



**THE FACTORS IMPACTING CUSTOMER INTENTION
TO ENGAGE IN E-SPORTS GAMES**

CAI YUEXI

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MANAGEMENT IN MANAGEMENT SCIENCE
INSTITUTE OF SCIENCE INNOVATION AND CULTURE
RAJAMANGALA UNIVERSITY OF TECHNOLOGY KRUNGTHEP
ACADEMIC YEAR 2023
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ABSTRACT

E-sports is a new industry derived from online games. On November 18, 2003, China officially approved e-sports as the 99th sports event in China, and e-sports has since entered the regular operation and development system. The sports industry is a new type with great market potential and development prospects. The development of the economy has made e-sports a demand, and the development of e-sports has also promoted the development of new market patterns and comprehensive industries. This study aims to find the factors influencing consumers' intention to engage in e-sports games. The quantitative method based on questionnaires is applied. Descriptive statistics such as frequency, percent frequency, mean, and standard deviation are introduced. Various inferential statistical methods are used to test the hypothesis, particularly the Independent Sample t-test, the One-way ANOVA, and the Multiple Regression Analysis. The results gained from the study show that differences in Demographic Factors in terms of Gender, Age, Educational Level, and Hometown generate differences in Intention to engage in E-sports. Regarding Online Behavior, all aspects of Online Behavior generate differences in Intention to Engage in E-sport Games. The Semi-Log Linear Regression Analysis shows that Action and Casual Games have played an essential role in the Intention to Engage in E-sport Games. However, the former is more effective than the latter. Therefore, all the research results obtained are conducive to developing the theory. The demographic factor is crucial to the rapid growth of esports as it is the main factor determining the audience of esports. Only customers with the largest market share can rapidly develop under numerous factors.

Keywords: e-sports, online behavior, game characteristics, intention to engage in e-sports games

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CHAPTER I

INTRODUCTION

1.1 Background and Statement of the Problem

First-tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen have led the e-sports industry in recent years. Wuhu, Jiangsu Taicang, and other places in Anhui also expressed optimism for the e-sports industry, developed the e-sports industry, cooperated with large e-sports companies to develop e-sports towns, and regularly organized e-sports competitions. Shanghai is also committed to becoming a global e-sports capital and comprehensively developing the e-sports industry. Thriving on the fertile grounds of Shanghai, the success of the e-sports industry is indebted to the unwavering support from both the upstream and downstream sectors of the e-sports industry. This synergy has attracted major domestic e-sports events to our city. With distinct roles for game developers, e-sports teams, commentary experts, live broadcast platforms, game operators, and hardware manufacturers, a harmonious and powerful "cluster effect" has emerged. This collaboration ensures a well-organized and mutually beneficial environment for all involved stakeholders.

The advent of the era of mobile e-sports has accelerated the development of the e-sports industry. The market concentration of publishers and channel vendors is high, and the survival rate of developers of the entrepreneurial team is low. In order to develop emerging markets, small and medium-sized R & D companies have entered the mobile e-sports industry which is still in a high-speed growth period. Dataeye's special report on mobile e-sports shows that the size of the Chinese mobile game market will reach 42.92 billion yuan in 2015, a year-on-year increase of 56.1%, and the number of users is expected to reach 3.864

million. The vast user group has laid the user foundation for developing mobile e-sports.

On the other hand, mobile games have the characteristics of fragmented and low thresholds, which can meet users' needs in terms of time and capital investment. Coupled with the simple and robust characteristics of mobile phone e-sports games, it meets users' pursuit of victory and caters to industry trends and user needs. According to the report of Iri Consulting, in 2014, 56.6% of mobile game users will consider participating in mobile game games, and 42.3% of e-sports users are willing to watch (Gamelook, 2015).

The e-sports industry has shifted to life, entertainment, and nationalization. Based on the information we have collected from different platform channels, most live audiences of traditional e-sports events are fans of e-sports games. When this group of fans overlaps with the entertainment industry, the fan effect will push traditional e-sports to the trend of life and entertainment. In 2014, Wang Sicong led the Panda TV to start a melee live broadcast platform. While Panda TV was launched firmly, it introduced the South Korean T-RA group, EXID group, Angelababy, and Lin Xin. The stars joined the home team. On August 4, Jay Chou's "League of Legends" live broadcast attracted about 17 million online audiences. In addition, stars such as Chen He, Huang Licheng, and Lin Junjie also said they are loyal fans of e-sports games. The integration of the e-sports circle and the entertainment industry has gradually increased. The e-sports market has expanded the user group with the fan effects of the entertainment industry, and the e-sports industry has gradually shifted to life and entertainment.

The development of the e-sports platform is inseparable from the capital market's power. In 2015, Hero Mutual Entertainment moved into the mobile e-sports market. With the help of "National Gun War" and "Daily Dance", games and other games became the second company in the release market in 2015, second

only to Tencent. In October 2015, Hero Mutual Entertainment was listed on the New Third Board. In the same month, Guangzhou VSI Software Co., Ltd., which has another famous e-sports platform, also successfully landed on the New Third Board. In the future, more and more e-sports market companies will seek development with the power of the capital market (Qieyou, 2015).

As the e-sports industry chain undergoes significant enhancements, numerous listed companies, capital entities, and local governments are hastening their investments. This transformative wave is reshaping the ecological landscape and guiding the development trajectory of the Chinese e-sports industry. Within the A-share market, notable companies such as Perfect World, Giant Networks, Lian Sports, Shunwang Technology, Shengshi, and Shengtian Network, among others, have strategically positioned themselves in the e-sports sector. Their collective efforts are injecting considerable momentum into the flourishing and evolving landscape of the e-sports industry.

Perfect World, the video game development company, has successfully secured an agreement with Valve Corporation, granting them exclusive operating rights for DOTA 2 in mainland China. Furthermore, Perfect World expanded its influence by acquiring a Chinese agency company associated with "Anti-Terrorism: Global Offensive." In a broader context, Perfect World has entered into a comprehensive collaboration with the Alliance E-sports. This collaboration spans various aspects, including e-sports talent training, club development, e-sports project investment incubation, and the development of e-sports derivatives and media resources. This multifaceted partnership reflects Perfect World's commitment to fostering and advancing various facets of the e-sports landscape.

The primary emphasis of Giant Network lies within the realm of mobile e-sports, focusing on their core creation, "Global Battle." Meticulously curated, the "Giant E-sports" ecosystem comprehensively integrates users, events, content,

brands, and other essential resources. The overarching goal is to deliver users the highest quality gaming experience, ensuring a seamless and enjoyable engagement within this dynamic ecosystem.

Giant Network has significantly extended its influence in the video game industry by closely collaborating with Ali Sports, traditional fast-moving consumer brands, and fashion brands. This collaboration not only introduces more exhilarating games to users but also facilitates the seamless integration of e-sports culture into everyday life, enabling more people to appreciate the allure of e-sports. With its unique approach and in-depth partnerships, Giant Network is at the forefront of mobile e-sports development, ensuring that more individuals can experience the joy and satisfaction that e-sports bring.

Considering the promising future of e-sports, the Chinese market witnessed significant growth in 2019, with a total value reaching 1.1 billion yuan. This upward trend is anticipated to continue robustly in the coming years. Notably, event organization, game development, endorsements, and advertising constitute the primary revenue streams within the e-sports industry. Event organization, in particular, has emerged as one of the most lucrative sectors. Globally, the e-sports market surpassed \$10 billion in 2019, and projections indicate a substantial increase, with an expected value of \$60 billion by 2025. These figures underscore the remarkable expansion and economic potential of the e-sports industry on a global scale.

In the evolving landscape of the e-sports industry, several key trends are expected to shape its future trajectory:

1. **Acceleration of Professionalization and Industrialization:** E-sports is poised to witness an accelerated shift towards professionalization and industrialization. This trend will likely attract many cross-border investors, leading to faster development within the industry.

2. Globalization of the E-sports Industry: The increasing prevalence of the Internet propels the e-sports industry towards greater internationalization. The transition from domestic to international competition is inevitable, fostering more frequent exchanges and collaborations between countries.

3. Impact of Intelligent Hardware Development: The rapid advancement of intelligent hardware is set to become a formidable catalyst for the growth of e-sports. Continuous technological progress ensures the rising popularity of smart hardware, presenting new possibilities and avenues for the e-sports landscape.

4. Central Role of Game Development Companies: With a heightened emphasis on game content, game development companies are positioned as the core entities in the e-sports industry. The innovation and enhancement of game content emerge as primary objectives for these companies, playing a pivotal role in the overall development of e-sports.

In summary, the e-sports industry is currently experiencing a booming phase, representing a new market teeming with potential. While uncertainties persist in the future market, the unprecedented momentum of e-sports establishes it as a significant cultural phenomenon that significantly influences people's lifestyles and social models.

When analyzing consumer behavior in the context of online games, we observe a spectrum of actions that consumers undertake in acquiring, using, and discarding gaming goods or services. This encompasses the decision-making process both prior to and during these actions. Specifically within the realm of online games, consumers' consumption behavior can be categorized into two primary aspects:

1. Real-life Consumption: This involves consumers gathering information about online games, making decisions based on their preferences, and utilizing the selected online game.

2. Online Consumption: In this category, consumers decide to purchase, pay for, and utilize items or services within the online gaming environment. This decision-making process is influenced by their understanding of virtual items such as props and other services offered in the online game.

By distinguishing between these two dimensions, we develop a holistic understanding of how consumers interact with online games. This helps bridge the gap between real-life decision-making processes and virtual transactions within the gaming sphere.

In online games, consumer motivation pertains to the underlying reasons and driving forces that lead individuals to purchase or consume. Consumer purchase behavior is fundamentally steered by motivation, serving as the guiding force that aligns activities with specific needs. Inherent demands spark these motivations. Drawing from Maslow's Hierarchy of Needs, human needs are classified into physiological, safety, social, esteem, and self-actualization, progressing from basic to higher-order requirements (Song, 2014). Similarly, online game consumption behavior is influenced by diverse consumer motivations. The following delineates five primary consumer motivations (Wei et al., 2011):

(1) Stimulating Motivation: Online game consumers are drawn to audiovisual stimuli, favoring gorgeous game scenes, unique character styles, and impactful visual elements. The surreal visual experience and immersive music allow online game consumers to transition from a mundane and numb reality to a more exciting and engaging virtual world. This fulfills their need for stimulation and prevents monotony, making the consumption experience more vibrant and captivating.

(2) Motivation for Achievement: In online gaming, consumers often grapple with the disparity between their ideals and real-life circumstances, leading to internal conflicts. Online games offer an escape, providing individuals facing real-life challenges with a platform to achieve goals and experience success. The virtual world becomes a space where consumers can attain a sense of accomplishment that may elude them in reality, addressing their need for self-realization.

(3) Experience Motivation: Acquiring in-game props and services in online game consumption reflects experience-driven motivation. High-income gamers and those constrained by time enjoy spending more on the game to enhance their gaming experience. This demonstrates a willingness to invest in better services and enjoyment within the virtual gaming environment.

(4) Emotional Motivation: Online game consumers seek emotional fulfillment, often compensating for dissatisfaction or feelings of injury experienced in real-world social interactions. Emotions in this context encompass various social dynamics like friendship and affection, aligning with Maslow's theory of social needs. In online gaming, consumers find a straightforward, clear-cut virtual society where interpersonal relationships are straightforward. Engaging in online games allows consumers to integrate their desire for social interaction, providing emotional comfort not easily attained in reality.

(5) Motivation for Differences: Many online game consumers lead regimented lives, yearning for a break from the monotony and a chance to express individuality. Online games offer a platform for these individuals to break free from routine. In the virtual realm, consumers unleash their creativity, bringing forth novel and unconventional ideas. This virtual freedom allows them to be independent and different without the constraints of real-life judgments, providing an outlet for self-expression and imaginative exploration.

In 2017, the Chinese e-sports culture consumption reached a noteworthy milestone. The overall scale of the Chinese e-sports market surpassed 65 billion yuan, boasting a user base of 260 million individuals—a staggering growth rate of 104.9%. The primary drivers of this surge were heavy products and puzzle games, attracting a significant influx of new users who were previously unacquainted with e-sports games. Anticipated data projections suggest that the total number of e-sports users is poised to reach 350 million by 2019. This explosive growth in user engagement signifies a remarkable expansion in the e-sports user base and promises considerable opportunities for the growth of the e-sports derivative market. The burgeoning user numbers indicate the substantial potential for expansion and development within the broader e-sports landscape.

Mobile e-sports has emerged as a prominent consumer hotspot, signaling a significant upswing in the e-sports ecosystem. In 2017, a report from the General Administration of Sport of China highlighted the escalating prominence of the mobile e-sports market. The market size soared to 30.3 billion yuan, surpassing the 30.1 billion yuan market size of terminal e-sports games (Sport.gov.cn, 2023). The substantial entertainment value and user-friendly nature of mobile gaming have contributed to the rapid acquisition of market dividends by mobile e-sports.

While the overall size of the e-sports ecological market, encompassing events, peripherals, and income generated from core links in the industrial chain, currently stands at 5 billion yuan, consumption within the e-sports ecosystem is anticipated to evolve into a pivotal driver of future market growth. Despite its current scale, the e-sports ecological market holds promise as a substantial source for market expansion in the times ahead. Regarding gender distribution, men comprise 59.3%, overshadowing women, who comprise 40.7% of the e-sports consumer base. Despite the apparent dominance of male participants, it is crucial

not to underestimate the significance of female consumers in both their market share and consumption power within the e-sports landscape.

Regarding educational distribution, 75.2% of e-sports users hold a bachelor's degree or higher. Additionally, nearly 76% of e-sports enthusiasts fall under 30. This demographic, particularly the post-90s consumer market, presents significant business opportunities. As Yang (2018) highlighted, individuals born in this era have matured alongside the internet's evolution, showcasing higher acceptance and adaptation to the Internet economy than other age groups. Furthermore, their consumer mindset revolves around "personalized consumption and advanced consumption," reflecting deeply ingrained values with potential implications for market trends and preferences.

1.2 Research Questions

This study employs a quantitative research approach to investigate the factors influencing consumer gaming experiences with electronic sports products, including demographic factors, game characteristics, and online behavior. Specifically, the research question can be summarized as What kind of e-sports products will interest consumers and generate a willingness to purchase?

1.3 Research Hypotheses

(1) Differences in Demographic Factors generate differences in intention to engage in E-sport games.

(2) Differences in Online behavior generate differences in intention to engage in E-sports games

(3) Differences in Game Characteristics generate differences in intention to engage in E-sport games.

1.4 Research Objectives

(1). To study the influence of Demographic factors on intention to engage in E-sports games.

(2). To study the influence of Online behavior on intention to engage in E-sports games.

(3). To study the influence of Game Characteristics on intention to engage in E-sport games.

1.5 Scope of the Research Study

The research is scheduled from October 2022 to October 2023, primarily focusing on understanding how e-sports products engage and retain customers. Specifically, the study aims to investigate the various strategies employed by e-sports products in the contemporary Internet era to attract customers and influence their sustained usage. Given the substantial user base of e-sports in mainland China, the research will concentrate on the highly representative demographic of post-90s youth, ensuring the findings are pertinent and reflect the broader user population.

