Study on the Influencing Factors of Users' Intention of Participatory Communication Behaviors in Online Game Live Based on VAM and TPB Models

Zixuan Zhao

School of journalism and communication, Inner Mongolia Normal University，Hohhot，China.

zhaozixuan6187@163.com

Abstract. In recent years, online game live rockets to fame, in which case live-broadcasting platforms and network anchors have become increasingly popular, inevitably causing many violations and management chaos while competing for users' attention. Therefore, it has become an important topic of theoretical and practical significance to explore the factors influencing users' behavioral intention to participate in live broadcast games. Based on the theories of VAM and TPB, this study attempts to build a research model of the influencing factors of users' behavioral intention to participate in broadcast games, propose hypotheses and conduct a questionnaire survey. SPSS software was used to conduct correlation analysis and stratified regression analysis on 419 valid samples, mainly young people aged about 24. It turns out that perceived usefulness, perceived enjoyment, subjective norms, and perceived behavioral control significantly and positively affect users' behavioral intention to participate in live broadcast games.

Keywords: online game live; participatory communication behavior; value acceptance model; Theory of Planned Behavior.

1. Introduction

The continuous development of Internet technology provides users with more abundant ways of online recreation. Affected by the epidemic, the enjoyment focus of the public has largely shifted to online platforms. China had 703 million live streaming users by the end of last year, accounting for 68.2 percent of the total Internet population, according to the 49th Statistical Report on China's Internet Development released by the China Internet Network Information Center[1] (CNNIC). In this group, the user scale of game live broadcast is 302 million, accounting for 29.2% of the total Internet users, second only to the users of e-commerce live broadcast. It is undeniable that the rapid development of live games is inseparable from the popularity of e-sports in recent years. From appearing as a sports event in the Asian Games, to IG team winning the gold medal in 2018, to EDG team winning the gold medal in November last year, the official weibo congratulation of CCTV news has continuously promoted netizens' attention, recognition and participation enthusiasm for games and game live broadcast.

However, the game live broadcasting industry is not all for the better. On April 15, the Administration Department of Network Audio-visual Programs of the National Radio and Television Administration and the Publicity Department and Publication Bureau of the CPC Central Committee issued the Notice on Strengthening the Management of Live Games on Network Audio-visual Program Platforms[2], which put forward the provisions of "strictly prohibiting the dissemination of illegal games on the network audio-visual platform, strengthening the broadcast management of game live content, and strengthening the guidance of game anchor behavior norms". This series of information reflects the management chaos that network games live show exists. Some anchors even select some bloody and violent or even banned games as live content to attract users to watch; Some anchors express vulgar language in order to stimulate user interaction and bring the flow of fans. Network platforms sometimes set up a lot of fancy reward mechanisms for the benefit of deliberately induced users to online consumption. Fundamentally, these actions are to stimulate the audience to engage in relevant behaviors. In this regard, it is very urgent and important to clarify the factors that

really affect user participation behavior, and assist the new regulations to guide and regulate platforms and anchors, so as to achieve a balanced and win-win situation.

Previously, scholars have proposed that media participation is mass participation in media information production. The forms of mass media are diversified and present a wide range of characteristics, including providing news, putting forward opinions, enjoyment voting and so on. These network activists have different starting points of action, including pure disclosure of information, fighting for personal rights and interests, and volunteering to serve the public. However, all of them have gone beyond the identity of mere "media users" and have taken the initiative to use media and influence media information in various ways and degrees. [3] In such an era of social media, traditional media users' passive mode of receiving information has been transformed. Empowered by technology, users' initiative in using information has been deepened and users' willingness to participate in creation and sharing has been constantly stimulated. These changes are especially reflected in the enjoyment culture with strong attraction and high degree of freedom, including the online game live broadcast field studied in this paper. Therefore, this paper proposes the dependent variable "participatory communication behavior" suitable for this study by combining the user's participation behavior in the new media era with the media characteristics of game live broadcast, so as to conduct follow-up research.

