

An Exploration of the Consumption Psychology of Young Chinese Online Game Consumers on Game Top-ups

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Abstract: With the rapid development of digital technology, China's online gaming industry has occupied an important position in the global landscape, and the number of young gamers has continued to increase. This study investigates the psychological factors that influence the game consumption behavior of young Chinese gamers, focusing on their motivations for consumption. By surveying 80 participants, the analysis found that key factors such as peer pressure, attractive recharge rewards, and promotions are important drivers of their consumption decisions. Research shows that these factors often encourage young users to make impulse purchases. In order to minimize the possible negative effects of excessive game-related spending, this paper proposes intervention strategies to promote responsible gaming behavior. The recommended measures include raising awareness of rational consumption, setting appropriate spending limits, and cultivating healthier gaming habits. These strategies aim to reduce adverse effects while achieving a more balanced gaming experience. The results provide meaningful insights into the consumption behavior of young Chinese gamers and provide practical recommendations for educators, policymakers, and parents to better support the well-being of young gamers.

Keywords: Psychology, Young, Online Game, Game Top-ups.

1. Introduction

The advent of online games in China can be traced back to the late 1990s. In the years that followed, the rapid development of technology and the expansion of digital infrastructure have contributed to the ascendance of online games as a dominant form of leisure and entertainment among Chinese citizens. The introduction of 4G communication technology and the proliferation of smartphones in 2013 have further accelerated the growth of China's Internet technology, propelling mobile online games to a position of prominence within the broader digital landscape.

Since then, Chinese online games have also occupied an important position in the global market. In 2023, the revenue of Chinese online games has reached nearly 270 billion, and the total number of users has reached 660 million, accounting for almost half of China's total population.

In the global market, Chinese game companies have also demonstrated strong competitiveness and influence. As the leading Chinese game companies, Tencent and NetEase have also occupied an important position in the global market with large-scale online games such as "Honor of Kings" and "Peace Elite". In addition, Tencent and NetEase have repeatedly won nominations and international game awards for their high-quality game works. Although these large game companies dominate

Chinese online games, some small and medium-sized companies are also beginning to emerge. For example, the large-scale open-world role-playing game Genshin Impact developed by Mihoyo has also achieved great success in the global market. Proving the innovation ability and influence of the Chinese game industry.

With the rise of China's gaming industry, China's influence on the global e-sports industry is also growing. By 2023, the size of China's e-sports market has reached nearly 20 billion yuan, which has greatly promoted the in-game consumption of mobile games and surrounding economic growth. More and more people pay to buy virtual equipment in games, and virtual currency is used to meet their psychological needs or to quickly improve their game progress.

Therefore, the Chinese government has also introduced relevant policies. In recent years, the government has strengthened supervision of the anti-addiction system for minors. It limits the recharge amount and game time of minors to regulate their gaming behavior. In addition, the government also more strictly reviews the games to be released to ensure that they conform to social and cultural orientations and are conducive to the physical and mental health of young people.

The rapid development of China's online games benefits not only from the advancement of China's science and technology and the expansion of the market scale but also from the creative thinking of Chinese game companies and their forward-looking global strategies. With the continuous development of technologies such as virtual reality (VR) and augmented reality (AR), China is expected to gain greater influence and achievements in the future global gaming market. This paper studies the motivations of Chinese online game consumers to top up in-game through an in-depth analysis of consumer behavior and psychology. This study provides theoretical reference and evidence for a better understanding of Chinese online game consumers and the huge online game industry.

2. Literature Review

In recent years, with the rise of China's online game market, more and more scholars and researchers have begun to pay attention to the consumption behavior and psychology of game consumers. Due to the promulgation and implementation of the anti-addiction policy for teenagers, researchers have also slowly begun to explore the impact of teenagers' recharge in games on them. More and more scholars are also exploring the consumption psychology of online game consumers and its influencing factors from different angles. The following is a review of relevant literature.