1.6 Research Framework

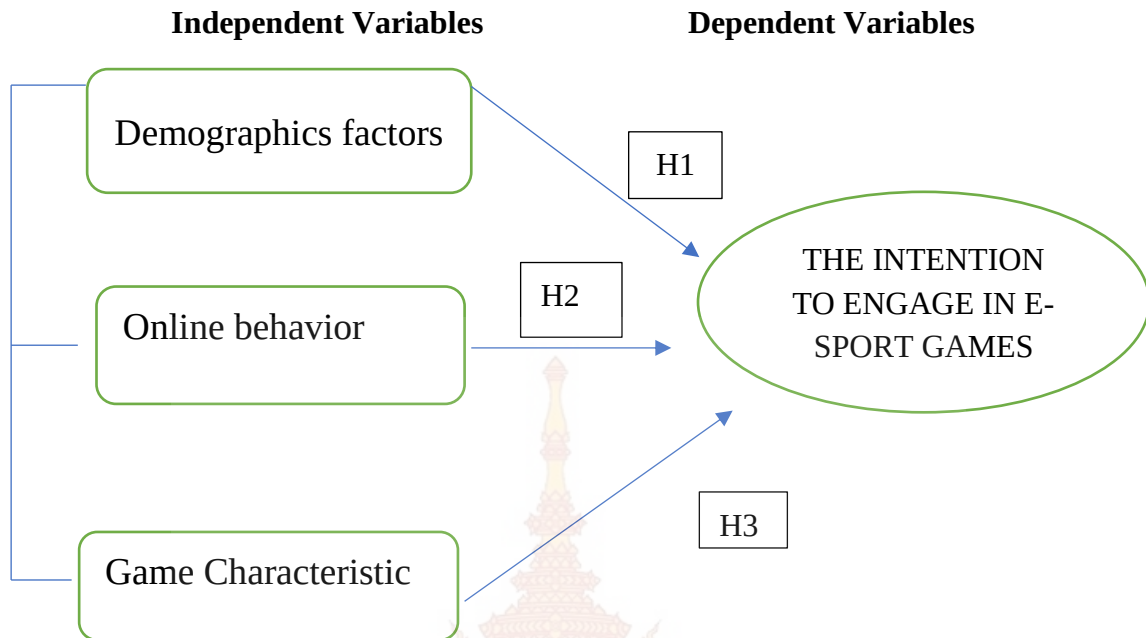


Figure 1.1 Research Framework

1.7 Definition of Key Terms

1.7.1 E-sports (Electronic Sports)

Sports games are sports that can meet "competitive" standards. E -sports use e -equipment as a sports equipment to combine intelligence and physical fitness competitions. Through e-sports, one can exercise and improve the participants' thinking, response-ability, physical coordination ability, and willpower while cultivating team spirit. Professional e-sports also have high requirements for physical fitness. Therefore, e-sports is a profession similar to non-electronic game games, such as chess.

1.7.2 RPG = Role-playing Game

In the game world, players can become the story's protagonist, play one or more characters, and participate in the entire storyline in depth. Although some

players may confuse role-playing games (RPG) with adventure games, there is a significant difference between the two. RPG games take the development and personal experience as the core, while adventure games focus more on exploration and puzzles. Generally speaking, RPGs can be divided into two types. The difference is mainly cultural background and combat style.

On the one hand, Japanese RPG games mostly use turnover or semi-real-time combat systems, such as the well-received "Final Fantasy" series. In addition, most domestic Chinese RPGs can also be classified as Japanese RPGs, such as "Sword Spirit" and "End of the Sword". On the other hand, RPG games in the United States, such as the highly praised "Diablo" series, pay more attention to action elements and real-time battles.

1.7.3 ACT = Action Game: Action Game

Players control the role of the game, waving various weapons, destroying the enemy, and defeating the game. They are pursuing the stimulus and fun of the game, not entangled in the storyline. For example, Super Mary, cute Star Cobbi, Gorgeous Persian Prince, and other games are to satisfy players' pursuit of stimulus. Most of the action games on the computer come from early arcade games and action games, such as "Soul Dou Luo" and "The Romance of the Three Kingdoms". The design goals of these games are for ordinary players and the purpose of pure entertainment and leisure. Although these games include a small number of simple puzzle solution components, they are simple, easy to use, and tense and belong to the "popular" game.

1.7.4 AVG = Adventure Game: Adventure Game

A game of players controls the game role to play virtual adventure. Unlike RPG, AVG's story is usually presented as completing tasks or solving puzzles, emphasizing the importance of puzzles in the game. AVG can also be subdivided into two categories: action categories and fans. Action category AVG

can contain some fighting or shooting elements, such as the "Biochemical Crisis" series, "Tomb Raider" series, "Dinosaur Crisis" and so on. The mysterious AVG relies on puzzles to solve the development of the plot. The difficulty coefficient represents the super classic "Mysterious Island" series.

1.7.5 SLG = Strategy Game: Strategy Game

It is a game in which players use strategies to compete against computers or other players to achieve various forms of victory, unify nations, or colonize alien colonies. Strategy games can be divided into two types: turn-based and real-time. For example, turn-based strategy games such as the "Three Kingdoms" and the "Cherry Blossom War" series are popular among the public; Real-time strategy games such as the Command & Conquer series, the Empire series, and Dune are exciting.

1.7.6 RTS = Real-Time Strategy Game. RTS = Real-Time Strategy Game

Initially, the real -time strategy game was just a branch of SLG. However, because of its rapid global sweeping, it gradually developed into an independent type, and its popularity exceeded SLG. For example, the best proof is the relationship between FIFA and the International Olympic Committee. A series of outstanding works have continued to emerge, such as "The Warcraft" series, "Empire Times" series, and "StarCraft", all of which are representatives of this type. Subsequently, a new type of "real -time tactical game" emerged. This type of game emphasizes the importance of tactics, and players need to control a team to complete the task. This type of game, represented by the Allied Dead Team, highlights the critical role of tactics in the game.

1.7.7 FTG = Fighting Game: Fighting Game

These games allow players to control various characters and fight against roles controlled by computers or other players. With this drawing

technology, these games can be divided into two categories: 2D and 3D. The famous 2D fighting games include the "Street Overlord" series, the "Soul" series, the "King of Fighters" series, and 3D fighting games such as "Iron Fist" and "Gundam". These games usually do not have complicated storylines and only provide simple scene settings or background displays at most. The game scene, characters, and controls are relatively simple, but the operation is more complicated. Players' rapid judgment and micro-operation can win it.

1.7.8 STG= Shooting Game: Shooting Game

The shooting category mentioned here is not just simulated shooting. More precisely, it refers to pure aircraft shooting. Players control various aircraft (mainly aircraft) to complete the task or pass the game level. There are two types of game worlds. One is a science fiction simulation game, a wonderful space adventure world, such as "Free Space" and "Star Wars" series. The other is called Realistic -Simulation Game. Based on the real world, pursuing a sense of truth lets players look like they are in the actual flight world, such as in the "Ace Air Battle" series.

1.7.9 FPS = First Personal Shooting Game

Strictly speaking, it is a branch of action games, but like RTS, it has transformed into an independent type because of its popularity globally. Some of the public's favorite works include the Destruction Warrior series, the Quake series, illusory, half-life, and CS, all belonging to this type of masterpiece.

1.7.10 Factors Influencing Consumer Experience of E-sports Products

The factors influencing the consumer experience of e-sports products encompass game content, game interaction, game safety, and game revenue.

(1) Game Content: For online games, the content stands as the foundational and paramount factor, encompassing various elements related to game

design, characters, plots, music, and visuals. Critical aspects of game content include its richness and enjoyment and the adaptability of the game screen, music, and culture.

(2) Game Interaction: Game interaction ranks among the most crucial and enjoyable aspects of online gaming. It involves the communication and influential interaction between two or more participants. This study categorizes game interaction into two types: personal interaction and social interaction. Personal interaction pertains to the engagement between the player and the game system, while social interaction involves the dynamics between players (Chen et al., 2021).

- Personal Interaction: Playing games is essentially a problem-solving process where players engage with the game's challenges, devise strategies based on these challenges, and utilize feedback from the game to accomplish various goals, such as defeating enemies, enhancing skills, or discovering hidden items.
- Interpersonal Interaction: In gaming, Interpersonal interaction involves goals, actions, and feedback. Goals represent specific objectives that players aim to achieve within the game. For instance, in a game like "Legend," a player's goal might involve locating a hidden treasure. Actions refer to the tools or means players employ to achieve their goals, such as using weapons or magic against monsters or other players. Feedback is the game system's response to player actions, creating a reciprocal relationship wherein players experience the impact of their interactions, like successfully defeating an enemy.
- Social Interaction: Both social and personal interactions are pivotal in online games, contributing to the overall gaming experience. Online games leverage network systems, facilitating the convergence of

numerous players in a virtual space. Player-to-player interaction becomes a crucial factor in cultivating an enjoyable experience. Social interaction in gaming can be classified into two types: communication spaces and communication tools. Firstly, online games should offer virtual spaces where players can gather for communication or trading. Secondly, games should provide functional tools, allowing players to express their ideas and communicate effectively. Fostering communication among players is essential for a successful social interaction experience.

Online games should incorporate (a) clear, collaborative goals for players; (b) appropriate in-game actions aiding goal achievement; (c) timely and relevant feedback to enhance social interaction effectiveness; and (d) suitable communication spaces and tools enabling players to share their thoughts seamlessly to ensure effective interpersonal interaction.

(3) Game Safety: The significance of virtual products and even commodities in online games has grown substantially. The network's openness enables enterprises to quickly gather, store, transmit, and analyze consumer information, encompassing addresses, phone numbers, age, income, personal preferences, and even credit card information. However, this very openness poses a risk, as malicious individuals may attempt to steal this sensitive information, posing a severe threat to transaction security and consumer privacy.

Consequently, online gamers have become increasingly vigilant regarding the security of their in-game transactions and safeguarding personal information. Furthermore, online games demand a significant time and energy investment for players to develop their virtual characters. The advent of plugins has allowed some players to showcase their accomplishments and confidence in the

game without investing substantial effort. However, this practice undermines the game's fairness, triggers dissatisfaction among other players, and has even prompted loyal players to exit. Game security extends beyond transaction safety and encompasses broader player needs to mitigate risks. This article considers game security to include the safety of the game server, the protection of players within the game, and measures to handle and prevent in-game violations and deception.

(4) Game Benefits: Online games offer players a sensory feast of sound and visuals and serve as powerful tools with educational functions. The diverse knowledge embedded in these games significantly expands players' knowledge systems. Players engage in continuous exploration and communication within the virtual realms of online games. They utilize various in-game tools and methods to solve challenges, enhance character levels, or acquire top-notch equipment. This process subtly hones players' information processing and problem analysis abilities. As online game functions continue to evolve and improve, the importance of game efficiency becomes increasingly pronounced. The game benefit factors examined in this article primarily encompass game knowledge benefits, game ability benefits, and game currency benefits. These factors are pivotal in evaluating a game's overall value and impact on players.

1.8 Benefits of the Study

1. Understanding E-sports Product Types: This study aims to provide comprehensive insights into the various e-sports products available. By categorizing and understanding these products, stakeholders can gain a nuanced understanding of the diversity within the e-sports industry.

2. Understanding Product Preferences Across Demographic Groups:

Examining the preferences of different demographic groups in choosing e-sports products is a crucial focus of this study. This knowledge can help industry players tailor their offerings to cater to specific target audiences, enhancing market responsiveness.

3. Understanding Consumption Patterns Across Demographic Groups:

Delving into the consumption habits of different demographic groups concerning e-sports products offers valuable insights. This understanding can guide marketing strategies and product development, ensuring alignment with the diverse preferences of the consumer base.

4. Understanding Usage Patterns Across Demographic Groups:

The study investigates how different demographic groups engage with and utilize e-sports products. This information can inform developers, marketers, and industry stakeholders about user behaviors, aiding in optimizing products and services.

5. Application in Management and Investment:

The findings from this study hold practical implications for the management and investment strategies of key players in the Chinese e-sports industry. Companies like Tencent and MIHOYO can leverage these insights to refine their management approaches, make informed investment decisions, and enhance their competitive positions in the dynamic e-sports market.

CHAPTER II

LITERATURE REVIEW

2.1 Related Theories

2.1.1 E-sports

E-sports involves intellectual confrontation utilizing high-tech equipment. It focuses on competitive video games governed by standardized rules for fair competition (He et al., 2005). Notably, Multiplayer Online Tactical Competition Games (MOBA) like DOTA2, League of Legends, and Storm Heroes have grown in popularity. Concurrently, the prevalence of real-time strategic games, such as "Anti-Terrorism" and "Warcraft 3," has seen a gradual decline over the years (Guo, 2015).

2.1.2 Demographic Factors

Following the frameworks proposed by Mi et al. (2003) and Zhai et al. (2011), the demographic factors are detailed as follows:

2.1.2.1 Gender: Gender is a multifaceted concept encompassing biological, sociological, and psychological dimensions. It refers to anatomical and physiological distinctions based on human and animal biological characteristics, acknowledging categories such as male, female, intersex, and androgynous.

2.1.2.2 Marital Status: Marital status pertains to the relationship status of individuals aged 15 and above within a specific period in a country or region. Commonly categorized into unmarried, married (with a spouse), widowed, and divorced, marital status provides insights into the social dynamics of the population.

2.1.2.3 Age: Chronological age denotes an individual's years, representing the duration from birth to the present. Age is a natural marker with a biological foundation, inevitably increasing as time progresses.

2.1.2.4 Occupation: Occupation involves participating in the social division of labor, utilizing professional skills and knowledge to create material or spiritual wealth, earning reasonable remuneration, and contributing to social life. It denotes the work people engage in for a livelihood.

2.1.2.5 Income: Income encompasses the total economic interests generated in daily enterprise activities, contributing to the growth of owners' equity and unrelated to the owners' invested capital.

2.1.2.6 Education: In a narrower sense, education refers to formally organized school education, while in a broader sense, it encompasses the social practices influencing individuals' physical and mental development.

2.1.2.7 Hometown: Hometown signifies the place of upbringing or ancestral origin, alternatively known as "hometown," "native place," or "birthplace." It can also denote a place of belonging and security.

2.1.3 Game Characteristics

Game characteristics, as elucidated by Wang et al. (2019), encompass various genres, each offering unique gameplay experiences:

1. **First-Person Tactical Shooting Game (FPS):** FPS games, such as CS, DOD, Rainbow Six, Battlefield, and Call of Duty, test players' response, team cooperation, and tactical acumen. These games focus on immersive, team-based combat scenarios.

2. **Overall Strategic Layout and Macro Tactics Game:** Games like "World of Warcraft," "StarCraft," "Order and Conquest," "Empire Age," "Red Alert," and "Plants vs. Zombies" challenge players with overall strategic planning, macro tactics, and precise operational responses.

3. **Action (ACT) Games:** ACT games, exemplified by Japanese CAPCOM action games, prioritize a clean and smooth player experience. Often presented in 2D,

these games aim for colorful visual effects and rich auditory experiences, with titles like "Dragon and Dungeon."

4. Adventure Game (AVG): AVG games draw inspiration from suspense and thriller novels, exemplified by games like "Mystery Island." Representative works include Capcom's "Biochemical Crisis" series, "Devil May Cry" series, and "Ghost Warrior" series.

5. Fighting (FTG) Game: FTG games embody the ultimate form of the Chinese "fighting" concept, allowing players to engage in combat without suffering damage.

6. Role-Playing Game (RPG): RPGs create immersive worlds, fostering adventure, growth, and player resonance. Classics like the "Sword Legend" series, "Dragon Heroes" series, and "Final Fantasy" series mark the RPG genre's impact.

7. Simulation (SLG) Game: SLG games encompass virtual reality and real-life experiences, including war chessboard strategy games like Microsoft's "Flying Simulator" series and the "ACE Combat" series.

8. Scroll Shooting Game (STG): STG games, such as Kai Kyo's "194x" series, CAVE's "Chief Bee" series, and Irem's "Thunder and Lightning" series, involve 2D scrolling and precise player control, challenging players to achieve high scores and navigate enemy bullets.

9. Massively Multiplayer Online Games (MMOG): MMOGs refer to online games hosting a large player base (about 1,000 people) on a server, creating expansive multiplayer experiences. Any game connecting over 1,000 players qualifies as a large multiplayer online game.

