Analysis on the Current Situation and Future Development of China's Mobile Game Market Based on Classification and Enterprise Strategy

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Abstract: Since the release of smartphones, mobile game market has become a market that can not be ignored. Mobile phones are easy to carry and control, making them a good game carrier in addition to their original functions. Since the development of mobile games, the market environment has undergone many changes, and the games leading the market are different from those before. This paper focuses on collecting data on the income and the active number of major mobile games at home and abroad. It also analyzes the current situation and causes of China's mobile game market by combining the concepts and methods related to management and strategy. The author conducts a SWOT analysis on some influential games and their production companies, which will more intuitively show the mainstream operation mode of the current mobile game market. The prediction of the possibility of subsequent market changes is also one of the research objectives of this paper. The analysis of the game market and the game company can reflect the market trend and the possible change to a certain extent. In the future, there are still full of opportunities and challenges in the mobile game market. Companies that intend to enter the market or are already in the market will face the rapidly changing market environment and challenges in all aspects. Whether enterprises can understand and adapt to the market trend in time will be the key to success.

Keywords: mobile game, red sea, market, player, IP, technology

1. Introduction

The first influential game in the world appeared in 1961. "Spacewar!" written by Steve Rousseau started the era of electronic games. In 2007, Jobs released the iPhone 2G, which was the prelude to the smartphone in thunderous applause [1]. In the next few years, smartphones and games, the two booming industries, gave birth to a new market: the smartphone game market. Before the advent of smartphones, there were some relatively simple games on mobile phones, which also showed that people always wanted to play games on mobile phones, even though portable game consoles had emerged at that time. However, the development of more powerful hardware, more convenient operation, larger screens, and mobile Internet of smartphones has created more room for the development of games. Since the development of mobile games, their leading products and market environment have undergone great changes. This paper focuses on the analysis of the current

situation of China's mobile game market from the perspective of management and strategy, including the dominant games, the internal and external reasons for this achievement, and the differences between China's market and that of other countries., which are mainly related to the consumer orientation and the audience. The specific situation will be explained by the data below. A brief SWOT analysis is also made in this paper, concentrating on some representative and influential games and their production companies, and explaining what strategies and characteristics these companies can use to occupy a market place. Through the above analysis, this paper can predict the possible changes in the future mobile game market.

2. The Rise of Mobile Games

The emergence of electronic games was in the middle of the last century. Up to now, it has continued to develop for more than half a century. The game carrier has also developed from the original arcade, mainframe, and handheld computers to PCs and mobile games. With the upgrading of technology, electronic games have gone through five generations. In 2007, Jobs released the first generation iPhone, and then smartphones began to flourish. Mobile Internet also developed rapidly with smartphones. With the development of these two, the era of mobile Internet has come. Mobile games began to develop rapidly in 2010 and really ushered in its golden age. Figure 1 reflects the change and growth in the number of mobile game users in China from 2008 to 2018.
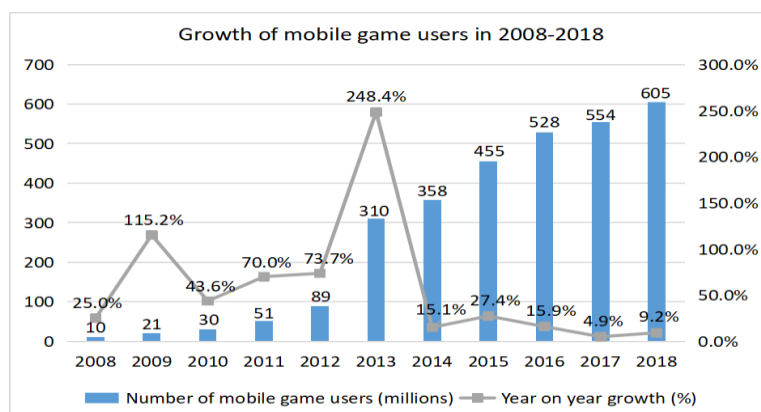

Figure 1: Growth of mobile game users in 2008-2018.