Through the research of Deci, Koestner, and Ryan, it was found that extrinsic rewards may weaken the intrinsic motivation of players. Extrinsic rewards are the extra rewards obtained by recharging the game. This means that if the player is interested in the game itself at the beginning when the extrinsic reward becomes the main driving force of the player, the intrinsic driving force for the game itself will decrease. Players may forget their original intentions because of the hope of obtaining virtual rewards or status, resulting in continuous consumption of the game. This may cause players to experience the "sunk cost effect". This means that players have invested a lot of time and money and it is difficult to stop spending [1]. The study by Laursen and Veenstra summarizes the influence of peers on teenagers' online recharge. Especially on social networks, when friends show their high-spending records in games on social platforms, young players often feel pressure and unwillingness, and then imitate this behavior. From this study, we can also see that young players tend to follow the crowd and imitate the behavior of others. And change their inherent consumption behavior and consumption psychology according to the behavior patterns of others [2]. The Norwegian Consumer Research Center found that children who buy virtual equipment and virtual items in games will improve their social status and popularity. Most children believe that by recharging in the game, they can gain the envy and recognition of other peers, and their status in the game will also rise. This study reflects how game design pressures and drives the younger generation to spend on games [3].

Chuang's study discussed the impact of game recharge rewards on player experience and social significance. This study pointed out that game recharge rewards can not only enhance players' gaming experience but also enable players to compete and socialize with each other. In addition, the game reward mechanism can also retain players who tend to spend in the game, so that they continue to recharge in the game to achieve higher game status and better gaming experience [4]. Chuang's research reflects how social recognition and belonging can make game consumers have positive emotions. The research shows that when game consumers feel a sense of identity in the virtual community, they will be more actively involved in community activities and consumption behaviors in the game [5]. This paper starts from the perspective of market influence. Barton et al. studied the impact of commodity scarcity on consumer shopping choices. Through multiple studies, the authors found that scarcity often effectively increases consumers' desire to buy. In addition, commodity scarcity can also make consumers feel a sense of urgency, thereby changing their shopping strategies [6]. Zhu & Tang's study explored the relationship between Chinese teenagers and children, the gaming market, and physical activity. The study found that teenagers and children who spend more time watching electronic screens and less time doing physical activity are more likely to have health problems such as obesity. The article emphasizes the importance of promoting youth activities and provides a basis and suggestions for policymakers [7]. Many scholars believe that excessive addiction to online games can also cause psychological problems in young people. Arain et al. pointed out that adolescence is a critical stage for brain maturation and remodeling. The article also discussed the diseases that adolescents are prone to during this period, such as depression and anxiety. It also emphasized the need for behavioral intervention for bad behaviors at this stage [8]. Excessive addiction to online games and excessive consumption will have a negative impact on the lives of teenagers. Bickham's research shows that teenagers are still in a vulnerable psychological stage and are easily influenced by the outside world. Even worse, they may become addicted to the Internet, which will in turn affect their studies, life, social life, etc. The literature also provides relevant intervention measures and methods [9]. The study by Kuss & Lopez-Fernandez shows clinical experience and treatment measures for Internet addiction. It also explores intervention measures such as psychological education and family education. These measures can help adolescents improve their mental health and control their Internet usage time [10].

Although there are many scholars conducting research in this field, few are studying the psychological aspects of Chinese teenagers' online game recharges.

3. Methodology

This study explores the factors influencing the online gaming consumption behavior of Chinese adolescents through a questionnaire survey. The research subjects are aged between 12 and 22 years old and are selected based on their online gaming experience and in-game purchasing experience. The investigation will be conducted within two weeks through channels such as Baidu Tieba and major game live-streaming platforms. Out of the 80 collected questionnaires, 73 were valid, but if there are patterns in the questionnaire such as selecting the same options for all questions, obvious patterns, completing the survey within one minute, etc., these patterns will be excluded, indicating insufficient participation.

4. Results

In this survey, the researcher conducted a quantitative study on the consumer psychology of online game recharge among Chinese teenagers, with a total of 15 questions. The data is presented in the form of percentages. The following is the calculated preference of the respondents.