2.1.4 Implications of E-sports Consumer Behavior

Consumer behavior encompasses the diverse actions undertaken by individuals to acquire, utilize, and dispose of consumer goods or services. This

includes the decision-making process that precedes and dictates these actions (Zou & Xiao, 2004; Wei et al., 2011).

2.1.5 Intention to Play

Why do most e-sports players engage in e-sports games, and what motivates their participation? These questions prompt an exploration into the underlying needs that e-sports games fulfill (Wei et al., 2011). Our examination categorizes these needs into two main dimensions—the replacement of reality, new experiences, and enjoyment, the realization of freedom, human values, and the construction of personal ideals. While we acknowledge potential repetition, our focus is on offering a comprehensive view of players' motivations for participating in online games (Wei et al., 2011; Wang & Wang, 2023).

(1) Aesthetics and Music: E-sports games deliver a rich sensory experience, providing players with aesthetic, visual, and auditory enjoyment.

(2) Anti-Repression: E-sports games offer a release from the ethical and behavioral constraints present in reality, allowing players to engage without the burdens of societal norms.

(3) Experience Another Life (Character Experience): Players can step into different roles, allowing them to immerse themselves in and experience an alternative life.

(4) Interpersonal Communication: E-sports games facilitate simple yet meaningful interpersonal connections, enabling players to express facets of themselves and pursue personal goals not easily achievable in reality.

(5) Novelty and Excitement: The allure of novelty and excitement, often lacking in real-life experiences, is a significant draw for young players engaging in e-sports games.

(6) Take Control: E-sports games grant players a sense of leadership and control that is not easily attainable. Players dictate the story's course, the characters' development, and even the fate of others.

2.2 Related Studies

In 2019, the Chinese e-sports user base surged to 370 million, witnessing a remarkable 48% year-on-year increase. This growth can be primarily attributed to the allure of e-sports games, notably the popularity of titles like "Glory of the King." The trajectory suggests a continued rapid expansion of Chinese e-sports users (Cao, 2018; Wang, 2013) anticipated in the next 1-2 years. Tencent strategically targets young audiences, positioning itself in the "popularity" market segment focusing on competitive and casual platform games. The core demographic for competitive games consists mainly of young men in their twenties, with a noticeable rise in female mobile gamers (Jin & Yue, 2008).

The distinctive essence of online games lies in their educational significance and cultural depth. To address players' psychological needs effectively, understanding and acknowledging their unique attributes are imperative (Zhang, 2008). On a global scale, e-sports boasts an extensive user foundation. In China, the e-sports industry adopts an event-centric promotion strategy. Leveraging platforms like Weibo and WeChat, the industry creates star teams featuring popular e-sports professionals, amplifying player and netizen engagement in competitions and games (Jin & Yue, 2008; Zhao, 2019). As an emerging industry, the e-sports sector is gaining increasing attention. China's e-sports industry exhibits substantial growth potential, supported by policies, evolving social perspectives, and the intrinsic characteristics of e-sports. Nevertheless, industry stakeholders must confront challenges, ensuring the sector's

healthy development through policy guidance, industry standards, and enhancing self-discipline within the field (Dai, 2023).

2.3 The Research Background

2.3.1 Overview of E-sports: E-sports redefine traditional sports, utilizing electronic equipment as sports gear for combat games in virtual environments. The focus lies on the intellectual and responsive aspects between players, elevating it to the level of recognized competitive sports across various countries (Liu & Shi, 2021).

2.3.2 Chinese E-sports: WCG, often regarded as the Olympic Games of e-sports, was established in 2000 and has seen 14 editions. China has hosted WCG three times: in Chengdu (2009) and Kunshan (2012 and 2013).

2.3.3 E-sports Customer Influence Factors: Unlike traditional games, online games leverage technological advancements and Internet development to meet player needs. This is achieved through direct interactive games facilitated by servers and communication tools, providing convenience and efficiency (Liang & Zou, 2019).

2.3.4 E-sports Customer Play Motivation: Research by Wang (2023) and Shi (2020) from Fudan University identifies seven primary motivations and performance characteristics among Chinese online game players:

(1) **Achievement Motivation:** Rooted in McClelland's concept, achievement motivation is the drive for success and the pursuit of excellence (Wang, 2023; Shi, 2020).

(2) **Affinity Motivation:** Refers to the desire to establish friendly and intimate interpersonal relationships to gain a sense of social belonging (Wang, 2023; Chen et al., 2021).

(3) Leadership Incentives: Expresses the desire to influence or control others so they willingly work towards organizational or group goals (Liu, 2007; Chen et al., 2021).

(4) Motivation to Attack and Belittle: The desire to cause harm through aggressive actions like killing, taunting, and name-calling, often rooted in underlying frustration (Liu, 2007; Chen et al., 2021).

(5) Explore Motivation: The desire to satisfy curiosity and novelty by experiencing diverse characters and activities different from reality (Liu, 2007; Chen et al., 2021).

(6) Sensual Motivation: Stimulated by the pleasure derived from visual, auditory, and sensory experiences in online games, fulfilling sensual needs (Yan, 2016; Chen et al., 2021).

(7) Incentive to Make Money: Driven by the desire for material rewards and revenue, positioning games as places of exchange (Yan, 2016; Chen et al., 2021).

E-sports redefine traditional sports, utilizing electronic equipment for combat games in virtual environments, emphasizing intellectual and responsive aspects. WCG, considered the Olympic Games of e-sports, has been held 14 times since its establishment in 2000, with China hosting it three times. Unlike traditional games, online games leverage technological advancements and the Internet to meet player needs through direct interactive games. As identified by previous researchers, the motivations driving Chinese online game players encompass achievement, affinity, leadership, aggressive tendencies, exploration, sensual experiences, and financial incentives.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This study employs a robust quantitative research design, a methodological approach recognized for its scientific rigor and systematic process. The primary objective is to present problems and phenomena quantitatively, followed by rigorous data analysis, testing, and interpretation to derive accurate conclusions. The focal point of this study revolves around two key variables: dependent variables and independent variables. Specifically, the researcher delves into understanding how e-sports products engage users of different gender and marital status. The independent variable is structured around three overarching aspects: Demographic Factors, Internet Behavior, and Game Characteristics. Demographic Factors encompass Gender, Marital Status, Age, Educational Level, Occupation, Monthly Income, and Hometown.

Regarding Internet Behavior, the researcher delves into nuanced aspects like game time, recommendation information, spending patterns, and social interaction. Regarding Game Characteristics, we consider a diverse array of e-sports products, including but not limited to FPS, MMO, ACT, AVG, RPG, SLG, RTS, STG, and FTG. These comprehensive considerations are the foundation for subsequent data analysis and conclusions, pivotal in unraveling the complexities of user engagement with e-sports products.

3.2 Samples and Sample Size

3.2.1 Population

In this study, the main study population is young people living in mainland China, millennials, and people who are often online. There are no gender and age restrictions to obtain more comprehensive data. Therefore, the population in this study is infinite.

3.2.2 Samples

Students and young people aged 20-25 who live in some areas of China are the leading sample group of the post-90s generation. Because questionnaire sampling is conducted online, the number of samples that can be collected is generally unlimited. Due to the infinite population, according to Krejcie and Morgan's (1970) sample size calculation formula, the sample size is $(Z^2 * p * (1-p)) / E^2$, and the calculated sample size is approximately 384. However, 400 complete samples were collected in this study to make the data presentation more straightforward.

3.2.3 Sampling Methods

The data collected in this study was used to compare the understanding and development of e-sports among people of different genders and marital statuses. The English version of this questionnaire is directly sent to the questionnaire star software for the questionnaire survey. No incentives or email reminders were used to increase engagement. Therefore, the sample is a self-selected product; all respondents should be considered Internet users. In addition, they have e-sports-related experience, such as having paid for the e-sports industry. The data collection time was about two months. Respondents were screened to be around 21-23 years old. Therefore, the sampling method in this study is based on non-probability sampling, especially convenience sampling.

3.3 Data Collection

Data was collected through a questionnaire distributed to millennial e-sports consumers, leveraging platforms like the Wenxing website and social QQ groups. Moreover, we contacted acquaintances with a solid understanding and involvement in e-sports to ensure diverse perspectives. Recognizing the challenges of securing responses without incentives, the researcher distributed around 1000 questionnaires to secure a minimum of 384 responses. Despite a modest response rate, it is noteworthy that the vibrant community of e-sports users in Mainland China provided sufficient data to underpin the research objectives.

The questionnaire was initially written in English; the purpose is to facilitate the data analysis. The questionnaire is also distributed and collected in pure English in mainland China. This can fully ensure the authenticity of the questionnaire content received because pure English options can shield most random choices and ensure research rigor and accuracy. In order to receive more responses, the questionnaire begins with a paragraph that explicitly explains the study's nature and purpose. The respondent is assured that their contribution will be essential and valuable. At the same time, confidentiality and anonymity are also guaranteed. In order to ensure that we can receive feedback from 384 questionnaires that meet the Krejcie Morgan sample size formula, the researcher chose to distribute 1000 questionnaires and ultimately used them after collecting 400 qualified questionnaires to ensure that the questionnaire data is sufficient to support this study. The survey was conducted from July 1, 2023, to October 15, 2023.

3.4 Research Instrument

The survey instrument acts as a conduit for researchers to extract valuable insights from respondents, and its selection is guided by the nature of the research

being conducted. This study, focusing on the reliability and controllability of gathered information, opts for the questionnaire survey method. The finalized questionnaire is distributed and collected online, utilizing a controlled scale to ensure data consistency. The researchers crafted a series of structured questions to strengthen the research with robust data. The questionnaire encompasses four distinct sections: Demographic Factors, Online Behavior, Game Characteristics, and Intent to engage in E-sport games. The specific questionnaire details are outlined in Appendix 1.

3.5 Content Validity and Reliability

3.5.1 The Validity of the Questionnaires

Validity refers to how much a measurement tool accurately assesses the intended criteria. Various methods exist for analyzing validity, each shedding light on different facets of this crucial aspect.

1. **Content Validity Analysis:** This method assesses the content validity of the scale or questionnaire. Also known as Surface Validity or Logic Validity, it determines whether the selected items genuinely represent the content or theme being measured. Using logical and statistical analyses, experts evaluate whether the chosen items align with the purpose of the measurement. Statistical analysis involves calculating correlation coefficients to judge validity based on significance.

2. **Criterion-Related Validity Analysis:** This approach selects a predetermined standard (validity standard) based on an established theory and analyzes the relationship between questionnaire items and this standard. Significantly related items or those demonstrating substantial differences in effectiveness and characteristics are deemed valid. This method often involves relevant analysis or significant difference assessments, though challenges arise in

selecting an appropriate standard.

3. Structural Validity Analysis: This approach analyzes the correspondence between a structure and the measured values in the results. Factor analysis extracts common factors from all variables (items) in the questionnaire, representing the basic structure of the scale. Evaluative indicators include cumulative contribution rates, communalities, and factor loadings. Cumulative contribution rates reflect the overall effectiveness of standard factors, communalities gauge the explanatory power of common factors for primary variables, and factor loadings signify the correlation between primary variables and common factors. Ensuring the credibility and validity of a questionnaire is not an optional step but an indispensable component of the research process, vital for enhancing the overall quality and value of the study.

3.5.2 The Reliability of the Questionnaires

Reliability refers to the consistency of the results obtained using the same method to measure the same object multiple times. The reliability indicators are represented mainly by correlation coefficients, which can be roughly divided into three categories: stability coefficient (consistency crossing time), equivalent coefficient (cross -form consistency), and internal consistency coefficient (consistency of the project). If the reliability coefficient is used to represent the size of the reliability, the greater the reliability coefficient, the greater the reliability of the measurement result. So, how much is the reliability coefficient to be considered high reliability?

The most commonly used reliability coefficient method is the alpha trust coefficient method. Its formula is: $\alpha = (n/n - 1) * (1 - (\sum Si^2)/ST^2)$, where n is the total number of projects in the measuring table, Si^2 is the project as the project The internal difference of the scoring items, the ST^2 is the difference in the total score of all items. It can be seen from the formula that the α coefficient is the

consistency between the scores of each question in the evaluation scale, which is an internal consistency coefficient. This method suits attitude and attitude and Belise questionnaire analysis (measuring table).

According to Devellis (1991), the volume table or questionnaire with a suitable factor coefficient is best above 0.80, and the range of 0.70 ~ 0.80 is acceptable; the number of sub -marks is best above 0.70 or between 0.60-0.70. Suppose the internal consistency coefficient of the sub-meter table is lower than 0.60 or the total table is less than 0.80. In that case, the amount table or additional and deletion items shall be modified.

3.6 Data Analysis

A quantitative analysis based on Descriptive Statistics and Inferential Statistics is applied in this study.

3.6.1 Descriptive Statistics

As far as the descriptive statistics is concerned, the absolute frequency, the percent frequency, the arithmetic mean, and the standard deviation are used in this study, which can be classified as follows. The absolute frequency and the percent frequency are presented for Demographic Factors and Online Behavior Factors. Concerning Game Characteristics and Intention to engage in E-sport games, the absolute frequency, the percent frequency, the arithmetic mean, and the standard deviation are introduced. For the arithmetic mean, the results obtained from Game Characteristics and Intention to engage in E-sport games are not exactly equal to the discrete number (1, 2, 3, 4, and 5) as classified in the questionnaires. It is calculated in terms of a continuous number with a decimal that has to be interpreted as related to the objective of the questionnaires. In this study, the criteria for interpreting these means are as follows:

- Scale rating 1 but less than 1.5 is in the strongly disagree level.
- Scale rating means 1.5, but less than 2.5 is in the disagree level.
- The scale rating is 2.5, but less than 3.5 is at the neutral level.
- The scale rating means 3.5, but less than 4.5 is at the agreed level.
- Scale rating means 4.5, but less than or equal to 5 is in the strongly agree level.

3.6.2 Inferential Statistics

Numerous statistics are applied to inferential statistics according to the hypothesis. Hypothesis 1: Differences in Demographic Factors Generate Differences in Intention to engage in E-sport games (Independent Samples t-test is used for Gender and Marital Status; Way ANOVA is applied for Age, Educational Level, Occupation, Monthly Income, and Hometown; Way ANOVA is applied for all items.) Hypothesis 2: Differences in Online Behaviour Factors Generate Differences in Intention to engage in E-sport games (Multiple Regression Analysis is used). Hypothesis 3: Game Characteristics Influence Intention to Engage in E-sport games (Multiple Regression Analysis is used).

CHAPTER IV

RESEARCH RESULTS

4.1 Research Finding

This study applies descriptive statistics based on frequency, percent frequency, mean, and standard deviation. The details of the study generated from 400 questionnaires are as follows.

4.1.1 The Demographic Factor

(1) One Factor Analysis

Table 4.1 The Absolute Frequency and Percent Frequency of Demographic Factor

Demographic Factor	Absolute frequency	% Frequency
1. Gender		
a.Male	241	66.75
b.Female	159	33.25
2. Marital Status		
a.Not Married	240	60.00
b.Married	160	40.00
3. Age		
a.Under 21	81	20.25
b.21-23	159	39.75
c.Over 23	160	40.00
4. Educational Level		
a.Less than Bachelor	40	10.00
b.Bachelor	161	40.25
c.Master	118	29.50
d.Higher than Master	81	20.25
5. Occupation		
a.Student	121	30.25
b.Company Officer	80	20.00
c.Government worker	120	30.00
d.Another Occupation	79	19.75

6. Monthly Income		
a.Under 4000/M	40	10.00
b.4000-6000/M	81	20.25
c.6001-9000/M	80	20.00
d.Over 9000/M	199	49.75
7. Downtown		
a.First-tier cities	80	20.00
b.Second-tier cities	120	30.00
c. Third-tier cities	120	30.00
d.Fourth-tier cities	80	20.00
Total	400	100.00

As shown in Table 4.1, 66.75% of the respondents were male and 33.25% were female. In this study, most respondents are older than 23 years old, accounting for about 40.00%, followed by 21-23-year-old respondents, accounting for an average of 39.75%. The group under 21 accounted for the most minor proportion, about 20.25%. Most respondents have a higher education background; 29.50% have a bachelor's degree, and 29.50% have a master's diploma/certificate. Only 20.25% have more than a master's degree, and 10.00% have less than a bachelor's degree. Regarding occupation, 30.25% are students, 30.00% are government employees, 20.00% are company employees, and only 19.75% are other occupations. Regarding monthly net income, most respondents were above 9,000 yuan, accounting for about 49.75%, followed by 4,000 6,000 yuan, accounting for about 20.25%. RMB 6,001-9,000 accounts for 20.00%, and only 10.00% of respondents are below RMB 4,000. Regarding urban residence, most people live in cities with 30% of the Second-tier cities, 30.00% of the Third-tier cities, and 20.00% of the First tier Cities and the Fourth-tier cities.

