

The Impact of E-sports Event on Urban Economic Development: A Case Study of the Hangzhou Asian Game

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Abstract: With the continuous development of society, the importance of urban economy has become particularly important. At the same time, sports events have also become an important way to enhance the competitiveness of cities and realize the government's improvement of urban economy. this article takes Hangzhou as a representative to conduct corresponding research and analysis. It is found that the Hangzhou urban government has issued relevant policies for sports events to drive the city's economy in order to better organize events, in order to promote the linkage between event preparation and urban development. This article is based on the perspectives of public management, economics, sports and other disciplines, and comprehensively uses research methods such as literature review and case analysis to study the empowerment of urban economic development by the Hangzhou Asian Games e-sports project. This paper mainly explores three aspects: first, how international events promote urban economy, second, how events promote urban infrastructure construction, and finally, how electronic competitions promote urban economic development. Through the research results, it has been found that as the influence and scale of the e-sports industry gradually increase, the proportion and linkage effect of the industry continue to increase. The development of the e-sports industry-enabled city is also full of uncertainties. On the other hand, from the perspective of driving urban economic development through the e-sports industry, it is proposed to strengthen the development foundation of the e-sports industry, improve the development system of the e-sports industry, and expand the implementation path of the e-sports industry development direction.

Keywords: Case Study, Hangzhou Asian Games, E-Sports, Urban Empowerment

1. Introduction

In the context of economic globalization, sports events have become an important strategic tool to enhance the competitiveness and visibility of cities and achieve the goals of government governance. At the end of 2020, the Hangzhou Municipal Government issued the "Hangzhou Asian Games City Action Plan Outline", which promotes the linkage between event preparation and urban development in accordance with the requirements of "hosting a good meeting and enhancing a city". The event promote the construction of "a new type of rich and sunny metropolis", and provide support for Hangzhou to accelerate the construction of a world famous city with unique charm and wonderful

charm, and strive to create an important window to showcase socialism with Chinese characteristics in the new era. The 19th Asian Games in Hangzhou has its own uniqueness. First of all, from the nature of the event, the Asian Games, the Olympic Games and the World Cup are all long-term cyclical competitions, which are different from the World Championship and the association league, which are separated by more than two years. This Asian Games has also included e-sports and breakdancing as two new official events, injecting new vitality into the Asian Games. This paper aims to explore the differences between the 19th Asian Games in Hangzhou and previous Asian Games from the new events in the event, explore the economic impact brought by e-sports, and explore how these differences can empower urban development. Therefore, this article uses the case analysis method, taking the 2023 Hangzhou Asian Games as a case study, to analyze the impact of the first comprehensive e-sports event on the entire Asian Games event and the promotion of the e-sports industry development in Hangzhou and surrounding areas. This paper puts forward three questions for this research: how can local communities promote regional economic development with the help of international events, how can the events promote the improvement of relevant urban infrastructure and urban sports culture, and how can e-sports projects in the events promote regional economy. This study helps researchers to gain a deeper understanding of the relationship between sports events and urban economy, providing theoretical support for future research. By exploring the performance and impact of e-sports events in large-scale comprehensive events, it provides models and past cases for how future e-sports events will be held and operated in the Olympic Games. It also helps cities to organize better e-sports events in the future and fills the research gap in the field of e-sports event operation.

2. The Development of E-sports and Its Connection to the Asian Games

The Asian Games is the largest multi-sport event in Asia, hosted by the member countries of the Olympic Council of Asia in turn, and the 19th Asian Games in Hangzhou in 2022 will be the third time that China has hosted the Asian Games. There are a total of 42 events in the Asian Games, including 31 Olympic events and 11 non-Olympic events, of which e-sports and break dancing are the first time to appear in the Asian Games. Previously, e-sports has never entered the Olympic Games, Asian Games and other world top events, so the 19th Asian Games in Hangzhou as the first time to incorporate e-sports into the official competition is undoubtedly a bold attempt and breakthrough, but also the recognition of electric competition. From this there is no denying the great influence of e-sports in the field of sports and the professional perfection of the event.

