



The Secrets Behind Olympic Economy

—An Analysis on Commercial Models of the Olympic Games

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ABSTRACT

The Tokyo 2020 Olympic Games (which was actually held in the summer of 2021) and Olympic Winter Games Beijing 2022 have come to successful conclusions, "Olympic Economy" has once again in the social spotlight. According to the surveys, Tokyo 2020 Olympic Games lost 6.4 billion dollars, which could be the highest cost in the Olympic games, whereas many media and authoritative institutions predicted that Olympic Winter Games Beijing 2022 would achieve considerable profits despite precise financial data are not yet available. Because the two Olympic Games were separated by only six months under the same epidemic (COVID-19), which produced very different profit results, the business model of the Olympic Games has attracted the attention of scholars. This essay will collect and analyse expenditures and receipts data of several Olympic Games based on a review of studies on the economic impact of hosting the Olympic Games, and compare the differences in the commercial model between previous and recent period Olympic Games (Los Angeles 1984 Olympic Games as the dividing line). It further explores the factors influencing the profit and loss of hosting the Olympic Games, and comes up with some recommendations in three different ways: the eight years before the Olympic Games, during the Olympic Games, and after the Olympic Games.

Keywords: *the Olympic Games, commercial model, economic impact, receipts and costs*

1. INTRODUCTION

The Olympic Games is a large-scale physical education event that boasts the most influential worldwide, and also an international feast which mixes physical education, politics, economy, and culture. It only focused on humanity and sports spirits for a long time since it had been established in 1896, therefore bringing a heavy financial burden to host cities despite only lasting 15 days. For instance, Montreal 1976 Olympic Games, which led to local government debt owed over one billion dollars, and repaid completely until the late 20 century, is widely known as the "Montreal trap". It is also a reason why Los Angeles became the only city to bid for hosting the 1984 Olympic Games. However, the commercial model of the Olympic Games started to change, which reversed this situation, from losses to profits. Peter V. Ueberroth, the president of the Los Angeles Olympic Organizing Committee, claimed "developing Olympic by Olympic", hence he innovated a new model through improving the threshold for sponsorship, adding payment for broadcast, condensing the costs and other commercial methods. Finally, Los

Angeles 1984 Olympic Games achieved the successful conclusion with profit about 0.25 billion dollars. Such pioneering work instituted a new era of "Olympic economy", putting forward a direction for innovation on the later Olympic Games' commercial model as well. In addition, people were becoming concerned about economic benefits the Olympic Games brought, and imitated Ueberroth's behaviors or improved base on it. From then on, different degrees of profits existed in the later Olympic Games, for example, Seoul 1988 Olympic Games profited 0.47 billion dollars, Sydney 2000 Olympic Games profited 1.756 billion dollars [1]. However, the loss situation has still been frequent. For example, Rio 2016 Olympic Games lost 20 billion dollars, Tokyo 2020 Olympic Games lost 6.4 billion dollars. The appearance of two opposite results meant that the present commercial model does not guarantee profits. Therefore, people need to constantly explore and expand to search for a new commercial model that is most suitable for themselves.

The paper is organized as follows. Section 2 reviews relevant literature about "Olympic economy". section 3 collects and analyses financial data of the Olympic Games, and analyses what causes its success or failure.

Finally, conclusions are summarized and some suggestions are proposed in section 4.

2. THE ECONOMIC IMPACT OF THE OLYMPIC GAMES

2.1 *The definition, model and classification of "Olympic Economy"*

"Olympic Economy" has gradually developed a particular economic phenomenon of the development of world economy since Los Angeles 1984 Olympic Games. People also gradually formed a specific understanding of the concept of "Olympic Economy" in the process of hosting the Olympic Games. Currently, "Olympic Economy" can be comprehended in two different ways, which are broad and narrow ways. The narrow definition limits the "Olympic economy" to the direct economic income, mainly including the sales income of television broadcasting rights, funds of designated sponsors, ticket sales income, and other sponsorships. Its biggest beneficiaries are the International Olympic Committee and the organising committees of the hosting countries, but it always lasts a few days (during the Olympic Games). For the broad definition, it is a general term of the direct economy and indirect economy about the Olympic Games, except for different kinds of revenue from bidding and hosting the Olympic Games, it also includes other indirect economic effects, such as economic impacts and social development impacts for the countries and cities which hold the Games [2].

