

# A Study on the Development of E-Sports Industry in the Yangtze River Delta

<sup>1</sup>Xu Kai, and <sup>2</sup>Liu Yuanxiang

International College, Kirik University, Thailand

E-mail: xukai19880917@163.com<sup>1</sup>, 1072358843@qq.com<sup>2</sup>

Received April 22, 2024; Revised June 4, 2024; Accepted June 16, 2024

## Abstract

This article aimed to (1) study the strengths and weaknesses of the electronic sports industry in the Yangtze River Delta and (2) analyze the industry chain and value chain of the esports industry in the Yangtze River Delta region. This research study employed a mixed method approach, incorporating both quantitative and qualitative research methods. In quantitative research, a sample was used. The sample was operators and consumers of the e-sports industry in the Yangtze River Delta region. As for the qualitative research, in-depth interviews were conducted with practitioners, experts, and representatives of relevant government agencies involved in the esports industry. Data were analyzed using descriptive statistics and content analysis. The research results were found as follows:

1. The e-sports industry's strength lies in its focus on carrying out activities and developing the intellectual property value of these activities. In the Yangtze River Delta region, there have been many successful esports events. The successful holding of these events and the development of intellectual property value are of significant importance in promoting the development of the entire industry. Moreover, the development of the esports industry in the Yangtze River Delta region will help create more job opportunities and entrepreneurial space for teenagers and youth. Driving the growth of consumer demand has a great impact on improving the employment structure of the region and expanding the domestic demand market.

2. The e-sports industry is developing in the Yangtze River Delta region. Customization is possible from the perspective of industrial chain integration. In the Yangtze River Delta region, the e-sports industry has established a comprehensive industry chain, starting with the organization of

various events. The industry is actively engaged in activities such as game research and development. Interoperability and integration between live broadcast platforms and other links are crucial for the development of the industry. This is crucial for the advancement of the industry.

**Keywords:** Yangtze River Delta Region; E-sports industry; Development Strategy; Industrial Planning

## Introduction

The Yangtze River Delta region is one of the most dynamic regions in China. And the development of the esports industry in this region has received great attention. The Yangtze River Delta region has a rich cultural heritage and talented resources. The development of the esports industry can promote the prosperity of cultural and creative industries. and training of talented people. As the digital economy continues to develop, E-Sports, a new form of information industry, is gradually evolving. Revealing the unique economic value and development potential in the Yangtze River Delta region. (Hou et al., 2020) The Yangtze River Delta region has a strong economic foundation. Sustainable innovation power and important advantages in regional collaboration. It has created a fertile foundation for the growth of the e-Sports industry. The focus is on rapid market scaling and rapid user base growth. This makes the industry cause many value chain reactions. which has attracted the attention of many researchers. Moreover, the development of the esports industry can greatly promote the development of regional sports. (Kalynets, 2022) Stimulate people's enthusiasm and participation in sports. and has a positive impact on improving the quality of life of residents and promote social harmony. (Kim & Kim, 2020) Moreover, the development of the esports industry in the Yangtze River Delta region is not only a demonstration of the current new economic impetus.

The e-sports industry has gradually Occurs in the Yangtze River Delta region. and is showing strong development momentum. (Duan et al., 2023) The Yangtze River Delta region has many universities and scientific research institutes. It has rich capabilities and technological support for the development of the e-sports industry (Bele et al., 2020) at the same time Strong economic strength of the Yangtze River Delta region this provides a wide market space for the e-sports industry.

Most of the existing research focuses on the current state of the industry and its activities. And there is still insufficient research on the deep-seated drivers of industrial development. Comprehensive impact on the regional economy (Summerly, 2020) and the interactive relationship

between Environmental policy and industrial development. Therefore, the main significance of this study is to provide theoretical guidance and policy recommendations for e-sports industry planning in the Yangtze River Delta region. and to guide industry participants to think deeply and explore practical industry innovation.

## Research Objectives

1. Study the strengths and weaknesses of the Electronic Sports Industry in the Yangtze River Delta.
2. To analyze the industry chain and value chain of the e-sports industry in the Yangtze River Delta region.