The ability of e-sports to enter the Asian Games is the first time that the e-sports industry has entered the comprehensive games arena in the past 20 years of silent development. Several reasons can be analyzed. First, e-sports and traditional sports are as competitive and watchable as they are, as well as require players' hard training and team cooperation. In 2003, the General Administration of Sports of China announced that e-sports was recognized as the 99th oldest sports event, and the International Olympic Committee officially recognized e-sports as a sport in October 2017. These words are undoubtedly a huge impetus for e-sports to enter the big events. Secondly, e-sports has a strong ability to attract money and attention worldwide, which is a stepping stone for e-sports projects to get the entry of the event. According to statistics, the global game market value reached 116 billion US dollars in 2017, more than

2.1. Billion Players

Billion players have been exposed to video games, and Asia is the rapid development of e-sports industry, professional events and commercial development are very perfect. The gradual acceptance of e-sports by the Asian Games and the Olympic Games is an embrace of young people and strong

market power. And the Asian Games has always set the project more flexible, only by the vote of the Olympic Council of Asia, the host country can be appropriately reduced according to its own sports level, so this Asian Games as the first time held in China will officially bring e-sports into the large-scale comprehensive event, promoting the development of the Asian Games more young.

The Hangzhou Asian Games, as the first comprehensive large-scale event to introduce e-sports, has undoubtedly become the concern of Asia and even the world. This tournament has earned enough attention for Hangzhou, which brings new opportunities for the city's image, economy, culture and other aspects.

3. The Empowerment of E-sports for Hangzhou

3.1. Economic Empowerment

As a major international event, the Asian Games has brought strong cultural tourism growth to Hangzhou and other places. According to data from Hangzhou Municipal Bureau of Commerce and Tourism Bureau of Culture, Radio, Film and Television, Hangzhou received 13.087 million tourists during the Mid-Autumn Festival and National Day holidays, an increase of 34.37%. The total consumption amount of the city reached 23.753 billion yuan, an increase of 17.2% year-on-year and 13.9% compared with 2019. According to Alipay statistics, the single-day consumption of the six cities scenic spots of the Asian Games increased by 270% year-on-year at the highest [1].

The e-sports industry can empower the real economy, which is an industry with strong driving ability. Whether it is combined with the cultural industry, manufacturing or related brands, e-sports can play a very good driving effect. In the Asian Games in Hangzhou, the e-competition and cultural tourism combined, the atmosphere of the scene is extremely hot. The cross-border integration of e-sports and urban cultural tourism, on the one hand, can enrich the fans' watching experience, on the other hand, it can also leverage the popularity of cultural tourism around the event. The most intuitive value is to stimulate the surrounding catering, accommodation and tourism consumption, and stimulate the development of the real economy around the city [2].

During the Asian Games, the local catering industry, business consumption and so on have ushered in a gratifying increase. Hangzhou business news shows that during the long holiday, more than 80,000 restaurants in the city consumed 13.7 million, an increase of 140.7%, and achieved revenue of 3.278 billion yuan, an increase of 59.4%. The three core business areas of Hubin, Wulin and Qianjiang New Town achieved 4.11 million transactions, an increase of 26.5% year-on-year, and the consumption amount was 2.287 billion yuan, an increase of 43.3% year-on-year [1]. The economic benefits generated by the 19th Asian Games in Hangzhou were about 260 million yuan, of which the direct economic value was 78.7753 million yuan and the indirect economic value was 182 million yuan [1]. In terms of social value and environmental value, it also has a greater role in promoting.

Hangzhou takes the opportunity of the Asian Games to lead the public awareness of e-sports through multiple media and promote the legalization and orderly development of e-sports. Related live broadcasting platforms, media, etc., have also been rapidly developed, and the live and broadcast rights sales of e-sports competitions, advertising revenue, etc., have also brought a huge driving force to the economy. In the six games of the Asian Games e-sports competition, the three pillars of the game industry including personal computer, console and mobile terminals. The entry of such competitions into the Asian Games undoubtedly promotes the development of game development, game equipment manufacturing and other related industries, and also creates a large number of employment opportunities and economic benefits for the society, further promoting the economic benefits of the e-sports industry [3].

E-sports is not a simple sports event, it has behind the e-sports event as the core, to media, brokerage, consumption, tourism and training, from online to offline, from the upstream game development and operators, and then to the downstream e-sports media, e-sports industry has a more mature business model and predictable business value. As a new business form under the wave of Internet economy and digital industry, e-sports has also brought no small benefits to Hangzhou. According to incomplete statistics, more than 700 e-sports competitions are currently held in Hangzhou, and the revenue scale of the e-sports industry exceeds 25 billion yuan. In recent years, the word "integration" is commonly used in the e-sports industrial policy around the city, and the "Opinions" released by Hangzhou also mentioned that it will promote the "integrated development of e-sports industry and digital economy, science and technology, cultural tourism, sports, modern manufacturing, finance and other industries", and inject new vitality into Hangzhou with the "e-sports +" model.