Tao and Zhai divide "Olympic Economy" into four basic models, "low front and high rear" type (Los Angeles 1984 Olympic Games), "low front and low rear" type (Moscow 1980 Olympic Games), "high front and low rear" type (Montreal 1976 Olympic Games), "high front and high rear" type (Tokyo 1964 Olympic Games) [3].

Gao and Guo pointed out that "Olympic Economy" is an attention economy, a brand economy, a momentum economy, and a concept economy. Furthermore, they explored and claimed "Olympic Economy" is manifested by three major effects: "Polymerization Effect", "Fission Effect" and "Radiation Effect" [4]. Zhang et al. Summarized it as positive and negative effects. For positive effects, it includes tangible economic effects and intangible value (cultural) effects. In addition, tangible economic effects include direct economic effects, indirect economic effects, and derivative economic effects; intangible value (cultural) effects include "Olympic Economy" impact on the intangible values, such as corporate reputation, national cohesion, traditional culture, political institutions, national reputation and status and so on. For negative effects, it mainly refers to "Siphoning Effect", "Crowding Out Effect", "Trough Effect", inflation and the loss of benefits for some people, etc [5].

2.2 *The research about economic the effect of the Olympic economy*

In terms of the Olympic Games, it is widely accepted that hosting the Olympic Games would bring positive effects in various aspects for the countries and cities where organising the Olympic Games, such as economic growth, increasing employment rate and improving international image, which is beneficial without harm. At the same time, there are many researches about the economic effect of the Olympic economy on the academic region, but every scholar has different views and each sticks to his own view.

2.2.1 *Hosting the Olympic Games has positive impacts on the hosting country*

Rose and Spiegel thought that there is a significant relationship between the amount of trade and the hosting of the Olympic Games. The researchers concluded that the permanent impact of the Olympic Games will increase the trade volume by no less than 20% in all results. In addition, a similar impact can be seen in countries that failed to bid for the Olympic Games, because the behavior of bidding for the Olympic Games itself shows the hosting country's (region's) attitude towards trade liberalization, which will permanently increase trade flows [6]. Furthermore, Brueckner and Pappa researched Macroeconomic impact of bidding the Olympic Games through using Panel data of 188 countries from 1950 to 2009, they found that it showed noticeable increment in economic activities related to investment, consumption and output of the bidding countries between 9 to 7 years before the actual event in bidding countries, for hosting countries, they also experienced significant increases in investment, consumption, and output 5 to 2 years before the hosting of the Games.[7]

2.2.2 *Hosting the Olympic Games has negative impacts on the hosting country*

Baade and Matheson held a sceptical attitude that hosting the Olympic Games would bring a strong economic increase. Taking the rising of employment posts as an example, they believed all of them are temporary. Los Angeles 1984 Olympic Games is recognized as a great success. It is no exception that, once the Olympic Games have left the hosting countries, there would be no economic residue [8]. Then, Baade and Matheson explored again in 14 years later, in most cases, the Olympics are a money-losing proposition for hosting cities; they resulted in positive net benefits only under very specific and unusual circumstances. However, the main reason why these cities still desire to bid for the Games could be concluded in three ways. Firstly, even if the overall effect of holding the Games is typically negative, large projects would still create winners and

losers. Secondly, economic concerns may only play a small role in a country's decision whether or not to stage the Olympics. Finally, it is possible to ascribe a portion of the economic failings of the Olympics to the "winner's curse" [9].

In addition, "Trough Effect" is a famous and common negative impact, and is also called "Post-Olympic Effect". Zhen argued that the hosting countries would suffer risk of weakness or hard landing due to different kinds of reasons after the Olympic Games. This in turn has a trough effect. At the same time, "boost effect" is a very weak positive impact caused by factors such as investment substitution effect, consumption crowding out effect, income outflow effect and external costs. In addition to the 1984 Los Angeles Olympic Games and 1972 Munich Olympic Games, in the other Olympic Games (a total of 13 since the 1964 Tokyo Olympic Games), the economic growth of the hosting country in the last eight years is lower than that in the first eight years, especially Greece [10].