(2) Two-Factor Analysis

Table 4.2 Two-Factor Analysis of the Gender and Marital Status

Gender	Marital Status		Total
	Unmarried	Married	
Male	120 (30.00%)	121(30.25%)	241(60.25%)
Female	120 (30.00%)	39 (9.75%)	159(39.75%)
	240 (60.00%)	160 (40.00%)	400(100.00%)

As depicted in Table 4.2, it is evident that among male respondents, the unmarried individuals slightly outnumber the married ones, with 120 persons (30.00%) compared to 121 persons (30.25%). Conversely, a distinct trend emerges for female respondents, showcasing that most women are unmarried, constituting approximately 30.00% of the population. Conversely, women who have been married at any point accounted for only 9.75% of the total population.

Table 4.3 Two-Factor Analysis of Gender and Age

Gender	Age			Total
	Under 21	21-23	Over 23	
Male	40(10.00%)	80(20.00%)	121(30.25%)	241(60.25%)
Female	41(10.25%)	79(19.75%)	39(9.75%)	159(39.75%)
	81(20.25%)	159 (39.75%)	160(40.00%)	400(100.00%)

From Table 4.3, it is evident that the majority of male respondents who are unmarried are 121 persons over the age of 23 years old (30.25%), 80 persons between the ages of 21-23 years old (20.00%), and only 40 persons under the age of 21 years old (10.00%). As far as women are concerned, another result can be obtained that is, the majority of female respondents are between 21-23 years old (79 persons or 19.75%), followed by 41 persons (10.25%) under 21 years old and over 23 years old is the least only 39 persons (9.75%).

Table 4.4 Two-Factor Analysis of Gender and Education

Gender	Education				Total
	Less than Bachelor	Bachelor	Master	Higher than Master	
Male	40(10.00%)	80(20.00%)	40(10.00%)	81(20.25%)	241(60.25%)
Female	0(0.00%)	81(20.25%)	78(19.50%)	0(0.00%)	159(39.75%)
	40(10.00%)	161(40.25%)	118(29.50%)	81(20.25%)	400(100.00%)

As observed in Table 4.4, a substantial portion of male respondents holds an educational background of a master's degree or above (81 persons or 20.25%), followed by those with a bachelor's degree or above (80 persons or 20.00%), and individuals with a master's degree or below (40 persons or 10.00%). In the case of female respondents, the distribution is distinct, with the majority holding a bachelor's degree (81 persons or 20.25%), followed by those with a master's degree (78 persons or 19.50%), and a minority lacking a bachelor's degree or higher.

Table 4.5 Two-Factor Analysis of Gender and Occupation

Gender	Occupation				Total
	Student	Company Officer	Government worker	Another Occupation	
Male	80(20.00%)	40(10.00%)	81(20.25%)	40(10.00%)	241(60.25%)
Female	41(10.25%)	40(10.00%)	39(9.75%)	39(9.75%)	159(39.75%)
	121(30.25%)	80(20.00%)	120(30.00%)	79(19.75%)	400(100.00%)

As evident from Table 4.5, the predominant occupation among male respondents is government employment (81 individuals or 20.25%), followed by students (80 individuals or 20.00%), corporate employees, and other occupations (40 individuals or 10.00%). Conversely, for female respondents, a distinct pattern emerges, with the majority being students (41 individuals or 10.25%), followed by company employees (40 individuals or 10.00%), and the remaining individuals being government employees and those in other professions, each accounting for 39 (9.75%) individuals.

Table 4.6 Two-Factor Analysis of Gender and Monthly Income

Gender	Monthly Income				Total
	Under 4,000/M	4,000- 6,000/M	6,001- 9,000/M	Over 9,000/M	
Male	40(10.00%)	40(10.00%)	40(10.00%)	121(30.25%)	241(60.25%)
Female	0(0.00%)	41(10.25%)	40(10.00%)	78(19.50%)	159(39.75%)
	40(10.00%)	81(20.25%)	80(20.00%)	199(49.75%)	400(100.00%)

As depicted in Table 4.6, most male respondents report a monthly income exceeding 9,000 yuan. Specifically, 121 individuals (30.25%) have monthly incomes below 4,000 yuan, while 40 individuals (10.00%) fall within the income brackets of 4,000-6,000 yuan and 6,001-9,000 yuan each. A similar trend is observed among female respondents, with the majority reporting a monthly income exceeding 9,000 yuan. Furthermore, 78 individuals (19.50%) have a monthly income of 4,000-6,000 yuan, and 40 individuals (10.00%) report a monthly income between 6,001-9,000 yuan.

Table 4.7 Two-Factor Analysis of Gender and Hometown

Gender	Hometown				Total
	First Tire Cities	Second Tier Cities	Third Tier Cities	Fourth Tier Cities	
Male	80(20.00%)	81(20.25%)	40(10.00%)	40(10.00%)	241(60.25%)
Female	0(0.00%)	39(9.75%)	80(20.00%)	40(10.00%)	159(39.75%)
	80(20.00%)	120(30.00%)	120(30.00%)	80(20.00%)	400(100.00%)

As indicated in Table 4.7, approximately 81 male respondents (20.25%) reside in second-tier cities, 87 (20.00%) in first-tier cities, and 40 (10.00%) in both third-tier and fourth-tier cities, respectively. Conversely, female respondents exhibit distinct patterns, with the majority comprising 80 individuals (20.00%) residing in third-tier cities, followed by 40 individuals (10.00%) in fourth-tier cities and 39 individuals (9.75%) in second-tier cities.

4.1.2 Online Behavior

Table 4.8 The Absolute Frequency and Percent Frequency of Online Behavior

Online Behavior	Absolute frequency	% Frequency
8. When did you first get into e-sports?		
a. Primary School	40	10.00
b. Middle School	80	20.00
c. High school	120	30.00
d. Collegiate	160	40.00
9. Does your school have an e-sports competition?		
a. Yes	200	50.00
b. No	200	50.00
10. Do you follow e-sports competitions?		
a. No attention	80	20.00
b. Occasionally	120	30.00
c. Often	200	50.00
11. How long have you been experienced in playing e-sports games?		
a. less than three months	40	10.00
b. 3 but less than six months	80	20.00
c. 6 but less than a year	120	30.00
d. a year and more	160	40.00
12. How often do you play e-sports games per week		
a. Less than three times	40	10.00
b. 3-5 times	80	20.00
c. more than five times	280	70.00
13. How long do you play e-sports games each time		
a. Less than 1 hour	40	10.00
b. 1 but less than 3 hours	80	20.00
c. 3 but less than 5 hours	120	30.00
d. 5 hours and more	160	40.00
14. Your leading partner in playing e-sports games is		
a. Family member	40	10.00
b. Friend	280	70.00
c. Student	40	10.00
d. Others	40	10.00
15. Where do you mainly play e-sports games		
a. At home	160	40.00
b. School	200	50.00
c. Others	40	10.00
16. What is your primary purpose for playing the game?		
a. Entertainment	80	20.00

b. Making Friends	80	20.00
c. Become a Master of the Game	80	20.00
d. Earning Income	160	40.00
17. What is your favorite gaming medium?		
a. Computer Games	120	30.00
b. Video Games	80	20.00
c. Arcade Games	80	20.00
d. Handheld Games (including mobile phone games, PDA games)	80	20.00
e. Others	40	10.00
18. Which of the following genre combinations of games are you most looking forward to?		
a. Business Operation + Role Play	80	20.00
b. War strategy + business operation	80	20.00
c. War strategy + character development	80	20.00
d. Role play + simulation of life	80	20.00
e. Other	80	20.00
19. How much will you spend every month on E-sports?		
a. Less than 1,000 RMB/month	120	30.00
b. 1,000 but less than 2,000 RMB/month	40	10.00
c. 2,000 but less than 3,000 RMB/month	120	30.00
d. 3,000 RMB/month and more	120	30.00
20. Why would you leave an online game		
a. Boredom with the game	160	40.00
b. The game updates too slowly	80	20.00
c. The departure of a friend	80	20.00
d. Poor customer service	40	10.00
e. Others	40	10.00
Total	400	100.00

As can be seen from Table 4.8, 160 out of 400 people were first exposed to e-sports in college (40.00%). Half the 400 schools with 200 students will have e-sports activities (50.00%). 200 out of 400 people regularly follow e-sports competitions. 160 of the 400 have played e-sports for more than a year. 280 of the 400 played e-sports games more than five times a week. 160 of the 400 played e-sports games for more than five hours at a time. 280 out of 400 people will engage in e-sport games with friends. 200 out of 400 regularly play e-sports games at

school. 160 out of 400 people play e-sports games for money. 120 out of 400 people like e-sports games on their computers the most. Groups of 80 out of 400 people liked different types of games. Among the 400 people, 120 spend less than 1,000 yuan, 2,000 to 3,000 yuan, and more than 3,000 yuan on monthly e-sports games. 160 out of 400 people will abandon a game because they are bored.

4.1.3 Game Characteristic

Table 4.9 The Mean and the Standard Deviation of Game Characteristic

21. Game Characteristic (Action)	Very Low	Low	Ordinary	High	Very High	Mean	SD	Rank
21.1 Action Game						2.9214	.52841	
1. Do you like to play FPS games (such as CS, DOD)	80 (20%)	160 (40%)	40 (10%)	40 (10%)	80 (20%)	2.70	1.420	3
2. Do you like play RTS games (such as Warcraft, StarCraft, Command & Conquer)	80 (20%)	120 (30%)	40 (10%)	80 (20%)	80 (20%)	2.90	1.447	5
3. Do you like to play action games (such as Final Fight, Dungeons & Dragons.)?	180 (45%)	60 (10%)	40 (10%)	60 (15%)	600 (15%)	2.40	1.502	2
4. Do you like play FTG games (such as KOF)	80 (20%)	140 (35%)	80 (20%)	20 (5%)	80 (20%)	2.70	1.402	4
5. Do you like playing RPG games (such as Sixth Clock & ENIX's DRAGON QUEST)	120 (30%)	80 (20%)	40 (10%)	0 (0%)	160 (40%)	3.00	1.734	6
6. Do you like playing STG games (such as the 194X series)	140 (35%)	40 (10%)	0 (0%)	40 (10%)	180 (45%)	3.20	1.846	7
7. Do you like playing MMO games (such as Fantasy Westward Journey)	20 (5%)	140 (35%)	0 (0%)	80 (20%)	160 (40%)	3.55	1.502	9
21.2 Casual Game						2.7250	1.33841	
1. Do you like playing AVG games (such as the Resident Evil BIOHAZARD series)	200 (50%)	40 (10%)	40 (10%)	80 (20%)	200 (50%)	2.30	1.488	1
2. Do you like playing SLG games (such as SHINING FORCE)	120 (30%)	40 (10%)	40 (10%)	40 (10%)	160 (40%)	3.15	1.723	8
Overall						2.8778	.47578	

As can be seen from Table 4.9, 160 out of 400 people enjoy FPS games to a Low degree (40.00%), and 80 people enjoy FPS games very Low (20.00%). Out of 400, 120 people did not like RTS games (30.00%), which reached a high, and 80 people reached a deficiency (20.00%). 160 out of 400 people don't like ACT games (40.00%) reached a high, and 120 people do not like ACT games very much (30.00%). 200 out of 400 people enjoy playing AVG games to a very high level (50.00%). 120 out of 400 people enjoy playing FTG games at a shallow level (30.00%), and 80 people do not enjoy playing FTG games at a shallow level (20.00%). 80 out of 400 people enjoy playing RPG games to a low (20.00%) and 120 to a deficient (30.00%). 40 out of 400 people enjoy playing SLG games to a high (10.00%) and 160 to a very high (30.00%). 40 out of 400 students enjoyed playing STG games at a low level (10.00%) and 140 at a shallow level (35.00%). 140 out of 400 people did not enjoy playing MMOs (30.00%), and 40 a deficient (10.00%). Overall, it can be seen that in the choice of different kinds of games, the audience of casual games is much larger than action games.

4.1.4 Intention to Engage in E-sport Games

Table 4.10 The Mean and the Standard Deviation of Intention to Engage in E-sport Games

22. Intention to engage in E-sports games	Very Low	Low	Ordinary	High	Very High	Mean	SD	Rank
22.1 Would you play a game because the game has good Aesthetics and music?	0 (0%)	0 (0%)	80 (20%)	120 (30%)	200 (50%)	4.30	.782	4
22.2 Would you play the game because the game has good Anti-repression?	0 (0%)	0 (0%)	0 (0%)	240 (60%)	160 (40%)	4.40	.491	2
22.3 Would you play the game because the game has good character experience?	0 (0%)	0 (0%)	80 (20%)	160 (40%)	160 (40%)	4.20	.749	5
22.4 Would you play a game because the game has a good	40 (10%)	0 (0%)	0 (0%)	80 (20%)	280 (70%)	4.40	1.202	3

Interpersonal communication system?								
22.5 Would you play a game because the game makes you fell Novelty and excitement?	0 (0%)	0 (0%)	0 (0%)	0 (0%)	400 (100%)	5.00	.000*	1
22.6 Would you play a game because the game satisfies your need for control?	120 (30%)	0 (0%)	40 (10%)	80 (20%)	160 (40%)	3.40	1.687	6
Overall						2.8778	.47578	

As seen from Table 4.10, 120 out of 400 people will play games because the games have pleasing Aesthetics and music and reach a high (40%), and 200 people reach a very high (50%). Of 400, 240 people reached high because the game had good Anti-repression (60%), and 160 reached very high (40%). 160 out of 400 people played the game because it had a good character experience (40%), and 160 people enjoyed it very much (40%). Among the 400, 80 people like playing games because of their excellent Interpersonal communication system (20%). Two hundred eighty people have a very high interpersonal communication system (70%). 120 out of 400 people enjoy playing FTG games at a high level (30%), and 80 people enjoy playing FTG games at a very high level (20%). 80 out of 400 people enjoy playing RPG games to a high (20%) and 120 to a very high (30%). 40 out of 400 people enjoy playing SLG games to a high (10%) and 120 to a very high (30%). 40 out of 400 students enjoyed playing STG games at a high level (10%), and 160 enjoyed playing them at a very high level (40%). 120 out of 400 people enjoy playing MMOs at a high level (30%) and 40 at a very high level (10%). 400 out of 400 people play because the Novelty and excitement of the game are very high (100 percent). Eighty of the 400 played because the game satisfies your need for control (20%), and 160 reached a very high (40%).

