

How Are Chinese College Students' Consumption Behaviors Affected by Online Webcasts? — Empirical Research Based on Regression Analysis

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Abstract—In recent years, the new marketing model of online live shopping is gradually affecting the consumer life of Chinese college students. This article summarizes the literature related to online live shopping and college students' online consumption behavior. Then, using SPSS to carry out correlation analysis and regression analysis on the data, it analyzes the influence factors of the rise of webcasting on the purchase behavior of college students from an empirical point of view.

Keywords-College students, Online webcast, consumption behavior

1 Introduction

China's Internet industry was developing with high speed in the 21st century. According to data from CNNIC (China Internet Network Information Center), China's online shopping users reached 639 million, accounting for 74.8% of Internet users. From the statistical data of age and education, 18 to 29-year-old college students account for an essential proportion of the total number of online shopping users [1]. Their consumption patterns and consumption views have changed dramatically due to the impact of online broadcasts.

2 Method Chapter

All the materials used in this article are collected through literature research methods and questionnaire survey methods, and the data processing is performed through quantitative analysis.

This article mainly uses quantitative analysis research methods, supplemented by qualitative research. The current official statistics and graphs are used as big data for second-hand material analysis in this research. According to the official report data, it is possible to overview the current status of the live broadcast.

This questionnaire will consist of 2 parts: personal information, attitudes, and evaluations towards live broadcast consumption. In this study, I will publish an online questionnaire survey through the Internet from the perspective of feasibility. An online survey using the 'Surveys Online' service (formerly Bristol Online Surveys (BOS)) is available through the university to address Chinese undergraduate students. The author will draw 300 samples for in-depth research by way

of random sampling to ensure the sample's representativeness. Those subjects should be Chinese college students but have no limitations of gender and grade. The survey will be posted on my Weibo and Wechat, which are similar to Instagram.

SPSS is a tool for us to quantitatively study the relationship and degree of each influencing factor on college students' online consumption preferences [9]. Through this tool, we can confirm the assumptions of influencing factors and clarify the impact of each influencing factor on specific online consumption preferences and relationships.

Through SPSS, the data collected by the questionnaire is sorted and analyzed, and the relationship between multiple causes and multiple results coexisting is processed. It can process various dependent variables at the same time. In regression analysis or path analysis, the corresponding calculation model and result diagram can be generated according to the statistical results, clearly showing the relationship between the factors [9].

In order to facilitate the analysis of the collected data through SPSS, these problems are summarized into six dimensions. The live broadcast content, viewing experience, incentive mechanism, and influence of internet celebrities are used as predictors, and then the emotional and negative attitudes of college students towards live shopping behaviors are used as intermediate variables. Finally, the willingness of college students to live online shopping is used as the outcome variable. Using the questionnaire research method to identify and demonstrate college students' online live consumption behavior is the starting point and critical point of the research in this article. Through the standardized questionnaire research steps, the influencing factors of college students' online live consumption behavior are finally confirmed.

3 Description of college students' online consumption

College students are an indispensable part of online consumers. They are more willing to accept and study new things, and they show higher adaptability in the field of the online economy [3]. College students' higher acceptance allows them to quickly learn new technologies in the network economy, which promotes the development of network technologies derived from various industries in the network economic environment.

College students are one of the leading forces of consumption through the Internet in China. The total consumption, which is cumulative of the Chinese campus market, was 944.998 billion yuan in 2018, accounting for 2.48% of the total retail sales of consumer goods [1]. However, college students lack independent and stable economic capability. Of the more than 20,000 survey samples drawn in this report, 37.97% of students' financial resources entirely depend on family financial support, 36.22% of students have part-time experience, and only 4.42% of students are fully self-reliant [1]. Therefore, college students' consumption level is generally low, and they are challenged to bear large or advanced consumption. However, while online consumption brings convenience to college students' daily life and learning, it also has potential risks, which often cause college students to fall into the misunderstanding of online consumption and endanger the growth of college students. Researching on this report related events and data analysis found that college student's consumption through the Internet has misunderstandings such as blind advance consumption, pan-entertainment consumption, symbolic consumption and online consumption addiction [7].

Thanks to the development of the Internet and technology, many people started to make a fortune in social media, increasing the number of online celebrities. Some researchers believe that the "Internet celebrity economy" will exceed 2 trillion [7]. The diversification and specialization of Internet celebrities' content have brought development prospects.