When asked about gender, male respondents accounted for about 60% and female respondents accounted for about 40%. In terms of age distribution, the largest number of respondents were aged 16-18, accounting for 47%, followed by respondents aged 19-22, accounting for about 33%, and the smallest number of respondents were 12-15 years old, accounting for only 20%. When asked about the frequency of playing games, 70% of the respondents played games 3-5 times a week, and 30% of the respondents played games only once a week. The survey results of the amount of in-game recharges showed that 40% of the respondents recharged less than 50 yuan per month, and 20% of the respondents recharged more than 100 yuan per month. Even though most young players do not spend a lot on games, there are still young consumers with higher spending. When asked about the motivation for recharging, the survey showed that 50% of the respondents did so to buy virtual equipment, and 25% of the respondents did so to improve their game level or strength. However, 15% of the respondents recharged because they wanted to play with friends to achieve a better gaming experience. This also illustrates the potential impact of the social environment on youth consumption. When asked whether recharging in games is for the purpose of improving their social status in games, about 60% of the respondents believe that recharging in games can improve their status in games. About 20% of the respondents have made unnecessary expenses in games due to the influence of their social circles. Less than 10% of the respondents believe that it is irrational to spend money on virtual games to improve their status, and they are not affected by their social circles. This greatly highlights that teenagers are susceptible to social pressure and peer influence in the virtual world. When asked whether online game recharge has an impact on real life, about 30% of the respondents said that online game recharge will more or less affect their studies and finances. This phenomenon shows that online game recharge still poses some potential risks to teenagers that threaten their real lives. In terms of consumption regret, about 50% of the respondents said that they occasionally regretted recharging in games, 20% of the respondents had behaviors that they often regretted, and even 9% of the respondents regretted their recharge behavior very much. They said that this has seriously affected their lives. It is not only the pressure on finance and studies but also has affected their physical and mental health. When asked whether they would continue to top up online games in the future, 55% of the respondents said they would reduce the amount and frequency of top-ups, 35% said it depends on the situation, and only about 5% said they would not reduce top-ups. This shows that the vast majority of young people will think more carefully, and we can also see their reflection.

Overall, most teenagers are influenced by friends' pressure, game status, and virtual goods, which reflects the potential impact of online game recharge on them. But at the same time, most teenagers regret the recharge behavior, which also reflects their reflection on current consumption behavior and their motivation to self-regulate.

5. Discussion

Through research and literature review, we can get three results about teenagers' online recharge. This study will explore and analyze the main reasons affecting teenagers' online game recharge, the pros and cons, and intervention measures.

The survey results show that the social circles of young consumers have a significant impact. The survey results show that more than half of young consumers said that their friends' recharge behavior has a direct impact on them. Players who do not want to recharge in the game also incur unnecessary expenses in order to have a common gaming experience with their friends.

This may be due to the following reasons. First, herd mentality is driven. In a group of young people, the behavior of friends may play a leading role. If a friend frequently recharges in the game, he or she will also want to imitate this behavior to avoid falling behind in the social circle. And if a friend shows the virtual rewards he or she has received for recharging on a social platform, the player may spend money in the game because he or she wants to follow the "trend". The second one is social

comparison. Generally speaking, spending on the game can obtain virtual equipment or improve the game ranking. When young people see that their friends have rare equipment, items or extremely high game rankings bought at high prices, they will inevitably compare with their friends. This comparison often leads to one consequence, that is, they also start to recharge. Third, the need for social activities. Most games have a team function, which generally requires young people to obtain specific accumulated recharge equipment or props to open this gameplay. At this time, young people have to recharge in order to be able to team up with friends to play games online.

The impact caused by these reasons has both advantages and disadvantages. There are many benefits of recharging for socializing. First, it strengthens friendship and spiritual connection. By participating in activities with friends and recharging together, the friendship between young people will be strengthened, and the interaction and communication between each other will be enhanced. Second, have a better gaming experience. Recharging with friends may get more virtual rewards and a richer gaming experience. This will also greatly increase the fun between players. Third, cultivate social skills. When players and friends recharge together, communication and exchange are inevitable. And young people, especially teenagers, can better understand team spirit and improve social skills.

