

# The Impact of Live E-Commerce on College Students' Consumption Perceptions and Behaviors

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**Abstract:** In the Internet era, e-commerce live streaming as an emerging industry has gained a lot of traffic attention, and college students, as the main force of young people, have been affected by this upsurge. This paper uses empirical analysis to explore the influencing factors of e-commerce live streaming on the consumption concept and consumption behavior of college students, and explains it in detail.

## 1. Introduction

In recent years, the vigorous development of the Internet has led to the derivation and emergence of many industries, among which the e-commerce industry is the first and foremost. After the industrial innovation and optimization, the new ecological industry mode of live e-commerce has been launched, and such a novel shopping mode has been favored by many college students. It is of great practical significance.

## 2. Background of the study

The importance of the Internet digital information economy has become increasingly prominent, and "traffic-monetization" has become its main model, and at the same time, a series of industries have been born, and the e-commerce industry is one of them. Under the impact of the gradual diversification of the business model of e-commerce live streaming marketing, college students will be affected to a certain extent in the face of such trendy and highly innovative product marketing, causing a series of problems.

College students are a huge group of e-commerce live broadcast users. First of all, the online shopping consumption of college students is mainly for daily necessities, fashion clothing, knowledge books, games and beauty and skin care products, the structure of consumer products is relatively single, and the group demand preference is significant; In addition, due to the rapid alternation of the current e-commerce live broadcast market and the short life cycle of product marketing, the theme content of various live video is emerging one after another, and diversified product marketing has promoted the consumption desire of college students, and the

frequency of online shopping consumption behavior is high. In addition, at present, the platforms for college students to obtain e-commerce live streaming experience and services tend to be diversified, and the boom of e-commerce live streaming has gradually become a normal mode among college students, affecting college students' online consumption intentions, values and purchase behaviors.

Combined with the above research and analysis, we can preliminarily know that live streaming e-commerce has a certain degree of impact on college students' consumption concepts and consumption behavior, and the main influencing factors can be basically concentrated in three aspects: commodity attributes, e-commerce marketing models, and live streaming service characteristics. Therefore, this paper will combine specific survey data to preset the relevant variables to conduct empirical analysis and explore the specific impact of e-commerce live streaming on college students' consumption and shopping concepts and behaviors.

## 3. Data source and sample description

### 3.1. Model assumptions

The data collection sample group comes from the college students around the author, and the actual research method is used to construct the relationship model between the commodity attributes, e-commerce marketing model, live service characteristics and the specific consumption concept and consumption behavior of college students to further explore the actual benefit impact.

The assumptions of this relational model are.

1. Commodity attributes are positively related to college students' consumption behavior.
2. E-commerce marketing mode is positively

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correlated with college students' consumption behavior.

3. The characteristics of live service are positively correlated with college students' consumption behavior.

The independent variables of the questions in the questionnaire are "commodity attributes", "e-commerce marketing model", "live service characteristics" four influencing factors, and the dependent variable is "consumption concept and consumption behavior". Among them, the commodity attributes include the utility value and cost performance of the commodity, the popularity of the commodity, the brand effect of the commodity, etc.; the e-commerce marketing mode includes the popularity of the anchor, the promotion method, the discount, etc.; the live service characteristics include the purchase process, the consumption experience, etc. The Likert scale was used to assign values to the relevant variables according to the research objectives, with 1, 2, 3 and 4 indicating the degree of approval, 1 indicating strongly disapprove, 2 indicating disapprove, 3 indicating approve and 4 indicating strongly approve, as shown in Table 1.

The sample data were collected from the university students around the author, and 204 valid questionnaires were collected using the online questionnaire distributed by Questionnaire Star.

**Table 1** Explanatory variables

Variables Category		Variable Name	Variable Code	Variable options and assignment
Dependent variable		Consumer Perception and Behavior	Y	1 represents less than \$0, 2 represents \$100~300, 3 represents \$301~500, 4 represents \$501~800, 5 represents more than \$800
	Independent variable	Product Properties	Usefulness	X <sub>1</sub>
Value for money			X <sub>3</sub>	
Brand Effect			X <sub>4</sub>	
Popularity			X <sub>5</sub>	
Word of mouth evaluation			X <sub>6</sub>	
E-commerce marketing model		Anchor visibility	X <sub>7</sub>	1=no effect, 2=some effect, 3=very effect
		Discount	X <sub>8</sub>	
		Promotion method	X <sub>9</sub>	
Live service features		Purchase Process	X <sub>10</sub>	1=no effect, 2=some effect, 3=very effect
		Consumer Experience	X <sub>11</sub>	

### 3.2. Sample description

Using SPSS 24.0 software to analyze the data, the sample characteristics of this survey were obtained, in which male students accounted for 48.04% of the total sample and female students accounted for 51.96%, with a balanced ratio of male to female. The major third year of the college student group accounted for 60.29%. The specific data are

shown in Table 2.