4.2 Hypothesis Testing Result (If appropriate)

4.2.1 The Mean of Purchase Intention is Different from a Designed Value

$$H_0: \mu = 4.3$$

$$H_1: \mu_1 \neq 4.3$$

Table 4.11 The One Sample T-test of Intention to Engage in E-sport Games

N	Mean	S.D.	S.E.M.	t-value	df	p-value
400	4.2833	.40910	.02046	-.815	399	.416

The results obtained from Table 4.11 suggest that the p-value of the One Sample t-test is approximately 0.416, which is much higher than the critical value of 0.05. Therefore, the null hypothesis cannot be rejected, meaning that the mean value of Intention to engage in E-sport games is equal to 4.3, which is at the agreed level.

4.2.2 Differences in Demographic Factors Generate Differences in Intention to Engage in E-sport Games

4.2.2.1 Differences in Gender Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Table 4.12 The Independent Samples T-test of the Gender Factor

Items	Gender	N	Mean	S.D.	t-value	p-value
Intention to engage in E-sport games	Male	241	4.5533	.28553	31.685	.000
	Female	159	3.8742	.13871		

It can be seen from Table 4.12 that the p-value of Intention to engage in E-sport games by gender is about 0.000, which is much lower than the

critical value of 0.05. Therefore, the null hypothesis H_0 is rejected, which means that Gender differences produce differences in Intention to engage in E-sport games.

4.2.2.2 Differences in Marital Status Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_1 = \mu_2 \quad H_a: \mu_1 \neq \mu_2$$

Table 4.13 The Independent Samples T-test of the Marital Status Factor

Items	Status	N	Mean	S.D.	t-value	p-value
Intention to engage in E-sport games	Not Married	240	4.3049	.43632	1.338	.182
	Married	160	4.2510	.36342		

It can be seen from Table 4.13 that the p-value of Intention to engage in E-sport games by Marital Status is about 0.182, which is much higher than the critical value of 0.05. Therefore, the null hypothesis H_0 is accepted, which means that differences in Marital Status generate no differences in Intention to engage in E-sport games.

4.2.2.3 Differences in Age Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.14 The One-way ANOVA of Intention to engage in E-sport games by Age

Factor	Items	SS	df	MS	F-value	p-value
Age	Between Groups	13.579	2	6.789	50.666	.000
	Within Groups	53.199	397	.134		
	Total	66.778	399			

It can be seen from Table 4.14 that the p-value of Intention to engage in E-sport games classified by age is approximately 0.00, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor

is rejected, meaning that differences in Age generate differences in Intention to engage in E-sport games.

Table 4.14a Multiple Comparisons of Age

Dependent Variable: ITP22 (LSD)						
Age (I)	Age (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Under 21	21-23	-.45861*	.04997	.000	-.5569	-.3604
	Over 23	-.45835*	.04992	.000	-.5565	-.3602
21-23	Under 21	.45861*	.04997	.000	.3604	.5569
	Over 23	.00027	.04099	.995	-.0803	.0809
Over 23	Under 21	.45835*	.04992	.000	.3602	.5565
	21-23	-.00027	.04099	.995	-.0809	.0803

*, The mean difference is significant at the 0.05 level.

From Table 4.14a, mean differences between age groups are compared using the LSD (Least Significant Difference) method. The results show that there is a significant difference in purchase intention between the age group "under 21" and the other two groups, "21-23" and "over 23". However, there is no significant difference in purchase intention between "21-23" and "Over23". These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different age groups and can guide related marketing strategies.

4.2.2.4 Differences in Education Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.15 The One-way ANOVA of Intention to Engage in E-sport Games by Education

Factor	Items	SS	df	MS	F-value	p-value
Education	Between Groups	2.249	3	.750	4.602	.004
	Within Groups	64.528	396	.163		
	Total	66.778	399			

It can be seen from Table 4.15 that the p-value of Intention to engage in E-sport games classified by education is approximately 0.004, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Education generate differences in Intention to engage in E-sport games.

Table 4.15a Multiple Comparisons of Education

Dependent Variable: ITP22 (LSD)						
Education (I)	Education (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than Bachelor	Bachelor	-.12215	.07132	.088	-.2624	.0181
	Master	-.06073	.07386	.411	-.2059	.0845
	Higher than Master	-.24486*	.07801	.002	-.3982	-.0915
Bachelor	Less than Bachelor	.12215	.07132	.088	-.0181	.2624
	Master	.06142	.04892	.210	-.0348	.1576
	Higher than Master	-.12270*	.05499	.026	-.2308	-.0146
Master	Less than Bachelor	.06073	.07386	.411	-.0845	.2059
	Bachelor	-.06142	.04892	.210	-.1576	.0348
	Higher than Master	-.18412*	.05825	.002	-.2986	-.0696
Higher than Master	Less than Bachelor	.24486*	.07801	.002	.0915	.3982
	Bachelor	.12270*	.05499	.026	.0146	.2308
	Master	.18412*	.05825	.002	.0696	.2986

*. The mean difference is significant at the 0.05 level.

Table 4.15a compares mean differences between education groups using the LSD (Least Significant Difference) method. The results show no significant difference in purchase intention between all groups. These comparative

results are essential for understanding the differences in Intention to engage in E-sport games among different education groups and can guide related marketing strategies.

4.2.2.5 Differences in Occupation Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.16 The One-way ANOVA of Intention to Engage in E-sport Games by Occupation

Factor	Items	SS	df	MS	F-value	p-value
Occupation	Between Groups	1.025	3	.342	2.058	.105
	Within Groups	65.752	396	.166		
	Total	66.778	399			

It can be seen from Table 4.16 that the p-value of Intention to engage in E-sport games classified by occupation is approximately 0.105, which is higher than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is not rejected, meaning that differences in Occupation generate no differences in Intention to engage in E-sport games.

4.2.2.6 Differences in Monthly Income Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j$$

Table 4.17 The One-way ANOVA of Intention to engage in E-sport games by Monthly Income

Factor	Items	SS	df	MS	F-value	p-value
Monthly Income	Between Groups	.907	3	.302	1.819	.143
	Within Groups	65.870	396	.166		
	Total	66.778	399			

It can be seen from Table 4.17 that the p-value of Intention to engage in E-sport games classified by monthly income is approximately 0.143, which is higher than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is not rejected, meaning that differences in Monthly Income generate no differences in Intention to engage in E-sport games.

4.2.2.7 Differences in Hometown Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.18 The One-way ANOVA of Intention to Engage in E-sport Games by Hometown

Factor	Items	SS	df	MS	F-value	p-value
Hometown	Between Groups	9.251	3	3.084	21.226	.000
	Within Groups	57.527	396	.145		
	Total	66.778	399			

It can be seen from Table 4.18 that the p-value of Intention to engage in E-sport games classified by hometown is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Hometown generate differences in Intention to engage in E-sport games.

Table 4.18a Multiple Comparisons of Hometown

Dependent Variable: ITP22 (LSD)						
Hometown (I)	Hometown (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
First-tier Cities	Second tier cities	.08333	.05501	.131	-.0248	.1915
	Third tier cities	.35972*	.05501	.000	.2516	.4679
	Fourth tier cities	.00208	.06026	.972	-.1164	.1206
Second tier cities	First-tier cities	-.08333	.05501	.131	-.1915	.0248
	Third tier cities	.27639*	.04921	.000	.1797	.3731

	Fourth tier cities	-.08125	.05501	.140	-.1894	.0269
Third tier cities	First-tier cities	-.35972*	.05501	.000	-.4679	-.2516
	Second tier cities	-.27639*	.04921	.000	-.3731	-.1797
	Fourth tier cities	-.35764*	.05501	.000	-.4658	-.2495
Fourth tier cities	First-tier cities	-.00208	.06026	.972	-.1206	.1164
	Second tier cities	.08125	.05501	.140	-.0269	.1894
	Third tier cities	.35764*	.05501	.000	.2495	.4658
*. The mean difference is significant at the 0.05 level.						

From Table 4.18a, mean differences between Hometown groups are compared using the LSD (Least Significant Difference) method. The results show a significant difference in purchase intention between the "Third-tier cities" group and all other groups. However, there is no significant difference between all other groups. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Hometown groups and can guide related marketing strategies.

4.2.3 Differences in Online Behavior Generate Differences in Intention to Engage in E-sport Games

4.2.3.1 Differences in First Experience Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.19 The One-way ANOVA of First Experience

Factor	Items	SS	df	MS	F=value	p-value
First Experience	Between Groups	37.981	3	12.660	174.104	.000
	Within Groups	28.796	396	.073		
	Total	66.778	399			

It can be seen from Table 4.19 that the p-value of Intention to engage in E-sport games classified by First Experience is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis

H_0 for this factor is rejected, meaning that differences in First Experience generate differences in Intention to engage in E-sport games.

Table 4.19a Multiple Comparisons of First Experience

Dependent Variable: Intention to engage in E-sport games. (LSD)						
First Experience (I)	First Experience (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Primary School	Middle School	-.58333*	.05222	.000	-.6860	-.4807
	High school	-.27778*	.04923	.000	-.3746	-.1810
	Collegiate	.20833*	.04767	.000	.1146	.3021
Middle School	Primary School	.58333*	.05222	.000	.4807	.6860
	High school	.30556*	.03892	.000	.2290	.3821
	Collegiate	.79167*	.03693	.000	.7191	.8643
High school	Primary School	.27778*	.04923	.000	.1810	.3746
	Middle School	-.30556*	.03892	.000	-.3821	-.2290
	Collegiate	.48611*	.03256	.000	.4221	.5501
Collegiate	Primary School	-.20833*	.04767	.000	-.3021	-.1146
	Middle School	-.79167*	.03693	.000	-.8643	-.7191
	High school	-.48611*	.03256	.000	-.5501	-.4221
*. The mean difference is significant at the 0.05 level.						

From Table 4.19a, mean differences between First Experience groups are compared using the LSD (Least Significant Difference) method. The results show a difference between all groups of First Experience. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different First Experience groups and can guide related marketing strategies.

4.2.3.2 Differences in School Competition Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Table 4.20 The Independent Samples t-test of the School Competition

Items	School Competition	N	Mean	S.D.	t-value	p-value
Intention to engage in E-sport games	Yes	200	4.4000	.28355	-3.285	.001
	No	200	4.5200	.43189		

It can be seen from Table 4.20 that the p-value of Intention to engage in E-sport games by School Competition is about 0.001, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 is rejected, which means that differences in School Competition produce differences in Intention to engage in E-sport games.

4.2.3.3 Differences in Sport Competition Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.21 The One-way ANOVA of Intention to Engage in E-sport Games by Sports Competition

Factor	Items	SS	df	MS	F=value	p-value
Sport Competition	Between Groups	8.111	2	4.056	27.444	.000
	Within Groups	58.667	397	.148		
	Total	66.778	399			

It can be seen from Table 4.21 that the p-value of Intention to engage in E-sport games classified by sports competition is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in sports competition generate differences in Intention to engage in E-sport games.

Table 4.21a Multiple Comparisons of Sport Competition

Dependent Variable: Intention to engage in E-sport games. (LSD)						
Sport Competition (I)	Sport Competition (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No attention	Occasionally	-.33333*	.05549	.000	-.4424	-.2243
	Often	-.03333	.05085	.513	-.1333	.0666
Occasionally	No attention	.33333*	.05549	.000	.2243	.4424
	Often	.30000*	.04439	.000	.2127	.3873
Often	No attention	.03333	.05085	.513	-.0666	.1333
	Occasionally	-.30000*	.04439	.000	-.3873	-.2127

*. The mean difference is significant at the 0.05 level.

Table 4.2.3.3a compares mean differences between sports competition groups using the LSD (Least Significant Difference) method. The results show a difference between the occasional group and the other two groups of sports competition. However, the Often group is not too much different from the No attention group. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different sports competition groups and can guide related marketing strategies.

4.2.3.4 Differences in Experience Time Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.22 The One-way ANOVA of Intention to Engage in E-sport Games by Experience Time

Factor	Items	SS	df	MS	F=value	p-value
Experience Time	Between Groups	53.537	3	17.846	533.723	.000
	Within Groups	13.241	396	.033		
	Total	66.778	399			

It can be seen from Table 4.22 that the p-value of Intention to engage in E-sport games classified by Experience Time is approximately 0.000, which is much

lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Experience Time generate differences in Intention to engage in E-sport games.

Table 4.22a Multiple Comparisons of Experience Time

Dependent Variable: Intention to engage in E-sport games (LSD)						
Experience Time (I)	Experience Time (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
less than three months	Three but less than six months	-.58333*	.03541	.000	-.6529	-.5137
	6, but less than a year	-.38889*	.03338	.000	-.4545	-.3233
	a year and more	.29167*	.03232	.000	.2281	.3552
Three but less than six months	less than three months	.58333*	.03541	.000	.5137	.6529
	6, but less than a year	.19444*	.02639	.000	.1426	.2463
	a year and more	.87500*	.02504	.000	.8258	.9242
6, but less than a year	less than three months	.38889*	.03338	.000	.3233	.4545
	Three but less than six months	-.19444*	.02639	.000	-.2463	-.1426
	a year and more	.68056*	.02208	.000	.6371	.7240
a year and more	less than three months	-.29167*	.03232	.000	-.3552	-.2281
	Three but less than six months	-.87500*	.02504	.000	-.9242	-.8258
	Six but less than a year	-.68056*	.02208	.000	-.7240	-.6371

Table 4.22a compares mean differences between Experience Time groups using the LSD (Least Significant Difference) method. The results show that there is a difference between all groups of Experience Time. These comparative results are essential for understanding the differences in Intent to engage in E-sport games among different Experience Time groups and can guide related marketing strategies.

4.2.3.5 Differences in How Often Play Generates Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.23 The One-way ANOVA of Intention to Engage in E-sport Games by Play Frequency

Factor	Items	SS	df	MS	F=value	p-value
Play Frequency	Between Groups	21.778	2	10.889	96.064	.000
	Within Groups	45.000	397	.113		
	Total	66.778	399			

It can be seen from Table 4.23 that the p-value of Intention to engage in E-sport games classified by Play Frequency is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Play Frequency generates differences in Intention to engage in E-sport games.

Table 4.23a Multiple Comparisons of Play Frequency

Dependent Variable: Intention to engage in E-sport games (LSD)						
How Often Play (I)	How Often Play (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than three times	3-5 times	-.58333*	.06520	.000	-.7115	-.4552
	more than five times	.00000	.05691	1.000	-.1119	.1119
3-5 times	Less than three times	.58333*	.06520	.000	.4552	.7115
	more than five times	.58333*	.04268	.000	.4994	.6672
more than five times	Less than three times	.00000	.05691	1.000	-.1119	.1119
	3-5 times	-.58333*	.04268	.000	-.6672	-.4994

*. The mean difference is significant at the 0.05 level.

From table 4.23a, mean differences between Play Frequency groups are compared using LSD (Least Significant Difference) method. The results show that

there is no difference between the 3-5 times group and the other two groups of Play Frequency there is difference between them. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Play Frequency groups and can guide related marketing strategies.

4.2.3.6 Differences in Gaming Duration Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.24 The One-way ANOVA of Intention to Engage in E-sport Games by Gaming Duration

Factor	Items	SS	df	MS	F=value	p-value
Gaming duration	Between Groups	40.667	3	13.556	205.583	.000
	Within Groups	26.111	396	.066		
	Total	66.778	399			

It can be seen from Table 4.24 that the p-value of Intention to engage in E-sport games classified by How Long Play is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Gaming duration generate differences in Intention to engage in E-sport games.

