

# ***Study on College Students' Consumption Intention and its Influencing Factors in Entertainment Stars' Tik Tok Live Room - Based on the Theory of Planned Behavior***

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**Abstract.** In the present era, along with the Internet rapid development, the use of online shopping by college students is becoming more and more common. Various live broadcast platforms have also started to look for new modes of carrying goods to attract more traffic. Many entertainment stars have seen the business opportunity in live broadcast and have joined the rank of the live broadcast with the goods, thus making the number of entertainment stars with the goods increase significantly. Based on the theory of planned behavior, this paper conducts research on three dimensions of behavioral attitudes, subjective norms, and perceptual behavioral control, and establishes a model with additional interaction-oriented interaction factors. The data is obtained through the method of a questionnaire survey, quantitatively analyzed and the hypothesis is tested, and according to the research results, suggestions are put forward on the influence of entertainment stars' Tik Tok live room on the consumption intention of college students.

**Keywords:** Theory of Planned Behavior, Online Shopping, Entertainment Stars' Live Room, College Students.

## **1. Introduction**

### **1.1 Research Background**

With the advent of the "Internet+" era, live broadcast has become an increasingly popular promotional method for businesses because it can bring a large number of sales in a short period of time. Among the audience in a live broadcast with goods, the college student group has huge consumption potential. Research data shows that compared with the average online consumption of 100-200 yuan per time, the consumption level of college students in large shopping carnivals, such as "6.18", "Double 11" and "Double 12" has increased significantly. Nearly 50% of online consumption college students spend 300-600 yuan during the carnival, and nearly 30% spend more than 600 yuan [1]. At the "Double 11" shopping festival in 2021, Zhang Bozhi became the number one in the live broadcast of a

short video platform, and the number of orders placed by netizens in Zhang Bozhi's live room exceeded 61.16 million yuan. During the live broadcast, the cumulative number of viewers exceeded 27.63 million, with the maximum number of simultaneous online viewers reaching 250,000 [2]. College students, as a group that has just become independent and whose three views have not yet been fully established, are prone to blindly chasing stars. They may think that buying products from entertainment stars' live room is to support the stars or a feeling that the quality of the products is guaranteed, so they will prefer to buy their favorite products from entertainment stars' live room. However, with more and more entertainment stars joining the live broadcast team, the live room that originally stimulated the desire for consumption is more attractive. In addition, entertainment stars as public figures that have strong influence and appeal. College students are more likely to have impulsive consumption of the entertainment star live room when they first have financial control. Based on the theory of planned behavior, this study explores the influence of multiple factors on college students' consumption intentions in the live broadcast carried out by entertainment stars on Tik Tok.

## 1.2 Research Significance

This study has important theoretical and practical implications for understanding effects of celebrities in the star's Tik Tok live broadcast by exploring the influence of entertainment star's Tik Tok live room on consumption intention of college students.

On the theoretical side, this study enriches the theoretical research on star selling and consumers' consumption intention from multiple dimensions by exploring the entertainment star's Tik Tok live room and its influencing factors on consumers' consumption intention. It has also helped to inspire other researchers to pay more attention to the mechanisms of action that consumer behavior decision in the live room. On the practical side, this study provides some marketing guidance by examining and revealing the impact on the atmosphere of live room on college consumers, which can be improved by making the stars to realize the importance of the atmosphere of entertainment star's Tik Tok live room, so that consumers to increase their willingness to buy.

## 2. Literature Review

### 2.1 Domestic Literature Review

The Theory of Planned Behavior is applied for various fields of research, and it is proved through empirical evidence that the theory of planned behavior can predict and explain human behavior to a certain extent. Wang Jing et al. gave a brief overview of the theory of planned behavior, which is a relatively influential theory about psychology, explaining how behavioral attitude, subjective norm, and perceived behavioral control work together to act on behavioral intention, and then act on the process of actual behavior [3]. In the application of the theory of planned behaviour, Luo Xi and Cao Yucui and Zhu Xiuling conducted studies based on the theory of planned behaviour in terms of the influence of sports stars' endorsement on consumers' consumption intention and the presentation of intimate relationships among college students on social platforms, respectively [4,5]. Luo Xi added brand attitude as a mediating variable to study consumption intention from the three dimensions of star endorsement [4]. Two scholars, Cao Yucui and Zhu Xiuling, categorized behavioral attitude to usefulness and experiential, subjective norm into the directive and descriptive as well as perceptual behavioral control into simplicity, controllability, intention measurement, and behavioral measurement as different dimensions to study [5]. Meanwhile, in Chen Gongyu's article, he made some explanations for the connection between behavioral attitude, subjective norm, and perceived behavioral control to consumption intention [6]. Regarding the impact on e-commerce live broadcast on college students' consumption, Liang Guanfeng et al. mainly studied the hypothesis-building mechanism of behavioral intention based on the six factors: subjective norm, behavioral intention, interactivity,

presence, perceived risk, and consumer trust, among which consumer trust being used as a mediating variable [7].

