

From Attraction to Dependency: The Inducing Traps of GACHA Mechanisms in GACHA Games and Their Impact

Haohan Yuan *

Chengdu No.7 High School, Chengdu, China, 610041

* Corresponding Author Email: my2160@nyu.edu

Abstract. With the rise of digital entertainment, the phenomenon of GACHA in games has become increasingly common, attracting widespread social attention. GACHA games are a form of non-transparent sales where players purchase chances to randomly obtain in-game items or characters. This mechanism has been widely applied in many online video games, especially in free-to-play games, where it is designed to encourage in-game purchases. This paper aims to explore the inducing traps of GACHA mechanisms and their impact on the game market and player behavior. Through literature review, the social issues and industry development issues caused by GACHA in games are analyzed, pointing out that existing studies have mainly focused on game quality and player motivation, while neglecting the inducing traps in game design. This paper adopts case study methods, selects two popular games, "Genshin Impact" and "Honor of Kings," and deeply analyzes their GACHA mechanisms. Combined with interviews with senior game designers, it reveals how game developers induce players to GACHA through means such as the "foot-in-the-door effect," sunk costs, recharge exchange ratios, increasing secondary game content, and strengthening social status after recharging. The study points out that GACHA mechanisms not only lead game companies into a low-quality internal competition but also may trigger players' excessive consumption behavior. The article finally suggests that through policy restrictions and market self-adjustment, it is expected to guide the game industry towards healthy competition and promote healthy development.

Keywords: GACHA Games, Inducing Traps, Game Market, Player Behavior, GACHA Mechanisms.

1. Introduction

With the vigorous development of digital entertainment, games have become an indispensable part of modern people's lives. However, discussions surrounding in-game purchases and GACHA behavior have also become increasingly intense. GACHA in games refers to the behavior of players using real money to purchase virtual items or services in the game. For game developers, GACHA is currently the most efficient and common profit model in the gaming field. Through GACHA, players can avoid tedious tasks, quickly obtain various game resources, and acquire rare equipment and appearances. To some extent, GACHA belongs to a two-way pursuit between game developers and players. However, at the same time, the widespread promotion of GACHA mechanisms and the gradual over-reliance on GACHA mechanisms by game developers lead to a deep binding of game content to GACHA mechanisms, triggering a series of problems and widespread controversies, such as the phenomenon of minors GACHA. This paper aims to study how the payment mechanism is embedded in the gameplay and make a horizontal comparison by selecting two games with strong profitability from the current popular games on the market. At the same time, through research interviews with senior game designers, it explores how game manufacturers hide GACHA traps behind the coupling mechanism of game content and GACHA models. On this basis, the underlying logic of GACHA mechanisms, the causes of game GACHA, its impact, and how to alleviate this phenomenon to a certain extent are discussed.

2. Literature Review

The series of social issues and industry development issues caused by GACHA games have attracted great attention in recent years. However, related research mainly focuses on how game

manufacturers attract players to recharge from aspects of marketing promotion, game design, and user experience. For example, a study by Zhang Chunhua and Wen Lu published in 2018 shows that the quality of game content itself, such as entertainment, innovation, and value perception, has a strong positive effect on player recharge consumption [1]. Another part of the research, such as the study by Cao Shule and Xu Xinyi in 2020, mainly focuses on the self-motivation of players to recharge, such as the social nature of the game [2]. Although the above literature has in-depth studied the influence of players and the quality of the game itself on player consumption, it has not delved into the psychological and actuarial aspects of the inducing traps set by game manufacturers to subconsciously increase players' endless GACHA tendencies. This paper will focus on how GACHA games attract players to recharge regardless of cost through various traps or other means by comparing case analysis and expert research interviews.