In terms of live games, the existing research mainly focuses on copyright, interactive research, and user media use behavior. On this basis, based on the empirical data collected from user groups of online game live broadcast, combined with VAM and TPB models, this paper focuses on the six elements of perceived usefulness, perceived ease of use, perceived enjoyment, behavioral attitude, subjective norms and perceived behavior control, and analyzes their impact on the communication participation behavior of online game live broadcast users, so as to provide reference for the content selection and behavior norm optimization of game platforms and anchors.

2. Theoretical framework

2.1 Perceived Value Acceptance Model

The Technology Acceptance Model was proposed by Davis in 1989, which is used to explain and predict individuals' acceptance of an information system and willingness to continue using it after using it for a period of time [4]. Studies have proved that TAM model is not ideal in explaining users' willingness to use new media. Subsequently, Kim et al. [5] proposed user value acceptance model (VAM) based on Zeithaml's perceived value theory and technology acceptance model theory, considering users' acceptance attitude towards M-Internet. In the VAM model, the influencing factors of users' perceived value of mobile Internet are perceived benefit and perceived cost. The benefit includes usefulness and enjoyment, and the cost includes ease of use and cost. The modified model has a stronger explanation of user behavior intention, which is suitable for analyzing and exploring the influencing factors of user behavior in network broadcast. This paper selects three factors of perceived usefulness, perceived ease of use and perceived enjoyment for study.

2.2 Theory of Planned Behavior

The Theory of Planned Behavior originally came from the Theory of rational Behavior proposed by Fishbein et al. [6][7]. Later, Ajzen[8] added the variable "perceived behavioral control" to the original model to reflect the individual's ability to control the results of behavior, and the theory of planned behavior was constantly improved. According to TPB theory, the three variables of subjective norms, behavioral attitudes and perceived behavioral control exert a combined effect on individual behavioral intention, and behavioral intention can directly affect individual behavior.The theory constructs the decision-making process of individuals for expected behavior, and combines personal inner perception, environmental factors and expected behavior. Since its birth, the theory of planned behavior has been widely used in the study of individual intentions and behavioral intentions, presenting sound explanatory and predictive power[9][10].

3.   Definition of Concept and Research Hypothesis

3.1 Participatory communication behavior

Some scholars once pointed out that, from the perspective of users' participation in communication practice, the participation behavior of game live broadcast users is the behavior of users' involvement in the communication content and process in the virtual community provided by game live broadcast, which is reflected in the process of users' participation in the communication of game live broadcast information, and then has an impact on the production and communication of game direct broadcast content. [11] In this study, the specific manifestation of communication behavior is: sharing and forwarding some live game videos in private messages, sharing one's own game experience with others when watching live game, and communicating with others by posting and re-posting information about live game or host on one's social media homepage.

The behavior of participatory communication is not reflected in every viewer. For example, in the process of game broadcast, the number of bullet screen comments sent is far less than the number of viewers in the live broadcast room. In addition, the performance of users who participate in the behavior of communication is also different. For example, the same live broadcast is edited by different users and transmitted again, with different contents and effects. Therefore, it can be inferred that different degrees of communication participation of users in game live broadcast may be influenced by multiple factors, such as cognitive differences caused by individual cultural level and living environment of users, resulting in different results.

3.2 Perceived usefulness

In the Technology Acceptance Model (TAM), Davis defined perceived usefulness as: when individuals use a new system or participate in a certain activity, they will be more willing to use the new system if they believe it can help improve their efficiency. [4] In this study, perceived usefulness is specifically reflected in whether users think watching live games can help improve their game experience and level.