Factors that influence consumers' behavioral intention also include the atmosphere of the live room. According to relevant literature, Du Wenwen divided the live broadcast atmosphere into multiple dimensions: commentary atmosphere, preferential atmosphere, interactive atmosphere, entertainment atmosphere, and safety atmosphere, among which interactive atmosphere has become the main factor affecting impulse consumption behavior [8]. Regarding the impact on interactivity, He Xuanfang and Chen Qiao mentioned that timely feedback and two-way communication are the most important factors in interpersonal communication and that real-time interactivity between live room and stars help promote consumers' consumption decisions [9]. Nuo Ming studied the influence of the perceived interactivity of e-commerce live broadcast on consumers, where it was mentioned that interaction-oriented interactions can bring closer the relationship between anchors and consumers and prompt consumers to spend [10].

## 2.2 Foreign Literature Review

Much research in recent years has focused on live broadcasts. However, there is less research on the factors that influence consumer consumption intention in the live broadcast. The influencing factors that have been discussed can be widely divided into the attributes of the live room or the host and the interaction between the viewer and the live broadcast. As for the former, Hanyang Luo et al. studied the linguistic persuasive styles, Xu, X., Wu, J. H., & Li, Q. studied the attractiveness of the host, and Lee, A. R. also focused on the impact of the accuracy and impartiality of the information provided by live room [11-13]. As for the interaction between viewer and live broadcast, Xu, X., Wu, J. H., & Li, Q. added para-social interaction and the timeliness of reply [12].

In terms of research objects, only a few existing studies chose to subdivide research objects into some specific group. For example, Zhong, Y. et al. and Yashu, Y., & Tiantian, W. took college students as the research objects. The former explored the factors that can improve the consumption intention of college students in live room, while the latter focused on the impact that live broadcast had on college students [13,14].

To sum up, in China, there are a lot of studies that are based on the theory of planned behavior, however, there are few studies that focus on the consumption intention of college students in the live room. The study of Yashu, Y., & Tiantian, W. shows that live broadcast has high popularity among college students [15]. Therefore, as one of the most important target audiences of live broadcast, their consumption intention is worth studying. What's more, the study of Qiao Su and Jinyi Sheng has confirmed that stars do have an impact on college students' consumption [16]. Therefore, there is great research significance in studying the impact of stars' live room with goods on college students' consumption intention. In addition, few studies are based on a certain theory in China, while the majority of existing foreign studies applied the S-O-R framework, and some used content analysis, which failed to focus on consumers themselves.

Consequently, based on the theory of planned behavior, this study will focus on the impact of personal attitude, the influence of people around, and perceived behavior control of college students on their consumption intention in star live room with goods.

## 3. Research Methods

This study adopts the method of snowballing questionnaire survey and content analysis. It mainly takes college students as the object, and distributes the questionnaire to the respondents, who fill in and submit it. This survey and research adopt the Tencent questionnaire online platform to distribute questionnaires and collect relevant data, which were eventually aggregated and quantitatively

analyzed using SPSS analysis tools. Based on the theory of planned behavior, the following hypotheses are specifically proposed.

### **3.1 Behavioral Attitude and Consumption Intention**

Wang Jing et al. propose a significant belief function that affects the outcome when individuals have positive or negative feelings about the behavior [3]. Individuals are relatively easy to be attracted by the people or things they like, and when individuals watch the entertainment stars' Tik Tok live room of their favorite stars, they are more willing to spend on it, resulting in consumption behavior. In addition, they will always have a positive attitude to the live room of their favorite stars. The degree of liking for stars and the attitude to star live broadcast is included in the individual's behavioral attitude. Based on this, this paper proposes the following research hypothesis:

Hypothesis 1: The more positive the behavioral attitude of college students toward entertainment star's Tik Tok live room, the stronger their consumption intentions of star live room.

### **3.2 Subjective Norm and Consumption Intention**

Subjective norm refers to the social pressure that an individual feels from the people around him when he performs a certain behavior, that is, whether those who are more important to him hold a positive or affirmative attitude towards his performing the act, and subjective norm are influenced by normative beliefs and the desire to comply. As college students get along with their families during vacations and with their peers during school, this environment has a greater impact on college students' consumption intentions. Chen Gongyu mentioned that individuals' behaviour is shaken when it is disturbed by the external environment, which may be from the interpersonal relationships around the individual, such as family, friends, and other members of the online community [6]. Based on this, this paper proposes following research hypothesis:

Hypothesis 2: The more positive the subjective norm of college students toward entertainment star's Tik Tok live room, the stronger their consumption intentions of star live room.

