

## Influencing Factors of Chinese Game Players' Purchase Decision on AAA Game (PC)

Nopchanok Sangchai<sup>1</sup>, Bussakorn Prakobsil<sup>2</sup>, Akrapong Sombaan<sup>3</sup>, Sananchai Rakkumnerd<sup>4</sup>

1 International Business Administration, Bangkokthonburi University, Bangkok, Thailand

2 Logistics Management, Bangkokthonburi University, Bangkok, Thailand

3 Business Administration, Bangkokthonburi University, Bangkok, Thailand

4 Business Administration, Bangkokthonburi University, Bangkok, Thailand

5 Business Administration, Bangkokthonburi University, Bangkok, Thailand

DOI: <https://doi.org/10.56293/IJMSSSR.2022.4634>

IJMSSSR 2023

VOLUME 5

ISSUE 3 MAY – JUNE

ISSN: 2582 - 0265

**Abstract:** With the accelerated development of the Internet era, PC has become an important tool for life, work, production, and entertainment. The AAA Games is an important part of it. At present, China's AAA Games are almost monopolized by foreign products. In recent years, AAA Games being developed in China have attracted the attention of domestic users. The purpose of this study is to analyze the factors affecting the consumption and Purchase Decision of AAA Games by Chinese AAA Game players, and put forward some suggestions and opinions on the developing AAA Game manufacturing industry in China.

Based on this study, the Purchase Decision factors used to determine the impact of Chinese AAA Game players to buy AAA Games include the Product, Price, Marketing, Branding, Social Relation, Preference. This study uses descriptive and inferential analysis for quantitative analysis.

The data in this article comes from 400 AAA Game users in China. They are all Chinese citizens and have consumption experience of AAA games. The results of this study were analyzed by multiple linear regression. The results show that Marketing, Branding, Social Relation and Preference all have a significant impact on the Purchase Decision of AAA Games in this study, among which Branding has the greatest impact, while Product and Price have no significant impact on the Purchase Decision of AAA Games in this study.

**Keywords:** AAA Game, Purchase Decision, Product, Price, Marketing, Branding, Social Relations, Preference

### Introduction

People may have very bad views when talking about AAA games. In May 2000, the media writers of Guangming Daily (mainstream media) called the game "spiritual opium". In June 2000, the Chinese government issued a ban on the sale of game consoles. This ban made domestic games lose their operation platform, and domestic game development studios suffered a great blow. At that time, domestic 3A games were in the stage of vigorous development, and the product quality was not lower than the world level in the same period. In 2013 alone, the direct loss caused by the ban on game consoles was 83 billion Yuan (Ding, 2014). Since then, China's game industry has entered the "darkest hour", and the history is always surprisingly similar. Today, 21 years later, a similar article was published in August 2021. However, the so-called affected children mentioned in the previous article grew up and found the unknown role and charm of 3A games.

In fact, the above article is a one-sided view. AAA game consists of picture, audio, story, and operation mode. The scene texture presented by high-quality pictures is no less than that of movies. Even today, with the rapid development of technology, high-quality pictures are even comparable to real scenes. Through the production of

games, staff can restore ancient buildings, historical scenes, space travel, even war and science fiction scenes, cooperate with the content creation of the story, and can be used as a good carrier of culture, science, art, and philosophy. Audio, as an important part, highly realistic prop dubbing, and appropriate language tension can give the character a complete character image. Creating music with the hands of musicians can better help players immerse themselves in the story. I can say without exaggeration that the tension of culture, science, art, philosophy, and art presented by AAA games is no less than that of films and other film and television works. If film can be called art, why not use AAA games as the carrier?

China has the largest demographic dividend advantage in the world, has a long cultural heritage of more than 5000 years, and has profound cultural heritage and philosophical connotation. If you want other countries to understand China, understand China's culture, philosophy, and history as the breeding of agricultural civilization inherited for more than 5000 years, and be more acceptable and interactive, maybe AAA game is a better carrier better and easily. At present, foreign AAA games almost monopolize the Chinese market. As Chinese players, we can visit the restored Parthenon temple through AAA games. We can personally participate in Greek mythology. After Notre Dame in Paris is burned down, we can also have the opportunity to visit this building that bears witness to French history and experience this national symbol by incarnating American Western cowboys, you can become a ninja, understand the turbulence and suffering of Japan in the Warring States period, and build a huge interstellar energy facility for your only home - the earth as a builder. There are many excellent works. However, as Chinese players, we rarely see our own cultural content in this field. On the contrary, some foreign game companies even excluded China, a major victorious country with 35 million direct and indirect casualties due to the war, one of the main battlefields of World War II and establishing the status of the five permanent members of the United Nations (At the same time, there is no Soviet Union in this game).

