. Rio 2016 cooperates with Brazil's Micro and Small Business Support Services (SEBRAE) to successfully help some small and medium-sized enterprises apply for and win supplier qualifications through upgraded certification. SEBRAE exceeded its original goal of generating R\$3 billion in revenue for small and medium-sized enterprises in 2016 with Rio de Janeiro, and generated R\$390 million in revenue. In addition, more

than 13,000 small and medium-sized enterprises have been given the opportunity to participate in training programs and brokerage services [8].

4. Discussion and Suggestions

4.1. Differences of the Olympics

Even if both the Beijing Olympic Games and the Rio Olympic Games have brought certain economic effects, it is obvious that the economic development of the Rio Olympic Games is not much, so why is there such an obvious difference? First of all, there are political factors. The Rio Olympic Games were held against the background of the turbulence of Brazilian society due to multiple political factors. At that time, not only the domestic economy was seriously depressed, but also millions of people took to the streets to protest against the government. The second is infrastructure construction. Under this difficult background, preparations for the Olympic Games are still in progress, however some projects such as venue construction and transportation have not been completed within the specified time. In addition, it was affected by the Zika virus, which polluted Brazil's water resources, and there was no relevant preventive vaccine at that time. However, the International Olympic Committee believes that the Olympic Games will not be affected by the virus, nonetheless some athletes withdrew due to water problems.

Although the pre-match background of the Beijing Olympic Games, it is completely different from the preparation for the Rio Olympic Games. First of all, the Beijing Olympic Games coincided with the Chinese New Year, the society was stable, and everything related to the Winter Olympics was developed smoothly. The infrastructure construction of the Beijing Winter Olympics has been planned as early as 2014, with enough time for all infrastructure to be built at the highest level and the most environmentally friendly. Even though the novel coronavirus is still rampant during the Winter Olympics, the government has planned countermeasures. During the preparations for the Winter Olympics, in order to evaluate the effect of various prevention and control measures to reduce the negative impact caused by the novel coronavirus, the Olympic Organizing Committee established a dynamic model of pulse detection and isolation effect [9]. During the activity, do a good job in daily nucleic acid testing, reduce human-to-human contact and daily health monitoring to minimize the number of infections.

4.2. Disadvantages

Holding large-scale sports events in developing countries is not always a benefit. The cost of building stadiums is a big problem. The cost of the Olympic Games will rise over time and is much higher than expected. If you do not have enough energy, it is likely to be counterproductive, and many facilities built by the Olympic Games can never be fully used again, however, it still costs tens of millions of dollars to maintain it every year. Except for the Olympic Games, there are few activities that will be used in such a large competition venue, and other sports facilities such as the Olympic Village will also face the risk of being useless after the Olympic Games. After the game, some cities will increase taxes to make up for the losses, increasing the burden on local residents. Moreover, the high cost of carrying out the Olympic Games is very uncertain, and the budget price is not enough to support the actual construction [10].

4.3. Suggestions

For the different economic foundations, hardware facilities and technologies of different developing countries, carrying out large-scale sports events will bring different economic effects. Developing countries should first assess the overall situation of their countries, including economic development

and social stability, before deciding whether to apply for sports events. If it is some developing countries whose economic development is not very good, they need to consider whether they can afford the cost of those venues and facilities if these events are held. Moreover, the economic benefits of the Olympic Games are only phased and will not last for a long time [11]. Therefore, they can start some small activities to drive economic development and tourism and so on, wait until they have enough accumulation to apply. For such a city whose economy is still growing and facing resource constraints, they should choose a safer way to operate, develop at a lower cost, and spend money elsewhere, which may bring higher returns [11]. However, when the Beijing Winter Olympics has done well enough to bring a lot of beneficial economic development, such developing countries can consider the longer-term question of how to use stadiums and facilities to bring further economic benefits, if the development of local tourism continues to be maintained after the end of the event. They can not only use the venue for sports, also for entertainment, and rent the venue to some stars to hold concerts, thus attracting a large number of fans to come and continue to develop the tourism industry. Due to the perfect facilities of these venues can attract some international teams to play games, promote international friendship, ensure economic development, and make good use of venues. At the same time, through these events, the governments of developed and developing countries can cooperate, make common profits and develop together, so as to enhance the national image.

5. Conclusion

The research of this study is a summary of the economic effects of large-scale sports events in developing countries, because most of the research knowledge studies a specific country and does not cover all developing countries. The 2022 Beijing Winter Olympics and the 2016 Rio Olympic Games were mainly discussed in depth with case analysis. It was found that although large-scale sports events will definitely bring economic development and tourism development during the holding period, this is also closely related to the country's own economic strength, if there are not enough funds to build The establishment of venues and hardware facilities will greatly weaken the economic benefits brought by it, and will also lead to a series of negative events after the event. However, for countries with sufficient economic strength and full preparation for the pre-event, the economic effect is not only the development of tourism and the sales of peripheral products, but also the GDP and status of the whole country in the world, and promote cooperation with developed countries to benefit together. However, if developing countries cause a certain burden due to the preparation of the event, although their economic development and international status will also be improved to a certain extent, the situation in the country may become worse, and the government may increase taxes, default on wages, and hinder the development of all aspects. Although this study has stated enough factual arguments, it lacks the support of data and models, and the analysis case is aimed at the holding of the Olympic Games. It is only one aspect of large-scale sports events, which cannot be very convincing to explain the conclusion. Therefore, what needs to be done in the future research is to collect enough data and research experience models, and analyze more cases of large-scale sports events, not only the study of the Olympic Games, but also some sports events across the country, so as to demonstrate more powerfully.

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