

# *A Review of the Market and Innovation Directions of Mobile Games Economy*

Qingyang Tian<sup>1,\*</sup>

<sup>1</sup> Joint College of Jinan University and Birmingham

\*Corresponding author. Email: [tianqingyang2019053532@stu2019.jnu.edu.cn](mailto:tianqingyang2019053532@stu2019.jnu.edu.cn)

## **ABSTRACT**

This article mainly discusses the current situation of the mobile game market and the direction in which it should move in the future based on the newly promulgated laws and regulations restricting minors. Based on previous papers, this article summarizes the current downturn in mobile games, analyses the negative impact on minors, and gives a new market entity. The analysis summarizes the possibility and certainty of mobile games in the elderly market. It has a good impact to the elderly and finally concludes that mobile games can indeed open up a new path in the elderly market in the future. The purpose is to give suggestions and directions for future mobile game manufacturers' game routes.

**Keywords:** *Mobile games, Minors, Seniors, Future markets*

## **1. INTRODUCTION**

### **1.1. Research Background**

With the continuous development of people's science and technology, the speed of the Internet has increased rapidly, and mobile phones have gradually become multifunctional. Among them, the fast-growing part belongs to mobile online games. Since 2013, the Ministry of Industry and Information Technology has issued TD-LTE (4G) licenses to the three major operators, announcing the official arrival of the mobile Internet era. After 2013, due to the application of 4G, both the number of mobile games and the scale of the market economy have shown explosive growth. We can clearly see that the market share of mobile games was 11.24 billion yuan in 2013, and the year-on-year growth rate was 246.91%. In 2014 it was 27.49 billion, and the year-on-year growth rate was 144.47% and that in 2015 was 51.46 billion. The year-on-year growth rate was 87.20%. The market share and year-on-year growth rate are very high. It can be seen that mobile games had a distinct economic vitality at that time. However, because the "spiritual opium" has grown into a hundred billion industry. The article caused a lot of public opinion in China. It lists some data: The questionnaire surveyed how often minors play mobile games. The survey found that most minors play mobile games almost every day, which has led the Chinese

government to pay attention to mobile games. As a result, the state recently issued a ban to strictly control the mobile games of minors, and minors can only play games for one hour on weekend nights. This is a big blow to the mobile game market for users under the age of 18. The market value of the two major mobile gaming giants, Tencent and NetEase, dropped by 6 to 7 percentage points in one day. Therefore, if the mobile game market hopes to develop for a long time, it should extend the age range of users to adults and even the elderly, open up new markets, and introduce new vitality [1-5].

### **1.2. Research Significance**

Research on the mobile game market has achieved certain results, but some practical problems still need to be resolved urgently. First, look at the current mobile game market, and the number of people has reached a high level. Is the mobile game market saturated? Or in other words, does the mobile game market have new economic momentum in the future? At the same time, it can be seen from the age distribution of the mobile game market that mobile games are mainly targeted at people under the age of 18. In the face of the future aging social trend, is it necessary to take some innovative measures to meet the next challenges? Most of the current research is based on previous analyses of various factors, such as different platforms, different consumer groups, etc. However, due to the strict control

and control of minors' mobile games due to the policy introduced at the end of August 2021, no one currently has them. After analysing the series of impacts, we can analyse it and give some suggestions, such as how we should transfer the current mobile game market or how we can attract adults and even the elderly to play mobile games appropriately. After analysis, the current sluggish market for the elderly is due to the fact that the elderly do not have the habit of playing games. Compared with the games on mobile phones, they prefer to listen to opera, drink tea, and engage in entertainment activities of their age. However, they will have a group of adults who have entered the aging society with the habit of playing mobile games in the future. How do we attract their attention? Should we start with the content of the game or the type of the game? Is it feasible to attract them? Will the market for mobile games be in the future? Will it return to the top? These are all related issues that need to be discussed in this article [6,7].

This study aims to study whether the main players in the mobile game market in China should shift to an aging population in the future. It can provide some references for major mobile game manufacturers such as Tencent and NetEase. It can also enlighten some unicorn companies to drive the mobile game market to grow again. It can also help China promulgate the latest mobile game policies that are more in line with public opinion in the future [8].

