

User Perceived Value and Continued Participation in Barrage Video

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ABSTRACT

It is a reality that barrage video is getting prevailing for being able to satisfy users' demand of real-time interaction. In the cut throat competition, how to hold a person's attention effortlessly and promote continued participation is still a vital issue. This paper aims to study the relation between user perceived values and continued participation in the context of barrage video. To obtain practical implications, a survey has been implemented. The results reveal that information value has positive impacts on continued participation behavior, and its effect is completely mediated by satisfaction. Entertainment value can also promote the continued participation behavior, in which satisfaction plays a part of mediating role. Social value has no significant direct influence on the continued participation behavior.

Keywords: *perceived value, continued participation, barrage video*

1. INTRODUCTION

Online video has become one of the most important forms of online entertainment for users. According to the report on the development of China's Internet audio-visual Research, China's online video users has reached 609 million, accounting for 76% of the total number of Internet users by June 2018 [1]. With the development of science and technology, users are no longer satisfied with passively receiving information, but long for more communication and interaction. 73.7% of users like to read comments while watching videos [2]. Thus, a new way of making comments – barrage came into being. At the beginning, barrage users were mainly AGC (animation, game, comic) enthusiasts. However, in the post-modern context of the Internet, the barrage slowly began its process of mainstreaming in its development [3]. Traditional online video websites such as Tencent and iQIYI have followed the example of professional barrage video websites like AcFun and Bilibili, adding barrage functionality on their websites. According to the survey, more than 50% of users are willing to watch the barrage [2]. It can be seen that barrage promotes users' willingness to comment in an interactive way which is completely different from the traditional way and is gradually accepted by the public. Barrage video has gone from niche to mass.

Nevertheless, in barrage video, users are not only the recipients of information, but also the creators of content. Therefore, whether it can indeed provide users with interesting and valuable information and promote their continuous participation is still worth studying. Based on perceived values, this paper tries to explore the factors that influence the viewing and usage of barrage and figure out what users pay more attention to in the process of participation, in order to offer some suggestions for the development of barrage video.

2. LITERATURE REVIEW AND CONCEPTUAL MODEL

2.1. Literature Review

2.1.1. Research on Barrage

Originally, Barrage refers to a large number of comments that occupy the screen and are basically consistent in content at the same time [4]. After being introduced into China, the meaning changed. Even a single comment can be regarded as barrage. That is to say, no matter how many comments, as long as they conform to the characteristics of fluidity and coverage, they are collectively called barrage [5].

2.1.2. Research on Perceived Value

Zeithaml proposed that perceived value is the overall evaluation of the utility of a product or service made by consumers based on the perception of costs and returns in the consumption process [6]. The most common example of this definition is the consumer's trade-off between price and quality in the retail industry. With the development of the Internet, perceived value is no longer limited to the attributes of products. Thus, Woodruff gave a more comprehensive definition, that is, perceived value is the customers' perception preference and evaluation of certain attributes, performance and use results that help (or hinder) them to achieve their goals in the process of using products [7]. The early dimension division is mainly based on whether the product can realize its function and achieve the expected purpose. For example, PIMS (Profit Impact of Market Strategies) considered that customer value is determined by product quality and relative price [8]. With the deepening of

research, Sheth was no longer limited to product quality and price, but brought up a broader dimension, namely five dimensions of social value, emotional value, functional value, cognitive value and conditional value [9]. Sweeney & Soutar believed that the concept of perceived value is different from satisfaction, and divided it into emotional value, social value, functional value and functional value [10].

2.1.3. Research on Customer Satisfaction and Continued Participation

Customer satisfaction was firstly proposed by Cardozo who defined it as customers' repeat buying [11]. Based on the previous study, Oliver put forward the theory of expectation inconsistency. Expectation means customer's expectation of the product benefits that they'll gain and performance refers to customer's perception of the actual experience of the

product or service. The difference between the two is inconsistency. When the inconsistency is greater than zero, the performance is higher than the expectation and the customer is satisfied. Otherwise, they won't be satisfied [12]. According to Oliver's theory, Bhattacharjee analyzed the behavioral characteristics of information system users and found that, unlike the expectation formed by consumers through online comments before purchase, consumers' expectation after initial participation was more convincing. In this process, consumers' satisfaction will affect their intention of continuous use, which will further affect their behavior of continuous use [13].

2.2. Conceptual Model



Figure 1 Conceptual Model

According to what mentioned above, this paper proposes the following hypotheses

H1: Satisfaction has a positive impact on continuous participation

Information value refers to the degree of perception of users in barrage video to meet their information needs. In barrage video, barrage can provide users with a lot of information, such as plot review and interpretation in movies and TV dramas, background of video in professional video, professional knowledge and popular science, etc. The immediacy and pertinence of such information is conducive to the satisfaction of users' thirst for knowledge [14]. When the user's thirst for knowledge is satisfied, it is possible to continue using the barrage. The author proposes the following hypotheses:

H2a: Information value will positively affect the continuous participation behavior

H3a: Satisfaction mediates the influence of information value on persistent behavior

Social value refers to the social utility acquired by users in barrage video, such as the recognition of others and the improvement of interpersonal relationship. In barrage video, users gather together due to similar interests to form a natural community and express their ideas for a specific detail or picture in video. For the starters of bullet screen, repeated refresh of their bullet screen is a kind of affirmation from others, which satisfies their own psychological needs and makes them satisfied. At the same time, it also

strengthens their sense of identity to the group, and the strong group identity will have a lasting impact on the actions of participants [15]. The author proposes the following hypotheses:

H2b: Social value will positively affect the sustained participation behavior

H3b: Satisfaction plays an intermediary role in the influence of social value on sustainable behavior

Entertainment value refers to the emotions that users get in the barrage video, such as pleasure. In barrage video, some plain contents are likely to become vivid because of their unique humor and insight, which brings a sense of pleasure to users and forms a carnival sensory experience and emotional release [16]. According to the research results of knowledge sharing behavior of Chiu members in the virtual community, the sense of pleasure will promote the continuous sharing intention of members and indirectly affect the continuous participation behavior [17]. The author proposes the following hypotheses:

H2c: Entertainment value will positively affect the sustained participation

H3c: Satisfaction mediates the influence of entertainment value on sustained behavior

2.3. Data Collection and Analysis

2.3.1. Data Collection

The questionnaire design of this study referred to the scales of scholars Jin Liyin[18], Li Xianguo [19], Li Wu[20] and Zhong Qiuyan[21]. A total of 151 questionnaires were distributed through the questionnaire star in this study. In order to ensure the validity of the data, the questionnaires of non-barrage users and those whose answer time was less than 30 seconds were deleted, and 137 valid questionnaires were recovered with an effective recovery rate of 90.7%.

2.3.2. Data Analysis

Table 1 Reliability

VARIABLE	Cronbach's α
Information Value	0.783
Entertainment Value	0.719
Social Value	0.719
Satisfaction	0.787
Continued Participation	0.675

Table 2 Validity

VARIABLE	ITEM	FIF	KMO	Bartlett P
Information value	IVQ1	0.882	0.673	0.000
	IVQ2	0.830		
	IVQ3	0.793		
Social value	SVQ1	0.662	0.613	0.000
	SVQ2	0.871		
	SVQ3	0.852		
Entertainment value	EVQ1	0.595	0.724	0.000
	EVQ2	0.811		
	EVQ3	0.820		
	EVQ4	0.722		
Satisfaction	SAQ1	0.852	0.703	0.000
	SAQ2	0.842		
	SAQ3	0.818		
Continued Participation	CPQ1	0.682	0.627	0.000
	CPQ2	0.842		
	CPQ3	0.826		

The reliability coefficients of all dimensions are greater than 0.6, indicating that the reliability quality of the research data is good and can be used for further analysis. As can be seen from the above table, KMO values are all greater than 0.6, which means that the data has validity. In addition, the factor loading coefficients are all greater than 0.5, indicating that there is a corresponding relationship between options and factors. In conclusion, the validity of the questionnaire is acceptable.

Table 3 Intermediate

	Model1	Model 2	Model 3
Information Value	0.022	0.084	0.000
Social Value	0.110	0.555	0.073
Entertainment Value	0.000	0.003	0.007
Satisfaction		0.000	
R2	0.416	0.501	0.502
Adjustedr2	0.403	0.486	0.491
F	31.591	33.118	44.763
df	3	4	3

Model 1 is the regression model of information value, social value and entertainment value to continuous participation. As can be seen from the above table, the P value of information value (0.022) and entertainment value (0.000) is less than 0.05 and reaches the significance level, that is, H2a and H2c pass the test. However, the social value (0.110) did not reach the significance level, so H2b failed the test.

Model 2 is the regression model of information value, social value, entertainment value and satisfaction degree to continuous participation. As can be seen from the table, satisfaction has a significant impact on continuous participation behavior, and H1 is verified.

Model 3 is the regression model of information value, social value and entertainment value to satisfaction. Refer to Baron's mediation effect test steps [22] : (1) regression of independent variable to dependent variable;(2) when the main effect is significant, the independent variable returns to the mediating variable;(3) regression of independent variable and intermediary variable to dependent variable and observation of regression coefficient. According to this method, the mediating effect test results in this paper are as follows. First, H3b has not been verified because social value has no significant influence on the continuous participation behavior and satisfaction has no mediating effect. Secondly, the information value has a significant influence on the continuous participation behavior, and the influence is not significant after adding the satisfaction degree of mediating variable, indicating that satisfaction degree plays a fully mediating role in the influence of information value on the continuous participation behavior, so H3a is verified. Finally, the entertainment value has a significant influence on the continuous participation behavior (regression coefficient 0.479). When the satisfaction of mediating variable is added, the influence is significant, but the regression coefficient drops to 0.257.Sobel's test p value is 0.000, which is significant (as shown in table 4), indicating that satisfaction plays a part of mediating role in the influence of entertainment value on continuous participation behavior, so H3c is verified.

Table 4 Sobel

Effect	Se	Z	P
0.3087	0.0632	4.8808	0.0000

5. CONCLUSION

The rapid development of the Internet enables users to have their say. In order to enhance the participation of users, barrage video needs to satisfy the demands of users. It is found in this paper that information value can positively affect the continuous participation behavior of users, and its role is completely mediated by satisfaction. Entertainment experience can also promote continuous participation, in which satisfaction plays a part of the intermediary role. Social value has no significant direct influence on the behavior of continuous participation. In conclusion, information value and entertainment value are important factors that affect the continuous participation of users. Therefore, it is necessary for video website to strengthen the management of barrage to ensure that users can obtain interesting and useful information. Here are management implications. Firstly, it is an effective way to encourage users to register with real names, which will increase users' sense of responsibility for what they send. Secondly, making efforts in barrage education to avoid ba. Finally, improve the supervision mechanism.

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