Studies in related fields have shown that in the user engagement evaluation system of social e-commerce platforms, the perception usefulness measurement shows that the origin of knowledge plays the most important role, and users attach more importance to whether the platform can help them acquire new knowledge. [12]Some scholars also pointed out that the accuracy and benefits of wechat push content have a significant positive impact on customer perception and use. [13] To sum up, the more effective the information obtained by users through a system is, the more it will help them to improve, and the stronger their intention to continue using the system. Based on this, the following hypotheses are proposed:

H1: Perceived usefulness is significantly positively correlated with users' behavioral intention to participate in game broadcast in a communicative manner;

3.3 Perceived ease of use

Perceived ease of use refers to the ease with which an individual feels the use of a system or technology[14]. It is influenced by many external factors, such as system characteristics, page characteristics[15], environmental factors, individual factors, website factors[16], etc. In this study, perceived ease of use is specifically reflected in whether users think the operation is simple in a series of processes, such as searching, watching and participating in the live broadcast of the game and sending bullet screens.

Previous studies have shown that in the application and promotion process of vlog news, the perceived ease of use will positively affect users' attitude and willingness to use it, and then affect the actual use behavior. [17]Some scholars have also confirmed that perceived ease of use has a significant positive impact on wechat knowledge sharing attitude and behavior. [18] Wechat knowledge sharing is also a form of online communication and participation. Therefore, it can be inferred that in online game live broadcast, users believe that the more stable and smooth the technical equipment, the easier

and simpler the operation, the stronger their willingness to participate in the communication, that is, to share their game experience with others, and to repost the game live information to the discussion community. Thus, the hypothesis is proposed:

H2: Perceived ease of use is significantly positively correlated with the behavioral intention of users to participate in game broadcast in a communicative manner

3.4 Perceived enjoyment

Perceived enjoyment is defined by scholars Kim and Moon as "the interest that individuals can perceive when they conduct certain behaviors or participate in certain activities", and they divide users' perceived enjoyment in the process of using the Internet into three parts: concentration, curiosity and interest. [19] In this study, perceived enjoyment specifically reflects whether users think live games are interesting and whether they feel happy and relaxed.

So far, self-perceived enjoyment has been put forward by many scholars. For example, studies have shown that perceived enjoyment plays a significant role in influencing whether users continue to use Facebook. [20] Other studies have shown that entertaining course websites can not only help users improve their academic performance, but also give them a sense of pleasure and release the tension caused by the stress of studying. In this case, the course website users are more likely to accept the website information, and it is easier to learn and skillfully use the course website. [21] Online courses belong to the category of users' participation in online information activities. Therefore, it can be concluded that the more interesting users feel when using a system or participating in an activity, the stronger their willingness to continue using and participating in it. Thus, the hypothesis is proposed:

H3: Perceived enjoyment has a significant positive correlation with users' behavioral intention to participate in broadcast games

As mentioned earlier, the theory of planned behavior includes three main variables: subjective norms, behavioral attitudes and perceived behavioral control, which collectively affect individual behavioral intentions. Through literature reading and data collection, the author concluded that subjective norms and other three factors may have a certain influence on the dependent variable "participatory communication behavior" of this study.

3.5 Behavioral attitude

Behavioral attitude refers to the positive or negative evaluation of a specific behavior formed or predicted through previous behavioral experience. [7] In this study, behavioral attitude is specifically reflected in whether users have a positive attitude in the process of participating in game live broadcast.

In today's Internet era, behavioral attitude is often used to analyze the impact of individual behavior. Previous studies have shown that behavioral attitude plays an impact on individuals' behavioral intention to use short video APP and can positively predict individuals' willingness of participation. [22] It is also pointed out that behavioral attitude has a significant impact on individual online shopping intention, and it is very important for websites, enterprises or platforms to make efforts to make users have a positive perception of them. [10] It can be seen that the better the atmosphere created by the game live broadcast platform for users, the more willing users are to participate in it and share their game experience with others. Therefore, the following hypotheses are proposed:

H4: Behavioral attitude has a significant positive correlation with users' behavioral intention to participate in live broadcast games

3.6 Subjective norm

Subjective norms refer to the opinions from the surrounding environment that individuals feel when they take certain behaviors, that is, in social life, the opinions of surrounding people or opinion leaders on individuals' behaviors affect their decisions.[7] In this study, subjective norms are

specifically reflected in whether users feel that their social and friends approve of their participation in game live broadcasting.