### **1.3. Research Framework**

Based on the current development status of the mobile game market, starting from the research background and motivation, this article sorts out and classifies the research results related to the development of the mobile game market, and summarizes the existing research results, and proposes new research perspectives and direction in this field.

## **2. LITERATURE REVIEW**

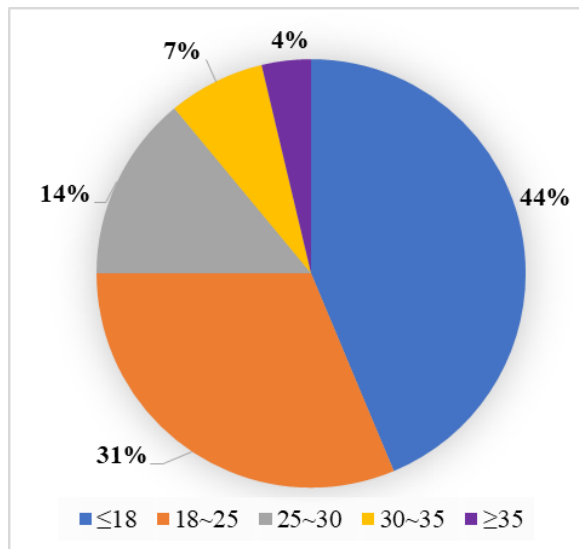
### **2.1. The Status Quotation of the Size of the Mobile Game Market**

China's mobile game market has experienced rapid growth in the early stage, and the market scale has become saturated. The market size has long exceeded 100 billion, and various mobile game manufacturers have shown their magical powers to optimize their games to grab the last share of the market. At present, although the Chinese game market is very hot, the threshold for track competition has been greatly improved, and traditional mobile game manufacturers have a clear advantage in the strength of various industry resources. At the same time, the current Chinese game market is mainly monopolized by several leading companies. Tencent has channel advantages,

actively building a core mobile game ecosystem to meet players' growing diversified content needs and focusing on enhancing it by sputtering mobile game studios and acquiring game developers. Self-developed capabilities and provide certain financial support to game developers. In addition, there is also NetEase, with IP as the core, through the power of writers, screenwriters and even players UGC, incubating new IP from the source, and then change the game IP to animation or film, or to change the IP of animation film and television to the game. In the future, pan-entertainment may become an important growth point for mobile game revenue. Pan-entertainment deserves to be based on IP as the core, based on the multi-domain symbiosis of the Internet and mobile Internet, to create a fan economy of star IP, and at the same time to carry out peripheral products around IP Wait [9].

### **2.2. Current Status of the Number of Mobile Games**

In addition, the number of mobile game users in China has reached about 600 million, and according to data, 44% of them are minors under the age of 18. It can be seen that the main users of mobile games are relatively low in age, which may be related to the self-control ability of minors. The difference is related to time fragmentation. However, at the end of August, because a piece of "spiritual opium" has grown into a hundred billion industry! This article has aroused a lot of public opinion in China. It lists some data. The questionnaire surveyed how often minors play mobile games. The survey found that most minors play mobile games almost every day, which has led the Chinese government to pay attention to mobile games. As a result, in early September, China issued a series of related policies on mobile games for minors, forcing agents such as Tencent to only allow minors to play games for a short time on weekends and restricting the recharge of minors. This is a very heavy blow to the current mobile game market that focuses on teenagers. This means that mobile game manufacturers need to immediately transform and focus their game groups on adults and even older age groups. It needs to change the current game style and even fundamentally changing IP is undoubtedly a challenge for mobile game manufacturers [10].



**Figure 1.** Age distribution of Chinese mobile game players in 2020

### 2.3. Causes and Effects of Minors Addicted to Mobile Games

Due to a large number of high-quality games emerge in an endless stream. Adults and many minors are also attracted by various mobile games and become addicted to mobile games. However, the addiction to mobile games has brought a series of problems. Indulging in mobile games delays minors' studies and affects their physical and mental health, and brings a lot of trouble to their parents. For example, some children recharge mobile games and cause considerable financial losses to their parents. Therefore, mobile games should be transformed, and their harm to minors cannot be ignored.

