



The Impact of e-Sports Tournaments on Regional Economy: An Empirical Analysis on the Example of Perfect World Shanghai Major 2024

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Abstract. E-sports is a growing industry, and the economic impact of e-sports events is becoming more and more obvious. In order to investigate whether and how large-scale eSports events can have a positive impact on the economic development of the host city, this study adopts the process tracing method to comprehensively analyze the regional economic impact of Perfect World Shanghai Major 2024 (Shanghai Major), the first top-level official Counter-Strike (CS) tournament in Asia, hosted by Perfect World eSports from 30 November to 15 December 2024. The study concludes that the economic benefits of the Shanghai Major as a mega tournament are significant, including direct benefits and indirect ones, especially highlights its contribution to GDP enhancement; but at the same time, compare to the League of Legends World Championship, Major series still have lessons to be learnt to maximize economic returns. Finally, this study presents the possible challenges and concerns of Shanghai Major as an esports tournament. This research provides a new object of study for sports economics and provides theoretical reference for the local hosting of sports events.

Keywords: Esports; regional economy, Shanghai Major.

1 Introduction

1.1 Research Background and Theme

Currently, eSports has evolved from a niche market to a global economic powerhouse, and this industry annual revenue has exceeded \$2 billion by 2025, generating significant revenue through ticket sales, tourism, and global broadcasting [1]. The study will introduce the global significance of eSports tournaments and their growing role in the economy. Highlight the increasing influence of eSports on regional economies, and particularly focusing on major event, Perfect World Shanghai Major 2024.

1.2 Research Aim and Objectives

The principal aim of this research is to investigate the economic impacts on regional economies. In order to explore the above aim, there are several objectives need to be explored, including: 1. Determine the direct impacts of esports tournaments; 2. Assess the long-term growth drivers and indirect impacts on regional economy; 3. Explore the approach to assess the impact of esports tournaments on the economic environment, e.g. infrastructure and hospitality sector.

1.3 Research Significance

Briefly, the researcher believes that the theoretical implications of this study include expanding the scope and object of sports economics research. In general, traditional studies on sports and economy tend to focus on traditional mega sports events (e.g., the Olympics or the World Cup), and at the same time, studies on the economy of e-sports are more inclined to micro areas such as the experience economy or the fan economy, etc. [2,3]. This study expands the object of the study by combining the e-sports industry with macroeconomics to illustrate the impacts of e-sports on the economy.

This study also provides practical implications and the most important of these is to inform local government decision-making. The study can take Shanghai Major as an example and provide assistance to local governments in formulating industrial development policies to promote regional economic development. For example, thanks to Saudi Arabia's fast-growing gaming market, it is expected to grow by more than 8% annually over the next three years, eventually reaching a market value of \$1.3 billion in 2027.

1.4 Research Method and Framework

This study will use the process tracing method (PTM) to develop. PTM is a qualitative research method used to reveal causal mechanisms in social science research, and it is especially suitable for causal inference in single-case studies [4].

This study will investigate the impact of Perfect World Shanghai Major 2024 on the regional economy through PTM in five chapters. After a brief introduction to the research in Chapter 1, Chapter 2 will systematically review the previous literature and is divided into two main parts: sports economy and eSports tournaments. Chapter 3 focuses on the case study of this research, namely Perfect World Shanghai Major 2024. Chapter 4 focuses on the analysis of this case study and introduces an in-depth discussion of the peer experiences that can be learnt from this case study, meanwhile, several of challenges and concerns have been raised in Chapter 5. In Chapter 6, the study presents the challenges and risks of eSports. Finally, the researcher concludes based on the findings that the study generally finds the impact of eSports events on the regional economy to be positive, but still presents a critical view on certain aspects, reflects on the limitations of this paper, and suggests directions for future research.

2 Literature Review

2.1 Sports Economy

Most of the current research has analyzed the role of major sporting events in terms of economic, social and cultural aspects that reflect the high quality of the economy and its development [5]. In the field of e-sports, Pulignano, et al. examined the impact of the frequency and size of e-sports events on the number of Twitch live viewers and channels. This study used new metrics to assess the effectiveness of event marketing in the attention economy, confirming the effectiveness of e-sports events in attracting viewer attention.