Previous literatures have shown that in relation to the influence of subjective norms on individuals, the friends and relatives of primary groups in the most central position, as well as mass media and public opinion, will all affect users' intention of online trust behavior. [23]Most studies have confirmed that the audience's subjective norms in online live delivery have a significant positive impact on the formation of their participation, sharing and purchase intention. [24]However, subjective norms do not necessarily play a role in all behaviors. For example, scholar Li Lu found that in the elderly group, subjective norms have less influence on individuals' behaviors of using short video apps compared with other factors.[22] In order to explore whether subjective norms play a role in the process of users' participatory communication in game broadcast, the following hypotheses are proposed:

H5: Subjective norms have a significant positive correlation with users' behavioral intention to participate in live broadcast games

3.7 Perceived behavioral control

Perceived behavioral control refers to the degree of difficulty perceived by an individual to perform a particular behavior. The lower the perceived difficulty, the higher the probability of performing the behavior. [7] In this study, perceptual behavioral control is specifically reflected in whether users think they have enough time, energy and ability to participate in game live broadcast.

According to the academic research on film marketing strategies, it is pointed out that appropriate ticket pricing is conducive to promoting consumers to go to the cinema, and the public is more likely to have the intention to watch movies and take action when the individual's mental state and physical condition are good. [25] Some scholars also point out that individuals will be more and more interested in participating in short video apps such as Douyin and Kuaishou if it is easy to operate.[22] The use of Douyin and other platforms, video publishing, forwarding and other functions are also a manifestation of communication participation. To sum up, it is found that the impact of perceptual behavior control on final behavior has been confirmed in relevant studies. On this basis, it is transferred to this study to modify and propose the following assumptions:

H6: Perceived behavior control has a significant positive correlation with the behavior intention of users to participate in the live broadcast of the game

4. Research Method

4.1 Data samples and sample conditions

The data of this paper comes from the independent collection of users participating in online game live broadcast. Snowball sampling method was adopted in this survey. A total of 419 valid samples were completed through online questionnaire survey, with representative samples, including 192 males (45.8%) and 227 females (54.2%). The youngest was 13 years old, the oldest 42 years old, and the average age was 24 years old. In terms of education, 39 (9.3%) have received primary education or below, 31 (7.4%) have graduated from junior high school, 43 (10.3%) have graduated from senior high school, 28 (6.7%) have graduated from junior college or vocational college, 236 (56.3%) have received undergraduate education, and 42 (10%) have received graduate education. 155 people (37%) have a monthly income of 4,000-8,000 yuan, 111 people (26.5%) have a monthly income of 8,000-12,000 yuan, 64 people (15.3%) have a monthly income of 12,000-16,000 yuan, and 89 people (21.2%) have a monthly income of more than 16,000 yuan.

4.2 Variable measurement and data processing

Dependent Variable
The dependent variable of this study is the communicative participation behavior (willingness) of users of live online games. In the questionnaire, there are 6 items that measure communicative participation behavior (willingness), all of which are measured by Likert 7 subscale (from "1=

strongly disagree" to "7= strongly agree"). Reliability test was carried out in this study, and the result showed Cronbach's = 0.877, indicating high reliability of the scale. Therefore, data measured in the questionnaire were selected for analysis in this paper.

Independent variables

The independent variables of this paper are perceived usefulness (measuring whether users perceive it to be helpful to themselves in the process of participating in the broadcast of the game), perceived ease of use (measuring whether users perceive the simplicity of use and operation in the process of participating in the broadcast of the game), perceived enjoyment (measuring whether users perceive fun in the process of participating in the broadcast of the game), behavioral attitude (measuring whether the user has a positive attitude towards the behavior of participating in the broadcast of the game), subjective norms (measuring the views and judgments of the social groups perceived by the user on the individual behavior of participating in the broadcast of the game), perceived behavior control (measuring the degree of control perceived by the user in the behavior of participating in the broadcast of the game). A total of 20 items in the questionnaire involve the above independent variables, which are measured by Likert 7 subscale (from "1 = strongly disagree" to "7 = strongly agree").