In the face of such a carrier that is more interactive, expressive, entertaining, and more acceptable, China's game production industry (including AAA game development) is in a vicious circle of abnormal bad money drives out good. According to the former game project development master of Tencent, the core five problems of Chinese game companies in developing games are: 1. How to make players indulge all the time, 2. How to make players spit out more RMB, 3. How to make players gang up, 4. How to make players hate each other, 5. How to realize hidden cash gambling and gold coin Trading (You, 2014). With these five questions as the background, how can China create AAA games that meet market expectations? The answer must be No. from the original intention of the design, it completely deviates from the essence of the game and becomes a profit tool. According to the *Global Game Market Value Analysis Report* (2020) released by Games Industry, PC Games account for 22% of the market share, console games account for 29% and mobile terminals account for 49%. According to the report on the *Development of China's game industry* (2020) released by China audio visual and Digital Publishing Association, domestic mobile games account for 75% of the market share, client, and web games account for 22%, and the actual market share of PC stand-alone games is less than 2% (this data refers to China's local industry data, excluding imported game products and unconventional consumption to buy AAA game products). The development of AAA Games has policy risks such as long cycle, huge investment cost, extremely low fault tolerance rate, and passing the domestic audit. The short-sightedness of capital is bound to urge capital to move towards a more profitable, lower cost and lower risk, and finally form the abnormal development of China's game industry and the completely disappeared domestic AAA games. Take Tencent as an example, 1 / 3 of Tencent's revenue comes from games. Tencent is not a game company. It has ranked first in the revenue of game companies in the world for many years. However, this "first" did not develop an AAA game, but gradually drifted away on the natural development road.

In August 2020, *Game Science*, a Chinese game development company, released the first live demonstration of *Black myth Wu Kong*, which attracted the attention of players and media at home and abroad. Thank you very much for persistence in the abnormal market environment. This makes Chinese gamers see the hope of AAA games made in China, and it is also the inspiration for my research in this paper. In the upcoming rise of China's AAA game industry, profitability can further promote the development of the industry, and consumers' purchase decisions will determine the profitability and profitability of AAA games. I hope that through this research, I can provide appropriate development suggestions and opinions for Chinese made AAA games by exploring the factors affecting the purchase decision-making of Chinese AAA game players, to help the development team obtain more

player choices and better profitability, promote the benign development of the industry, and make up for the development fault of more than 20 years.

This study explores the influencing factors of Chinese players' purchase decision of AAA game (PC) through descriptive and reasoning analysis and quantitative analysis from the aspects of product, price, marketing, branding, social relations, and preferences.

In this study, the purpose of this study is to explore the relationship between Product, Price, Marketing, Social Relations, Preferences and Purchase Decision-making.

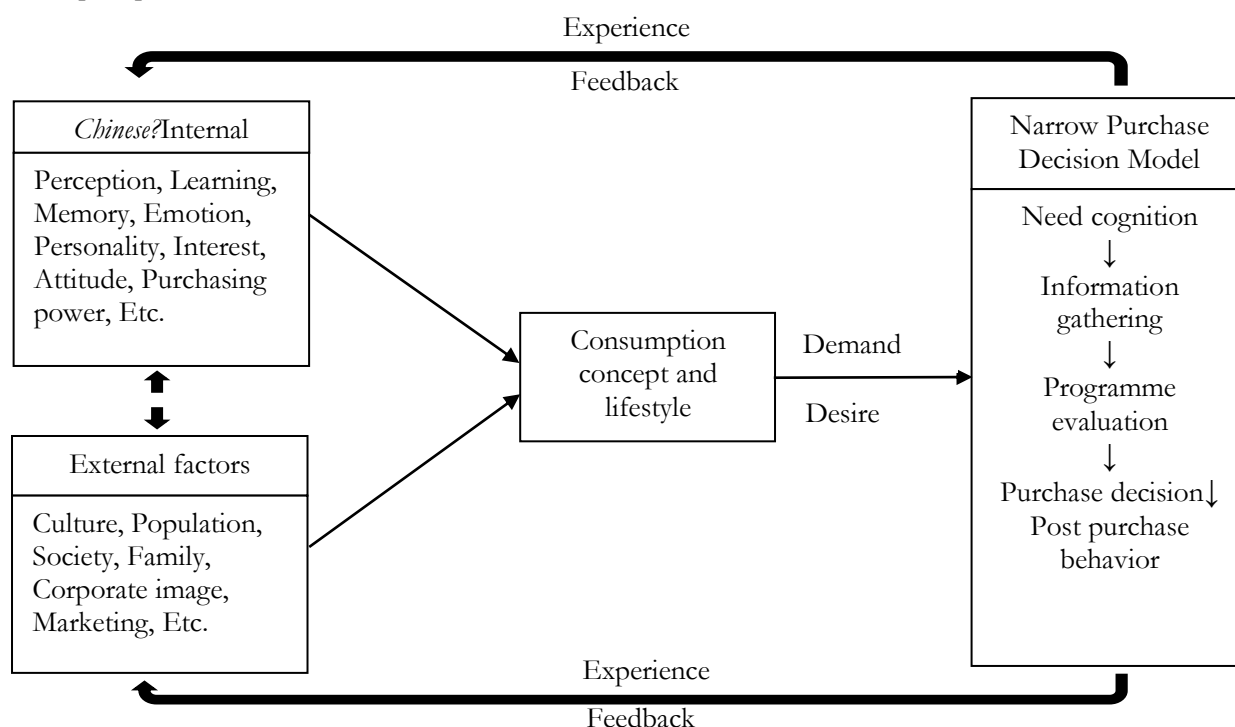
The target population of this study is Chinese game players with 3A game purchase experience. About 400 respondents were sampled in this study. The questionnaire is distributed and collected through *WJX.cn*, an Internet questionnaire tool. The respondents enter the questionnaire filling page through the network link to complete the questionnaire content.

Researchers hope to study the relationship between independent variables and dependent variables. The researchers took the Purchase Decision as a Dependent Variable. The researchers proposed the product itself, Price, Marketing, Social Relations, Preferences, and other factors as Independent Variables to find out the influencing factors of Chinese Players' Purchase Decision of AAA Game (PC).