However, in response to the sports economy, some academics have also expressed concerns, such as the unequal distribution of resources and a bias against lower-income programme [6].

2.2 Electronic Sports Tournaments

In academia, Freeman, in exploring different definitions of eSports as a new industry, reinterprets eSports as a form of sport that incorporates elements of competitive gaming, relies on computer technology, and is highly interactive and spectator-friendly, with a particular emphasis on eSports' reliance on physical manipulation, digital intermediaries, and state-of-the-art equipment, as well as the central role of the spectator in the event [7].

As a sports phenomenon that has evolved with the times, research on eSports have produced a range of results, albeit starting late. For example, Watanabe, et al. explored the consumer motivations and attitudes of the consumers of eSports, and a study of a student group noted that this group generally perceived eSports as a serious sport and viewed it as a social practice [8,9]. Nonetheless, criticisms of eSports also remain. Although eSports is generally regarded as a sport, one of the most heated debates about eSports is whether or not it belongs to the category of sport, with the debate centering on whether eSports has the general characteristics of sport, i.e., physical activity and competitiveness [10-12].

3 Case Study: Perfect World Shanghai Major 2024

Perfect World Shanghai Major 2024, (hereinafter referred to as Shanghai Major) is the first time since its inception in 2013 that Counter-Strike's (CS) top tier series has come to Asia and is hosted by Perfect World Esports from 30 November to 15 December 2024 in Shanghai, China. Shanghai Major is one of the world's highest-level e-sports tournaments, with the largest and most internationalized scale of any Major ever. Including participating teams, topic heat and many other aspects. For example, Shanghai Major attracted 56 top teams from Asia-Pacific, Europe and the Americas, with a total of over 700 players and their entourages, and attracted around 70,000 spectators [13-16].

Shanghai Major is not only a sports event, but also an important milestone in the globalization of Chinese e-sports. Despite not making it to the elimination stage, Chinese teams showed a significant improvement in their level of competition in the play-off (Perfect World, 2024). In addition, Shanghai Major achieved the combination of competitive sports and traditional culture by integrating traditional Chinese culture (e.g. the Zhuang folk song music box 'Ay Hey' and the Shanghai City Parade) and spreading Chinese culture globally (Sohu, 2024). Furthermore, the tournament boosted Shanghai's cultural tourism consumption and expanded the e-sports business ecosystem through derivative sales (e.g. limited peripherals) [17].

The eSports industry has become one of the fastest-growing cultural entertainment sectors in the world in recent years, and its economic benefits cover a wide range of dimensions, including tournament revenues, derivative consumption, and industry integration.

Firstly, the Shanghai Major's direct revenue from the tournament includes income from tickets, peripheral commodities and sponsor co-operation. According to statistics, there were more than 70,000 audiences offline alone during the tournament, including nearly 10,000 from overseas, and tickets for the final stage were sold out on overseas platforms at record speeds (25 seconds for the semifinals and 10 seconds for the finals). Shanghai Major is divided into two stages, Play-off Stage and Opening Stage/Elimination Stage, with a wide range of ticket prices: Play-off Stage (Pudong Oriental Sports Centre): single day ticket prices range from CNY 299 to CNY 1,599, with two-day packages up to CNY 3,188. Opening Stage/Elimination Stage (Shanghai World Expo Centre): single-day tickets cost CNY 299 to CNY 1,988, with packages up to CNY 3,499 (four days). Secondly, benefiting from Shanghai Major, domestic tourists and overseas visitors drove spending on hotels, catering and transport in Shanghai. During the tournament, Perfect World launched a city tour with Shanghai Municipal Administration of Culture and Tourism, including the Bund, Wujiaochang and Nanjing Road, combining gaming culture with landmark tours to further stimulate the local culture and tourism industry.