3. Case Introduction

3.1. Case One: Genshin Impact

"Genshin Impact" is an open-world adventure game produced and distributed by Shanghai MiHoYo Network Technology Co., Ltd. Since its release in 2020, Genshin Impact has quickly become popular and occupied the market, with its revenue consistently ranking in the top three of mobile game revenue, and ranking first in the bestseller list of 44 countries and regions. The main revenue method of Genshin Impact is through player recharge or completing game tasks to obtain "Primogems," which are used to exchange for drawing opportunities. The rewards drawn can enhance the attributes and appearance of game characters from different perspectives. The rewards of Genshin Impact's drawing system are characters and weapons, with characters divided into four-star and five-star characters, and weapons ranging from one star to five stars, with drawn weapons being three to five stars. There are three types of drawing pools: character pool, weapon pool, and permanent pool.

From the game mechanism, the characters and weapons obtained from drawing have a decisive effect on the attributes of the player's game characters. However, the acquisition method of the drawing consumable - Primogems is not mandatory recharge. There are several main ways to obtain it, one is to get it for free in the game, and it is one-time, including various task and exploration rewards; the second is to get it for free in the game, and it is a normal state, according to daily tasks, monthly tasks, and version tasks to obtain activity rewards. In addition, there are recharge methods such as monthly cards or direct recharge. Therefore, if players want to better experience the game content, they either need to spend a lot of time doing various daily and monthly tasks to save Primogems to get drawing opportunities to strengthen game characters, or recharge the game directly to get Primogems. That is to say, the GACHA mechanism of Genshin Impact itself requires players to choose between spending a lot of time and money.

3.2. Case Two: Honor of Kings

"Honor of Kings" is a MOBA type domestic mobile game developed and operated by Tencent Game's TiMi Studios on the Android and iOS platforms. It was officially launched on the Android and iOS platforms on November 26, 2015. The gameplay of Honor of Kings is mainly competitive combat, with players engaging in various ways of PVP combat such as 1V1, 3V3, 5V5. After meeting the conditions, players can participate in the game's ranking competitions, and they can also participate in the PVE level mode, which is a tower-pushing type of game. Since its release, Honor of Kings was not initially optimistic, but with the support of its social attributes, it gradually occupied the market and has been sitting at the top of the mobile game revenue list for many years.

Honor of Kings belongs to the player-vs-player strong competitive game. For strong competitive games, recharging to enhance the game character's attributes would greatly weaken the game's competitiveness, leading to the loss of game players who pursue competitiveness. Therefore, what Honor of Kings recharge can exchange for is only character skins, and character skins usually only symbolically strengthen a little game attributes, without destroying the game's competitiveness. This

setting mechanism is called "paying without interrupting the game process" in the gaming industry. Because competitive games require skillful games, players need to use a certain game character for a long time and produce enough proficiency. Therefore, players will also develop a certain emotional attachment to the character in this process, and obtain skins through recharge to show their love for the game character, satisfy their own collection hobbies, and show their proficiency and sense of achievement. However, in the process of recharging for skins, Honor of Kings also has two ways, one is to recharge directly to obtain, and the other is to recharge and draw cards for a probability to obtain. For skins with lower design, game developers usually set them as direct recharge to obtain, and for skins with higher design, developers usually set them as a probability to obtain through card drawing.

4. Case Analysis

4.1. Reason Analysis

From the analysis of the above two cases, the GACHA mechanism of the game is mainly divided into two modes: recharging that affects the game process and recharging that does not affect the game process. For weak competitive games, recharging to skip secondary game content and directly access the main game content is the core point to attract players to recharge. For strong competitive games, recharging to satisfy players' collection hobbies, display proficiency, and sense of achievement is the core point to attract players to recharge. However, the above game play and recharge coupling mechanism cannot explain the current prevalence of GACHA phenomena and the series of social issues it has caused. Because under the above mechanism, players are more likely to act within their means, financially comfortable players may recharge to skip the game process or buy skins, and financially tight players may spend more time completing game challenges or playing with original skins. The behavior of players overdrawing their income or minors stealing parents' bank cards to recharge is still hidden behind the above game mechanism. The main reason for the prevalence of GACHA phenomena is the carefully designed traps in the game design process, mainly including the following points.