**Literature Review**

**Generalized Consumer Purchase Decision Model**

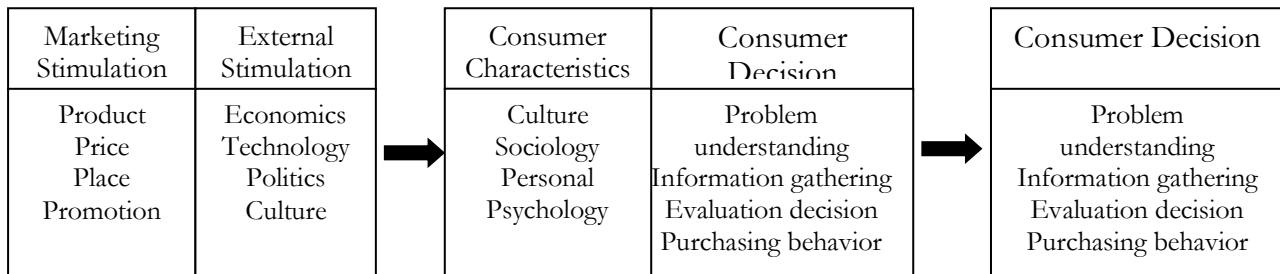
Wayne D. Hoyer mentioned in his book *Consumer Behavior*. It is a systematic decision-making process, including the determination of demand, the formation of purchase motivation, the choice and implementation of purchase scheme, post purchase evaluation and so on.



### Kotler Behavior Choice Model

Philip Kotler puts forward a simple model that emphasizes the consumption behavior of society in two aspects.

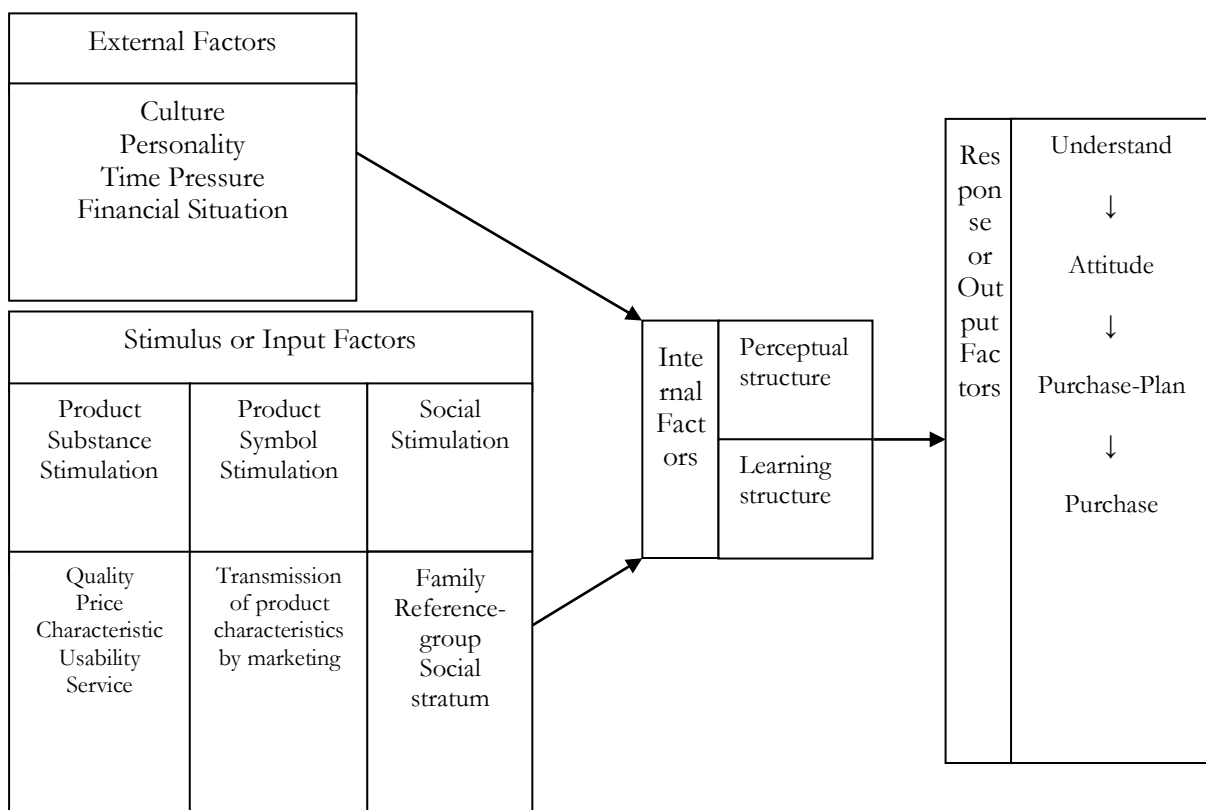
Through the decision-making process of consumers, they lead to certain purchase decisions, and finally form consumers' choices of products, brands, dealers, purchase timing and purchase quantity.