Table 1 Descriptive Statistics and Reliability Data of Each Variable

Measurement variables	M(mean value)	SD(standard deviation)	Cronbach's	Reference Source
Participatory communication behavior	3.850	1.285	0.877	Xue Ke (2017), Li Zhenfang et al. (2017) Zhang Yuhong (2013) and Hu Yinhua (2016)
Perceived usefulness	4.391	1.395	0.928	Davis(1989) Zeithaml(1988)
Perceived ease of use	4.440	1.489	0.892	Davis(1989)
Perceived enjoyment	4.509	1.543	0.937	Kim（2001）
Behavior attitude	4.217	1.394	0.881	Ajzen (2006)
Subjective norms	4.092	1.384	0.874	Park&Smith(2007)
Perceptual behavior control	3.965	1.384	0.814	Shen Yuxia (2017)

Control variable

According to the literature review, gender, age, education level and family economic status may all have an impact on the participatory communication behavior (willingness) of online game live broadcast users, so these factors are taken as control variables in this paper.

4.3 Statistical methods

In this paper, SPSS software was used for correlation analysis and hierarchical regression analysis. The six independent variables mentioned above and one dependent variable were input into the regression model to predict risk perception based on the assumed causal order: demographic variables were put into the first layer (age, sex, education level, family economic status); then, relevant variables of VAM theoretical model "perceived usefulness, perceived ease of use, perceived enjoyment" are put into the second layer, and finally, "behavior attitude, subjective norms, perceived behavioral control" in TPB theoretical model are put into the third layer.

5. Data Analysis

5.1 Descriptive statistics and correlation analysis of variables

Table 2 presents the mean value, standard deviation and correlation of perceived usefulness, perceived ease of use, perceived enjoyment, behavioral attitude, subjective norms, perceived behavioral control, demographic variables, as well as participatory communication behavior (willingness). The results showed that perceived usefulness, perceived ease of use, perceived enjoyment, behavioral attitude, subjective norms, perceived behavioral control were significantly positively correlated with participatory communication behavior (willingness), with the correlation coefficient between 0.573 and 0.723 (P <0.01). In demographic variables, age and education level are significantly correlated with perceived usefulness, perceived ease of use, perceived enjoyment, behavioral attitudes, subjective norms, perceived behavioral control and participatory communication behavior.

Table 2 Correlation Coefficients of Variables

Variable	1	2	3	4	5	6	7	8	9	10
Perceived usefulness										
Perceived ease of use	0.857**									
Perceived enjoyment	0.858**	0.828**								
Behavior attitude	0.783**	0.765**	0.813**							
Subjective norms	0.712**	0.678**	0.705**	0.806**						
Perceptual behavioral control	0.625**	0.590**	0.595**	0.751**	0.806**					
Participatory communication	0.621**	0.573**	0.579**	0.714**	0.700**	0.723**				
Gender	0.034	0.065	0.037	0.045	0.000	0.000	0.016			
Age	-0.298**	-0.293**	-0.350**	-0.269**	-0.148**	-0.162**	-0.132**	0.042		
Degree of education	0.242**	0.270**	0.264**	0.209**	0.210**	0.137**	0.131**	-0.082	-0.218	
Family financial status	-0.003	0.030	-0.006	0.002	0.053	0.121**	0.075	0.053	0.070	-0.070