It can be seen from Figure 1 that since 2008, the number of mobile game users in China has kept growing. In 2013, the number of mobile game users increased by 248.4% year on year, and the number of mobile game users directly increased to 310 million [2]. The reason why the mobile game market broke out so violently in 2013 has a lot to do with the huge mobile user group and the high profits of mobile games. At the end of 2012, the number of mobile phone users in China reached 420 million, and the number is still rising. According to statistics, nearly 70% of mobile phone users will play games at least once every 2-3 days, and nearly 40% of users play mobile games every day. As mobile games have a certain market base, they also have strong profitability. In 2012, many games achieved an annual income of one million, which also led to explosive growth in the number of mobile games. After all, everyone wants to get a dividend from them [3]. By 2013, 18 games with a monthly flow of more than ten million have appeared, and millions of games are not rare. In this situation, many small manufacturers are still trying to enter the mobile game market. Chen Haozhi, the chief executive officer of the R&D enterprise of the famous game "Fisherman" at that time, said that there were 5000 mobile games under development in China, and 3000 mobile games entered the test. On average, a mobile game can only be divided into tens of thousands of players. This explosive growth also means that the market growth space is reduced. China's mobile game market is rapidly

entering the Red Ocean from the Blue Ocean, and the competition is becoming increasingly fierce [4]. The Blue Ocean market refers to a new market whose boundary has not been completely determined and fully developed. The Red Ocean market refers to a market with fixed borders and fierce competition. From 2014 to 2018, the dividend of mobile Internet users has almost been exhausted, and the growth rate of mobile game users has dropped significantly. Although the number of users can still reach 554 million in 2017 and 605 million in 2018, the year-on-year growth rate is only 4.9% and 9.2%. However, in 2018, China's mobile game market will face a great impact.

3.   China's Mobile Game Development Environment

To produce a game in China, there is a need to first pass the preliminary review of the Ministry of Culture and Tourism, and then the approval of the State Administration of Press, Publication, Radio, Film, and Television. The full name of the approval document approving the online operation of the relevant game publishing is "Approval of Online Game Electronic Publications", also known as the game version number. Most types of games in China need to apply for version numbers before they can be launched. This is also a document concerning the life and death of a game company. In March 2018, the release of the game version was suspended, which caused a stir in the entire Chinese game industry. Large and small players complained incessantly. Large players could barely rely on the version they had accumulated for a period of time, while small players who gambled all their efforts on their upcoming games encountered huge difficulties. However, the unreleased games are not the only ones that have suffered heavy losses. The Ministry of Education, the National Health Commission and other national departments jointly issued a Comprehensive Plan for the Prevention and Control of Myopia among Children and Adolescents, saying that they will "implement the regulation of the total amount of online games and control the number of new online game business operations". The next day after the document was issued, Tencent, Netease and other Internet companies and game companies saw their share prices fall sharply. Before that, all kinds of popular chess and card games were also pointed out to be related to "gambling", so they were rectified and even stopped taking [5]. Nine months later, in December 2018, the release of the game version number was resumed. By April 2022, more than 2000 mobile games had been launched. Although the number is not as large as that before 2018, the quality of the game has been guaranteed due to stricter reviews.
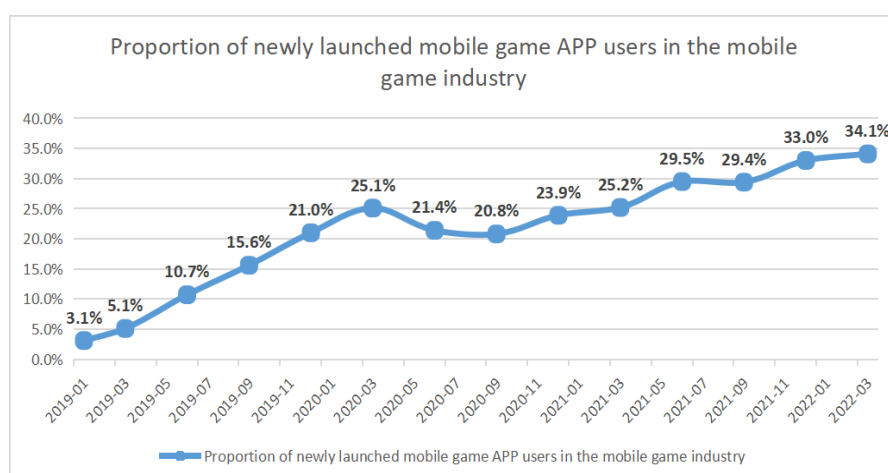

Figure 2: Proportion of newly launched mobile game APP users in the mobile game industry.