### 2.1.3 Howard - Sheth Mode

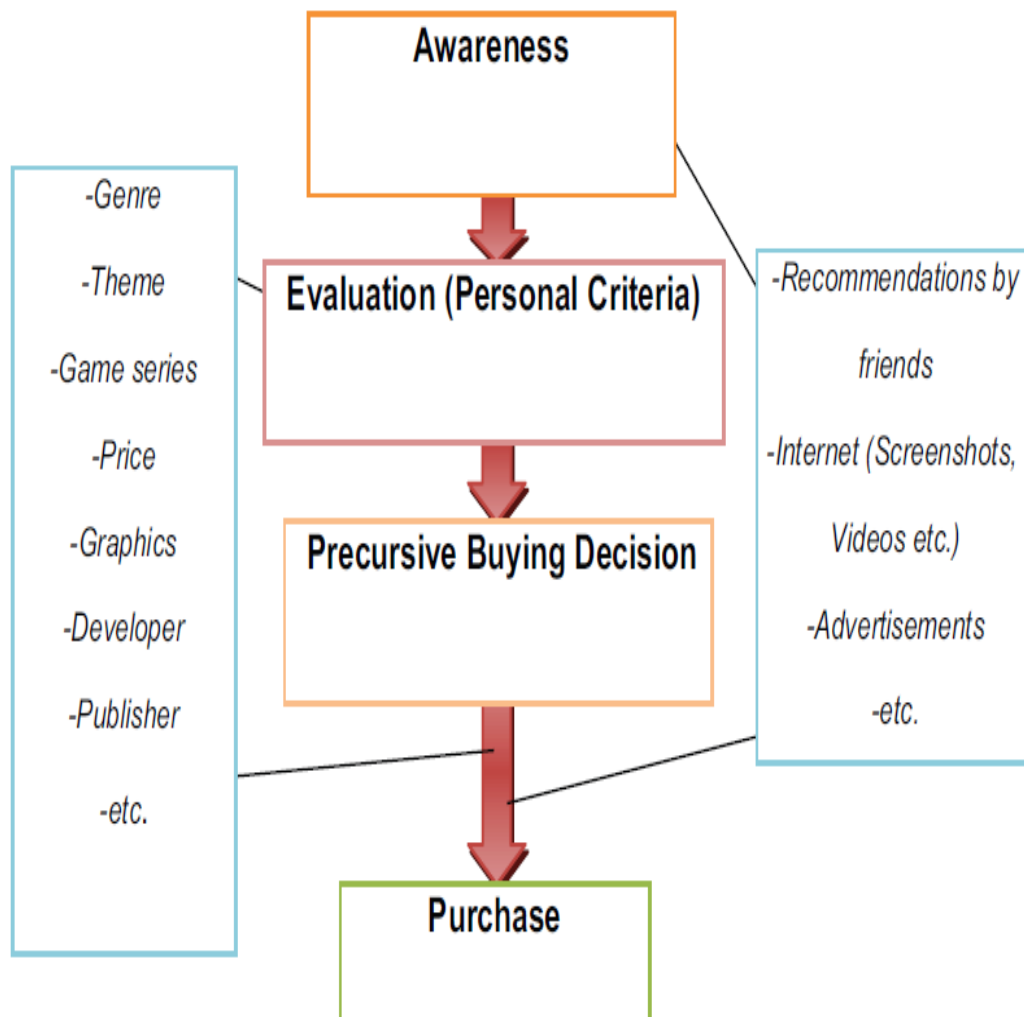
Howard - Sheth model was proposed by the scholar Howard in 1963. After cooperation with Sheth, it was formally formed in 1969 after revision. The focus is to consider consumers' purchase behavior from four factors.

1. Stimulus or input factors (input variables);
2. External factors;
3. Internal factors (internal processes);
4. Reflect or output factors.



Research Framework

Theoretical Framework



Research Title:

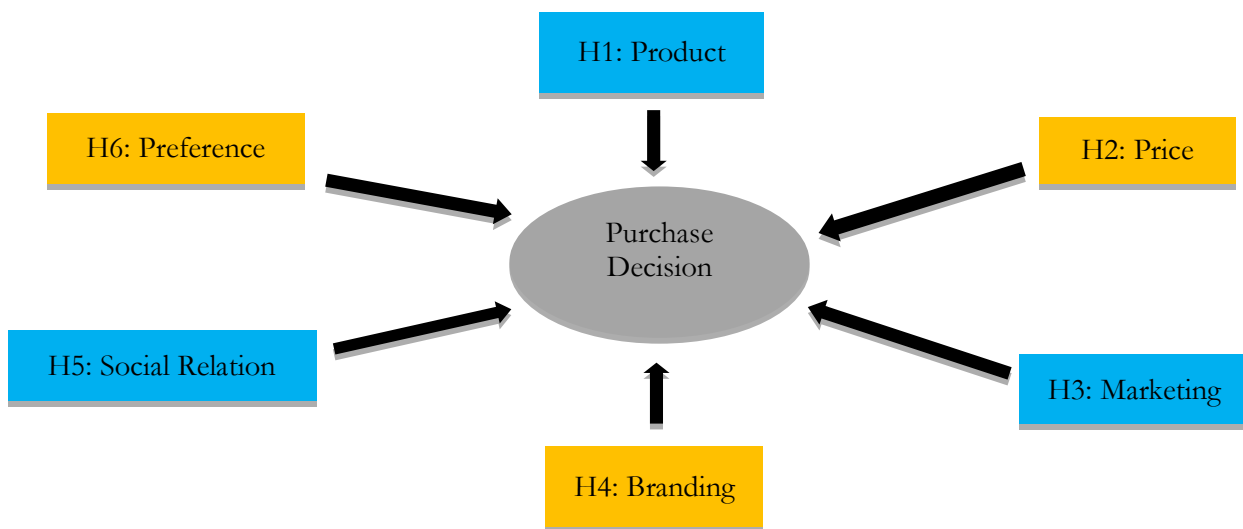
Factors contributing to the buying decision of PC and Video Games. And their weight in the buying decision process.