The reasons for minors' addiction can be described objectively and subjectively. In terms of objective reasons, firstly, the continuous development of mobile entertainment has led many users to cultivate the habit of using mobile terminals for consumption and entertainment and indirectly promoted the development of mobile games. As a result, various types of high-quality mobile games have emerged in an endless stream, which has greatly attracted minors. Secondly, with the continuous optimization of various game manufacturers, it is obvious that mobile games continue to face the younger age, and many mobile games incorporate popular IP such as animation, film and television to attract the attention of minors and deliberately reduce the difficulty of the operation and improve the image quality effect, these optimizations are almost all made for minors. Thirdly, mobile games are basically social at present. Most of the minors play together because their classmates go to play and then find a common topic to play together. At the same time, all kinds of people on the Internet will also arouse minors' strong curiosity. Therefore, the high concentration of sociality of mobile games also gives

minors a great attraction. In terms of subjective reasons, firstly, minors have a low self-resistance ability. Minors will easily find virtual self-worth in the game world and thus find a sense of identity, especially those who are unsatisfactory in learning in reality. They cannot find it in the real world. The advantages of the self thus spend time to find in the game world, to continue to indulge in it. Secondly, the current time of minors is too fragmented. They have a certain degree of education, and there is the extra time occupied by cram school, so they need some entertainment methods to get relaxed, and mobile games just meet this condition. As a result, there are more minors than adult mobile game users. Some parents do not have much time to accompany their children, so the way they throw their mobile phones to let them entertain themselves also encourages minors to indulge in games [11].

The harm of mobile game addiction to minors cannot be ignored. The first is health hazards. Indulging in mobile games will undoubtedly take up a lot of time for minors. At the same time, watching mobile phones for a long time will also cause minors' undeveloped eyes. Great harm not only will lead to decreased eyesight and mental energy but also a long time sitting with the head down and playing with the mobile phone will cause a great burden on the spine. Many minors stay at home all day long, either studying or playing games, which leads to their increasingly low system and poor health. And the second is academic hazards: energy is limited, minors easily find their self-worth in the virtual world, and thus get an unprecedented sense of self-identity. This is even more reflected in some people who are not very good at learning in the real world, so they will spend their energy exploring the game and hoping to expand the virtual value, but this will only be that they are trapped in a downward spiral. Poor learning leads to a lack of interest in learning, which leads to worse learning. Many minors waste their studies because of this. Obviously, mobile phones Games have caused great damage to minors' studies. Thirdly, property hazards: Most minors have not achieved economic independence, so their values are not comprehensive. They will desperately recharge for some seemingly profitable activities in the game. Mobile game companies have also seen their hearts and launched various activities. At the same time, minors are curious and eager to compete. This has led to their crazy pursuit of some rare game items. Parents disagree and even hunger strikes. To force parents to recharge and the continuous development of mobile payment has just exacerbated this phenomenon, which is also one of the reasons for the unprecedented expansion of the mobile game market [12-14].

Therefore, after analyzing the harm of mobile games to minors, I think the country should control the phenomenon of minors' indulging in mobile games. Although this will transform mobile games and even

affect the development of China's mobile game market, even if Chinese mobile phones the game market is sluggish, and the future of China's children cannot be ruined in the hands of mobile games [15,16].

#### ***2.4. The Rationality of Mobile Games in the Elderly***

Although the mobile game market is currently in a sluggish society for the elderly, this is because most of the current elderly (over 65) are people from the 1970s or even the 1960s, and their ability to dissolve new things is not as good as that of young people. Their entertainment activities for the elderly are still playing chess, listening to opera, drinking tea, dancing square dancing, etc. It is too difficult to develop their mobile game market because they have developed a habit and basically no longer have to touch smartphones. However, a group of people with mobile entertainment habits will gradually become aging with the passage of time. They have already acquired the mobile entertainment habit when they are young. So when they are old, this habit still exists, and most of them are due to The habits of young people who may not play chess and tea like the old people do, to cultivate a new way of entertainment that combines mobile and reality. Therefore, mobile manufacturers can gradually launch new programs or games according to the preferences of the elderly. The transformation of mobile games is imperative and must gradually move closer to the aging population, so manufacturers should gradually grasp the hobbies and behaviours of the elderly [17,18].