5.2 Regression analysis of predictive variables on broadcast participation behavior of online game users

In order to further explore the impact of each predictive variable on the communication participation behavior of online game live broadcast users, this study conducted a hierarchical regression analysis. First of all, gender, age, education level and family economic status jointly explain 3.7% of the online game live broadcast users' communication participation behavior, and their education level （ β= 0.115, P < 0.05) higher, family economic status (β= 0.089, P < 0.05). Perceived usefulness (β=0.415, P <0.001) and perceived enjoyment (β=0.172, P <0.05) were the significant

influencing factors of users' disseminated participation behavior. It indicates that the higher the users feel the help to themselves, the more comfortable and pleasant they feel, the more likely they are to participate in the behavior of broadcasting games. Thirdly, when behavioral attitude, subjective norm and perceived behavioral control are included in the equation, behavioral attitude (β=0.322, P <0.001) and perceived behavioral control (β=0.342, P <0.001) all have a significant positive impact on user propagated participation. It means that the more positive the user's attitude towards game live broadcasting is, the more positive they perceive the social group's view on participating in game live broadcasting, and the more relaxed and barrier-free they think they are to participate in game live broadcasting, the more willing they are to engage in communication participation. However, perceived ease of use (β= 0.102, P >0.05) and subjective norms (β=0.123, P >0.05) did not have significant predictive effects on participatory communication behavior. Stratified regression explained 19.7% of the total variance, as shown in Table 3.

Table 3 Hierarchical Regression Analysis of Each Predictive Variable on Users' Participatory Communication Behavior

Predictor variable	Model I Beta	Model II Beta	Model III Beta
Gender	0.025	-0.020	-0.004
Age	-0.114*	0.073	0.039
Degree of education	0.115*	-0.023	-0.012
Family financial status	0.089	0.068	0.024
Perceived usefulness		0.415***	0.182*
Perceived ease of use		0.102	-0.025
Perceived enjoyment		0.172*	-0.091
Behavior attitude			0.322***
Subjective norms			0.123
Perceptual behavioral control			0.342***
F	3.991**	40.398***	62.302***
R2	0.037	0.408	0.604
ΔR2	0.037	0.370	0.197

Note: *p<0.05,**p<0.01,***p<0.001。

6. Conclusion and Discussion

In view of the rapid popularity of game live broadcasting in recent years, the problem of live broadcasting chaos frequently occurs on many platforms and anchors. This paper attempts to explore the relevant behavior patterns. In this context, combined with the perceived value acceptance model and planned behavior theory, this study discusses the influencing factors of users' behavioral intention to participate in game broadcast in a propagandistic way, which has important theoretical and practical significance and provides a feasible approach for the normative guidance of the live broadcast industry.

6.1 VAM model involves variable and users' participatory communication behavior

The results of this study show that perceived usefulness can significantly and positively affect users' willingness to participate in game live broadcast, which is in line with hypothesis 1 in this paper. That is, the greater the actual utility that users think game live brings to themselves, the stronger their attitude of participating in game live broadcast by communication. Therefore, the game broadcast platform can simplify and adjust the interface design and get rid of complex and redundant information, while the game host should output more useful information to users in the selection and design of the broadcast content, such as their own experience and skills.

The data confirm that hypothesis 3 is valid in this paper, that is, perceived enjoyment has a significant positive impact on users' behavioral intention to participate in broadcast games in a communicative manner. Nowadays, the pace of social development is getting faster and faster, and people's life pressure is generally increasing, so are their demands for leisure and enjoyment. Just as the fourth function of mass communication, "providing enjoyment", is still of guiding significance when transferred to the context of today's live games. Bilibili's platform has previously created animated pop-ups for prominent messages, and in April it added custom emojis to many anchors' live broadcast rooms, partly encouraging users to participate. In addition, the "Chinese Boy Super Gorilla" in the head up of bilibilili game area added customized opening animation and music for the first time in the live broadcast on May 4. The chat part and game part have different graphic frame to increase the interest of users. Other platforms and anchors can also learn from such methods to improve users' perception of entertainment, help attract traffic and promote user engagement.