Authors: *Henri Lindgren*

Finding:

A good sales game is not perfect. While pursuing self-creation, the creative team should consider the market demand. At the same time, it has an appropriate market operation mode.

### Conceptual Framework



### Hypothesis

H1<sub>o</sub>: Product factors have an impact on purchase decisions.

H1<sub>a</sub>: Product factors have no impact on purchase decisions.

H2<sub>o</sub>: The price of the product has an impact on the purchase decision.

H2<sub>a</sub>: The price of the product has no effect on the purchase decision.

H3<sub>o</sub>: Product marketing will have an impact on purchase decisions.

H3<sub>a</sub>: The marketing of the product will not affect the purchase decision.

H4<sub>o</sub>: The brand building of products has an impact on purchase decisions

H4<sub>a</sub>: The brand building of products has no impact on the purchase decision

H5<sub>o</sub>: Social relations will have an impact on purchase decisions.

H5<sub>a</sub>: Social relationships do not affect purchase decisions.

H6<sub>o</sub>: Preferences will have an impact on purchase decisions.

H6<sub>a</sub>: Preferences do not affect purchase decisions.

### Research Methodology

#### Research Design

In this study, the researchers used descriptive research to analyze the data and determine the factors that affect the Purchase Decision of Chinese 3A Game users when buying 3A Games. The researchers used the method of questionnaire to collect data samples and collected data from the target respondents. The sampling method used by the researchers is non probabilistic sampling. The target population is Chinese who have bought 3A Games. To collect and obtain effective data from target consumers, researchers designed and constructed a questionnaire to achieve their own research objectives. The reason for using questionnaires to collect data is that it is easy to collect data from respondents.

Before distributing the questionnaire, the researcher first collected 30 effective questionnaires from the target

group for Cronbach's alpha test to verify the reliability of the problem and facilitate further data collection. In the process of further data collection after completing Cronbach's alpha test, a total of 425 valid questionnaires were collected. They were all Chinese and had the experience of buying 3A Games. At the same time, there were differences in their age, gender, income, ability to buy 3A Games, occupation, and the number of 3A Games they had. After obtaining all the data, descriptive analysis is used to analyze and interpret the demographic data of the survey objects. At the same time, researchers will also use multiple linear regression analysis to determine whether there is a statistical impact on the corresponding variables of the independent variables. In addition, the support source of this study is the secondary data after analysis.

The purpose of the research is to provide effective information and appropriate solutions for Chinese 3A Game developers by understanding the influencing factors of Chinese 3A Game consumers on game Purchase Decisions, to clarify the development direction for developers to adapt to consumers' Purchase Decisions.

## Research Instrument and Questions

### Research Instrument

The researchers passed WJX.Com to collect the questionnaire by sending the questionnaire online. Because the target respondents are Chinese, the form of the questionnaire is put in full Chinese, so that the respondents can fully understand the content of the questionnaire and correctly answer all the questions in the questionnaire in line with their own situation, which can improve the authenticity and effectiveness of the data obtained by the researchers, At the same time, it also improves the convenience of data collection.

Before sending many questionnaires, the researchers collected 30 samples for Cronbach's alpha test to verify the reliability of each variable. This test is used to conduct and test, identify errors, and evaluate the quality of the questionnaire. The relationship and the meaning for all variables exceeds 0.7 which makes it acceptable, in fact since they range for 0.85 to 0.95, they are acceptable to excellent measures (Jiradilok, Malisuwan, Madan, & Sivaraks,2014).

### Measurement Variables

The purpose of setting this question item is to understand the factors that affect the consumption decision of Chinese 3A Game users when buying 3A Games. Because it is the most widely used, the researchers used the survey technique of 5-point Likert scale in this part. The scale ranges from strongly disagree to strongly agree. The items and scores are: 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree.

### Data Collection

By using quantitative methods, including online questionnaires, researchers will collect data by providing respondents with questionnaire links and QR codes so that respondents can answer the questions displayed on the screen and applet. It is planned to collect the original data of 400 (425 collected) 3A game users from China, screen and verify the data to ensure the effectiveness of the data.

In order to obtain data in line with the researchers' research objectives, the researchers designed 35 questions. Among them, 2 are Screening problems, 6 are Demographic problems, and the remaining 25 problems belong to subproblems under 7 Variables respectively. The time range of original data collection is from September 15, 2021, to October 31, 2021.

The researcher will obtain the secondary data by means of statistics, sorting and linear regression analysis of the effective original data, which will be used as the supporting reference of this paper.

### Reliability Analysis of Research Instrument



The results of Cronbach's alpha test conducted by the researchers before sending the questionnaire show that all variables are reliable and can be further collected.

We conducted Cronbach's alpha test on 25 problems belonging to 7 variables, and the results are shown in the table below:

**Table 4.5 Cronbach's alpha test**

Variables	Cronbach's Alpha	Number of Item
<b>Dependent Variable</b>		
Purchase Decision	0.946	5
<b>Independent Variables</b>		
Product	0.892	5
Price	0.926	3
Marketing	0.864	3
Branding	0.899	4
Social Relation	0.877	3
Preference	0.913	4

Malhotra (2010) stated that assessing reliability using Cronbach’s alpha test must be greater than 0.60. The relationship and the meaning for all variables exceeds 0.7 which makes it acceptable (Jiradilok, Malisuwan, Madan, & Sivarak,2014). The results show that the test results of each variable meet the above requirements.