**Table 2** Sample characteristics

Characteristic variables	Logo Name	Frequency	Percentage(%)
Gender	Male	98	48.04
	Female	106	51.96
Grade	Freshman year	27	13.24
	Sophomore	36	17.65
	Junior	123	60.29
	Senior and above	18	8.82

Among the surveyed college student groups, 35.29% watched live e-commerce every month in 1-4 times, 39.71% in 5-10 times; 48.03% shopped live e-commerce every month in 1-2 times, and the number of people who spent less than 100 yuan on live e-commerce every month was 67.64%. Specific data are shown in Table 3.

**Table 3** Use of live e-commerce

Characteristic variables	Logo Name	Frequency	Percentage(%)
Number of times to watch live e-commerce (per month)	1-4 times	72	35.29
	5-10 times	81	39.71
	More than 10 times	30	14.71
	Never	21	10.29
Number of e-commerce live shopping (per month)	1-2 times	98	48.03
	3-5 times	61	29.90
	More than 5 times	33	16.17
	Never	12	5.88
E-commerce live consumption amount (per month)	Under 100 RMB	138	67.64
	100 RMB - 300 RMB	45	22.05
	300 RMB - 500 RMB	11	5.39
	800RMB or more	10	4.90

This data analysis was performed using SPSS 24.0 software, and the reliability validity statistics of the questionnaire were conducted, and the results showed that the Cronbach's value was 0.816, which was greater than 0.8, and the statistics of the questionnaire of this survey result were more idealized. And further validity analysis by KMO and Bartlett's test, the KMO value was 0.689, the validity of the questionnaire was high and suitable for factor analysis, and the Bartlett's test result P value < 0.05, so the questionnaire was fully considered valid.

### 4. Empirical Analysis

Based on the relationship model of the influence factors of live e-commerce on college students' consumption perceptions as well as behaviors derived from the above analysis, a multiple linear regression model is constructed, which is shown in Equation 1.

$$Y = \beta_0 + \beta X_{11} + \beta X_{22} + \dots + \beta X_{ii} + u$$

$$(i = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) \quad (1)$$

In this relational model, Y is the dependent variable representing consumption behavior, X1 to X11 are

independent variables representing consumption perception and behavior, utility value, value for money, brand effect, popularity, word-of-mouth evaluation, anchor popularity, discount, promotion method, purchase process, and consumption experience, respectively, and  $\beta_i$  ( $i = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11$ ) denotes the standardized coefficient showing the degree of influence of the independent variable on the dependent variable, and  $u$  is a random interference term. Regression analysis was performed by SPSS 24.0 software.  $\beta_i$  is a positive value, and a higher value indicates that the independent variable has a greater influence on the dependent variable. The probability  $P = 0.05$  with a significance level of 0.000 or less indicates that the dependent and independent variables are significantly positively correlated.

### 4.1. Influence of commodity attributes on consumer perception and consumption behavior

#### 4.1.1. Data analysis

The product attributes include utility value, value for money, brand effect, popularity and word-of-mouth evaluation of the product. According to the descriptive analysis based on SPSS24.0 software, it is concluded that value for money among the commodity attributes has the greatest influence on consumer perception and consumption behavior, followed by utility value. The analyzed data are shown in Tables 4 and 5.

**Table 4** Influence of commodity attributes on consumer perceptions and consumer behavior

Variables	Average value	Standard deviation	Number of samples
Usefulness	2.432	0.726	204
Value for money	3.018	0.934	204
Brand Effect	2.015	0.689	204
Popularity	1.798	0.638	204
Word of mouth evaluation	1.978	0.654	204

**Table5** Regression analysis of commodity attributes on consumer perceptions and consumer behavior

Models	Unstandardized coefficient	Standardization factor		t	Significance
	B	Standard Error	Beta		
(Constant)	-2.789	0.082		-9.7864	.000
Usefulness	0.287	0.079	0.178	3.5663	.000
Value for money	0.306	0.088	0.297	4.2676	.001
Brand Effect	0.258	0.076	0.265	3.0021	.003
Popularity	0.143	0.063	0.156	2.857	.020
Word of mouth evaluation	0.157	0.070	0.146	2.574	.010