3.2. Empowerment in Urban Facility Construction

Diversified use of venues, in the Hangzhou Asian Games is coming to an end, the use of venues in the post-Asian Games era also brings challenges and opportunities to Hangzhou city management. In order to make full use of the venue heritage of the Asian Games, Hangzhou has put forward the utilization model of "opening to the public + youth amateur training + hosting large-scale professional games after the games". In addition to opening regular training and competition venues to the public, some venues will also become training bases for teenagers to promote the development of youth sports and the cultivation of talents. At the same time, Hangzhou will actively strive for and hold more major international and domestic sports events, and make full use of the cooperation resources of the Asian Games venues and international sports organizations. Taking into account operation is the concept determined at the beginning of the design of Hangzhou e-sports center. In addition to e-sports, Hangzhou e-sports Center also holds ball games, concerts and so on. In the command hall of the e-sports center, visitors can see the digital cockpit that has successfully built intelligent venues and facilities. The cockpit is coordinated by six intelligent systems. In addition to ensuring the smooth progress of the event, in the daily monitoring mode, the roaming system includes all the peripheral areas of the venue, and all devices can perform a function integration here to meet different needs in security and other aspects [4].

3.3. Cultural Empowerment

E-sports are closely related to the development of the cultural industry. This e-sports event has built a bridge connecting modern and future, reality and virtual, provided a platform for people from all walks of life who love e-sports, and added vitality to the development of cultural tourism in the city [5]. Hangzhou Asian Games pays attention to the development of cultural tourism industry, this event gives full play to the comprehensive effect of "e-sports + culture", based on history, culture for use, will link intangible cultural heritage. Through the mutual enabling of local culture, the e-sports industry will be integrated into the intangible cultural heritage of rich inheritance value and the vivid image of urban culture and displayed in front of young people, the beauty of the region will be integrated into the e-sports, the city's characteristic culture will be carried forward, and the young people will have a deep understanding of the long-standing Chinese culture through e-sports. Such characteristic culture shows the extraordinary charm of intangible cultural heritage skills for e-sports fans who come here, actively helps the spread of traditional culture, and enhances the brand value of Hangzhou as a cultural tourism city. The Hangzhou Asian Games e-sports project empowers the development of local culture from multiple dimensions, continuously integrates, explores and innovates, and promotes the new development of urban cultural economy. The integration of "local

culture + e-sports" can not only create more diversified digital cultural projects, but also play a role in releasing the new momentum of the cultural tourism industry, activating the local real economy, and promoting the inheritance and development of regional culture.

4. Analysis and Suggestion on the Inadequacy of in Urban Empowerment

4.1. Deficiencies in the Empowerment Capabilities of E-sports Tournaments

4.1.1. The Dilemma of E-sports and Large Events

The e-sports industry has a bubble, reflected in the scale of the industry, the valuation of e-sports clubs, the number of viewers, and the talent gap. There are huge differences in the e-sports industry data released by different entities, and the growth speed and scale of the derivative industry have far exceeded that of the core industry, highlighting the problem of insufficient development of the core industry-centered real economy. Under this industrial background, cities cannot get real feedback when considering whether to develop the e-sports industry. Although many cities are still continuing to exert efforts in developing the e-sports industry, the chain reaction generated by the inflated bubble still needs cities to continue reflecting on why and how to develop the e-sports industry.

4.1.2. Serious Homogenization Problems

The e-sports industry is developing at a rapid pace while the homogenization is serious, resulting in the effect of e-sports-enabled cities being greatly reduced. On the one hand, the development idea is identical. By the end of 2021, 14 provinces and cities have introduced 42 special support policies for the e-sports industry in their jurisdictions to boost the booming development of the city's e-sports industry. Through the analysis of policy texts, it is found that the development core of most cities focuses on "e-sports events", "industrial development", "talent team", etc., and the advantages and characteristics of city development are not prominent. . From the point of view of policy subsidies and development planning related to the e-sports industry, some cities have copied the support policies of first-tier cities for e-sports, resulting in the implementation process of the policy landing does not match the reality. On the other hand, driven by the wind mouth bonus, many cities are committed to creating or introducing popular e-sports IPs, resulting in a proliferation of the same type of events. Some of the tournament contents and competition modes are almost the same, and all of them belong to a single product, which reduces the ability of attracting users. In addition, due to the limited period of time, there will also be tournaments "crashing" and "scraping", which makes it difficult to reach the level of influence of the top-level e-sports tournaments.