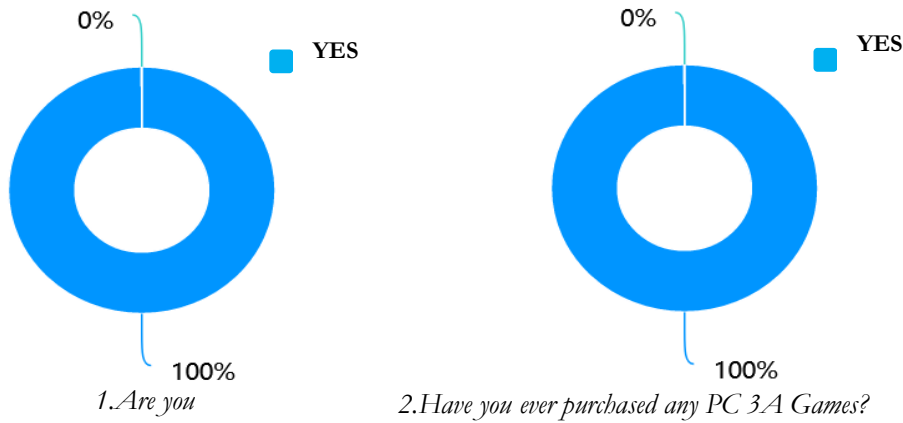
**Result and Discussion**

The first is the reliability analysis of the data, Cronbach's alpha test determines the reliability of the research problems. For descriptive analysis. Among them, Frequency, Mean, Percentage, Standard Deviation, Variance, Range, and other descriptive analysis methods are used to express the data. Inference analysis will use Pearson Correlation, Analysis of Variance, T-test, etc. to test all assumptions.

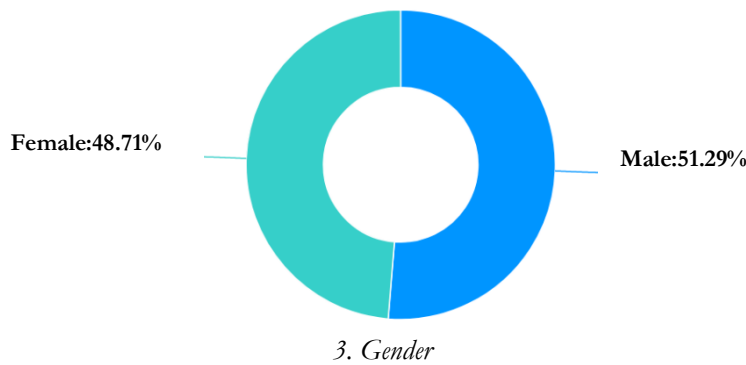
**Descriptive Analysis of the Demographic Information**

From all 425 questionnaires, the researchers collected and summarized all demographic factors. These factors include age, gender, monthly income, average monthly game consumption, occupation, and the number of 3A Games currently owned. All respondents (100%) are Chinese citizens, and they have had the experience of buying 3A Games.

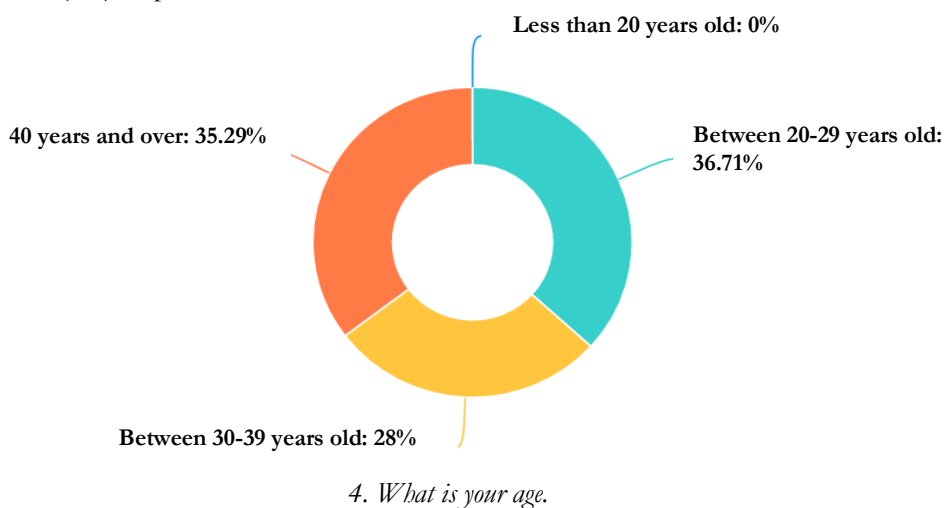




a. Among the 425 respondents, 218 were male (51.29%) and 207 were female (48.71%).