4.1.1. Recharge threshold effect

The threshold effect, also known as the "foot-in-the-door effect," is a psychological phenomenon that refers to people being more likely to accept a smaller request (threshold) at the beginning, and once they accept the smaller request, they are more likely to accept a larger request [3]. In the recharge interface of Genshin Impact, Honor of Kings, and common games on the market, it can be seen that all games usually set up a first recharge gift pack. This kind of first recharge gift pack is usually cheap, only needing 6 yuan to get game rewards that far exceed the price. This lower consumption threshold avoids too much consumption pressure, making players more willing to make their first consumption. At the same time, this kind of first recharge gift pack usually comes with a high sense of value, thereby attracting players to generate a desire to pay and complete the threshold crossing of the first consumption behavior. This process not only promotes players to complete the first consumption but also paves the way for subsequent consumption behavior, making players more likely to make subsequent high-value consumption. In addition, after the first recharge, the player's payment method is also recorded, greatly increasing the convenience of the next recharge and promoting the possibility of player recharge. This situation has led to minors participating in recharge, and their parents' bank payment information is saved in the game, and subsequent recharges can be made without parental consent.

4.1.2. Sunk costs and precisely designed recharge exchange ratios

For some props and skins obtained by lottery, game designers will precisely design the lottery recharge exchange ratio, single lottery cost, batch lottery cost, and lottery cost that changes with the number of lottery draws. For example, it costs 6 yuan to draw a prop once, but the minimum single

recharge needs to be 10 yuan, and the larger the amount of recharge, the greater the recharge discount. Usually, it takes dozens of draws to possibly draw it, thereby inducing players to recharge in large amounts. In addition, designers will also set up discounts for the first few draws to induce players to recharge and try. As the number of lottery draws increases, the discounts for subsequent draws are canceled or continue to decrease. If the player gives up the lottery, the cost of the previous draws all becomes sunk costs, leading the player to continue recharging until they draw it.

4.1.3. Artificially increasing secondary game content

Under the mechanism where recharge affects the game process, game designers usually deliberately increase the number of tedious tasks in the game process, reduce the rewards obtained from tasks, increase the difficulty of the game, and weaken the strength of the props obtained by recharge in the previous version to enhance the player's motivation to recharge and skip the tedious game links. Even designers will deliberately target non-GACHA players, designing some game links that, after the player spends a lot of time, consume the player's previously accumulated game props through the link, causing the player's game progress to regress, and enhancing the player's tendency to recharge and skip the link.

4.1.4. Strengthening the enhancement of social status after recharge

For some props and skins that can only be obtained by lottery, designers will deliberately reduce the acquisition probability of the prize or set it as a limited-time acquisition, increase the lottery cost, artificially reduce the acquisition rate of the prize, and increase its rarity. The acquisition rate of some prizes is so low that it may take tens of thousands of yuan to obtain. After obtaining such props, players will attract great attention in their game social circle and show their economic strength [2]. Studies have found that the above phenomenon occurs more frequently when players play games with real friends, and players tend to buy virtual items more frequently and spend more. This indicates that players' social networks and the need for social recognition may affect their consumption behavior [4].

4.2. The Impact of GACHA Mechanism on the Game Market

4.2.1. Low-quality internal competition

The evolution of the game payment mechanism has experienced a buyout system, a monthly card system, and now the mainstream GACHA system [5]. The buyout system means that players pay once and can enjoy all the content of the game, and there is no subsequent payment. However, this model requires developers to maintain the game continuously. Once the number of new players decreases, the income cannot cover the expenditure, and the game eventually stops operating. The monthly card system requires players to pay for playtime, and in this case, the number of active players is the lifeline of the game company. In order to maintain the number of active players, developers need to continuously design new game content. In the view of game companies, it is not cost-effective to design a large amount of game content and only charge by time. Games that are free to play and charge for props, that is, GACHA games, only need to embed recharge into the gameplay through the above trap design, artificially create or enhance players' willingness to recharge, and spend far less than other game companies to update the game content in low quality, and they can obtain a large amount of cash flow. On the one hand, GACHA game developers have obtained a large amount of cash flow, and they have a huge advantage in company competition, such as poaching employees and game promotion. On the other hand, the success of the GACHA model has led many game companies to transform into GACHA game developers. This is also the reason why most games on the market in recent years are called skin-changing games. By changing the character models and map modes of the original game, the gameplay and story background are not much different, and they can be transformed into a brand new game to continue to absorb gold. Different game companies, under the same game content, engage in low-quality, high-intensity internal competition on art, character attributes, and GACHA traps, while neglecting the development and exploration of game content and game culture, leading to the game industry's development stagnating.