According to the data analysis, hypothesis 2 is not valid, and perceived ease of use has no significant effect on the behavioral intention of users participat ory communication. The author believes that the Internet technology is now very mature, the perceived cost is reduced, and there is little difference in the experience of users watching live broadcast everywhere or using various devices. They have little experience in the use of unstable technology, which may lead to less attention to the stable flow of technical equipment. As scholars Li Luyun and Fan Zhenzhen said, with the development and popularization of technology, most users have become accustomed to using various APPS and mobile products. They can quickly collect the information they need on mobile platforms, and can receive and understand product content well. Therefore, perceived ease of use is not the focus of their attention. [26]

6.2 TPB model theoretical variables and user's participatory communication behavior

According to the results of this study, hypothesis 4 of this study is valid, that is, behavioral attitude can significantly positively affect the behavioral intention of users to participate in the broadcast of games, and the attitude of respondents to watch the broadcast of games is generally positive. It can be seen that the more positive the user's attitude towards it, the stronger the behavioral intention to participate in it. Just as scholar Zhang Hui et al said, behavioral attitude has a significant impact on online shopping intention, and it is very important for online enterprises to make efforts to make consumers have a positive perception of their behavior. [10] The platform and anchor should provide more positive content, self inspect and rectify the chaos of live broadcasting, create a good live broadcasting ecological environment, improve the brand and reputation, and make efforts for the positive perception attitude of users, so as to promote the audience's willingness to participate.

The results of this study show that perceptual behavior control has a significant positive impact on users' willingness to participate in game live broadcast, which is in line with hypothesis 6 in this paper. Nowadays, multiple platforms have opened the live broadcasting business, and game anchors emerge endlessly. As users have more and more choices, they tend to choose the ones they think are simple and easy to control to watch and participate in. In addition, nowadays, with technological progress, editing software such as clipping and screening is easy to operate, and users can complete video editing even with zero basis, prompting some users to edit and re-post live content. Therefore, the platform should be simplified and easy to use, so that users feel that the operation or the step of usage is easy to complete, thus helping to increase their willingness to participate.

According to data analysis, hypothesis 5 in this paper is not valid, and subjective norms have no significant effect on users' behavioral intention of participatory communication. According to relevant information and contact with real life, the author concluded that under the realistic environment of China's rapid economic development, people's income increases and living standards improve accordingly. As a result, people's subjective choices for both offline consumption and online infotainment are increasing. As the scholar Wang Zaifeng said, "Enjoy the moment, live in the moment, see the people you want to see, eat what you want to eat, do what you want to do." This is

the life attitude generally recognized by many young people at present. Compared with the previous generation, they are more self-centered, more personalized and more pragmatic. This "self" centered attitude towards life is reflected in many fields. In short, they pursue to please themselves. [27] From the questionnaire data of this study, it can be found that the average age of respondents is 24, and young people account for the vast majority of participants in game live broadcast. Therefore, driven by the concept of self-satisfaction, they pay more attention to their own ideas rather than the opinions of the society or friends and relatives.

6.3 Research conclusions and future suggestions

Recently, the Administration Department of Online Audio-visual programs of the National Radio and Television Administration and the Publicity Department and Publication Bureau of the Central Committee of the Communist Party of China issued a notice on Strengthening the management of online audio-visual program platforms to broadcast games in violation of regulations, strengthen the management of the broadcast of live game content, and strengthen the guidance of game anchors' behavior standards. [2] This paper empirically verifies that perceived usefulness, perceived entertainment, behavioral attitude and perceived behavioral control have a positive effect on users' behavioral intention to participate in broadcast games, which has certain theoretical value and practical significance. Through the research, it is found that game live broadcasting platforms and anchors should be actively guided to provide more effective and interesting content, so as to create a positive and simple network virtual use atmosphere for users, thus promoting their behavioral willingness to participate.

Indeed, this study is also subject to certain limitations. Firstly, the research model only discusses the linear relationship between factors, lacks the discussion of internal mechanism, and does not set intermediary variables and regulatory variables, such as audience characteristics, information processing and psychological mechanism. The follow-up research can supplement the research on the action mechanism of group identity and quasi social relationship on users' communicative participation behavior. Secondly, since causality interpretation cannot only rely on path analysis, subsequent studies can be verified by means of design experiments. Finally, qualitative research methods such as interviews with specific users can be used to further explore the stories and details to enhance the comprehensiveness of the results.