Revenues in millions YEN	
Subsidies	¥19,690
National Government	¥1,551
Tokyo Metropolitan Government	¥1,551
For Construction and expansion of sports facility	¥16,588
Donations	¥2,855
Olympic Fund Raising Association	¥2,805
Others	¥50
Enterprise Incomes	¥3,656
Ticket sales	¥1,871
Sales of programmes	¥35
Royalty incomes	¥600
Olympic film	¥737
Payment of participating delegations	¥372
Other enterprise income	¥41
Miscellaneous Income	¥320
Interest	¥35
Others	¥285
Balance carried forward	
Refund from Special Reserve	¥13
Total	¥26,534

Excess of revenues over expenditures	¥0
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3. PARAMETERS INFLUENCING THE SUCCESS OF COMMERCIAL OPERATIONS IN THE OLYMPIC GAMES

3.1 Commercial operation models

3.1.1 Commercial model of initial Olympics: absolutely deficit (before 1984)

The revenue generated from hosting the Olympic Games began in the Los Angeles 1984 Olympic Games, and all the Olympic Games held prior to that time had expenses that exceeded revenues, with only the Tokyo 1964 Olympic Games balancing revenues with expenses (not including indirect expenses for construction).

In 1935, Japan successfully applied for the right to host the 1940 Olympic Games. However, due to the outbreak of war, in 1938, the Japanese government announced that it had voluntarily relinquished the right to host that Olympics. After the war, Japanese applied for the Olympic Games again and successfully secured the right to host the 1964 Olympics in May 1959 [11].

Expenditures in millions YEN	
Expenditure by the Organizing Committee for the Games	¥9,946
Administration	¥2,066
Personnel expense	¥1,012
Others	¥1,054
Enterprise Expenses	¥7,071
Transportation	¥753
Foreign affairs	¥224
Olympic villages	¥967
Publicity	¥733
Admission tickets administration	¥164
Sports equipment and apparatus	¥1,180
Ceremonial	¥178
Medical treatment services	¥39
Facilities	¥2,607
Expenses for supporting forces	¥170
Tokyo International Sports Week	¥56
Liquidation Expenses	¥59
Balance	¥750
Direct expenditures for staging the Olympic Games	¥16,588
Government Expenditures	¥5,120
Tokyo Metropolitan Government Expenditures	¥4,696
Kanagawa Prefectural Government Expenditures	¥2,879
Yokohama City Expenditures	¥389
Saitama Prefectural Government Expenditures	¥372
Other sources	¥3,132
Total	¥26,534

Figure 1 Details of revenue sources and expenditure channels for Tokyo 1964 Olympic Games [13] (Figure credit: original)

In order to host the Games, Japanese government made many efforts, such as expanding the city, improving the transportation system and communication system,

and building sports stadiums and other infrastructures, the Games were broadcasted by satellites for the first time, which promoted enormous development of the Olympic

Games worldwide. These large-scale infrastructures boosted the strong developments of different kinds of industries in manufacturing, construction, service, shipping, communication, etc., which led to a sustained economic boom in Japan, with GNP growth rates are respectively 10.1% and 26.1% before and after the Olympics, this phenomenon was called "Olympic Boom" by Japanese and global famous economist. Tokyo Olympics poured strong energy into Japan's fledgling economy, which was regarded it as the engine by economists that would enable the Japanese economy to take off [12].

According to relevant materials and financial data, the author concludes the reasons why the Tokyo 1964 Olympic Games could get financial balance in the initial development of the Olympics [14].

1) The fact that the Games were held shortly after the defeat in World War II, which the self-confidence of the population and the social environment did not yet stabilised, and this influence was worldwide, especially as Japan was one of the aggressor countries in World War II, all sides dictated that it would be difficult for the Games to generate huge revenues in terms of Olympic marketing. As for Japan itself, the livelihood of the people and the strength of the companies also constrained the purchasing power and unpaid donations.

2) A complete Olympic marketing system was only formed after the 1984 Olympic Games in Los Angeles, and the TOP programme was only officially launched in 1985, therefore there was no systematic Olympic marketing plan and the Olympic Funds Raising Association did not donate all the funds raised to the Tokyo Organising Committee for the Games, but only 46% of its entire income. If it had the current Olympic

influence and a sophisticated Olympic marketing plan, it was likely that the Tokyo 1964 Olympic Games would have received a profitable figure.