#### ***2.5. The Benefits of Mobile Games for the Elderly***

Are mobile games beneficial to the elderly? Next, this article will conduct a detailed analysis. Unlike minors, the elderly has relatively sufficient free time. Their lives are relatively standardized, have a certain resistance to external things, and have a certain economic foundation, so the impact of mobile games on them depends on the specific situation. A study published in "International Geriatric Psychiatry" in November 2016 provides more convincing evidence that puzzle games may help improve some thinking abilities that decline with age, such as reaction speed and planning ability, Reaction time, decision-making and short-term memory. This means that if the elderly play mobile games appropriately, the probability of suffering from dementia such as Alzheimer's disease can be reduced to a certain extent. Because of the game's social nature, it can alleviate the loneliness of the empty-nest elderly whose children go out to work all year round and reduce the probability of autism. Of course, these can also be done by playing chess, dancing, etc., but according to the data, going out for exercise while playing certain puzzle games will make the result

show a 1 plus 1 greater than 2, that is to say, the brain's high Power running will promote the benefits of physical activity [19-26].

### **3. CONCLUSION**

#### ***3.1. Main Findings***

To sum up, the market saturation of mobile games before was mainly due to the input of minors, but now the state has introduced relevant policies to restrict minors' investment in mobile games, which will inevitably lead to a downturn in the mobile game market, so mobile game manufacturers need to transform. It is inferred that new markets should be developed. The elderly market has been sluggish for a long time. The reason is not because of the quality or form of mobile games, but because of the habits of the crowd. Most of them do not have the habit of mobile entertainment. And most elderly people have poor access to new things and are unwilling to engage in new entertainment activities. However, there will be a group of new elderly people with mobile entertainment habits who will be over 65 years old in the future. They may have new mobile and real-life entertainment methods, so mobile entertainment manufacturers may increase the sociality of some games and reduce the competitive nature to attract the elderly. At the same time, they can also develop some puzzle games, such as online chess, etc. Effectively reduce Alzheimer's disease while giving the elderly rich social activities, reducing the birth of empty-nest elderly.

#### ***3.2. Research Significance***

This article mainly wants to discuss whether mobile games should be transformed and provide a possible direction for transformation. Through discussion, it is found that it is too harmful to minors, which has attracted a lot of attention at the national level and issued a series of policies to restrict it. Therefore, mobile games must be transformed, and the market for minors will only become stricter and sluggish., The direction of transformation is to find that the reason for the downturn in the elderly market is not the quality of the game itself. Still, the current habit of the elderly and the elderly with new habits are gradually entering the aging society, so a new era will begin. In the future, all things must be combined with mobile entertainment. Hence, the elderly market as an unopened market needs people to develop and use. And in terms of economic strength, the economic situation of the elderly is better than that of the minors, so their potential may be greater. Therefore, it is recommended that manufacturers gradually shift their eyes to the aging of minors in the future.

### 3.3. Future Studies

Regarding future research, this paper suggested that we should start with the types of mobile entertainment that the elderly like, from social to puzzle games. Because the elderly have sufficient time, there is no need to develop competitive or time-fragmented games. Focus on a more immersive and better experience. At the same time, due to the empty-nest elderly and the current acceleration of urbanization, the elderly also need strong social software and friends to reduce loneliness and make more of the same situation. At the same time, it is also necessary to have a certain degree of intelligence, which will reduce the occurrence of Alzheimer's disease and also have a certain guarantee for the health of the elderly. Considering that although the economic strength of the elderly is strong, there is also the possibility of being deceived. How to regulate and guide the elderly to better use mobile games and prevent risks, etc., issues, due to the unavailability of data, this article is temporarily incorrect it is analyzed.