4 Case Analysis: Economic Impact of Shanghai Major

4.1 Economic Indicators and Metrics

Asia is the region that holds the largest share of sales revenue in the global esports market, at around 43 %, followed by the North American and European markets, both at around 25 % [18]. More than a dozen high-profile esports cities were identified based on a series of factors, including the status of major esports teams and companies, international tournament hosting and industry reputation, according to the industry report. A comprehensive evaluation of further indicators resulted in a final ranking of eight world-renowned esports cities. In order of ranking, they are Los Angeles, New York, Shanghai, Seattle, Seoul, Atlanta, London and Berlin. Yang believed that all of these cities have an important position and development potential in the gaming industry globally. Shanghai rises to 8th place in the world in Kearney's 2024 Global Cities Report 2024, with digital indicators such as internet speed (2nd in the world) and the

number of data centers (8th in the world) excelling, and the e-sports industry being one of the key factors in boosting competitiveness [18,19].

The GDP growth target for Shanghai in 2024 is set at around 5%, with strategic emerging industries (including sectors like integrated circuitry, biomedicine, and AI) already contributing 43.9% of industrial output from enterprises above designated size. The Shanghai Major, as a flagship esports event, aligns with the city's focus on digital transformation and innovation-driven growth. According to Shanghai Municipal Bureau of Statistics, in December 2024, the number of inbound tourists in Shanghai was 740,400, a year-on-year increase of 66.4 %. In 2024, the growth in Shanghai's accommodation demand was more than 2 million, indicating that Shanghai drove a significant rebound in demand for lodging, which boosted local tourism activity [18].

4.2 Long-term Economic Impact Projections

The eSports industry has become a highly visible industry in China, and its development is strongly influenced by the economic environment [20]. This includes, firstly, the influence of market demand [21]. With the development of the economy and the increase of leisure time, people's demand for entertainment consumption is also increasing, favored by more and more players and spectators, the market demand for eSports in Shanghai has increased; secondly, the impact of the consumption level of residents [22]. With the increase of residents' income, personal consumption upgrades, they are willing to spend more money to buy tickets, peripheral products and other contents of e-sports competitions, which promotes the development of the e-sports industry; third, the impact on related derivative industries. The better the economic environment of Shanghai, the related e-sports platform development, e-sports platform peripheral products, e-sports event organization and other industries will also be developed rapidly, and the development of these industries not only provides more support for the e-sports industry, but also brings new power and vitality to the economic development of the whole city [23,24].

The popularity of eSports has seen a phenomenal explosion in recent years, with interest from the media, sports and technology industries growing by the day. From an economic perspective, the holding of the League of Legends World Championship 2025 is expected to bring more than CNY 1 billion in direct economic benefits to the host city and more than CNY 5 billion in output from related industries [25]. In this regard, the synergistic development of the industrial chain of venue operation, tourism and accommodation, and peripheral products has become an important driving force for local economic growth.

4.3 Lessons Learned from Other ESports Events

Nonetheless, there are still experiences that Major series can learn from other esports tournaments. Take the League of Legends 2024 Season World Championship as example.

The 2024 League of Legends World Championship final in London in 2024, like Shanghai Major, has boosted the local tourism industry in London. Over the course of

two days on 1 and 2 November, The O2 Arena in London was filled with audiences from across the globe, some of whom travelled from other London attractions, while others spent time dining and purchasing souvenirs at the venue, and this event in London brought £12 million (about CNY 110 million) to the city, Mayor of London Sadiq Khan said on social media [26]

Despite the many similarities between the events, the 2024 League of Legends World Championship has the following advantages over Shanghai Major: 1. Regionalization. The 2024 League of Legends World Championship has chosen to tour different cities. For example, the quarter-finals were held in Paris, France, while the final was held in London, the United Kingdom. This has led to economic growth on a wider regional scale; 2. Industrialization. London is home to the largest group of games studios in Europe and eSports is a growing market that offers huge potential for London businesses and communities; 3. Commercialization. As the world's top e-sports event, the League of Legends World Championship has formed a mature system covering multiple dimensions such as commercial cooperation and tournament operation. The total number of brands sponsored by the event reaches more than 130, covering a wide range of fields such as technology, food, finance and furniture. Meanwhile, S14 strengthened emotional resonance through cross-cultural narratives (e.g. Faker's Demon King image and the story of BLG's struggle), and the tournament became a vehicle for cultural exchange. For example, the participation of local teams in the tournament has boosted the enthusiasm of the audiences in Vietnam and Brazil, thus promoting the localization of e-sports culture.