3) A careful comparison of the revenue streams for this Olympics revealed many similarities to later Games, which might been one of the factors in its greater success. For example, donors paid only 10 YEN for a collectible envelope, similar to the marketing model of the "Patron's Programme" ticket for the Los Angeles 1984 Olympic Games, and the Post Office issued stamps relating to the Games, similar to the later Olympic commemorative coins. This shows that the Tokyo Olympics were highly marketable and that the fundraising process was well planned and targeted, which is worth learning.

3.1.2 Commercial model of reform Olympics: miraculous turn (during 1984)

Traditional fund sources of the Olympic Games have three main ways: support from government, lotteries and donations. Support from government is the most staple. However, municipal council proclaimed "Municipal Charter Amendment"-- prohibit hosting the Olympic Games using the public fund, in only one month after Los Angeles won the right to host the Olympics. More terribly, it is illegal to issue lotteries in California, and also most people resisted hosting the Olympics. Therefore, LAOOC had to find another way out. Hence, IOC was forced to agree that LAOOC would raise funds for the Games on a commercial basis, which is the first time that modern Olympics made a significant adjustment on marketing model. At that time, the major fund source shifted to sales of television rights, commercial sponsorship and sales of tickets.[15]

Revenues	in USD
Television	\$286,524,000
Sponsorship	\$123,191,000
Internet and other	\$167,303,000
Coin program	\$29,707,000
Ticket	\$139,834,000
Total	\$746,559,000

Expenditures	in USD
IOC	\$49,696,000
General and administrative	\$384,469,000
Payments toward construction/use of venues/facilities	\$97,389,000
Total	\$531,554,000
Excess of revenues over expenditures	\$215,005,000

Figure 2 Details of revenue sources and expenditure channels for Los Angeles 1984 Olympic Games [16] (Figure credit: original)

Data sources: OFFICIAL REPORT OF THE GAMES OF THE XXIIIIRD OLYMPIAD LOS ANGELES 1984(Data were for the third quarter of 1984)[16]

According to relevant materials and financial data, the author concludes the reasons why Los Angeles 1984 Olympic Games became the first profitable Olympic Games and attained huge surpluses:

1) Firstly, the president of LAOOC, Peter V. Ueberroth, broke the conventions that radio stations relayed competitions for free. He priced the broadcasting right at US \$75 million. In the three quarters of 1984, the

broadcasting revenue reached \$286.764 million, which proved that Ueberroth made the right decision..

2) Subsequently, Rubenstein, one of LAOOC members, put forward the idea of limiting the number of sponsorships. Ueberroth boldly reformed the rules of commercial sponsorships and raised the minimum amount of sponsorships to \$4 million. It began with a battle between Coca Cola and Pepsi Cola, and finally they

signed the sponsorship contact with Coca Cola for more than 20 million dollars (including cash, goods, and services). Referred to this pattern, LAOOC negotiated and signed with 34 sponsors and over 60 supplements in 1983, and finally, they attained 123.191 million dollars in sponsorship alone.

3) The other factor that promoted the success of the Los Angeles 1984 Olympic Games is strengthening the control of costs. As a result of lacking support from local government and general people, sports stadiums used in the competition were slightly renovated based on initial equipment, and did not have any cost in city construction. This is of course benefited from the fact that Los Angeles is one of the most prosperous cities in the United States, with its own excellent equipped great environment and facilities. This is why the Los Angeles 1984 Olympics spent very little on direct engineering expenditure and none on indirect engineering expenditure, which was a feature of the Games [17].

At the end of 1984, according to statistics, the Games generated 215 million dollars in economic revenue, more importantly, since then, a complete Olympic marketing model was established, this is the three-tier structure of the IOC's marketing plan, the Olympic Organising Committee's marketing plan and the National Olympic Committee's marketing plan, which was also called as TOP (The Olympic Partners). Under the guidance of the IOC, it began in 1985 and circulated every 4 years, and selected the most prestigious companies from various

Revenues	in millions ESP
Sponsorship and licenses	59,686 €
Television rights	54,164 €
Participations and collections	46,349 €
Accommodation and OF services	23,847 €
Tickets	9,454 €
Sales of assets	2,094 €
Total	195,594 €
Excess of revenues over expenditures	348 €

industries around the world as official sponsors of the IOC. For example, Seoul 1988 Olympic Games were held in TOP 1 , which received 41.8 million dollars from this plan [18].