4.1.3. The Impact of Negative Public Perception of E-sports on the City's Image

The debate around the e-sports industry has never ceased, and e-sports have never been able to escape from the plague of video game carriers in the process of promoting the development of the city, affecting the image of the city for a long time due to its negative public opinion. On the one hand, frequent negative news interferes with the effect of gaming's positive name and affects the city's image. Data show that in 2021, 60% of Internet users believe that there is too much negative news about e-sports, which is essentially a game [6]. In recent years, the occurrence of undesirable fan behaviours, negative competitions, and other chaotic phenomena in the "gaming circle" has heated city public opinion many times, and to a certain extent, it has also affected the public's perception of e-sports, thus affecting the process of developing the city's e-sports industry. On the other hand, the negative public opinion generated by the concept of confusing e-sports with online games is dominant. The undesirable gaming behaviours such as demoralisation, addiction, vulgarity,

gold-digging and cheating that appear in the process of e-sports dissemination bring negative and negative impacts on the majority of young people, and at the same time, they also create various obstacles to the development of e-sports industry in the city [7]. The tendency to violence is the most important constraint to the development of e-sports, and IOC President Bach believes that as long as e-sports advocate violence, they cannot enter the Olympic programme [8]. The long-term marginalised position leads to e-sports often appearing in the public eye with a negative image, and the positive effect on the city's image needs to be further explored.

4.2. The Direction of Hangzhou City to Development E-sport

4.2.1. Remove the Bubble and Consolidate the Foundation of Urban E-sports Industry

Hangzhou focuses on the midstream industry of e-sports, builds industrial clusters and promotes the integrated development of e-sports. The government should foster a real economy with tourism at its core, which is a very important way to de-bubble the economy.

4.2.2. Build an E-sports Industry Cluster and an Ecological Chain of Urban E-sports Industry

The construction of Hangzhou e-sports industry cluster is an important way for the city to create e-sports business card and enhance the influence of the city, as well as an accelerator to promote the future economic growth of the city. Creating an e-sports industrial park, where all part of the industry chain are brought together, is conducive to mutual exchanges within the industry and jointly promotes the development of the industry. The government can join hands with enterprises, individuals and other social forces to form a multi-party interactive development pattern. At present, many cities have already put forward policies and opinions on the construction of e-sports industry clusters, such as Guangzhou and Nanjing building "e-sports industry clusters", and Beijing building "e-sports industry cluster spaces", etc., which will continue to push forward the completion and landing of e-sports industry clusters and strengthen the e-sports industry. The series of "linkage" effects brought about by the agglomeration is one of the important ways to further enhance the city's vitality and influence, and to empower the city's rapid development. As early as 2011, Taicang City began to layout the e-sports industry cluster area, currently relying on Taicang Tianjing Lake e-sports town, Taicang Tianjing Lake Culture and Science and Technology Industrial Park has gathered more than 70 e-sports enterprises, seven well-known e-sports clubs, more than 1,000 related practitioners, more than 1,000 e-sports events, more than 10,000 people, the number of tournaments live viewers of nearly 10 billion [9].

4.2.3. Pay Attention to Industrial Image and City Fit, Differentiated Development of Urban E-sports

City image is the external feature of city culture, and the key to city development of e-sports also lies in the heterogeneity of city image. Therefore, in the process of developing e-sports industry in cities, firstly, follow the principle of image transfer and clarify the characteristics of city development. Different cities have different brand images and city positioning, and different development focuses and modes due to differences in city level, economic foundation, historical and cultural backgrounds. Hangzhou should take the image fit as an important indicator, seek suitable development paths according to its positioning, characteristics and needs, plan scientifically, and enhance the ability of e-sports to interpret the city's characteristics and culture. The second is to pay attention to the differentiated development of e-sports and form unique competitive advantages. The road of differentiated development of e-sports industry can effectively avoid the vicious competition brought about by homogenisation. The government should promote the effective allocation of e-sports

resources and promote the formation of different cities to support the sustainable development of the difference in the competitive advantages of different cities. The differentiated development of urban e-sports, it is necessary to pay attention to the construction of urban characteristics and the two are complementary to each other, to form the unique cultural vitality of the city.