References

[1] The 49th statistical report on China's Internet development issued by China Internet Network Information Center

[2] Notice on strengthening the management of online audio-visual program platform game live broadcast issued by the Department of online audio-visual program management of the State Administration of radio and television and the Publishing Bureau of the Central Propaganda Department

[3] Zhou Baohua, Lu Ye From media use to media participation: the basic situation of Chinese public media literacy [J] Journalism University. 2008 (04): 58-66

[4] DAVIS F D. Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology[J]. MIS Quarterly, 1989, 13(3): 318-339.

[5] BAO Ran. New Media: from the Passive Age to the Me Age[M]. Beijing: Communication University of China Press, 2010.

[6] Fishbein, M. An investigation of the relationships between beliefs about an object and the attitude toward that object[J]. Human Rela ‐ tions, 1963, 16(3): 233-239.

[7] Fishbein M, Ajzen I. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research[M]. Reading: MA Addison- Wesley, 1975.

[8] Ajzen I. The theory of planned behavior[J]. Organizational Behav ‐ ior and Human Decision Processes, 1991, 50(2): 179 –211.

[9] Armitage C J, Conner M. The theory of planned behaviour: Assess ‐ ment of predictive validity and perceived control[J]. British Jour ‐ nal of Social Psychology, 2010, 38(1): 35-54.

[10] Zhang H, Bai C H, Li C F. Study on consumers'online purchas‐ ing intention: Comparison between TRA and TPB[J]. Soft Science, 2011, 25(9): 130- 135.]

[11] Ning Jingyi Research on the motivation model of online game live video users' participation behavior [D] Guangxi: Guangxi University, 2018

[12] Tian Yunqing, Qin Yinglin. TAM model based user engagement evaluation of social e-commerce platform - a case study of the Red APP

[13] Zhou Rongfu, Zhang Lian, Zhang Yaming Impact of Information Content Pushed By Wechat Public Platform On Customer Brand Loyalty [J] Business Research, 2016 (6): 141-147

[14] Davis F D．Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology[J].MIS Quarterly,1989,13 （3）: 319－340．

[15] Yoon H Y. User Acceptance of Mobile Library Applications in Academic Libraries: An Application of the Technology Acceptance Model[J].The Journal of Academic Librarianship, 2016, 42 (6): 687－693．

[16] Li Baoku, Xie Huiming, Gao Wei. Study on users' willingness to accept lbs group purchase based on TAM [J]. Modern intelligence, 2015, 35 (9): 12-17

[17] Lu Yanhao, Gu Yinan Satisfaction and acceptance: A Study on vlog news audience behavior

[18] Zheng Zhilai, Zhang Qiuting: A study on wechat knowledge sharing behavior based on TPB and TAM Models

[19] Moon J,Kim Y.Extending The TAM for A World-Wide-Web context[J].Information&Management,2001,38:217~230.

[20] K Praveena,S Thomas.Continuance Intention to Use Facebook :A Study of Perceived Enjoyment and TAM.Bonfring International Journal of Industrial Engineering & Management Science,2014,4(I):24-29.

[21] Ma Ling, XING Yun, Wu Xianfeng. Research on influencing Factors of curriculum website use intention [J]. China Electronic Education,2013(02):72-78.

[22] Li L: Research on influencing factors of behavioral intention to use short video APP in elderly population based on TPB model.

[23] Yang Luming, Li Qinyun: Research on the Influencing Factors of mobile consumer shopping.

[24] Liang Guanfeng, Wu Zhiyin, Wu Diming: Research on the influencing factors of "E-commerce live Broadcasting" on college students' online consumption behavior based on planned Behavior Theory.

[25] Niu Xinquan, Liu Qingzhen: Film marketing communication Strategy Analysis based on planned Behavior Theory -- Taking The Wandering Earth as an example.

[26] Li LUyun, Fan Zhenzhen. Research on the influencing factors of users' mobile audio payment intention: Based on TPB-TAM integration model.

[27] Wang Zaifeng. Self - pleasing consumption is the label of an era.