3.1.3 Commercial model of modern Olympics: constant exploration (after 1984)

3.1.3.1 Barcelona 1992 Olympic Games: developing itself through the Olympics

Barcelona 1992 Olympics was considered a model of success. Under the circumstance of huge investment, it not only achieved a basic balance of income and expenditure but also promoted a qualitative leap in Barcelona's economy. This Olympics invested a lot of money in urban construction, the aim was to improve the city's infrastructure and raise its status in Europe and the world. Barcelona used 90% of the funds raised from the Games to build the city's infrastructure, for instance, building a 5km beachfront, two ring roads and two tunnels to ease traffic congestion, as well as renovating the port, airport and drainage system. Compared to 1989 figures, it increased the new water supply and drainage system by 17%, new green spaces and beaches by 78%, roads by 15%, artificial lakes by 15%, road facilities by 15% and artificial lakes and fountains by 268%. Hosting the Olympic Games brought an economic benefit of 16.6 billion dollars to Barcelona, boosting GDP by 2.9% [19].

Expenditures	in millions ESP
Facilities and preparation of surroundings	45,866 €
Olympic Family services and security	41,694 €
Technology	24,791 €
Support stucture	22,915 €
Image and commercial	18,618 €
Press, radio and television	18,254 €
Competitions	14,045 €
Ceremonies and cultural events	9,063 €
Total	195,246 €

Figure 3 Details of revenue sources and expenditure channels for Barcelona 1992 Olympic Games[20] (Figure credit: original)

According to relevant materials and financial data, the author concludes the reasons why Barcelona 1992 Olympic Games were so successful:

1) It had a unique mode that took a different approach. Using the Olympics to help with the city development, and truly bringing the positive impact of the Olympics into playing in Barcelona's own urban development, these changes that Barcelona made for the city during the Olympic preparations would not be taken away, even if the Olympics were over, enthusiasm recedes and investment by entrepreneurs was drastically reduced.

2) There was an enhancement in unquantifiable city image. A similar situation of the huge investment in

engineering indirect expenditures for the hosting of the Olympic Games had occurred in the Tokyo 1964 Olympics Games and the Seoul 1988 Olympics Games. Of course, this huge investment did greatly improve the post-war image of Japan and South Korea and their international status. Similarly, in 1991, the overall ranking of the city of Barcelona rose to 8th in Europe, making Barcelona a metropolis in Europe, and indeed in the world.[17]

3) Miquel de Moragas and Miquel Botella published the essay called "The Keys to the Success: The Social, Sporting, Economic and Communication Impact of Barcelona'92" in 1995, which summarized the reasons for success in 12 points, and mentioned flexible planning

models and special organizational structure, making an overall plan at first and revising regularly later, with each edition contained the best available forecast of the set of tasks that the committee had to face up to before the final wind-up of operations and the publication of the report. There was no group of experts dedicated to planning tasks, the preparation of the plans was carried out by an "ad hoc" commission—the Planning Commission, which was made up of those with planning responsibilities for each sector. In addition, choosing to use proven techniques to avoid testing, lengthy final preparations, repetitive or delayed events, and any complex training process for operators, and institutional cooperation and comprehensive cooperation [21].

Revenues	in thousands CNY
IOC Contribution	¥6,196,782
TOP Sponsorship	¥2,500,724
National Sponsorship	¥8,461,962
Ticket Sales	¥1,282,556
Licensing	¥1,359,217
Lotteries	
Donations	¥94,269
Disposal of Assets	¥254,252
Subsidies	
Other	¥360,556
Total	¥20,510,318

3.1.3.2 Beijing 2008 Olympic Games: Olympics with all people participated in the event

According to a 2016 Oxford University study, Beijing 2008 Olympics were the Olympics with the least overrun, at just 2% [22]. At the same time, it was one of the biggest Olympic Games for hundreds of years, with more than 70,000 volunteers, 100,000 military officers and soldiers, 160,000 medical staff and millions of social volunteers ensuring the success of the Olympics, achieving the participation of all people in the Olympic Games, and the success of the Beijing Olympics also smoothly raised China's standing in the international arena.