### REFERENCES

- [1] Fu Yingying. (2019). The current situation and development trend of the mobile game industry under the mobile platform. *Radio and Television University Science and Technology*, 000(002), 17-19.
- [2] Li Yong. (2019). Reasons for the popular development of mobile online games. *Computer Products and Circulation* (02), 156-156.
- [3] Zhang Yuxiao. (2019). An analysis of the prospects of the mobile game market. *Market Weekly-Theory Edition* (26), 0038-0039.
- [4] Liu Yang. (2019). On the development prospects of my country's mobile game industry. *Financial management: Jinglun Edition* (4), 83-84.
- [5] Cui Bingtong, & Deng Yuanzhen. (2019). China's mobile game industry export: status quo, problems and countermeasures. *China Market*, 992(01), 16-18+24.
- [6] Wang Pengtao, & Chen Zhihong. (2019). Research on Guiding Strategies of Mobile Game Usage Based on the "Addiction" Model. *Southeast Communication*, 174(02), 88-91.
- [7] Cai Qitong. (2019). A Preliminary Study on the Development of Mobile Games. *Communication World*, 26(01), 273-274.
- [8] Zhou Shiming, & Xu Xinyi. (2019). Analysis on the status quo and development trend of the mobile game industry. *Computer Products and Circulation* (04), 88.
- [9] Wang Zhiheng. Research on the copyright operation mode of online games in my country-taking Netease games and Tencent games as examples. (Doctoral dissertation, Chongqing University of Technology).
- [10] Chen Mengling, & Yang Xiaoxi. (2019). my country's mobile game competitiveness analysis. *Caixun* (9), 1-2.
- [11] Huang Qiuyu. (2018). Game supervision: How to prevent minors from indulging in mobile games. *Network Security Technology and Application*, 000(001), 108-109.
- [12] Ding Lili, & Liu Hengchang. (2019). The current risk of minors' addiction to mobile games and its countermeasures. *Teaching Monthly: Primary School Edition (Comprehensive)*, 507(Z1), 95-98.
- [13] Tian Xiuxia. (2018). Game supervision: How to prevent minors from indulging in mobile games. *Education: Comprehensive Education Research (Part 1)*, 000(010), P.19-20.
- [14] Jiang Hainan. (2017). Talking about the impact of mobile games on primary and middle school students. *Inner Mongolia Education*.
- [15] Li Xiujie. (2017). On the strategy of how to correctly guide primary school students out of the misunderstanding of mobile games. *Motherland* (19), 224-224.
- [16] HD. (2009). Should elementary and middle school students play mobile games?. *Digital user*, 000(023), P.79-80.
- [17] Lv Zongwei. (2015). Research on the design of smartphone games for the urban elderly. (Doctoral dissertation, East China University of Science and Technology).
- [18] Tian Niu. (2017). Mom and dad fall in love with smartphones. *China's Quality Travel* (8), 88-90.
- [19] Ou Yide. (2019). Puzzle games should be promoted. *Knowledge on Cardiovascular Disease Prevention and Treatment (Science Edition)* (11), 25-27.
- [20] Lu Bin. (2015). Don't let the elderly become addicted to hobbies. *Shanxi Elderly* (11 issues), 55-55.
- [21] Gao Xiaowen. (2018). The new life of mobile internet for middle-aged and elderly people. *Jin Qiu* (21).
- [22] Peng Huamao. (2013). A selection of mental games for middle-aged and elderly people. Dalian University of Technology Press.

- [23] Lin Feng. (2018). A game device for the elderly in the community to promote friendship. CN207905391U.
- [24] Li Huijie. (2016). Research on the influence of video games on the cognitive function of the elderly. Collection of abstracts of the 19th National Conference on Psychology.
- [25] Lan Yuan. (2017). Playing with mobile phones can prevent Alzheimer's disease. Popular Science World (4), 4-4.
- [26] Blue Wind. (2017). Be alert! "Mobile phone control" is spreading to middle-aged and elderly people. Women's Life, 4-6.