All the consumption behavior through the Internet can be called online shopping. A fundamental problem in this study is to define live-streaming shopping as distinguished from online shopping. The webcast is based on streaming media technology, integrating video, audio, live subtitles, pictures, emoticons and rewards and other forms of communication and feedback to spread through the Internet. That content was presented on the PC or mobile. According to the real-time network video communication and interactive communication media of the live content, the host spreads information to the user in real-time and interacts with the user immediately. Live broadcast consumption is an important way for consumers to accept commodity information transmission through the live broadcast platform as the primary method and pay for the time or economic costs to meet their material and spiritual needs [8].

Many existing studies started research before they understood the concept. College students' online consumption behaviors include online shopping, online information consumption, online gaming, and other consumer behaviors. Besides, some online literature, online music, and online communication also belong to the category of college students' online consumption behavior.

Although college students only spend a small amount of money, the high cost-effectiveness and diversity in the online economy have made college students show strong purchasing power [7]. The consumption concepts and behaviors of college students have gradually changed. In this environment, college students have a solid ability to imitate. Compared to celebrities, Internet celebrities are closer to normal life, and "fashion and high-grade" has become synonymous with some famous Internet celebrities. The taste and vision shared by Internet celebrities make the followers feel the same and has become the object of envy and emulation of many college students. College students can get more clothing, cosmetics, hobbies, and even lifestyles similar to "Internet celebrities", making themselves become fashion icons.

Online shopping has become the mainstream shopping method in China today, and online shopping for online live streaming is more popular with college students. Webcast shopping is more intuitive, more exciting and meets customer needs in real-time, changing the shopping experience of college students and consumers. They can directly express their feelings and requirements in live shopping, which increases the sense of participation and interaction in online shopping. Live discounts and novel shopping scenes break the original single way of disseminating shopping information, changing online shopping from a lonely choice to public behavior. The group shopping sense created by live-streaming can enable college shoppers with limited consumption funds to increase their consumer identification when shopping, avoid buying the wrong goods and thus enhance the value of limited consumption funds [7].

This article aims to research the factors that influence the consumption behavior of Chinese college students in webcasting. First, it systematically reviewed the literature on the development status of webcast and webcast shopping and college students' online consumption. Then in this chapter of research methods, it is introduced that this article adopts empirical research methods through reading literature and referring to previous research design questionnaires and scales to study the factors that affect college students' consumption behavior in the webcast. Then in the next chapter, the first-hand data collected was analyzed by SPSS for description, reliability and

correlation analysis. Finally, it is concluded that webcasting influences college students' emotional attitudes and negative attitudes towards webcast shopping through live broadcast content, the personal influence of Internet celebrities, incentive mechanisms, and viewing experience, thereby affecting college students' consumption behavior.

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4 Findings

This article takes college students' online live broadcast shopping behavior as the research object; therefore, helpful survey subjects should have or hear of shopping experience in a live broadcast environment. This article uses the BOS system to make questionnaires and distribute the questionnaires online, which is convenient to send the questionnaire link to college students. The number of questionnaires returned in this survey is 291. Since live-streaming shopping is still in the early stages of development in China, some respondents have never heard of live streaming shopping. Excluding this part, the number of valid questionnaires is 278. The effective rate of the questionnaire was 95.53%.

Among the 278 samples collected, 87 were males, accounting for 31.3%, and 184 were females, accounting for 66.2%; In terms of age, it can be seen that college students under the age of 30 accounted for 96.4%, of which consumers between 20-25 years old accounted for 65.8%. It can be inferred that the age of college students is mainly concentrated in 20-25 years old, which is the leading group of people exposed to live shopping. Consumers with a monthly income of 1,500 yuan or more account for 79.5%, accounting for more than half of the live shopping consumers.

According to the age distribution, it can be reasonably inferred that less than 10% of consumers with an income of less than 1,500 yuan participate in live shopping, which reflects a certain extent that live e-commerce shopping requires higher income and consumption levels for consumers. Therefore, college students with medium and high consumption levels are the main groups of e-commerce live shopping.

5 Related analysis and Regression analysis

When there is a correlation between variables, there may be a regression relationship. Therefore, it is necessary to perform a correlation analysis between the variables. Correlation analysis is used to study the relationship between quantitative data, including whether there is a relationship and how close the relationship is [2]. The measurement index selected in this paper is the Pearson correlation coefficient [5]. The greater the absolute value of the correlation coefficient, the

stronger the correlation, and the value range is -1.0~1.0. When the total cost of the correlation coefficient is more significant than 0.8, the correlation is very strong; when the absolute value of the correlation coefficient is between 0.6 and 0.8, it shows a strong correlation; when the total value of the correlation coefficient is 0.4~0.6, indicating medium [5]. When the absolute value of the correlation coefficient is between 0.2 and 0.4, it indicates a weak correlation; when the absolute value of the correlation coefficient is less than 0.2, it means a very weak correlation or no correlation [5].