Expenditures	in thousands CNY
Venues	¥4,866,966
Workforce	¥1,398,035
Technology	¥3,758,815
Services	¥2,567,121
Marketing & Events	¥4,101,156
Administration & Coordination	¥2,293,439
Other	¥585,333
Total	¥19,570,865
Excess of revenues over expenditures	¥939,453

Figure 4 Details of revenue sources and expenditure channels for Beijing 2008 Olympic Games [23] (Figure credit: original)

According to relevant materials and financial data, the author concludes the reasons why Beijing 2008 Olympic Games attained the success [1].

1) They innovated in the business model. Over the past years, there have been two business models for the Olympic Games, one is a private business model, such as Los Angeles 1984 Olympics, and the other is a government-funded model, such as Seoul 1988 Olympics, however, this Olympic Games adopted a third business model combining the two.

2) They innovated in broadcasting rights. Previous Olympic Games broadcast rights were usually television and broadcast, Beijing Olympics for the first time sold the TV rights and the new media rights separately, which not only promoted the development of the new media industry, but also made the revenue of the Olympic Games grow rapidly. According to the survey (China Internet Network Information Center), the Internet surpassed CCTV to become the main communication channel for the Beijing 2008 Olympic Games.

3) They innovated in peripheral products. Another difference from previous Olympic Games is that the Games had five mascots, which had a great advantage for the combination of mascot sales, and also for the extension of the mascot industry chain. According to statistics, the Olympic mascots of the Beijing Olympic

Games' total revenue from the development and application of the industry chain has reached 8.2 billion YUAN.

3.2 Other Factors

The reason for the loss of the early Olympic Games was mainly due to different business models. But according to the financial data of the recent Olympic Games, it is known that the current business model has been relatively complete, and the income channels have gradually diversified, from the beginning when there were only tickets and broadcasting rights, to the present when many new items have been opened up, such as franchises, souvenirs and so on. Even with a well-established business model and the current stage of mature network distribution, losses often occur, which may be related to the social environment and the degree of economic development of different countries.

1) According to the three successful cases mentioned above, it can be found that they all have one thing in common - the support of the people. Despite the boycott of the Los Angeles Olympics in 1984 which prevented the Los Angeles Olympic Committee from obtaining funds from the government, the subsequent change in people's attitude and enthusiasm for the Games led to a huge sale of tickets and some of the successful auction of

the facilities left over from the Games, which far exceeded Ueberroth's original budget. Miquel de Moragas and Miquel Botella also mentioned that Barcelona had 102,000 people who volunteered and its advantage in human resources made Barcelona stand out from others of the bidding cities and made it a success, similar to the Beijing Games [20].

2) The epidemic called COVID-19 was popular in China at the end of 2019 and spread globally in 2020, which led the Tokyo 2020 Olympic games to postpone to 2021. Such a postponement increased Tokyo's huge equipment maintenance costs and lost ticket sales channels. therefore, this Olympic Game has not only been labeled as "the most expensive Olympic Games in history", but also its overrun is most serious in the past two decades, with over-expenditure exceeding 200% and lost nearly 640.8 billion YEN. Even though Japan had successful experience about how to hold the Olympic Games, social environment changes and explosion of new cases of COVID-19 made Japan difficult to cope with it. For instance, over 3000 people were diagnosed on 28 July alone, it meant that Japanese government would have to spend more money on health care to stop the disease from the wanton spreading of the epidemic.

3) For developed countries like Britain and the United States, the degree of economic development had reached a state of saturation and the economic growth rate is in a state of relatively flat, even the Olympic Games or other large-scale sports events can hardly bring obvious economic breakthroughs, so compared with other countries, the positive economic impact brought by the effect is weak [9].

4. CONCLUSION

This paper examines the causes of profit or loss of part of the Olympic Games mainly based on the income and expenditure of selected Olympic Games, it is secondarily supplemented by other factors such as public sentiment, social environment and national economic development. The results show that with the rapid economic development of various countries and the gradual improvement of the Olympic marketing system, it is very possible to obtain profits from hosting the Olympic Games. However, it is difficult to avoid the interference from other factors, such as policy changes, people's resistance, and COVID-19 that the recent Olympic Games will be affected, all of them are the reasons for the loss or not optimal of the Olympic Games.