## Literature Review

### 1. History of the development of the e-sports industry

The e-sports industry emerged in the late 1980s and early 1990s. At first it was a niche culture. Most of them are in North America. East Asia, Egypt and other regions the early esports industry relied heavily on the promotion of game manufacturers and game exhibitions. and due to the limitations of the size of the e-sports venue Therefore, it has only been displayed in some big game exhibitions. With the popularity of the internet and the development of technology the e-sports industry has begun to enter an era of rapid development. Around 2000, online events began to appear in e-sports. and has rather strict rules and organizational forms at the same time, professional e-sports clubs emerged, and e-sports activities began to expand in venues and types. The rapid development of the Internet Especially the growth of online live broadcasting technology. It has brought enormous development opportunities to the e-sports industry. In the past few years with the continuous development of mobile networks and 5G technology, the e-sports industry has opened up new development opportunities. in an emerging form Mobile e-sports is gradually evolving. It has become an important part of the e-sports industry. Additionally, facilities and guarantees in all aspects of the e-sports industry are continuously improving. This is a more complete basic condition for the development of the esports industry. It can be said that the development process of the e-sports industry is full of innovation and change. And in the future, there will be continuous changes in many areas such as technology, markets and user needs.

## 2. Industrial Characteristics of the Yangtze River Delta Region

The Yangtze River Delta region is one of the most dynamic and development potential regions in China. And the e-sports industry is rapidly increasing in this region as well. The Yangtze River Delta region has a developed economic foundation, and complete industrial systems. This is a good foundation for the development of the e-sports industry, and complete industrial systems. This is a good foundation for the development of the e-sports industry. in the Yangtze River Delta region, the e-sports industry and traditional industries have integrated. This creates a unique industrial development pattern. The Yangtze River Delta region has dense urban agglomeration and a large population. (Tuominen, 2024). This creates a wide market space for the development of the e-sports industry. at the same time The Yangtze River Delta region has superior geographic location and transportation advantages. which facilitates the organization of esports events and activities in various locations The e-sports industry in the Yangtze River Delta region continues to attract all kinds of talent and capital. It has become an important development area for China's e-sports industry. Governments in the Yangtze River Delta region attach great importance to the development of the e-sports industry, and has established several policies and support plans to create a good policy environment and support for the e-sports industry. at the same time the e-sports industry in the Yangtze River Delta region continues to innovate and develop. Promote the upgrading and transformation of related industries. and inject new energy into the economic development of the region.

The e-sports industry in the Yangtze River Delta region is also making an increasing presence on the international stage. (Lu, 2016) It has attracted a great deal of international activity and investment. The e-sports industry in the Yangtze River Delta region is continuously expanding its international market, and participate in international competitions as well. Unique industrial features and advantages which plays an important role in the internationalization process of China's esports industry. Development of the e-sports industry in the Yangtze River Delta region It demonstrates the nature of diversity and cross-border integration. There are also many prominent e-sports events, clubs, and players taking place. The industrial characteristics of the Yangtze River Delta region point to the future development direction of the e-sports industry. It is also an important reference point for the development of the esports industry in other regions.

### **3. Theory It refers to the theoretical study of the development laws and characteristics of the e-sports industry.**

Industrial development theory mainly consists of industry life cycle theory. Competitive strategy theory and Innovation Theory First, the industry life cycle theory believes that every industry goes through four stages: initiation, growth, maturation, and decline. of development of the e-sports industry and the e-sports industry is no exception. Second, competitive strategy theory points out that the e-sports industry faces fierce market competition during the development process. Competitors gain and maintain competitive advantage through strategies such as positioning, competition, and cooperation. Third, innovation theory emphasizes the importance of industrial innovation to the development of the e-sports industry. including technological innovations product innovation Management innovation and other innovations that play an important role in industrial development Therefore, if the esports industry wants to develop in a sustainable and healthy way. It must make full use of industrial development theory to guide practice and promote innovation and continuous development of the industry.

### **4. E-sports specific theory**

It refers to a unique set of theoretical concepts and principles emerging in the field of e-sports. Among them, the cognitive theory of e-sports is a part of the specific theory of e-sports, which mainly includes cognitive psychological processes. such as perception, attention, and memory. Similar to cognitive load theory and cognitive dissonance theory, e-sports-specific theories also relate to motor learning theories. Taylor (2012) It's a theory about how e-sports athletes gain movement skills and develop themselves. Among the specific theories of e-sports It also includes reaction speed theory, which is how esports athletes make the right decisions through quick perception and reaction when faced with changes in the game. In addition, e-sports-specific theories include psychological theories such as competitive trends theory. Psychological stress theory Anxiety theory, etc. Among these theories Competitive flow theory refers to the state of an esports athlete being fully focused on the game. Theory specific to e-sports also includes the theory of teamwork. That is, the theoretical content of how e-sports team members can effectively communicate and work together to achieve the game's goals. E-sports-specific theories also include game design theories. It is a set of theoretical systems that emerge from the design and development of e-sports games. (Nugroho et al., 2022). These theoretical materials mainly include game interaction design theory. game balance theory Game themes and plot theories, etc. Among them, game interaction design theory refers to certain

principles and rules followed by interactive methods and interface design in e-sports games, and game balance theory refers to the balance and Fairness of the various elements in e-sports games and game themes, and plot theory refers to certain theoretical rules followed by arranging the storyline and determining themes in e-sports games.