### **3.3 Perceived Behavioral Control and Consumption Intention**

In theory of planned behavior, people's behavioral intentions are affected by their own perceived behavioral control. Chen Gongyu analyzed that when individuals make behavioral decisions, they will be affected by their past experiences and predictable obstacles, as well as by their own internal and external control beliefs [6]. When consumers have self-control and their consumption behaviors can be completely controlled by themselves, consumers' consumption behavior intentions will be reduced. Based on this, this paper proposes following research hypothesis:

Hypothesis 3: The stronger the perceptual behavior control of college students toward entertainment star's Tik Tok live room, the more positive their consumption intentions of star live room.

### **3.4 Interaction-oriented Interaction and Consumption Intention**

In the perception interaction research of e-commerce live broadcast, Nuo Ming believes that with interaction-oriented interaction, consumers can perceive that their needs are valued so that they can feel a good atmosphere with the good interaction between the live room and the stars [10]. Two-way communication is a good way of interaction between people. Using the Internet as a medium, stars introduce products of the live room, communicate with consumers, and establish a good trading relationship, which will further stimulate consumers' consumption intention. Based on this, this paper proposes the following research hypothesis:

Hypothesis 4: The more positive the interaction-oriented interaction of college students in the Tik Tok live room of entertainment stars, the stronger their consumption intentions of star live room.

## 4. Research Results and Analysis

In this study, a total of 277 questionnaires were collected, of which 246 were valid questionnaires, and the recovery rate was 88.8%. Among them, boys accounted for 25.6% and girls accounted for 74.4%.

### 4.1 Reliability and Correlation

The reliability was tested by calculating the Cronbach's alpha of the variable data. The results showed that the Cronbach's alpha coefficients for behavioral attitudes, subjective norms, interaction-oriented interactions, and consumption intentions were 0.895, 0.824, 0.929, and 0.901 respectively, all above 0.7, allowing the variables to be combined (Table 1).

Table 1. Reliability Test.

Variable	Item(s)	Cronbach's alpha
Behavioral attitude	6	.895
Subjective norms	6	.824
Interaction-oriented interaction	7	.929
Consumer intentions	6	.901

In addition, the variable, of an individual's perceptual behavioral control in the entertainment stars' Tik Tok live room contains two questions, which are analyzed by Pearson correlation. The results showed that the correlation between individuals' perceptual behavioral control was significant ( $R = 0.401$ ,  $p < 0.01$ ) (Table 2).

Table 2. Correlation Test.

Variable	Item(s)	R	P
The relevance of perceptual behavioral control	1	0.401	<0.01

### 4.2 Correlation Analysis

Pearson correlation test was conducted on the questionnaires using SPSS. As can be seen in Table 3, consumption intention was significantly and positively correlated with behavioral attitudes ( $r=.733$ ,  $p<0.01$ ), subjective norms ( $r=.587$ ,  $p<0.01$ ), perceptual behavioral control ( $r=.556$ ,  $p<0.01$ ) and interaction-oriented interactions ( $r=.693$ ,  $p<0.01$ ).

Table 3. Correlations Test.

Independent variable	Behavioral attitude	Subjective norms	Perceived behavioral control	Consumer intentions	Interaction-oriented interaction
Behavioral attitude	1				
Subjective norms	.589**	1			
Perceived behavioral control	.605**	.510**	1		
Consumer intentions	.733**	.587**	.556**	1	
Interaction-oriented interaction	.689**	.498**	.478**	.693**	1

\*\*Correlation is significant at the 0.01 level (2-tailed)

### 4.3 Regression Analysis

According to the results of linear regression Table 4 analysis, the significance of behavioral attitude ( $P < 0.01$ ), and behavioral attitude has a significant impact on consumption intention. That is, the more positive the behavioral attitude of college students toward entertainment star's Tik Tok live room, the stronger their consumption intentions of star live room, so hypothesis 1 is supported. And the significance of the subjective norm ( $p < 0.01$ ), and the subjective norm have a significant impact on consumption intention. That is, The more positive the subjective norm of college students toward entertainment star's Tik Tok live room, the stronger their consumption intentions of star live room, so hypothesis 2 is supported. The significance for perceptual behavioral control ( $P < 0.01$ ), and perceptual behavioral control had a significant impact on consumption intention. That is, the stronger the perceptual behavior control of college students toward entertainment star's Tik Tok live room, the more positive their consumption intentions of star live room, so hypothesis 3 is supported. With a significant for interaction-oriented interactions ( $P < 0.01$ ), interaction-oriented interactions had a significant impact on behavioral intention. That is, The more positive the interaction-oriented interaction of college students in the Tik Tok live room of entertainment stars, the stronger their consumption intentions in the star live room, so hypothesis 4 is supported.