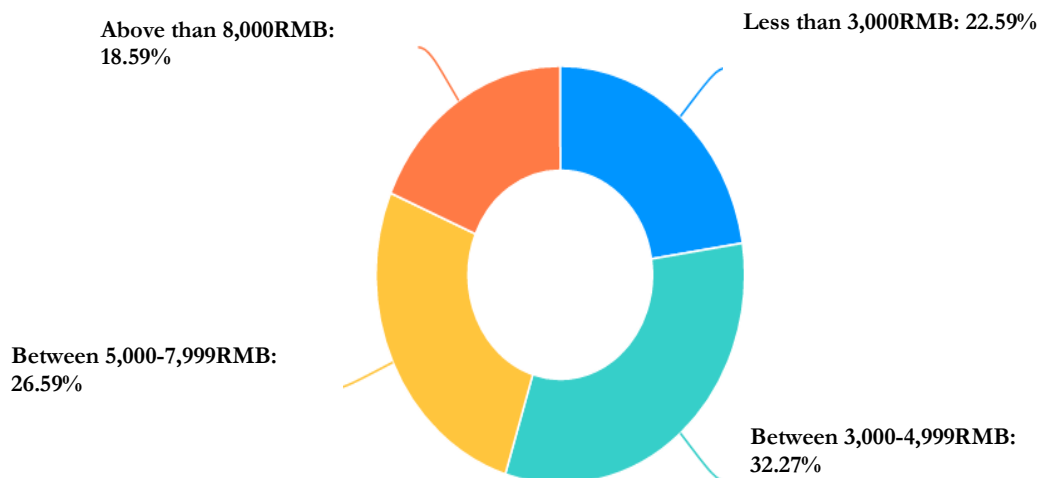


b. Among the respondents, people aged 20 to 29 are the most, 156 people (36.71%); the second largest number of respondents is near to the former, which is the age group aged 40 and over, with a total of 150 people (35.29%) participating in the questionnaire survey; the third is the population aged 30 to 39, with a total of 119 (28%) respondents. The researchers considered the population under the age of 20 in the questionnaire design or failed to receive the survey feedback from this group because they were in the period of education or not self-sufficient. There were 0 (0%) respondents.



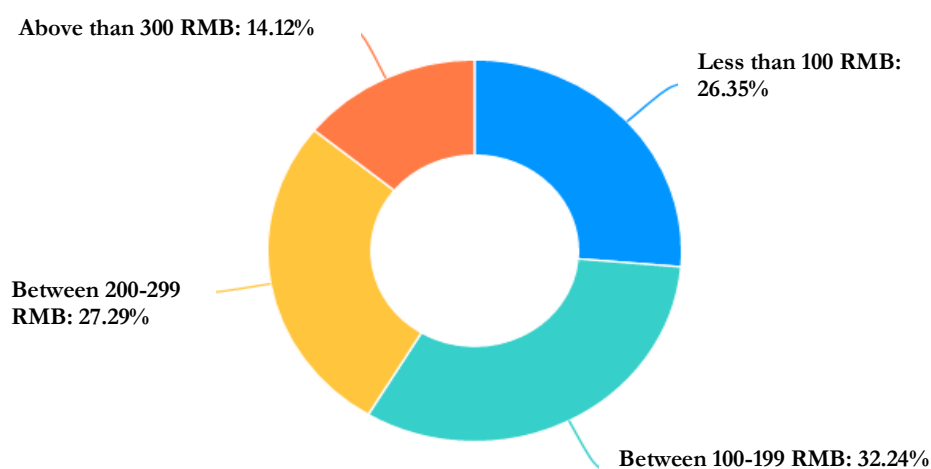
c. According to the results of the questionnaire, the researchers statistically summarized the income of the respondents. Among the 425 respondents, 137 (32.27%) had a monthly income of 3000-4999 Yuan RMB, followed by 113 (26.59%) with a monthly income of 5000-7999 Yuan RMB, followed by 96 (22.59%) with a

monthly income of less than 3000 Yuan RMB, and 79 (18.59%) with a monthly income of more than 8000 Yuan RMB.



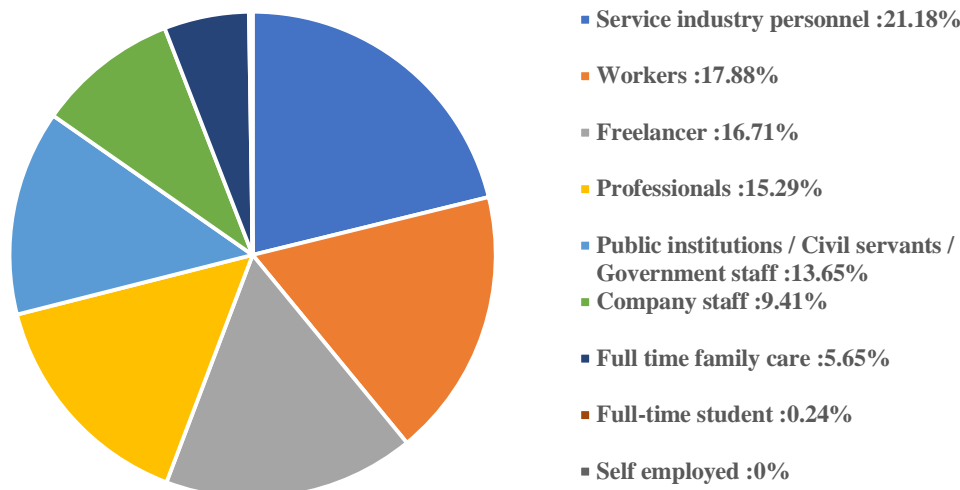
5. Current monthly income.

d. According to the monthly average amount of Game purchased by the survey results, the group with the largest number of people is between 100 and 199 RMB, 137 (32.24%); the second and third largest groups have little difference, ranging from 200 to 299 RMB, 116 (27.29%) respectively; less than 100 RMB, 112 (26.35%); among the respondents, the number with monthly average game consumption higher than 300 RMB is the least, 60 (14.12%).