Figure 2 shows the proportion of the newly launched mobile game users to the total number of mobile game users in the mobile game industry from the release of the version number to 2022. It can

be seen that, except for a slight decline in 2020, overall mobile game users are on the rise. In 2022, the newly launched mobile game users will account for one-third of the total market [6]. Based on the above information, since mobile games became popular, great changes have taken place in the market environment, user groups, and policy environment. As a relatively young industry, the mobile game market is still full of uncertainties. However, if enterprises want to gain an advantage in the next competition and know the current market situation, user needs and competitors are still the top priority.

4. Classification of Mobile Games

The current mobile games can be divided into two categories: original games and Intellectual Property (Hereinafter referred to as IP) adaptation games. These two categories are different in target markets, marketing strategies, and company management policies. IP-adapted games include game IP adaptation, animation IP adaptation, film and television novel IP adaptation and other types, which are characterized by high initial traffic. Because there will be many fans under the IP, including many users who want to play IP-adapted games. Such games can have a certain number of players without much publicity. Different IP sources will also bring different platform effects. For example, animation IP brings players from different platforms according to the different video platforms of animation. However, since the original IP game has no previous work accumulation, its players must strive for it by themselves. Strengthening the publicity of their own products has become an essential factor. In addition, to retain players, original games should have high quality and attract players to play for a long time without giving up quickly because of boredom or other reasons. The current situation caused by this characteristic is that IP-adapted games will get a high user peak when they are first launched, while the original games can maintain a long average usage time. However, IP-adapted games also have a limitation, that is, they can only develop games with the authorization of the corresponding IP. However, there will naturally be many competitors for the more popular IP, and it will be difficult for smaller manufacturers to win over large manufacturers such as Tencent and NetEase in this competition. Therefore, in many cases, small manufacturers can only rely on independently developed original IP games if they want to win space in the market. This phenomenon is not bad for players. Original games can only gain advantages through publicity and quality, so that players can play more high-quality games, rather than games that have no innovation in methods and are just used as money-making tools by changing skins. However, for some manufacturers with an insufficient budget, it will be more difficult to survive.

5. SWOT Analysis of Major Related Enterprises

In China, there are several manufacturers that can well cover the existing game types and mobile game operation modes. In the following parts, a SWOT analysis of these manufacturers is conducted to further analyze the current market situation.

5.1. Tencent

Founded in November 1998, Tencent Computer System Co., Ltd. has become one of the Internet enterprises serving the largest number of users in China and has been selected as one of the world's top 500 enterprises many times. Tencent has many outstanding achievements in the Internet industry, including QQ and WeChat, China's largest social platforms. It also has great achievements in the mobile game industry. Its game development and operation organization, Tencent Games, was founded in 2003. Its technology and scale are leading in the world, and it has a number of studio groups. It is also responsible for the development and operation of various games. Its famous

products, "King Glory" and "Peace Elite", often rank among the top two in the download list and flow list of major mobile application markets.

Table 1: SWOT analysis on Tencent.

Strength:	Weakness:
Tencent, as China's largest Internet manufacturer, has a top level of resources, finance, and technology. In addition to original IPs such as Glory of Kings and Game for Peace, there are also many mobile games adapted from popular animation IPs, such as Naruto mobile games. And because of its top technology and talents, Tencent also guarantees the quality of its games.	Games created by Tencent lack innovation. Most of the games released by Tencent are based on the underlying design framework of existing games in the market, supplemented by some micro innovation. Games produced in this way are of low risks, and playability can be guaranteed. However, there is still a big gap between micro innovation and full innovation, so Tencent has always been the focus of public opinion. Many netizens associate Tencent with plagiarism.
Opportunity:	**Threat:**
In recent years, the popularity of domestic animation has gradually increased, and domestic attention to animation games has also increased. In this environment, games adapted from animation IP will be popular in the market. Tencent has strong financial resources, which is a great advantage in the competition of obtaining IP authorization. Compared with some small manufacturers, more IPs are gaining popularity faster through large manufacturers like Tencent, and the risk will be lower.	In China, one of Tencent's biggest competitors is NetEase. NetEase's strategy in the mobile game industry is very similar to Tencent's, and it also has many famous original IPs (such as Onmyoji) and IP-adapted games (such as Harry Potter: Magic Awakening). In addition to Tencent's games, NetEase's games are the most popular ones in the ranking of major mobile application markets.