5 Challenges and Concerns

The development of the e-sports industry has likewise brought about a number of concerns and challenges, the first of which is the underutilization of infrastructure, taking South Korea as an example. According to Korea Creative Content Agency (KOCCA), local esports arenas in South Korea are generally under-utilized (~40%, Fig. 1) and host mostly low-profile amateur tournaments with an offline audience of around 200 people. Even when they have hosted international events (e.g., Busan hosted the 2022 MSI), they have had limited social media attention and post-event content distribution. This phenomenon reflects the limitations of infrastructure positioning: over-reliance on tournaments at the expense of diversified operations (e.g., fan interaction, esports education, etc.) leads to a waste of resources during idle periods.

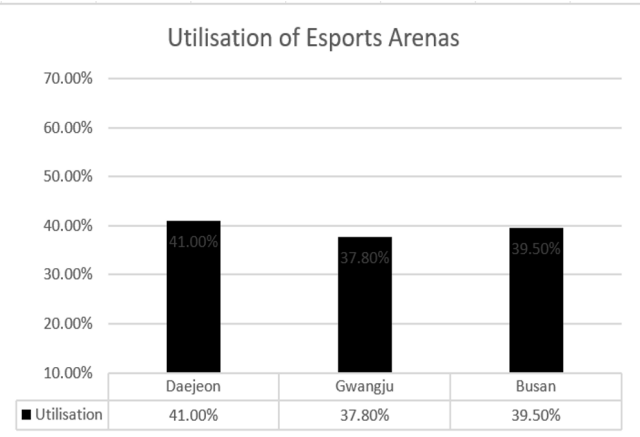


Fig. 1. Utilization of esports arenas in South Korea (Source: KOCCA)

The second concern is the increase in operating costs. Currently, prize money and player salaries for eSports tournaments are increasing at a rapid rate [27-29]. In addition, technological upgrades and transformations of eSports venues have led to an increase in the cost of operating and maintaining eSports venues, which creates uncertainty for the future [30].

An additional point of concern is in the social dimension. Mega international events involve cross-country team transport and a surge in power loads at arenas, which can push up carbon emissions. For example, the 2025 League of Legends World Championship will span Beijing, Shanghai and Chengdu, with huge demands for personnel movement and logistics, and the tournament has yet to announce a clear carbon-neutral plan.

The last controversy should be violent content of video games. Counter-Strike is one of the most popular and influential eSports in the world, especially in Europe. It is a traditional first-person shooter (FPS). The game divides players into Counterterrorist and Terrorists teams, each of which must fight multiple rounds on a single map. Rounds are won by either achieving the objectives required for that map, or by completely eliminating enemy players. Thus, the core gameplay of the game is shooting enemies. However, violent content in video games has been shown to influence human behaviour and negatively impact society. Greitemeyer and Mgge showed that violent video games were positively associated with violent behaviour and negatively associated with pro-social behaviour. They concluded that violent video games should be considered a risk factor for aggressive behaviour [31].

6 Conclusion

Shanghai Major, as the world's top e-sports event, is a grand scale. In the process of driving regional economic growth, it plays a direct role in promoting consumption (selling tickets and peripherals), indirectly (such as promoting tourism and catering, hotel

consumption) and promoting the development of the cultural industry and other aspects.

But at the same time, the study combines the experience of other e-sports events and puts forward improvement suggestions for the Counter-Strike Major Series, including multi-city tournaments, mature industrialization system and strengthening cultural narratives. The study next identifies challenges in the eSports industry, including facility utilisation, cost escalation and social issues.

No study is without limitations. The study did not develop comparisons from multiple similar tournaments to extract general lessons learnt, perhaps contrary to the original purpose of case selection, i.e. replicability.

One of the contributions of this study is to expand the scope of sports economics research by combining eSports with macroeconomics, breaking through the limitations of traditional research on large-scale sporting events (e.g., the Olympic Games). Another significance of this study is to provide policy references (e.g., industrial support, infrastructure planning) for local governments to promote the integration of e-sports with cultural tourism, science and technology and other industries, so as to assist the high-quality development of the regional economy.

Future research can compare and analyse the impact of different location factors (including economic level, infrastructure development, and policy factors) on the ability of tournaments to pull economic benefits based on the Counter-Strike series.

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