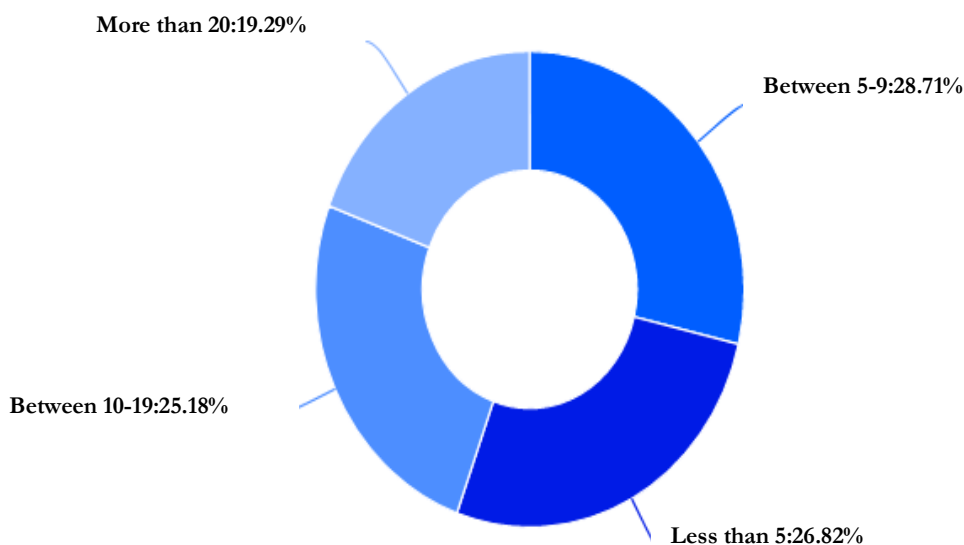
6. Average monthly Game cost.

e. The researcher summarized the career information of the respondents in 9 items. The following is the summary of the questionnaire survey results. The number of Service Industry Personnel is the largest, 90 (21.18%); the second, third and fourth are 76 Workers (17.88%), 71 Freelancers (16.71%) and 65 Professionals (15.29%); the fifth, sixth and seventh are 58 Public Institutions / Civil Servants / Government Staff (13.65%), 40 Company Staff (9.41%) and 24 Full-time Family Care(5.65%).The researcher set up the occupational classification of Full-time Student and Self-Employed at the same time, but the data collection results did not meet the expectations. Only 1 Full-time Student (0.24%) participated in the survey and did not receive the answer from Self-employed, 0 (0%). This result did not meet the researcher's expectations. The number of two occupational samples here is too small.



7. Occupation

f. From the feedback report of the questionnaire, the researchers counted the number of 3A games the respondents currently own. There is little difference among the first three groups, from more to less: between 5-9 unit:122 (28.71%); less than 5 unit:114 (26.82%); between 10-19 unit:107 (25.18%). The least number is more than 20-unit respondents, 82 (19.29%).



8. Number of 3A Games (PC).

## Conclusion and Recommendation

### Conclusion

The purpose of this study is to objectively study the influencing factors of Chinese consumers on 3A Game Purchase Decision. Therefore, the researcher selected Product, Price, Marketing, Branding, Social Relation and Preference as the Independent Variable and Purchase Decision as the Dependent Variable. The researchers collected questionnaires from 425 Chinese 3A Game users. These respondents are Chinese citizens who have bought 3A Games. The researchers used multiple linear regression analysis to test this hypothesis. The research results show that Marketing, Branding, Social Relation and Preference significantly affect Purchase Decision.

### Recommendations

The results of this study, the researchers found that Marketing, Branding, Social Relation and Preference all have a significant impact on Purchase Decision.

On previous studies, the researchers found that many variables were significantly related to the Purchase Decision of 3A Games. The findings of this study support previous findings. Laura Heinonen (2010); Hamari & Lehdonvirta (2010); Lehdonvirta (2009); Tyni et al. (2011); Evans (2015) and others believe that discount activities, media recommendations, official exhibitions and other activities will affect game players' Purchase Decisions. Laura Heinonen (2010) said in the study that the population of developers and operators, series products, development team and other factors will affect the Purchase Decision of game players. Laura Heinonen (2010); L.L. Souza, A.A. Freitas / Revista de Administração; amari & Järvinen (2011); Yee (2006); Ryan et al. (2006) studied the relationship between the sub problem of Social Relation and Purchase Decision. Laura Heinonen (2010); Nielsen (2009) pointed out that problems related to preference will affect Purchase Decision.

### Reference

1. Bester, P. 2012. The Business Environment of Sport Organizations: A Review. *African Journal of Business Management*, 6 (46), 11530-11535.
2. Buttle, F.A. (1998) Word of Mouth: Understanding and Managing Referral Marketing. *Journal of Strategic Marketing*, 6, 241-254.
3. Hallowel, R (1996). The relationships of customer satisfaction, customer loyalty and profitability: An empirical study. *Journal of Management Decision*, 35(4), 322-339.
4. Krejcie, R.V., & Morgan, D.W. (1970).
5. Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610
6. Fishbein, M., and Ajzen, I. (1975). *Belief, Attitude, International and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley, 6.
7. Krejcie, R.V. and Morgan, D.W. (1970), "Determining sample size for research activities", *Educational and Psychological Measurement*, Vol. 30, pp. 607-610.