4.2.2. Excessive consumption by players

Because of the various inducing recharge traps set by game companies, it is inevitable for players to be attracted to recharge. In order to obtain the desired props, characters, and equipment, players overdraw their income, exhaust their wealth, or steal and swipe their parents' bank cards, causing a lot of property loss, and may even end up with nothing. Based on this, the National Press and Publication Administration issued the "Draft for Comments on the Management Methods of Online Games" on December 22, in which Article 18 clearly points out that "restricting excessive use of games and high consumption" online games shall not set daily login, first recharge, continuous recharge, and other inducing rewards. Online game publishing and operating units shall not provide or condone high-priced transactions of virtual props through means such as hype or auctions. All online games must set a limit on user recharge and publicize it in their service rules, and should give a pop-up warning reminder for users' irrational consumption behavior. Article 27 points out that online game publishing and operating units should make reasonable settings for the number of draws and probability when providing random draw services, and should not induce excessive consumption of online game users. At the same time, they should provide users with other ways to obtain the same performance virtual props and value-added services, such as virtual prop exchange and direct purchase with online game currency [1]. Although the above policies strictly limit the recharge traps of GACHA games, they are still mixed past by game companies in various "edge ball" ways in the actual operation process. For instance, players can recharge to exchange for worthless game props, and give away draw opportunities to bypass policy restrictions; although it is required to clearly state the draw probability and draw times, it is impossible to precisely supervise, and game manufacturers can adjust the winning probability in real-time; if the props obtained by drawing must have a direct purchase channel, they can be directly marked as high-priced.

5. Conclusion

At present, the mainstream way of income in the game industry is the GACHA mechanism. Based on previous studies, this paper innovatively proposes that the core factors affecting players' consumption and recharge behavior, leading to frequent GACHA chaos, are not the quality of game design or players' self-motivation, but the inducing recharge traps set by game developers. The GACHA mechanism is mainly divided into two modes: recharge that affects the game process and recharge that does not affect the game process. For these two recharge modes, game development companies have set traps such as the "threshold effect," sunk costs, recharge exchange ratios, increasing secondary game content, and strengthening social status after recharge to induce players to recharge. On this basis, game companies are competing to enter the GACHA game field to earn higher game profits and maintain the company's industry competitiveness, thus falling into a low-quality internal competition, leading to slow development of the game industry. On the other hand, a large number of inducing recharge traps have exhausted the disposable wealth of young people who are prone to impulsive consumption and minors with weak value judgment capabilities. Although national policies have gradually begun to restrict the recharge traps of GACHA games, they are still bypassed by game manufacturers in various "edge ball" ways, and the market environment and market atmosphere have not been effectively improved. The game industry has not yet moved from low-quality internal competition to healthy competition. By sorting out and digging out the coupling mechanism of recharge and game content behind GACHA games and the set inducing recharge traps, it can provide a direction for restricting the low-quality internal competition of GACHA games and moving towards healthy competition. By formulating targeted policies, such as strictly limiting various traps like the sunk costs of players stopping recharge can be reduced by player transactions, and the recharge exchange ratio and the cost of drawing required are strictly consistent or other workable policy to reduce the return rate of GACHA games, thereby forcing game companies to turn to in-depth development of the game content itself and move towards healthy competition. In the future, related research can be based on this study, in-depth study of the similarities and differences

in consumer behavior in domestic and foreign game industries, whether there are inducing recharge and other GACHA traps in the foreign game field, and in view of its game industry history, explore how countries with more developed game industries have walked out of inducing GACHA, low-quality internal competition, and thus promote the healthy development of the game industry.

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