However, recharging games due to the influence of social circles can also have negative effects. First, economic pressure increases. Due to the herd mentality, young people may spend some unnecessary money to recharge games. This will lead to increased economic pressure and even bring a great burden to real life. Second, social anxiety increases. When friends in the social circle and individuals cannot reach a unified consumption, individuals will feel pressure due to comparison and even anxiety. Worrying about being excluded from the social circle will lead to increased psychological pressure. Third, the risk of Internet addiction increases. Due to the influence of their social circles, young people may invest a lot of money and time in games to keep in touch with their friends. This may increase their dependence on the virtual world of the Internet, or even worse, escape from the real world and eventually become addicted to games, which in turn affects their studies, finances, and normal life.

In order to maintain the positive influence of social circles on young people, young people can be encouraged to transfer the social skills learned in the virtual world of the Internet to the real world. And offline interactions can be organized, such as family dinners, going out with friends, etc. This can promote face-to-face communication among young people and improve the physical sub-health caused by young people often staying at home playing games. For negative effects, intervention can be made by cultivating rational consumption concepts. By providing young people with financial management courses, financial literacy education, and rational consumption guidance, young people can have the ability to think rationally when facing temptation. And this also has a good auxiliary effect on the future development of young people.

The second survey result shows that game recharge rewards and promotions have a key impact on young people's consumption strategies. There are three main reasons for this result. First, it lacks rational thinking. Young people lack sufficient judgment before entering society. A large amount of promotional information in online games may attract immature young people to fall into the trap of consumption step by step. Second, the influence of game mechanisms. Many online games have designed complex game reward mechanisms to guide players to consume. This design can easily make young players addicted to the game and increase their recharge frequency. Third, it is driven by psychological needs. Younger players may not have a complete set of values, so they often seek a sense of belonging and identity in the game. And online games can meet their needs, so this will also make them more willing to recharge.

This phenomenon can be divided into two aspects: positive and negative. There are two main positive effects. First, it helps players learn new knowledge. In some educational puzzle games, an appropriate recharge will help young players' thinking abilities. Second, for game companies,

promotional activities can greatly increase the activity of the game and bring benefits to the company. There are also two negative effects. First, the psychological pressure increases. Over-reliance on the virtual world may cause young players to have anxiety and depression symptoms. Second, the economic burden increases. Young players may spend too much money on promotional activities, which makes them overburdened.

In order to maintain positive influences and improve negative influences, two measures can be taken. First, it sets a consumption limit. Parents and students jointly develop consumption plans and set a maximum consumption limit to prevent impulse consumption. Second, it enhances consumption awareness. Let young people have a deeper understanding of the "routines" of promotions and encourage them to reflect before spending money on games.

6. Conclusion

This study examines the consumption psychology of adolescents in online games, especially the motivation, influencing factors, and the impact they bring to the game top-up behaviour. The results of the study show that promotional activities and top-up rewards have a significant influence on teenagers' top-up decisions. The main reasons include the drive of psychological needs, the consumption decision under limited rationality, and the incentive mechanism in game design. In addition, adolescents' in-game spending behaviours have the potential to enhance the game experience and engagement, but they may also bring about financial burdens, addiction risks, and mental health problems.

In order to reduce the negative impacts of online game top-up behaviours, interventions can be implemented, such as raising adolescents' consumption awareness, setting reasonable consumption limits, and guiding healthy gaming habits. These strategies can help adolescents not only enjoy the fun of gaming but also maintain rational consumption behaviours, which in turn can promote their psychological health and quality of life.

Overall, this study provides new perspectives for understanding adolescents' online game consumption psychology, as well as a theoretical basis for the development of related interventions. Future studies can further explore the influence of a wider range of factors on game consumption behaviours, as well as more effective intervention strategies, in order to help adolescents establish healthy online game use habits.

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