Table 4. Linear regression analysis.

Independent variable	Consumer intentions		
	Beta	t	Significance
(constants)		-1.916	.057
Behavioral attitude	.352	5.667	<.001
Subjective norms	.168	3.353	<.001
Perceived behavioral control	.106	2.108	.036
Interaction-oriented interaction	.316	5.792	<.001
F			104.634
Significance		<0.01	
R <sup>2</sup>			.635

## 5. Conclusion

### 5.1 Key Findings

In this paper, by reviewing domestic and international theoretical research on celebrity effect, live room atmosphere, and consumption intention, this study combined with the theory of planned behavior to construct and discusses the influencing factors of college students' consumption intention in entertainment star's Tik Tok live room. According to the variables involved in this study, a questionnaire was designed, and 246 valid questionnaires were collected. With the help of SPSS software, the reliability and correlation between the scale were statistically analyzed and the corresponding research hypotheses were verified. The empirical evidence draws the following findings and conclusions.

Firstly, the behavioral attitude of college students is significantly positively correlated with the consumption intention of college students in star live broadcast. The higher the degree of love of college students for stars, the more willing they are to spend on entertainment star's Tik Tok live room, because college students think this is a meaningful thing and it is also a kind of support for their favorite stars.

Secondly, the subjective norm of college students is significantly positively correlated with the consumption intention of college students in star live broadcast. Due to the living and studying environment of university students, they are easily influenced by their families and peers. When the people around them have a more positive attitude to the live broadcast of stars, they will have a stronger consumption intention in entertainment star's Tik Tok live room because of the influence.

Thirdly, the perceived behavioral control of college students is significantly positively correlated with the consumption intention of college students in star live broadcast. That is, the more college students think that they can control their behavior of spending in the live broadcast of stars or think that it is easy to spend on the live broadcast of stars, the stronger the consumption intention will be in the live broadcast of stars.

Finally, the interaction-oriented interaction of college students in star live broadcast is significantly positively correlated with consumption intentions in star live broadcast. During the live broadcast with the products, the star's explanation of the products, responses to the comments in the comment section, frequent lucky draws and other interactions brought the distance between the college students and the star closer.

## 5.2 Suggestions

Based on the conclusions drawn from this research, the following suggestions will be put forward from three aspects: the promotion, content, and atmosphere of star live broadcast:

Firstly, in the study, it was found that the peers of college students were relatively positive about the live broadcast of stars, while the family members of college students rarely or never watched the live broadcast of stars. College students are easily influenced by the crowd around them, and they can make a distinction in terms of publicity regarding the live broadcast of stars. For college students, the publicity of entertainment star's Tik Tok live room can focus on innovation and trends, which will attract young groups more, let them influence each other, and bring better young traffic to the live room. For family members, the publicity in the live room of stars can focus on tradition and warmth, which is more attractive to the older generation.

Secondly, the study found that when college students have a certain degree of self-control of consumption, their consumption intentions will be more positive. The entertainment star's Tik Tok live room can improve user-friendliness by simplifying and optimizing the purchase link with star live broadcast, making it easier and more willing for college students to consume in entertainment star's Tik Tok live room.

Finally, the atmosphere of the live room is one of the important factors influencing college students' consumption intention. In the study, it was found that the more the college students can feel the interactivity in the live room with stars, the more willing they are to spend. Therefore, the live room can attract more students through stronger interactive methods, such as interactive lottery, avoiding false publicity interaction, etc.

## 5.3 Limitations and Future Research

This study focuses on college students' consumption intention and its influencing factors in entertainment stars' tik tok live room, and is based on the theory of planned behavior, also considering the interaction-oriented interaction. However, college students' consumption intention in entertainment stars' tik tok live room could also be affected by other factors, such as the publicizing of the broadcast, and language used during the broadcast. Thus more factors should be taken into consideration to get a full understanding.

In terms of questionnaire collection, this study adopted the snowball sampling method and collected a total of 246 valid questionnaires, which is relatively small. What's more, there were more women questionnaire respondents (ratio of men to women: 1:2.9). Thus, in the future, the scope of participants in the questionnaire should be expanded.

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