From the above theory, it will help develop esports at the regional level. The competitiveness of the main organization and market potential The Policy Environment and Regulatory Support section will analyze the role of national and local policies to make them more effective and help elevate esports to greater value in the future.

## Conceptual Framework

This research is mixed methods research in which the researcher has defined a conceptual framework with the following details:

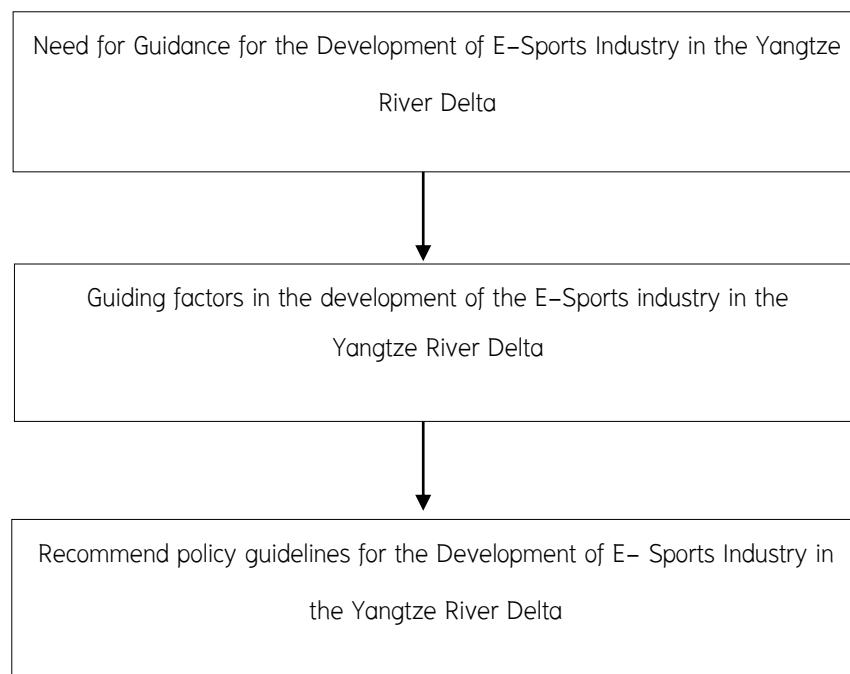


Fig.1 Conceptual Framework

## Research Methodology

This research uses quantitative and qualitative research. In terms of quantitative research methods, questionnaires and statistical analysis were used. The questionnaire survey will be aimed at esports industry practitioners and consumers. To gain knowledge, attitude and behavioral information in industrial development. The qualitative research uses in-depth interviews and

content analysis to understand the current status and trends of the development of the esports industry in the Yang River Delta region. C Practitioners, experts and representatives of relevant government agencies involved in the esports industry. To explore views and suggestions regarding industrial development. Content analysis sorts and analyzes policy documents. Comprehensive corporate annual reports, news reports, etc. related to the esports industry in the Yangtze River Delta region. To receive qualitative data support.

Statistical analysis Descriptive statistics will be performed. Relationship analysis, etc. in questionnaire survey results. To reveal the development characteristics and patterns of the e-sports industry in the Yangtze River Delta region. at the same time, we will use the SWOT analysis method to analyze the internal and external environment of the e-sports industry, identify strengths, weaknesses, opportunities, and threats, and provide decision support for the industry's development. The data source is Official website of major e-sports events in the Yangtze River Delta region to get basic information about the contestants, competition results, event size and other information. Secondly, you can use third-party data analysis platforms such as i-Research, Analysis Think Tank, etc. to get information about the number of users, market size, trading trends. grow and other information about the e-sports industry in addition, past information can be obtained. Expert opinion Market analysis and other information about industry development Through a comprehensive collection and literature review of journals, monographs, reports and other documents related to the e-sports industry. In-depth interviews and data analysis. First, we select a well-known e-sports club company as the research object. The company was founded in 2008 after many years of development. The company has also become a leader in the esports industry in the Yangtze River Delta region. There are many top esports teams. and had remarkable success in organizing the activity player training live broadcasting platforms and other fields. Successful experience is reflected in accurate understanding of the esports market. Excellent management and operations team and deep understanding of young audiences.

## Research Results

Objective 1. The results showed that according to research on the e-sports market in the Yangtze River Delta region It was found that this industry shows a strong development trend. The market size continues to expand. And the market demand continues to grow. Second, we analyzed the industry chain and value chain of the e-sports industry in the Yangtze River Delta region. and found to be related to many fields such as game development, activity operations Live

broadcast platform. We also held an in-depth discussion on international cooperation and development trends of the esports industry in the Yangtze River Delta region. The analysis found that the Yangtze River Delta region is gradually It has become a popular area for international esports competitions. It has received interest and investment from international events and brands more and more.