As illustrated in Table 1, Tencent currently has an unshakable market position and promising development in China. If some changes can be made in the direction of mobile game research and development in the future, more innovations with rich resources can be achieved, and public opinion can be improved, Tencent can obtain a more stable position in China's mobile game market. Tencent Games has also added a new keyword for mobile games, namely, socialization. Both "Glory of Kings" and "Game for Peace" games encourage players to socialize, including logging in directly with WeChat accounts, automatically identifying friends who have played these two games in WeChat and adding them as game friends. In the game, players are not only pursuing the pleasure of competitive competition, but also fighting together with friends, which can make players feel good and gain a sense of identity [7]. Maslow's hierarchy of needs theory divides people's needs into five levels from low to high: physiological needs, security needs, social needs, respect needs, and self-realization needs [8]. The socialization of mobile games can meet the social needs, and self-realization needs are also likely to be met in social activities through mobile games. However, this is not something that any mobile game can emulate. Especially when the popularity is limited, too much social networking may lead to the loss of existing players because no one can be found to play with.

5.2. Bilibili

Founded in 2009, Bilibili is now a cultural community and video platform with a high concentration of young people in China. It also has the largest ACGN (Anime, Comic, Game, Novel) network community in China. Bilibili is an important distribution channel for the ACGN games in China. Different from Tencent and Netease, Bilibili is mainly used as an agent and publisher of games, not as a developer. The introduced foreign mobile games are not rare in China's mobile game market. Due to language and network problems, it is difficult for Chinese players to play high-quality mobile games abroad, and agents can solve this problem well. For example, the Japanese company Cygames produced the mobile game "Princess Link! Re: Dive" in 2018. Because of its excellent character shaping and sufficient game benefits, the game also has great popularity in China's ACGN community.

Table 2: SWOT analysis on Bilibili.

Strength:	Weakness:
Bilibili has a certain brand effect. Since it was founded in the early days, it used the ACGN as the main selling point. Over the years, it has accumulated many domestic ACGN fans. In addition, reasonable publicity and the recommendation of video creators on the platform can easily attract a certain number of players. Because of its large scale and wide popularity, it]has a strong competitive ability in fighting for the agency.	The main business of Bilibili is video websites. Due to the rise of short videos in recent years, many traditional video platforms, including Bilibili, have been impacted, losing some viewers. In recent years, due to more strict audits and other reasons, the introduction speed of Bilibili in animation is not as fast as before, which has made many audiences who use Bilibili for this reason reduce the use frequency or even stop using it.
Opportunity:	**Threat:**
Similar to Tencent's opportunities, the popularity of domestic animation and the attention paid to the animation and game industry are also opportunities that Bilibili should seize. By using its own advantages to catch up with this trend, it can maintain its advantages in the next market competition.	The competitors of Bilibili are mainly other agents. Although Bilibili is currently the largest agent in China's ACGN game, due to the uncertainty of the agent product, it is likely that the agent will be attacked by the public to some extent due to the unreasonable operation strategy or improper behavior of the original manufacturer of a product. If the circumstances are more serious, it is likely to lead to the loss of market trust and affect the development of subsequent businesses.

The national service of the game was tested in China by Bilibili in 2020, which attracted a lot of players because of its popularity. The biggest advantage of this approach is that it does not need to develop a game from scratch, thus saving a lot of manpower and material resources. However, because there is no ownership of the game, there is no control over the future direction of the game, and only part of the profits can be obtained from it. In addition to foreign games, Bilibili has also undertaken the agency distribution and publicity of many small domestic manufacturers' works, and even invested in some of their works. This kind of behavior of encouraging manufacturers to make

games has certain benefits for the development of China's mobile game market. For small manufacturers, publicity and budget are big problems.

The main business of Bilibili in the mobile game industry is the agency, so its influence on the production and operation of games is limited. Only some of the games that participate in the investment can give suggestions to a certain extent. Therefore, there is great uncertainty about the market impact of Bilibili in the mobile game industry. However, due to the small workload of agents, the number of games represented by Bilibili is hard to match that of other manufacturers, which reduces the risk to a certain extent. In the future, perhaps Bilibili can try to develop more games independently. As an Internet manufacturer, Bilibili also has some technical strength, human resources and other resources. If more independently developed games can be available, it can reduce risks to a large extent and stabilize its market position.