Due to the difficulty in collecting the initial financial data of the Olympic Games and the fact that some financial data of the Olympic Games had not been published, hence the data of this paper is not very complete and the results of this paper may be one-sided. However, based on the current research results, the following suggestions can be made:

4.1 Before the Olympics: strengthening economic accounting, and strictly controlling expenditure, achieving "broaden sources of income and reducing expenditure"

According to a study by Oxford University in 2016, it can be concluded that budget overruns occur in every Olympic Games, with an average overrun of over 170% per Games. Meanwhile, it can also be concluded that a country that overspends more will lose more money. The budget is usually prepared eight years before the Games and is reflected in the bidding documents. However, there are unpredictable and inevitable events during the actual competition, so fluctuations within a certain range are normal, but it is crucial to keep the overspending ratio within reasonable limits. Therefore, the committee can set up an independent financial control agency to supervise and track the implementation of the Olympic budget throughout the whole process, so as to provide a guarantee for the management of the Olympic Organizing Committee and local public departments [24].

In addition, reducing project expenditure is another effective means. The Los Angeles Olympic Games and the Montreal Olympic Games are diametrically opposite on this point, because Montreal has produced huge waste in the stadium construction, which has caused huge losses to the local government and residents. The cost of the Olympic Games will be greatly reduced by not building new facilities unless necessary, and by renovating and expanding existing facilities.

4.2 During the Olympic Games: Making the most use of mass media to develop the market

Before and after the Opening of the Olympic Games, the main revenue is generated through marketing development. The speed of dissemination today is beyond people's imagination after decades of development in the news media industry. People need the media as a vehicle to understand the Games, the media also needs the Olympic Games as a highlight to attract the attention of the public. Compared with the past, the profit brought by the Olympic Games to the news media industry is multiply increased and will be more and more in the future. So both the media industry and the Olympic Committee should seize this opportunity. [25]

The hosting country uses the media to expand its own influence, and through mass media, everyone has a sense of participation so as to realize "everyone pays attention to the Olympic Games, and the Olympic Games benefit everyone", in order to attract more enterprises to obtain sponsorship from advertisers. Of course, it also needs to control over-commercialized means and methods used to prevent commercial activities from reducing or weakening the Olympic spirit and repeating the mistakes of the Atlanta Olympics. In addition, the positive growth will also be reflected in ticket revenue and peripheral

product revenue. As exemplified by Beijing 2022 Winter Olympics, this Olympics generated 2.5 billion YUAN in revenue from mascots, which is not only popular in China but also has swept the world.

4.3 After the Olympic Games: Creating rich Olympic legacies and valuing its sustainability

With the closing of the Olympic Games, the short-term economic growth brought by the Olympic Games will gradually disappear. How to turn the Olympic effects into Olympic legacies has always been a matter of concern, and how to inherit and utilize these "heritages" is also the questions to think about among the managers of each hosting city. The hosting country should create legacies of the Olympic Games in various aspects such as sports, society, environment, culture and economy, leaving rich Olympic legacies for the people and achieving "sharing the Olympic heritage and benefiting citizens' lives." [24]

The "sporting" legacy, the most direct Olympic legacy, often appears the "white elephant" problem. Many cities abandoned or dismantled stadiums after hosting the Olympic Games, both the demolition cost and the annual maintenance cost are huge expenditures, so the only solution is to ensure the sustainable use of sports facilities and stadiums. In addition, some of the facilities and venues built for the Olympic Games can be converted to other uses to reduce idle facilities and wasted resources. For example, the athletes' village can be converted into public rental housing or sold to eligible citizens in the form of affordable housing, etc. to realize the plan to recover part of the investment. Apart from the stadium facilities, local hotels and other commercial facilities are also legacy objects, not only the prices of hotels will drop, but the number of tourists will also be greatly reduced after the closing of the Olympic Games. So the hosting country and the hosting city need to seize the opportunity of the Olympic Games to vigorously develop sports, tourism and other related industries, explore deeply into the Olympic tourism potential and increase publicity efforts. In addition, it is a good opportunity to take the Olympics publicity as a starting point, and then turn it into city publicity, in order to constantly improve the quality of tourism industry and strive to achieve sustainable development of it.

Finally, continuing to guide initiatives for nationals to actively participate in mass sports and competitions which allow the continuation and expansion of concepts of "the Olympic Games for All", "Sports for All" and "Fitness for All", effectively promote the healthy development of the sports industry, lengthen and enrich the sports industry chain, and drive up the quality of urban life.

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