Table 4.24a Multiple Comparisons of Gaming Duration

Dependent Variable: Intention to engage in E-sport games (LSD)						
How Long Play (I)	How Long Play (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Less than 1 hour	One but less than 3 hours	.41667*	.04973	.000	.3189	.5144
	Three but less than 5 hours	.33333*	.04688	.000	.2412	.4255
	5 hours and more	.91667*	.04539	.000	.8274	1.0059
	Less than 1 hour	-.41667*	.04973	.000	-.5144	-.3189

One but less than 3 hours	Three but less than 5 hours	-.08333*	.03706	.025	-.1562	-.0105
	5 hours and more	.50000*	.03516	.000	.4309	.5691
Three but less than 5 hours	Less than 1 hour	-.33333*	.04688	.000	-.4255	-.2412
	One but less than 3 hours	.08333*	.03706	.025	.0105	.1562
	5 hours and more	.58333*	.03101	.000	.5224	.6443
5 hours and more	Less than 1 hour	-.91667*	.04539	.000	-1.0059	-.8274
	One but less than 3 hours	-.50000*	.03516	.000	-.5691	-.4309
	Three but less than 5 hours	-.58333*	.03101	.000	-.6443	-.5224

Table 4.24a compares mean differences between Gaming Duration groups using the LSD (Least Significant Difference) method. The results show no difference between groups that are less than 1 hour and those that are 5 hours or more. There is a difference between the other two groups of Gaming Duration. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Gaming Duration groups and can guide related marketing strategies.

4.2.3.7 Differences in Main Partner Generate Differences Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.25 The One-way ANOVA of Intention to Engage in E-sport Games by Main Partner

Factor	Items	SS	df	MS	F=value	p-value
Main Partner	Between Groups	24.873	3	8.291	78.350	.000
	Within Groups	41.905	396	.106		
	Total	66.778	399			

It can be seen from Table 4.25 that the p-value of Intention to engage in E-sport games classified by Main Partner is approximately 0.000, which is much

lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Main Partner generate differences in Intention to engage in E-sport games.

Table 4.25a Multiple Comparisons of Main Partner

Dependent Variable: Intention to engage in E-sport games (LSD)						
Main Partner (I)	Main Partner (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Family member	Friend	-.26190*	.05499	.000	-.3700	-.1538
	Student	.50000*	.07274	.000	.3570	.6430
	Others	.16667*	.07274	.022	.0237	.3097
Friend	Family member	.26190*	.05499	.000	.1538	.3700
	Student	.76190*	.05499	.000	.6538	.8700
	Others	.42857*	.05499	.000	.3205	.5367
Student	Family member	-.50000*	.07274	.000	-.6430	-.3570
	Friend	-.76190*	.05499	.000	-.8700	-.6538
	Others	-.33333*	.07274	.000	-.4763	-.1903
Others	Family member	-.16667*	.07274	.022	-.3097	-.0237
	Friend	-.42857*	.05499	.000	-.5367	-.3205
	Student	.33333*	.07274	.000	.1903	.4763

*. The mean difference is significant at the 0.05 level.

Table 4.25a compares mean differences between the Main Partner groups using the LSD (Least Significant Difference) method. The results show no difference between the Friend and student groups, but the other two Main Partners groups differ. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Main Partner groups and can guide related marketing strategies.

4.2.3.8 Differences in Where You Play Generate Differences Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.26 The One-way ANOVA of Intention to Engage in E-sport Games by Play Place

Factor	Items	SS	df	MS	F=value	p-value
Play Place	Between Groups	17.000	2	8.500	67.791	.000
	Within Groups	49.778	397	.125		
	Total	66.778	399			

It can be seen from Table 4.26 that the p-value of Intention to engage in E-sport games classified by Where Play Place is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Play Place generate differences in Intention to engage in E-sport games.

Table 4.26a Multiple Comparisons of Play Place

Where You Play (I)	Where You Play (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
At Home	School	-.30000*	.03756	.000	-.3738	-.2262
	Others	.33333*	.06260	.000	.2103	.4564
School	At Home	.30000*	.03756	.000	.2262	.3738
	Others	.63333*	.06133	.000	.5128	.7539
Others	School	-.33333*	.06260	.000	-.4564	-.2103
	At Home	-.63333*	.06133	.000	-.7539	-.5128

*. The mean difference is significant at the 0.05 level.

Table 4.26a compares mean differences between Play Place groups using the LSD (Least Significant Difference) method. The results show a difference between all groups of Play Place. These comparative results are essential for understanding the differences in Intent to engage in e-sport games among different Play Places and can guide related marketing strategies.

4.2.3.9 Differences in Main Purpose Generate Differences

Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.27 The One-way ANOVA of Intention to Engage in E-sport Games by Main Purpose

Factor	Items	SS	df	MS	F=value	p-value
Main Purpose	Between Groups	22.611	3	7.537	67.577	.000
	Within Groups	44.167	396	.112		
	Total	66.778	399			

It can be seen from Table 4.27 that the p-value of Intention to engage in E-sport games classified by Main Purpose is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Main Purpose generate differences in Intention to engage in E-sport games.

Table 4.27a Multiple Comparisons of Main Purpose

Dependent Variable: Intention to engage in E-sport games (LSD)						
Primary Purpose (I)	Primary Purpose (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Entertainment	Making Friends	.08333	.05280	.115	-.0205	.1871
	Game Master	-.50000*	.05280	.000	-.6038	-.3962
	Earning Income	.12500*	.04573	.007	.0351	.2149
Making Friends	Entertainment	-.08333	.05280	.115	-.1871	.0205
	Game Master	-.58333*	.05280	.000	-.6871	-.4795
	Earning Income	.04167	.04573	.363	-.0482	.1316
Game Master	Entertainment	.50000*	.05280	.000	.3962	.6038
	Making Friends	.58333*	.05280	.000	.4795	.6871
	Earning Income	.62500*	.04573	.000	.5351	.7149
Earning Income	Entertainment	-.12500*	.04573	.007	-.2149	-.0351
	Making Friends	-.04167	.04573	.363	-.1316	.0482
	Game Master	-.62500*	.04573	.000	-.7149	-.5351

*, The mean difference is significant at the 0.05 level.

Table 4.27a compares mean differences between Main Purpose groups using the LSD (Least Significant Difference) method. The results show a difference between Becoming a Master of the Game and the other three groups of Main Purpose. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Main Purpose groups and can guide related marketing strategies.

4.2.3.10 Differences in Favorite Game Generate Differences Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.28 The One-way ANOVA of Intention to Engage in E-sport Games by Favorite Game

Factor	Items	SS	df	MS	F=value	p-value
Favorite Game	Between Groups	51.593	4	12.898	335.509	.000
	Within Groups	15.185	395	.038		
	Total	66.778	399			

It can be seen from Table 4.28 that the p-value of Intention to engage in E-sport games classified by Favorite Game is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Favorite Games generate differences in Intention to engage in E-sport games.

Table 4.28a Multiple Comparisons of Favorite Game

Dependent Variable: Intention to engage in E-sport games (LSD)						
Favorite Game (I)	Favorite Game (J)	Mean	Std. Error	Sig.	95% Confidence Interval	
		Difference (I-J)			Lower Bound	Upper Bound
Computer Games	Video Games	-.19444*	.02830	.000	-.2501	-.1388
	Arcade Games	.63889*	.02830	.000	.5833	.6945

	Handheld Games	.55556*	.02830	.000	.4999	.6112
	Others	.72222*	.03580	.000	.6518	.7926
Video Games	Computer Games	.19444*	.02830	.000	.1388	.2501
	Arcade Games	.83333*	.03100	.000	.7724	.8943
	Handheld Games	.75000*	.03100	.000	.6891	.8109
	Others	.91667*	.03797	.000	.8420	.9913
Arcade Games	Computer Games	-.63889*	.02830	.000	-.6945	-.5833
	Video Games	-.83333*	.03100	.000	-.8943	-.7724
	Handheld Games	-.08333*	.03100	.007	-.1443	-.0224
	Others	.08333*	.03797	.029	.0087	.1580
Handheld Games	Computer Games	-.55556*	.02830	.000	-.6112	-.4999
	Video Games	-.75000*	.03100	.000	-.8109	-.6891
	Arcade Games	.08333*	.03100	.007	.0224	.1443
	Others	.16667*	.03797	.000	.0920	.2413
Others	Computer Games	-.72222*	.03580	.000	-.7926	-.6518
	Video Games	-.91667*	.03797	.000	-.9913	-.8420
	Arcade Games	-.08333*	.03797	.029	-.1580	-.0087
	Handheld Games	-.16667*	.03797	.000	-.2413	-.0920
*. The mean difference is significant at the 0.05 level.						

Table 4.28a compares mean differences between Favorite Game groups using the LSD (Least Significant Difference) method. The results show differences between all Favorite Games groups. However, the Arcade Games group with Handheld Games group is no different, and the Arcade Games group with others is no different. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Favorite Game groups and can guide related marketing strategies.

4.2.3.11 Differences in Game Combination Generate Differences Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.29 The One-way ANOVA of Intention to Engage in E-sport Games by Game Combination

Factor	Items	SS	df	MS	F=value	p-value
Game Combination	Between Groups	49.556	4	12.389	284.145	.000
	Within Groups	17.222	395	.044		
	Total	66.778	399			

It can be seen from Table 4.29 that the p-value of Intention to engage in E-sport games classified by Game Combination is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Game Combination generate differences in Intention to engage in E-sport games.

Table 4.29a Multiple Comparisons of Game Combination

Dependent Variable: Intention to engage in E-sport games (LSD)						
Game Combination (I)	Game Combination (J)	Mean	Std. Error	Sig.	95% Confidence Interval	
		Difference (I-J)			Lower Bound	Upper Bound
Business Operation + Role Play	War strategy + business operation	-.08333*	.03302	.012	-.1482	-.0184
	War strategy + character development	-.33333*	.03302	.000	-.3982	-.2684
	Role play + simulation of life	.58333*	.03302	.000	.5184	.6482
	Other	.50000*	.03302	.000	.4351	.5649
War strategy + business operation	Business Operation + Role Play	.08333*	.03302	.012	.0184	.1482
	War strategy + character development	-.25000*	.03302	.000	-.3149	-.1851
	Role play + simulation of life	.66667*	.03302	.000	.6018	.7316
	Other	.58333*	.03302	.000	.5184	.6482
War strategy + character development	Business Operation + Role Play	.33333*	.03302	.000	.2684	.3982
	War strategy + business operation	.25000*	.03302	.000	.1851	.3149
	Role play + simulation of life	.91667*	.03302	.000	.8518	.9816
	Other	.83333*	.03302	.000	.7684	.8982

Role play + simulation of life	Business Operation + Role Play	-.58333*	.03302	.000	-.6482	-.5184
	War strategy + business operation	-.66667*	.03302	.000	-.7316	-.6018
	War strategy + character development	-.91667*	.03302	.000	-.9816	-.8518
	Other	-.08333*	.03302	.012	-.1482	-.0184
	Other	-.50000*	.03302	.000	-.5649	-.4351
Other	Business Operation + Role Play	-.58333*	.03302	.000	-.6482	-.5184
	War strategy + business operation	-.83333*	.03302	.000	-.8982	-.7684
	War strategy + character development	.08333*	.03302	.012	.0184	.1482
	Role play + simulation of life					
*. The mean difference is significant at the 0.05 level.						

Table 4.29a compares mean differences between Game Combination groups using the LSD (Least Significant Difference) method. The results show that there are differences between all groups of Game Combinations. However, the War Strategy Business Operation group with Business Operation + Role Play group and another group with Role Play + Simulation of Life group are no different, and the Arcade Games group with others are no different. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Game Combination groups and can guide related marketing strategies.

4.2.3.12 Differences in Money Spent Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.30 The One-way ANOVA of Intention to Engage in E-sport Games by Money Spent

Factor	Items	SS	df	MS	F=value	p-value
Money Spent	Between Groups	39.370	3	13.123	189.616	.000
	Within Groups	27.407	396	.069		
	Total	66.778	399			

It can be seen from Table 4.30 that the p-value of Intention to engage in E-sport games classified by Money Spent is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Money Spent generate differences in Intention to engage in E-sport games.

Table 4.30a Multiple Comparisons of Money Spent

Dependent Variable: Intention to engage in E-sport games (LSD)						
Money Spent (I)	Money Spent (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than 1,000 RMB/month	1,000 but less than 2,000 RMB/month	-.11111*	.04803	.021	-.2055	-.0167
	2,000 but less than 3,000 RMB/month	.22222*	.03396	.000	.1555	.2890
	3,000 RMB/month and more	.72222*	.03396	.000	.6555	.7890
1,000 but less than 2,000 RMB/month	Less than 1,000 RMB/month	.11111*	.04803	.021	.0167	.2055
	2,000 but less than 3,000 RMB/month	.33333*	.04803	.000	.2389	.4278
	3,000 RMB/month and more	.83333*	.04803	.000	.7389	.9278
2,000 but less than 3,000 RMB/month	Less than 1,000 RMB/month	-.22222*	.03396	.000	-.2890	-.1555
	1,000 but less than 2,000 RMB/month	-.33333*	.04803	.000	-.4278	-.2389
	3,000 RMB/month and more	.50000*	.03396	.000	.4332	.5668

3,000 RMB/month and more	Less than 1,000 RMB/month	-.72222*	.03396	.000	-.7890	-.6555
	1,000 but less than 2,000 RMB/month	-.83333*	.04803	.000	-.9278	-.7389
	2,000 but less than 3,000 RMB/month	-.50000*	.03396	.000	-.5668	-.4332
*. The mean difference is significant at the 0.05 level.						

Table 4.30a compares mean differences between Money Spent groups using the LSD (Least Significant Difference) method. The results show a difference between all groups of Money Spent, but just 1,000 but less than 2,000 RMB/month group with Less than 1,000 RMB/month group are no difference with other is no difference. These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Money-spent groups and can guide related marketing strategies.

4.2.3.13 Differences in Leave Game Generate Differences in Intention to Engage in E-sport Games

$$H_0: \mu_i = \mu_j$$

$$H_a: \mu_i \neq \mu_j \text{ at last one Pair where } i \neq j.$$

Table 4.31 The One-way ANOVA of Intention to Engage in E-sport Games by Leave Game

Factor	Items	SS	df	MS	F=value	p-value
Leave Game	Between Groups	29.000	4	7.250	75.805	.000
	Within Groups	37.778	395	.096		
	Total	66.778	399			

It can be seen from Table 4.31 that the p-value of Intention to engage in E-sport games classified by Leave Game is approximately 0.000, which is much lower than the critical value of 0.05. Therefore, the null hypothesis H_0 for this factor is rejected, meaning that differences in Leave Game generate differences in Intention to engage in E-sport games.

Table 4.31a Multiple Comparisons of Leave Game

Dependent Variable:		Intention to engage in E-sport games (LSD)				
Leave Game (I)	Leave Game (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Boredom with the game	The game updates too slowly	.00000	.04235	1.000	-.0833	.0833
	The departure of a friend	.00000	.04235	1.000	-.0833	.0833
	Poor customer service	.58333*	.05467	.000	.4759	.6908
	Others	.75000*	.05467	.000	.6425	.8575
The game updates too slowly	Boredom with the game	.00000	.04235	1.000	-.0833	.0833
	The departure of a friend	.00000	.04890	1.000	-.0961	.0961
	Poor customer service	.58333*	.05989	.000	.4656	.7011
	Others	.75000*	.05989	.000	.6323	.8677
The departure of a friend	Boredom with the game	.00000	.04235	1.000	-.0833	.0833
	The game updates too slowly	.00000	.04890	1.000	-.0961	.0961
	Poor customer service	.58333*	.05989	.000	.4656	.7011
	Others	.75000*	.05989	.000	.6323	.8677
Poor customer service	Boredom with the game	-.58333*	.05467	.000	-.6908	-.4759
	The game updates too slowly	-.58333*	.05989	.000	-.7011	-.4656
	The departure of a friend	-.58333*	.05989	.000	-.7011	-.4656
	Others	.16667*	.06915	.016	.0307	.3026
Others	Boredom with the game	-.75000*	.05467	.000	-.8575	-.6425
	The game updates too slowly	-.75000*	.05989	.000	-.8677	-.6323
	The departure of a friend	-.75000*	.05989	.000	-.8677	-.6323
	Poor customer service	-.16667*	.06915	.016	-.3026	-.0307

*. The mean difference is significant at the 0.05 level.