5.3. Mihoyo

Mihoyo Technology Co., Ltd. was registered and established in 2014. Different from Tencent and Bilibili mentioned above, original games are its main business. Mihoyo mainly focuses on superb technology, and independently developed original games are popular at home and abroad, breaking many market records. In 2016, the independently developed "Collapsed 3rd" by Mihoyo went online. 3D action games were not common in the mobile game market at that time, most of them were 2D and 2.5D, so Collapsed 3rd soon achieved good results. In addition, the collapse of 3rd also means that China's self-developed ACGN games have begun to enter the overseas market. At that time, China's mobile game market was already a Red Ocean, and large companies such as Tencent and Netease occupied a large part of the market, so many independently developed games in China focused on overseas markets. The collapse of the 3rd was an example of success in overseas markets [9]. In September 2020, another work of Mihoyo, "Genshin Impact", was launched, which completed the unprecedented global release and attracted the attention of the world. At the same time, the first month's water flow exceeded 245 million dollars (global IOS+Google Play only), becoming a phenomenal product that cannot be surpassed in the short term [10]. The success of Genshin is not accidental. Mihoyo's emphasis on technology and the experience accumulated in ACGN over the years are the key factors to achieve this achievement.

Mihoyo's IP creativity and technology have great advantages in the market, but its flaws in social evaluation cannot be ignored. In fact, in the current situation that the mobile game market is in the Red Ocean, it is very difficult to find games without any reference signs. Therefore, it is inevitable to integrate existing elements of other games into the underlying design. In any case, only innovation can promote the further development of the industry. If Mihoyou can make better use of its technological advantages in the future, add more innovative elements to the game, and stick to the high-quality products as always, it is likely to gain more advantages in the competition with Tencent, NetEase, and other big companies.

Table 3: SWOT analysis on Mihoyo.

Strength:	Weakness:
Mihoyo has advanced technical capabilities, which are needed by enterprises mainly focusing on original game IP. Original games should retain players through rich systems, diversified playing methods, and good playing experience. In this regard, Mihoyo has certain advantages. Moreover, the original intention of the founders of Mihoyo is to do ACG-related work, which also means that Mihayou knows more about what players want and helps its products better meet the need of the market.	Genshin experienced a serious public opinion storm for a period of time before and after the public beta, and its influence has continued until now. The publicity and early experience of the Genshin are similar to the "Legend of Zelda: A Breath of the Wild" released by Nintendo Switch in 2017, so many people have labeled the Genshin as plagiarism. Although the subsequent travel experience did not confirm the statement of plagiarism, Liu Wei, one of the founders of Mihoyo, also explained that Genshin had referred to the legend of Zelda in the bottom design, which was not plagiarism, but the social public opinion could not be easily eliminated.
Opportunity:	**Threat:**
The success of Genshin has brought many benefits to Mihoyo. The promotion of its fame helps to recruit excellent talents, while the income of Genshin brings the economic basis for developing new games. At present, two other games that have not yet been released have entered the public business, namely, derivative works of the previous game, which destroyed the worldview IP, and completely original new IP works. If Mihoyo can show more advanced game technology and add more innovative elements in the following works, it will be possible to succeed in the current era of good prospects for the ACGN game.	Although there is still a big gap between Mihoyo and Tencent and NetEase in the overall mobile game market, Mihoyo and Tencent and NetEase have similar market shares in the ACGN mobile game market [6]. In addition, in the market of original ACGN IP games, the competition is also fierce. Even if the playing methods of two games are not very similar, there will be fierce competition between them. In the eyes of many users, the role shaping of ACGN games is more important than the playing methods.

6. Conclusion

Although the mobile game market has entered the Red Ocean many years ago, it can be seen from the subsequent development that the industry still has great room for progress. One of the important reasons for the mobile game market entering the Red Ocean is that there are too many enterprises engaged in this industry, but they do not necessarily have high quality. Therefore, in future competition, game quality will inevitably become the core element of competition. Tencent and NetEase did not pay much attention to the quality of games in the past, but they have also seen the emphasis on technology in the recent announcements of some games that have not been launched online. When large manufacturers begin to invest more resources in technology R&D, the survival space of small manufacturers will be further squeezed. In the next few years, China's mobile game market is likely to continue to undergo dramatic changes, and many products that attach importance to technology are likely to threaten existing products. Although some companies now have a certain market share, if they fail to launch more advanced new games in time, they may gradually decline in the competition. In addition, the ACGN game may also occupy a larger share of the mobile game market in the future, because the rise of domestic animation in recent two years has attracted more

people to understand the cultural type of ACGN, which will also drive more people to try ACGN mobile games. In an environment where quality is the core competitive factor, more high-quality games will retain more players. To sum up, the development of China's mobile game market shows no signs of slowing down in the short term but maybe further accelerated to become a larger and more mature market.

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