The four influence factors of online celebrity live shopping, live streaming content, feeling of viewing, incentive mechanism, and influence of celebrities were analyzed separately from emotional attitudes.

Table1 Correlation analysis of influence factors of live shopping and emotional attitude

	measurement standard	Emotional Attitude
Content of live streaming	Pearson Correlation Sig.(2-tailed) N	.686 .000 278
Feeling of viewing	Pearson Correlation Sig.(2-tailed) N	.788 .000 278
Incentives	Pearson Correlation Sig.(2-tailed) N	.729 .000 278
Influence of online celebrities	Pearson Correlation Sig.(2-tailed) N	.821 .000 278

It can be seen from the results that live shopping content, feeling of viewing, incentive mechanisms, and influence of influencers are all strongly positively correlated with emotional attitudes.

Table2 Correlation analysis of influence factors of live shopping and negative attitude

	measurement standard	Negative Attitude
Content of live streaming	Pearson Correlation Sig.(2-tailed) N	.563 .000 278
Feeling of viewing	Pearson Correlation Sig.(2-tailed) N	.586 .000 278
Incentives	Pearson Correlation Sig.(2-tailed) N	.700 .000 278
Influence of online celebrities	Pearson Correlation Sig.(2-tailed) N	.650 .000 278

It can be seen from the results that the incentive mechanism and the influence of Internet celebrities are strongly positively correlated with negative attitudes; the content and viewing experience of live broadcasts are moderately correlated with negative attitudes.

Table 3 Correlation analysis of emotional attitude, negative attitude and purchase intention

	measurement standard	Purchase intention
Emotional attitude	Pearson Correlation	.704
	Sig.(2-tailed)	.000
	N	278
Negative attitude	Pearson Correlation	.498
	Sig.(2-tailed)	.000
	N	278

It can be seen from the results that emotional attitudes are strongly positively correlated with purchase intentions, and negative attitudes are moderately correlated with purchase intentions.

Regression analysis is used to study the influence of quantitative data [2]. Describe the relationship between variables through regression analysis, reflecting the degree of influence of one variable or multiple variables on a variable. The significance test of the regression equation is used to test whether the linear relationship between the explained variable and all explanatory variables is significant [2]. Determine the linear relationship between variables by testing the relevant regression coefficients and significance levels to verify the research hypothesis and mode [2].

Using the live broadcast content, viewing experience, incentive mechanism, and the influence of Internet celebrities as independent variables, and taking the emotional attitudes as dependent variables to establish a regression analysis to explore the impact of live streaming shopping on college students' emotional attitudes. The following table 4 is obtained:

Table4 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1					
(Constant)	.207	.076		2.718	.007
CONTENT	.143	.039	.153	3.683	.000
FEELING	.314	.044	.327	7.078	.000
CELEBRITIES	.401	.036	.489	11.221	.000
INCENTIVES	.048	.042	.053	1.160	.247

From the data in the table, it can be seen that live streaming content, the feeling of viewing, and the influence of online celebrities' significance level are less than 0.05; however, the incentive mechanism's significance level is more than 0.05. So it can be concluded that the impact of live broadcast content, viewing experience and influence directly affects college students' emotional attitudes. Moreover, the incentive mechanism has no significant effect on the emotional attitude of college students.

The influence of live broadcast content, viewing experience, incentive mechanism, and influencers as independent variables, and negative attitudes as dependent variables are used for regression analysis.

Table 5 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.467	.131		3.559	.000
	CONTENT	.140	.068	.132	2.068	.040
	FEELING	.109	.077	.100	1.414	.159
	CELEBRITIES	.200	.063	.214	3.200	.002
	INCENTIVES	.403	.072	.391	5.574	.000

It can be found from the table that the significance level of the incentive mechanism and influence of Internet celebrities is less than 0.05, so it can be inferred that the impact of live broadcast content, viewing experience, incentive mechanism and Internet celebrities has a significant direct impact on the negative attitudes of college students. However, the significance level of live broadcast content and viewing experience is >0.05 , so they have no significant impact on college students' negative attitudes towards live broadcast.