Table 4.31a compares mean differences between Leave Game groups using the LSD (Least Significant Difference) method. The results show that there is no difference between all groups of Leave Game. However, only the Poor customer service group and another group with the other three groups have differences (but no difference between the Poor customer service group and the other group). These comparative results are essential for understanding the differences in Intention to engage in E-sport games among different Leave Game groups and can guide related marketing strategies.

4.2.4 Game Characteristic Influence on Intention to Engage in E-sports Games

In order to find out the impact of Game Characteristics on the Intention to engage in E-sport games, three types of multiple linear regression analysis are applied in this study.

(1). The Multiple Linear Regression Analysis

$$H_0: \beta_i = 0 \quad H_a: \beta_i \neq 0 \quad (i = 1, 2)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

Where Y = Intention to engage in E-sport games

X_1 = Action Game

X_2 = Casual Game

The results obtained from the study are written in equation (1) and Table 4.33.

$$Y = 2.853 + 0.337 X_1 + 0.163 X_2 \dots \dots \dots (1)$$

$$(.000) \quad (.000) \quad (.000)$$

$$\text{Adjusted } R^2 = 0.413$$

Table 4.32 The Multiple Linear Regression Analysis of Intention to Engage in E-sport Games Based on Game Characteristics

Model	Coefficient ^a		t	p-value	
	Unstandardized Coefficients				Standardized Coefficients
	B	Std. Error			
Constant	2.853	.098		29.043	.000
X ₁ = Action Game	.337	.030	.436	11.271	.000
X ₂ = Casual Game	.163	.012	.534	13.797	.000

a. Dependent Variable: Y= Intention to engage in E-sport games

(2). The Multiple Double-Log Linear Regression Analysis

$$H_0: \beta_i = 0$$

$$H_a: \beta_i \neq 0 \text{ (i =1, 2)}$$

$$\ln(Y) = \beta_0 + \beta_1 \ln(X_1) + \beta_2 \ln(X_2)$$

The results from the study can be seen in equation (2) and Table 4.34.

$$\ln(Y) = 1.122 + 0.228 \ln(X_1) + 0.103 \ln(X_2) \dots \dots \dots (2)$$

$$(.000) \quad (.000) \quad (.000)$$

$$\text{Adjusted } R^2 = 0.682$$

Table 4.33 The Multiple Double-Log Linear Regression Analysis of Intention to Engage in E-sports Games Based on Game Characteristics

Model	Coefficient ^a		t	p-value	
	Unstandardized Coefficients				Standardized Coefficients
	B	Std. Error			
Constant	1.122	.021		54.699	.000
Ln(X ₁) = Action Game	.228	.017	.497	13.204	.000
Ln(X ₂) = Casual Game	.103	.007	.591	15.697	.000

a. Dependent Variable: $\ln(Y)$ = Intention to engage in E-sport games

(3). The Multiple Semi-Log Linear Regression Equation

$$H_0: \beta_i = 0$$

$$H_a: \beta_i \neq 0 (i = 1, 2)$$

$$Y = \beta_0 + \beta_1 \ln(X_1) + \beta_2 \ln(X_2)$$

The results from the study can be seen in equation (3) and Table 4.35.

$$Y = 2.865 + 0.986 \ln(X_1) + 0.441 \ln(X_2) \dots \dots \dots (3)$$

$$(.000) \quad (.000) \quad (.000)$$

$$\text{Adjusted } R^2 = 0.686$$

Table 4.34 The Multiple Semi-Log Linear Regression Analysis of Intention to Engage in E-sports Games Based on Game Characteristics

Model	Coefficient ^a		t	p-value
	Unstandardized Coefficients	Standardized Coefficients		
	B	Std. Error	Beta	
Constant	2.865	.087		.000
$\ln(X_1) = \text{Action Game}$	.986	.074	.502	.000
$\ln(X_2) = \text{Casual Game}$	.441	.028	.593	.000

a. Dependent Variable: Y= Intention to engage in E-sport games

According to the above three types of multiple regression analyses, it can be seen that the Adjusted R² of the third equation based on the Semi-Log Linear Regression Analysis is found to be the highest. In this mentioned equation, it is evident that the Action Game, with a coefficient of about 0.986, has a more significant impact on the intention to engage in E-sport games than the Casual Game, with a coefficient of about 0.441.

In summary, for Hypothesis 1, it can be concluded that differences in Demographic Factors in Gender, Age, Educational Level, and Hometown generate differences in Intention to engage in E-sport games. On the contrary, differences in Marital Status, Occupation, and Monthly Income generate no differences in Intention

to engage in E-sport games. Regarding Online Behavior, The Semi-Log Linear Regression Analysis shows that Action Games and Casual Games have played an essential role in the intention to engage in E-sport games. However, the former is more effective than the latter. The results of these findings can be seen in Table 4.35.

Table 4.35 The Summary Results of Hypothesis Testing

	Not Reject (H ₀)	Reject (H ₀)
Hypothesis 1: Demographic Factor generates differences in intention to engage in Sports Games	√	
1. Gender		√
2. Marital Status	√	
3. Age		√
4. Educational Level		√
5. Occupation	√	
6. Monthly Income	√	
7. Home Town		√
Hypothesis 2: Online Behavior		
1. First Experience		√
2. Sport Competition Information		√
3. Sport Competition Interest		√
4. Experience Months		√
5. Playing Frequency		√
6. Playing Hours		√
7. Main Partner		√
8. Playing Place		√
9. Main Purpose		√
10. Favorite Game		√
11. Game Combination		√
12. Money Spent		√
13. Leave Game		
Hypothesis 3: Game Characteristics		
1. Action Game		√
2. Casual Game		√

CHAPTER V

CONCLUSION AND DISCUSSION

5.1 Conclusion

Regarding the demographic factor, most respondents are male, single, aged 23 years or older, and have a monthly income exceeding 9,000 yuan. Most reside in second and third-tier cities, including students and government workers. For the increased usage and affection for e-sports products, it is evident that people play the most significant role, followed by Online Behavior and Game Characteristics. In the context of e-sports, expanding the audience and its diversity is more crucial than the so-called Game Characteristics and Online Behavior.

Regarding Online Behavior, most individuals were first exposed to e-sports during their college years, with approximately half actively participating in e-sports activities and regularly following e-sports competitions. Many have played e-sports for over a year, engaging more than five times weekly for durations exceeding five hours. They typically play e-sport games with friends at school, driven by the desire for monetary rewards. Most prefer playing e-sport games on their computers, exploring various game genres. Monthly spending on e-sports games varies, with a majority spending less than 1,000 yuan, followed by those spending between 2,000 to 3,000 yuan and more than 3,000 yuan. Additionally, they may abandon a game if it becomes monotonous or they lose interest.

Regarding Game Characteristics, most of them like to play Action Games more than Causal Games. For Action Games, MMO is the most popular game, followed by STG and RPG, respectively, while the lowest ranking is ACT. Concerning Causal Game, AVG is more popular than SLG. Concerning the intention to engage in E-sport games, the game makes you feel novelty and excitement, which are the most important

reasons, followed by the game having good anti-repression and interpersonal communication systems, respectively. Games satisfying your needs are the lowest reason for playing e-sports.

In terms of Inferential Statistics, it is evident that variations in Demographic Factors, specifically Gender, Age, Educational Level, and Hometown, result in differences in the Intention to engage in E-sport games. Conversely, Marital Status, Occupation, and Monthly Income differences do not lead to variations in the Intention to engage in E-sport games. Regarding online behavior, distinctions in all facets contribute to differences in the intention to engage in e-sport games. The Semi-Log Linear Regression Analysis reveals that both Action Game and Casual Game play pivotal roles in the Intention to engage in E-sport games, with the former exhibiting greater effectiveness than the latter.

5.2 Discussion

This research aligns with previous studies conducted by Zhai et al. (2011) and Mi et al. (2003), which emphasized the impact of demographic factors on the intention to play games, particularly regarding gender, age, educational level, and hometown. Additionally, the findings are consistent with research by Zou & Xiao (2004) and Wei et al. (2011), supporting that online behavior significantly influences the intention to play games. Lastly, this study concurs with the research conducted by Wang et al. (2019), affirming that game characteristics also play a crucial role in influencing the intention to play games.

The traditional characteristics of China's e-sports industry have begun to take shape. Due to limitations in local game development capabilities, mainstream e-sports games in the market, including League of Legends (LOL), DOTA2, Hearthstone, and CrossFire, are all products of overseas developers, and operators are all taken over by domestic game giants such as Tencent, NetEase, and

Perfect. In terms of game types, MOBA (multiplayer online tactical competition game) is currently the mainstream and continues to increase in proportion, mainly represented by DOTA2, League of Legends, and Storm Heroes. FPS (first-person shooter game), represented by Counter-Strike, and RTS (real-time strategy game), represented by Warcraft 3, is decreasing yearly.

In the evolving landscape of esports competitions, two primary formats dominate: individual events centered around specific games and comprehensive events encompassing multiple games. Individual events are typically organized by game developers or publishers, including LPL (League of Legends), WCS (StarCraft II World Championships Series), and Dota 2 International Invitational. In contrast, comprehensive competitions gained traction following the conclusion of the WCG competition 2013, with the rise of the WCA competition hosted by the Yinchuan City Government and Jinya Technology, offering a staggering prize pool of up to 100 million yuan in 2015.

Through this investigation, the researcher uncovered a critical insight: the continuous innovation and enhancement of the user experience, coupled with meticulous services and diverse game content, are paramount to attracting and retaining users. Only through ongoing development and exploration can a gaming platform become an industry leader, earning greater recognition and support from users.

In recent years, the rapid development of e-sports has significantly expanded its user base and diversified product development. Acquiring users in e-sports has evolved beyond the mere creation of compelling games. It is evident that e-sports primarily engages users through the following aspects:

(1) Games Themselves: e-sports often rely on games to attract and retain users. Games are entertaining, challenging, and social and can appeal to many users. At the same time, the competitive elements and rewards in games can motivate users to invest more time and energy.

(2) Social Media and Community: e-sports communities and social media platforms are essential to attracting and retaining users. These platforms allow users to share gaming experiences, watch their favorite teams and players, interact with other users, and form communities.

(3). E-sports Events: E-sports competitions are an essential means to attract users. Major e-sports events such as international e-sports competitions (such as the Ti International Invitational) can attract millions of viewers. In addition, there are many amateur and professional e-sports events in various regions, which can inspire more people to participate in e-sports.

(4). Live Streaming Platforms and Media: e-sports live streaming platforms (such as Twitch and YouTube Gaming) and related media can amplify the impact of e-sports. There is a large amount of live e-sports content on these platforms, including professional players' competitions, instructional videos, and coverage of e-sports events.

(5). Sponsorship and Advertising: sponsors often favor e-sports teams and events. These sponsors can leverage the reach and audience base of e-sports to promote their products and services. In addition, e-sports events will also attract more viewers through advertising.

(6). Mobile Devices and Apps: With the development of mobile devices and apps, more and more users are participating in e-sports through their phones or tablets. The convenience of mobile devices and apps has made it possible for more people to participate in e-sports anytime, anywhere.

In summary, e-sports' approach to engaging users is comprehensive, spanning multiple domains. Successful e-sports projects must systematically consider these aspects to enhance their appeal and competitiveness. Regarding product innovation, e-sports has evolved beyond creating singular products to encompass a broader spectrum of product dimensions. E-sports products are primarily brought to fruition through the following facets:

(1). **Gameplay Innovation:** Innovation in the gameplay of e-sports games is crucial to engaging players. This innovation can come from entirely new game mechanics, unique game modes, or an expansion of traditional gameplay. For example, the 5v5 tower defense mode in League of Legends cleverly combines the classic MOBA gameplay with tower defense elements to bring players a new game experience.

(2). **Hero/Character Design:** In e-sports games, hero and character design are essential to engaging players. Each character should have unique skills and fighting styles to add variety and playability to the game. At the same time, the appearance and personality of the character should be unique to appeal to different groups of players. For example, the Monkey King character in Honor of Kings, with its flexible skill set and high-speed fighting style, has been loved by many players.

(3). **Game Map and Scene:** The design of game maps and scenes is also essential to e-sports game innovation. The unique map design can provide various tactical options to increase the game strategy. The rich scene switching can bring the player visual freshness and improve the game's appeal. For example, multiple maps in Overwatch, each with unique tactical points and landscape design, provide different combat experiences for players.

(4). **Game Balance:** Game balance is one of the core elements of e-sports games. Good balance requires careful design of character abilities, proper map attributes, and reasonable control of game pacing. DOTA2, for example, keeps the game balanced by constantly tweaking the hero's abilities and map attributes and mechanics that improve the game's pacing.

(5). **Gaming Social Experience:** In e-sports games, the social experience is just as necessary. The design of friend systems, chat features, and social events can all influence player engagement and loyalty. For example, Crossfire's friend

invites, team system, and regular online and offline events provide an excellent social experience and add to the game's appeal.

(6). Games and Events: Events and events in e-sports games are an effective way to attract and retain players. A reasonable competition system, a challenging reward system, and a variety of events can increase the popularity of games. For example, "League of Legends" global finals, mid-season, regional leagues, and "King of Glory" KPL professional league provide players an intense and exciting game-watching experience.

(7). Game Data Visualization: In e-sports games, data visualization is essential to enhance the game experience and aid player decision-making. Intuitive data statistics, reasonable visualization, and in-depth data analysis can help players better understand the game and improve their competitiveness. For example, the number statistics on the board in "Many Self-moving Chess" and the battle statistics in "Genting Chess" provide important decision-making references for players.

(8). Game Sound and Visual Design: In e-sports games, sound is as important as visual design. Good sound selection, unique screen Settings, and gorgeous special effects rendering can bring players an immersive game experience. For example, the realistic sound feedback, high-definition screen rendering, and rich special effects display in "Peace Elite" bring players an immersive game feeling.

In summary, product innovation in e-sports games must be considered and implemented from multiple aspects, from gameplay innovation and hero/character design to comprehensive innovation in sound and visual design, to create attractive and competitive e-sports game products. At the same time, optimizing and improving game balance, social experience, events, and data visualization are vital elements to improve the quality of games and user experience.

5.3 Implication for Practice

5.3.1 Influence of Demographic Factors on Intention to Engage in E-sports Games

It can be seen that demographic factors have a particular impact on the selection of e-sports products. Here are some possible contributing factors:

(1). Age distribution: Different age groups have different interests and needs for e-sports products. For example, young people prefer fast-paced, high-stimulation games, while middle-aged people prefer strategic, low-stimulation games. Therefore, e-sports products need to consider the needs and preferences of different age groups.

(2). Gender ratio: Players of different genders may have different game types and gameplay preferences. For example, men may prefer war, action, and competitive games, while women may prefer social, fashion, and relaxed games. Therefore, e-sports products need to consider the needs and preferences of players of different genders.

(3). Education level: Education level will also affect players' choice of e-sports products. For example, a player with a higher education level may prefer a deep and challenging game. A player with a lower education level may prefer a simple and easy-to-learn game. Therefore, e-sports products must consider the needs and preferences of people with different education levels.

(4). Geographical location: People from different regions and cultural backgrounds may have different choices of e-sports products. For example, some regions may prefer locally developed games, while others may prefer internationally renowned games. Therefore, e-sports products must consider the needs and preferences of people from different regions and cultural backgrounds.

In short, demographic factors have a particular impact on the selection of e-sports products, and factors such as different ages, genders, education levels,

and geographical locations need to be considered to design e-sports products suitable for different groups of people.

With the development of science and technology and improving people's living standards, the e-sports industry is becoming increasingly important. E-sports has become a diverse, cultural, and contributing industry. It has become more and more people's way of life and consumption of entertainment, and it is even moving towards a new way of life and cultural form. Many factors affect users' willingness to engage in E-sport game products, including political, economic, social, cultural, technological, and other factors.