Objective 2. The results showed that We have also conducted research on the application and promotion of esports technology. and concluded that e-sports technology is expected to play a greater role in culture, entertainment, and sports in the Yangtze River Delta region. Finally, we also analyzed the innovative development pattern of the esports industry in the Yangtze River Delta region. and offer suggestions and opportunities Including promoting integration and innovation in the esports industry.

## Discussions

For the development of the e-sports industry in the Yangtze River Delta region, some specific countermeasures and suggestions are needed in terms of regulations, standards and compliance. First of all, we should strengthen the formulation and improvement of relevant policies. and establish regulations and standards for the development of the esports industry, to ensure that game content complies with legal regulations. And there are some protection measures for minors. Moreover, we should actively fight for policy support and make specific policy recommendations. Including tax exemption Procurement of venue and financial support and other policy measures to promote the healthy development of the e-sports industry. Moreover, it is necessary to encourage the esports industry to carry out more in-depth cooperation with scientific research institutes and related colleges and universities. To promote research and development of e-sports technology and training of talented people offer specific cooperation suggestions in terms of Technological innovations and special abilities and promote the development of a high quality e-sports industry.

## Knowledge from Research

From the research study, the knowledge resulting from the research can be summarized as follows



## Conclusion

From research studies until summarizing new knowledge, it was found that Technological innovation plays an important role in the development of the e-sports industry because technology can be used in a wide variety of activities. Personnel training is therefore an important addition to the development of the e-Sports industry because personnel must be knowledgeable. Ability and must be a modern person who is an expert in e-sports. As for policy measures, they will cover legal and tax matters as well. Because in the e-Sports industry, the age of participants is determined and there are many regulations that must be followed.

## Suggestions

This study still faces some limitations when researching the development of the e-sports industry in the Yangtze River Delta region, firstly due to time and resource constraints. We were therefore able to select only certain areas for field work. This may lead to limitations in the research results. Second, although we collected and analyzed a large amount of data, but it is still difficult to completely avoid data limitations and biases. Moreover, this study mainly focuses on the development of the e-sports industry in the Yangtze River Delta region. However, it does not fully consider influential factors in other regions, which may lead to limitations of the findings. at the same time this is because the personal experiences and opinions of the interviewees are personal. It is therefore difficult to avoid individual differences in survey results. This may have some impact on the generalizability of the findings.

## References

Bele, S., Sawai, V., Lavankar, P., & Sayyed, M. (2022). The future of e-sports. *International Research Journal of Innovations in Engineering and Technology*, 6(11), 134.

Duan, P., Wang, X., Zhang, A. Y., & Ji, B. (2023). Development environment of China's e-sports industry. In *Electronic sports industry in China: An overview* (pp. 47–74). Singapore: Springer Nature Singapore.

Hou, J., Yang, X., & Panek, E. (2020). How about playing games as a career? The evolution of E-sports in the eyes of mainstream media and public relations. *International Journal of Sport Communication*, 13(1), 1–21.

Kalynets, K., & Krykavskyy, Y. (2022). E-sports marketing as an integral part of virtual development of modern society. *Scientific Journal of Bielsko-Biala School of Finance and Law*, 26(4), 86–90.

Kim, J., & Kim, M. (2020). Spectator e-sport and well-being through live streaming services. *Technology in Society*, 63, 101401.

Lu, Z. (2016). From e-heroin to e-sports: The development of competitive gaming in China. *The International Journal of the History of Sport*, 33(18), 2186–2206.

Nugroho, S., Sumarjo, S., Nasrulloh, A., & Pratama, K. W. (2022). Impact of e-sport games on the character building and sports culture. *Journal Keolahragaan*, 10(1), 91–100.

Summerly, R. (2020). The development of sports: A comparative analysis of the early institutionalization of traditional sports and e-sports. *Games and Culture*, 15(1), 51–72.

Taylor, T. L. (2012). *Raising the stakes: E-sports and the professionalization of computer gaming*. Mit Press.

Tuominen, L. (2024). *Exploratory research on the strategic growth factors of e-sports organizations*(Master's thesis). University Of VAASA. Retrieved from [https://osuva.uwasa.fi/bitstream/handle/10024/16995/Univaasa\\_2024\\_Tuominen\\_Lari.pdf?sequence=2&isAllowed=y](https://osuva.uwasa.fi/bitstream/handle/10024/16995/Univaasa_2024_Tuominen_Lari.pdf?sequence=2&isAllowed=y)