4.2.4. Strengthen the Integration and Application to Promote E-sports

Technological innovation is an important way of urban development and provided new impetus to the development of the e-sports industry, especially in some technologically developed cities, such as Shanghai, Beijing and Guangzhou, which have taken the lead in making attempts in the field of e-sports by using advanced technologies. Firstly, the use of technology and innovation is further strengthened. The government actively promotes the combination of 5G, AI, VR, AR, MR and other technologies with e-sports and establishes an e-sports planning data sharing service platform and a business sharing service platform. Secondly, it promotes the development of e-sports sportsification. The development of virtual sports and so on is not only favoured by young groups, but also an important way to promote the sportsification of e-sports and the e-sportsification of traditional sports. 2021, the first Olympic Virtual Series authorised by the IOC was successfully held, marking the combination of technological innovation, sports and e-sports as a major trend. The Shanghai Virtual Sports Open, the first comprehensive virtual sports event in China, will be officially launched in 2022.

4.2.5. Create Domestic IP, Enrich the Content of E-sports Culture

Cultural prosperity highlights the soft power and self-confidence of the city, and any kind of thing may become a medium carrying cultural symbols and bear the heavy responsibility of spreading culture [10]. The youth-oriented e-sports industry has been much discussed, and while booming, the game development company must ensure social benefits and cultural commitment, constantly clarify and enrich the cultural intention, and promote its healthy development. Firstly, cultural sector should pay attention to cultural output and create urban e-sports IP. Scenes, elements and peripherals in e-sports have become new forms and carriers of urban cultural development. Good e-sports IP has good cultural intention and integrates rich cultural elements, which plays an important role in the dissemination and output of city culture. At present, most of the popular domestic e-sports IP copyrights are in foreign countries, and domestic local e-sports IP is scarce. Cities should take the initiative to grasp the right to tell the e-sports story, tell China's story well, create urban e-sports IP, and transport the city culture out, so that the e-sports industry can become the messenger of the city culture and even the Chinese culture "going out". Secondly, it enriches the gaming culture scene and enhances cultural consumption and experience. An open, inclusive and diversified life scene is an important prerequisite for vitality, and the construction of a social-oriented scene is a catalyst to attract young people. Developers can build gaming-based cultural scenarios to allow audiences to experience urban culture in virtual simulation scenarios and stimulate their consumption potential of urban gaming peripheral products; at the same time, by creating interactive scenarios, they can strengthen the emotional exchange in the cultural experience. For example, through the collision of e-sports and the characteristic cultural scenes such as Xi'an City Wall Scenic Spot, Datang Hibiscus Garden and Datang Nocturnal City, Xi'an has made "e-sports and ten cultures" a feature of Xi'an's development of e-sports industry, which is a reference for the development of e-sports industry in other cities.

5. Conclusions

This study focuses on e-sports, a popular emerging project, and analyzes the special event of e-sports entering the Asian Games. Starting from its development history, regional cultural background, user base and other aspects, it explores a series of influences it has included in the Asian Games and the help it has for the development of Hangzhou, the host city. Through research, the author found that e-sports is a diverse and open project with huge potential for development and growth in the future. E-sports has given electronic games no longer just a tool for people's entertainment, and now it has become an important medium for promoting economic development in the sports field, creating city cards, and promoting regional cultural exchanges. The diversity and openness of e-sports lies in its ability to integrate with various fields. An e-sports game is like an IP, which can integrate with multiple fields such as food, appliances, culture and tourism, and even technology, bringing new development opportunities to other fields.

For Hangzhou, the host city of the Asian Games, the new project e-sports has brought far more than expected economic growth and e-sports cultural foundation. The competition of the e-sports project is the only one in the Asian Games that needs the audience to decide the qualification by grabbing tickets and drawing lots. It is a phenomenon that speaks to the fact that gaming has a great appeal to many people. E-sports not only bring economic growth to Hangzhou, but also give it a resounding business card as an "e-sports city". With a good high-tech industry base and Asian Games experience, a strong e-sports culture is rooted in this city, becoming a model for other cities to develop e-sports.

With the depth of e-sports in public life, the model of "e-sports +" has become an important way for e-sports projects to integrate into public life and combine with other fields, making e-sports a new pillar of the sports economy. Research on e-sports can fill a gap in this area, and existing economic models and development cases can guide the development and promotion of e-sports. In the future, the scope of e-sports economy is not limited to events but the combination of multiple fields. This study only focuses on the impact and significance of e-sports events on the 19th Asian Games in Hangzhou, and more events outside the Asian Games and the "e-sports +" mode are only for reference. Future research can be further explored based on other modes.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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