In the fast pace of modern life, people are often under all kinds of pressure, and games have become a way to relieve pressure. In the world of the game, players can temporarily put aside the troubles of reality and restore a good mood. The virtual world in the game brings a feeling of relaxation and pleasure, thus relieving stress.

Beyond stress relief, games have the potential to enhance one's sense of accomplishment. Conquering a challenging level, earning a coveted title, or achieving a high score can give many individuals deep satisfaction and self-fulfillment. Within the gaming realm, people can progressively ascend through the ranks, showcasing their efforts and skills to emerge as heroes within the virtual world. Moreover, games are inherently interactive and social. Contemporary gaming extends beyond solitary pursuits, with many games now incorporating social elements, such as multiplayer online formats. In these gaming environments, players can connect with fellow gamers from around the globe, engaging in interactions and communication. Simultaneously, games serve as a means of fostering communication and connection with friends.

Engaging in games can serve as a gateway to exploring uncharted territories. Players can embark on virtual journeys to mythical places like Atlantis or experience time travel—experiences often inaccessible in the real world.

Additionally, certain games contribute to developing valuable skills such as teamwork, decision-making, and reaction speed. These skills, honed within the gaming context, extend their positive influence into real-life scenarios, aiding players in adapting to and navigating various challenges. While it is acknowledged that games can have some adverse effects, such as the risk of addiction and potential health implications, approaching gaming with a balanced perspective allows individuals to not only derive joy from it but also acquire positive experiences and reflections.

5.3.2 Influence of Game Characteristics on Intention to Engage in E-sport Games

The characteristics of the game have a significant impact on the appeal of e-sports products. Here are some key influencing factors:

(1). Types of games: Different games affect the appeal of e-sports products. For example, action games, shooters, and strategy games are often more competitive and challenging and may be more appealing to e-sports enthusiasts. On the other hand, Role-playing, adventure, and social games may be more entertaining and story-oriented and, therefore, more appealing to the average gamer.

(2). Game mechanics: The complexity and depth of game mechanics also impact the appeal of e-sports products. Complex game mechanics can provide more strategy and skill and attract more experienced players. Simple game mechanics may be easier to learn and attract more novice players.

(3). Game balance: The game's balance is crucial to the appeal of an e-sports product. If certain characters or equipment in the game have apparent advantages, it will cause the game to be unbalanced, making it lose fairness and enjoyment. Therefore, developers need to put much effort into ensuring that the game is balanced to improve the appeal of e-sports products.

(4). Gaming community: The presence and activity of gaming communities also impact the appeal of e-sports products. If the game has an active community where players can exchange experiences, share tips, and interact, it will increase the appeal and stickiness of the game.

(5). Game support: Support and updates from game developers also impact the appeal of e-sports products. If game developers can continuously update content, fix bugs, and balance game mechanics, they can increase the longevity and appeal of their games.

To sum up, the game's characteristics significantly impact the appeal of e-sports products. Developers need to deeply understand the needs and preferences of the target audience and design games with unique features and mechanics to attract more e-sports enthusiasts. At the same time, developers also need to focus on the game's balance, community, and support aspects to improve its appeal and engagement.

5.3.3 How do E-sports Games Attract More Users and Develop Plans

E-sport games can enhance their appeal and draw in a more extensive user base by implementing strategies such as:

1. Attract Users

(1). Understand the target user groups: dig into the needs and interest points of the target user groups and formulate different game strategies for different user groups. For example, for younger users, focus on social and fashion; For middle-aged users, focus on strategic and leisure.

(2). Provide a unique game experience: Provide users with a unique game experience through innovative gameplay and features, as well as well-designed game scenarios and characters—for example, the development of challenging and fulfilling formation and combat modes.

(3). Continue to launch new activities and version updates: Continue to launch new activities and version updates to maintain the freshness and engagement

of the game and meet the diversified and personalized needs of users. For example, new maps, items, and missions are regularly released to increase the game's playability and durability.

2. Development Planning

(1). Constantly explore market demand: Pay close attention to market trends and changes in user demand and continuously develop game products that meet market trends to meet the growing needs of users.

(2). Strengthen team building: Strengthen team building and improve employees' professional level and service quality. For example, regular staff training and communication are conducted to improve the team's innovation and collaboration ability.

(3). Expand marketing channels: Publicize and promote the game through online and offline ways to expand its popularity and influence. For example, the use of social media, live gaming platforms, and offline activities for marketing.

(4). Focus on user feedback: Collect and solve user questions and suggestions to continuously improve the game experience. For example, establishing a user feedback mechanism, timely collection and analysis of user feedback, and continuous improvement of game features and services. With the development of science and technology and improving people's living standards, the e-sports industry is becoming increasingly important. E-sports has become a diverse, cultural, and contributing industry. It has become more and more people's way of life and consumption of entertainment, and it is even moving towards a new way of life and cultural form. Many factors affect users' willingness to engage in E-sport game products, including political, economic, social, cultural, technological, and other factors.

5.3.4 Recommendation for Demographic Factor, Online Behavior, and Game Characteristics

By comparing the research results in Chapter 4, the following suggestions can be made for developing e-sports.

5.3.4.1 Demographic Factor

According to the analysis of demographic factors, it can be concluded that if we want to get more users from different user groups in the future, we need to do the following:

(1). Accurate positioning: First, we need to determine the target customer group through market research and data analysis to understand the needs and preferences of different groups and then develop accurate marketing strategies for different groups.

(2). Expand publicity: Promote through various channels, including social media, TV, and Internet ads. In the publicity process, we should pay attention to shaping the brand image and emphasizing the uniqueness and attractiveness of the game.

(3). Optimize user experience: Provide personalized game experience for different groups. For example, for young people, we can develop game content suitable for them to provide a relaxed and lively game atmosphere. For white-collar workers, more challenging and competitive game content can be provided.

(4). Build a game community that encourages interaction and communication between players. Through the community, you can promptly learn about the needs and feedback of players and constantly optimize the game experience. At the same time, the community can be used to organize a variety of online and offline activities to increase the stickiness of players.

(5). Personalized recommendation: Provide personalized game recommendations to different groups through data analysis and artificial

intelligence technology. For example, recommend game content and items appropriate for players based on their gaming behavior and preferences.

(6). Cross-platform cooperation: Expand the popularity and audience scope of the game through cooperation with other media, entertainment, and other platforms. For example, it can be linked with the entertainment industry, such as movies and music, and attract different groups of people through cooperative publicity and promotion. In short, for different groups of customers, online game operators need to develop accurate marketing strategies, constantly optimize the game experience, expand publicity channels, and provide personalized recommendations and marketing with the help of artificial intelligence technology.

5.3.4.2 Online Behavior

According to the online behavior analysis of e-sports users, it can be concluded that if we want to gain the recognition and support of different user groups in the future, we need to strengthen the social elements of the game, increase competition and reward mechanism, provide personalized customization, optimize the game experience and interface design, provide good user service and security and other aspects of user experience optimization to enhance the retention of e-sports products for customers.

5.3.4.3 Game Characteristics

According to the analysis of the characteristics of the game, although the game is divided into action and leisure two categories because there are constantly new e-sports products being produced, it is imperative to provide attractive game content, constantly update and optimize the game content, add new gameplay and functions, in order to maintain the interest and activity of players. For example, new maps, levels, characters, and missions can be introduced.

5.3.4.4 Intention to Engage in E-sports Games

According to the analysis results of the Intention to engage in E-sport games, in the future, we will enhance the willingness of online game players to play, which can be started from the following aspects:

(1). Improve the Game Quality: We are committed to improving the game's overall quality, including optimizing the game graphics and sound and enriching and enhancing the game story to provide a more immersive game experience to enhance the player's love and loyalty to the game.

(2). Add Social Elements: Add rich social elements to the game, such as social interaction, voice chat, and guild/convention battles, so that players can better interact and communicate with other players, enhancing the social and fun of the game.

(3). Create a Good Game Environment: We strive to create a safe, fair, and respectful game environment. This is not only reflected in the safety and fairness of the game's operation but also our excellent customer service attitude so that players can feel safe and respected in the game, thus enhancing the trust and satisfaction of the game.

(4). Rich Gameplay: We continue to provide players with various gameplay, such as introducing new game modes, adding new game maps, and planning various challenges and activities to keep the game fresh and exciting to enhance players' lasting interest and loyalty to the game.

(5) Personalized Customization: We provide players with personalized game characters, appearance, props, and other customized services to show their personality and style better and enhance players' investment and loyalty to the game.

(6). Reward Mechanism: We set up a reasonable reward mechanism to give players more sense of accomplishment and rewards in the game, such as experience points, gold coins, props, and other rewards, to stimulate players' enthusiasm and enthusiasm for the game.

(7). Continuous Update and Optimization: We will constantly update and optimize the game content and timely repair the problems to improve the balance and stability so that players in the game get a better experience and satisfaction.

5.4 Recommendation for Future Research

This research investigates the influence of three variables, namely demographic factors, online behavior, and game characteristics, on the intention to play games. Future research should use different variables that might influence the intention of players to play games, such as ease of use, psychological factors, and cultural and social factors. As an emerging sports industry, electronic sports still have broad development space and exploration areas. Here are some areas that e-sports can explore in the future:

1. Diversified events: Currently, e-sports events are mainly offline. In the future, more diverse forms of events can be explored, such as online, cross-game, and campus events, to meet the needs of different audiences.

2. Global market: With the continuous expansion of the global electronic competition market, we can explore broader international markets in the future, strengthen international exchanges and cooperation, and improve the international influence and competitiveness of e-sports.

3. Professional training: Currently, e-sports training is not yet mature. In the future, more specialized training models can be explored to improve the professional quality and competitive level of e-sports players and provide more excellent talents for the e-sports industry

4. Healthy development: With the continuous development of the electronic competition industry, attention can be paid to the health issues of e-sports players in the future, and more scientific and reasonable training plans and guarantee measures can

be formulated to promote the healthy development of the electronic competition industry.

5. Innovative products: In the future, we can continuously explore innovative product forms, such as new interactive technologies, such as virtual reality and augmented reality, as well as more creative game types and gameplay, injecting new vitality into the electronic sports industry.

6. Media-based communication: In the future, the media dissemination of e-sports can be strengthened, and promotion can be carried out through various channels and platforms to enhance the visibility and influence of e-sports.

7. Industry chain improvement: In the future, the electronic sports industry chain can be improved to promote the development of upstream and downstream industries, such as game development, event operation, and media communication, to enhance the synergy and economic benefits of the entire industry

5.5 Limitations of the Study

While this study provides valuable insights into the Chinese e-sports market, it is essential to acknowledge the limitations that shape the scope of this research. The decision to focus primarily on China was driven by the need for specificity and in-depth exploration within a particular context. However, this means that the findings and conclusions may not universally apply to e-sports ecosystems in other countries. The global landscape of e-sports is diverse, with each region having unique characteristics, challenges, and opportunities. A more comprehensive analysis would require dedicated research efforts in various geographical locations to capture the nuances of the e-sports phenomenon on a global scale.

Moreover, the time constraints imposed on this research represent a practical limitation. E-sports is a rapidly evolving industry, marked by dynamic shifts in trends, technology, and user preferences. The temporal constraints of this study mean

that certain developments or changes in the e-sports landscape might not be fully captured. Acknowledging these limitations is crucial for interpreting the findings accurately. Future research endeavors could address these constraints by expanding the geographical scope and adopting a longitudinal approach to track the evolving nature of the e-sports industry over time.



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APPENDICES

Questionnaire Part-1 Demographic Factor

1. Gender
 - a. Male
 - b. Female
2. Marriage
 - a. Not Married
 - b. Married
3. Age
 - a. Under 21
 - b. 21-23
 - c. Over 23
4. Education
 - a. Less than Bachelor
 - b. Bachelor
 - c. Master
 - d. Higher than Master
5. Occupation
 - a. Student
 - b. Company Officer
 - c. Government worker
 - d. Another Occupation
6. Monthly Income
 - a. Under 4000/M
 - b. 4000-6000/M
 - c. 6001-9000/M
 - d. Over 9000/M
7. Hometown
 - a. First-tier cities
 - b. Second-tier cities
 - c. Third-tier cities
 - d. Fourth-tier cities

Part 2 Online Behavior

8. When did you first get into e-sports

- a. Primary
 - b. Middle School
 - c. High school
 - d. Collegiate
9. Does your school have an e-sports competition
- a. Yes
 - b. No
10. Do you follow e-sports competitions
- a. Occasionally
 - b. Often
 - c. Pay no attention to
11. Would you like to organize more E-sports competitions around you:
- a. Hope very much that
 - b. Hope
 - c. It does not matter
 - d. Not wishes
12. How long have you been playing e-sports games
- a. Within three months
 - b. Three months but less than six months
 - c. Six months to a year
 - d. More than a year
13. How long do you play e-sports games each time
- a. Within 1 hour
 - b. 1 hour to 3 hours
 - c. 3 to 5 hours
 - d. More than 5 hours
14. How often do you play e-sports games per week
- a. Less than three times
 - b. 3-5 times
 - c. More than five times
15. Your leading partner in playing e-sports games is
- a. Family member
 - b. Friend
 - c. Student
 - d. other
16. Where do you mainly play e-sports games
- a. At home
 - b. School
 - c. Internet Cafe
 - d. other

17. The energy you spend on e-sports
- a. It is beneficial to my life and study
 - b. there is a feeling of regret, which impacts their outdoor exercise
 - c. It is average compared to the people around you
 - d. I regret wasting so much time and energy
18. What is your primary purpose for playing the game?
- a. Entertainment
 - b. Making friends
 - c. Become a master of the game
 - d. Earning income
 - e. Other:
19. What is your favorite gaming medium?
- a. Computer games
 - b. Video games
 - c. Arcade games
 - d. Handheld games (including mobile phone games and PDA games)
 - e. Others
20. Which of the following genre combinations of games are you most looking forward to?
- a. Business Operation + Role Play
 - b. War strategy + business operation
 - c. War strategy + character development
 - d. Role play + simulation of life
 - e. Other
21. How much will you spend every month on E-sports?
- a. 1000/month
 - b. 2000/month
 - c. 3000/month
 - d. More than 3000/month
22. Why would you leave an online game
- a. Boredom with the game
 - b. The game updates too slowly
 - c. The departure of a friend
 - d. Poor customer service
 - e. Others

Part 3: Game Characteristic

5=Strongly Agree; 4=Agree; 3=Neutral; 2=Disagree and 1=Strength Disagree

Game Characteristic	Very Low	Low	Ordinary	High	Very High
Action					
Do you like playing FPS games (such as CS、DOD)					
Do you like playing RTS games (such as Warcraft, StarCraft, Command & Conquer)					
Do you like to play PLACT games (such as Final FightGHT and Dungeons & Dragon)					
Do you like playing FTG games (such as KOF)					
Do you like playing RPG games (such as Sixth Clock and ENIX's DRAGON QUEST.)					
Do you like play STG games (such as the 194X series)					
Do you like playing MMO games (such as Fantasy Westward Journey)					
Casual					
Do you like playing AVG games (such as the Resident Evil BIOHAZARD series)					
Do you like playing SLG games (such as SHINING FORCE.)					

Part 4: INTENTION TO Engage in E-sport Games

5=Strongly Agree; 4=Agree; 3=Neutral; 2=Disagree and 1=Strength Disagree

INTENTION TO engage in E-sport games	Very Low	Low	Ordinary	High	Very High
Would you play a game because the game has pleasing Aesthetics and music?					
Would you play the game because the game has good Anti-repression?					
Would you play the game because it has good character experience?					
Would you play a game because the game has an excellent Interpersonal communication system?					
Would you play a game because the game makes you feel Novelty and excitement?					
Would you play a game because the game satisfies your need for control?					



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