Use emotional attitudes and negative attitudes as independent variables, and purchase intentions as dependent variables to establish regression analysis.

Table 6 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.195	.139		1.401	.162
	EMOTIONAL	.717	.059	.618	12.205	.000
	NEGATIVE	.172	.051	.171	3.379	.001

It can be seen from the table that the significance level of emotional attitudes and negative attitudes is <0.05 , so it can be inferred that they have a significant direct impact on the purchase behavior of college students when watching live broadcasts.

6 Discussion

This article uses an empirical research method to test the relationship between live streaming and college students shopping behavior. Live content, viewing experience, the influence of online celebrities, and incentive mechanisms positively impact college students' emotional attitudes towards live shopping.

It obtained the following results: first, during the live shopping of online celebrities, the content of live streaming, the influence of internet celebrities, incentive mechanisms and viewing experience all positively affect consumers' emotional attitudes; and the influence of online celebrities and incentive mechanisms also affect consumers' negative attitudes towards live shopping; Third, in the process of online celebrity live broadcast, consumers' emotional and negative attitudes positively influence consumers' purchasing decisions.

In live-streaming shopping, consumers cannot perceive the product and only rely on the live streaming host to decide whether to buy based on the display and introduction of the product. In the process of live streaming shopping, consumers perceive products through the introduction of the host. The more professional and comprehensive the introduction of the host, the more effectively that consumers will be able to obtain product information, which will generate their stronger desire to buy. The results of this research show that the high-quality live broadcast content will positively affect the emotional attitude of college students, thus prompting them to do online live shopping.

However, if Internet celebrities exaggeratedly describe the products he promotes, it will cause dissatisfaction among the audience and strengthen the negative attitudes of college students. Different college students have different feelings about shopping with live streaming. The webcast room will provide a large number of limited-time discounts and limited merchandise to attract viewers. When the discount is large enough, it will impact the emotional attitude of consumers, and it is helpful to promote their consumption.

When conducting webcasts, live broadcast rooms that have strict control over live content, comprehensive content, and avoid the flood of content homogeneity will be more favored by college students.

Some webcasters will broadcast live emotional content that can resonate with the public and capture users' love and follow from a subjective point of view. Helpful content also allows users to acquire knowledge or valuable information, which is more conducive to increasing consumer loyalty and affecting consumers' purchase intentions.

Some college students choose to buy products out of their love and trust in Internet celebrities. Internet celebrities endorse the products they sell, strengthen interaction with fans, and frequently do welfare activities to attract audiences.

Watching the live broadcast will invisibly stimulate consumer demand. The rise of webcasting can promote the consumption of college students and bring about economic growth.

7 Conclusion and Research deficiencies

Through the collection and analysis of first-hand data, this article derives the influencing factors of college students' consumption through webcast. In the process of live webcast shopping, the quality of live content, viewing experience, the influence of internet celebrities, and incentive mechanism will all impact college student consumers' emotional and negative attitudes on webcasting; This affects their willingness to shop guides their shopping behavior.

The government and universities should treat college students' online consumption behaviors with an open mind and use scientific methods to analyze the characteristics of college students reflected in such behaviors. Merchants can cultivate their core competitiveness by understanding the influencing factors of college students' online live broadcast consumer behavior.

In conducting this research, due to the limitation of research time and deficiencies, further research and improvement are needed. The specific manifestations are as follows:

(1) In the process of selecting samples, lack of consideration of regional factors. The samples are mainly from college students in the eastern region. Considering the differences in region, age, income, consumption level, consumer psychology and habits, subsequent research can expand the selection of samples from the above perspectives, increase the diversity of samples, and enhance the empirical analysis reliability.

(2) The scope of this research is the live webcast scenario, and the questionnaire design did not investigate the product categories in the live broadcast. This is a great pity. Female consumers tend to be more interested in live broadcasts of beauty and dressing, while male consumers are more interested in live broadcasts of science and technology and online games [4]. In follow-up research, we can start with different product categories and measure the influence of e-commerce network anchor characteristics on consumer attitudes for a specific type of product.

(3) This study summarized and selected four impact factors as predictors. The influence of these four variables on two intermediate variables and the influence of two intermediate variables on the outcome variables are analyzed. However, in real life, other factors have an impact on the entire consumer behavior process. The consumer purchasing decision is complicated, and some aspects may not be considered thoroughly [6]. If we continue to study in-depth, we will improve and conduct a more comprehensive and systematic analysis.

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