#### 4.1.2. Specific analysis

The college students who are in the primary stage of independence have richer demands for commodities. The massive commodity market of e-commerce live broadcast can meet the demand of college students for special products, and can also meet their demand for clothing and beauty "taste"[1], their product demand is greatly satisfied, and the screening characteristics of goods are more distinct, and the cost effectiveness and the value effect of their own goods become the first level of criteria for college students in e-commerce platform for live shopping. The higher the cost performance of the products, the stronger the college students' willingness to consume them when they watch the live broadcast of e-commerce, which leads to a series of consumption behaviors. The diversified consumer product market also selects some good and inexpensive products for the college students, which broadens their consumption field, not only limited to the traditional consumer products, and makes the college students' shopping and consumption serve the utility value of the products themselves, and the higher the utility value of the products, the college students will have a higher consumption rate for them.

### 4.2. The impact of e-commerce marketing model on consumer perception and consumer behavior

#### 4.2.1. Data analysis

The e-commerce marketing model includes anchor visibility, discount, and promotion method. From the data, it can be seen that the variables in the e-commerce marketing model show a positive correlation, in which among the various variables of the e-commerce marketing model, the influence of discount is the most significant, followed by the stronger significance of the publicity method, and the visibility of the anchor also has a certain influence. The analyzed data are shown in Table 6 and Table 7.

**Table 6** The impact of e-commerce model on consumer perception and consumer behavior

Variables	Average value	Standard deviation	Number of samples
Anchor visibility	1.989	0.635	204
Discount	3.025	0.934	204
Promotion method	2.867	0.843	204

**Table 7** Regression analysis of e-commerce model on consumer perception and consumer behavior

Models	Unstandardized coefficient		Standardization factor	t	Significance
	B	Standard Error			
(Constant)	-2.635	0.083		-9.4328	.000
Anchor visibility	0.178	0.088	0.165	2.5489	.002
Discount	0.293	0.062	0.304	3.86	.000

				76	
Promotion method	0.279	0.076	0.287	3.4391	.000

#### 4.2.2. Specific analysis

The form of e-commerce live with goods relative to the traditional form of online shopping, the display of the product is more comprehensive, the merchant can fully display the product from the appearance, sound, performance and other aspects, to provide a more detailed product introduction for the user community; on the other hand, based on the form of live publicity, build a communication bridge connecting consumers and businesses, interactive purchase mode is more in line with the needs of consumers. For college students, under the condition of consumption level limitation, the shopping platform provided by live e-commerce can help them to get more in-depth product positioning and direction, more convenient to select services and products suitable for their needs[2] ; and the opportunity of live interaction provides the opportunity to answer questions and solve problems, so that college students can clarify the quality of products, reduce the "step on the pit "Therefore, the advantages and disadvantages of e-commerce marketing and promotion methods can positively influence college students' consumption concepts and promote their consumption behavior.

Under the situation of various live broadcast contents competing with each other, college students will also enhance their ability to distinguish right from wrong and establish scientific aesthetics in the process of watching; in addition, there are many live broadcast contents that are more oriented to positive life aspects of product promotion, while incorporating the correct mainstream social core values, for example, the original ecological net red broadcast representative "Li ZiQi For example, "Li ZiQi", the representative of the original ecological net-celebrity live broadcast, uses the original ecological rural life as the background of the live broadcast, produces traditional Chinese food with local characteristics, and integrates traditional Chinese cultural elements, which not only plays a role in spreading Chinese culture, but also successfully creates the brand of "Li ZiQi"[3] . The experience of watching such a positive implication of the live broadcast of products can enhance the ability of college students to distinguish between good and bad products, improve their value taste, enrich their social experience, and improve their aesthetic appreciation ability.

And not only values guidance, but also positive consumption guidance exists. The mainstream celebrity anchor effect with Jiaqi Li and Veya is influencing college students' consumption behavior, and the data shows that the influence based on anchor popularity also exists with full significance.

### 4.3. The influence of live service characteristics on consumer perceptions and consumer behavior

#### 4.3.1. Data analysis

Live service characteristics include purchase process, consumption experience and after-sales service. From the data, it can be seen that the variables in the live service characteristics show a positive correlation to the influence of college students' consumption concept as well as consumption behavior, and the significance of their influence is strong, leading to the specific conclusion that the purchase process and consumption experience have a relatively strong influence on college students' consumption in live e-commerce. The analyzed data are shown in Table 8 and Table 9.

**Table 8** Impact of the characteristics of live streaming services on consumer perceptions and consumer behavior

Variables	Average value	Standard deviation	Number of samples
Purchase Process	3.129	0.685	204
Consumer Experience	2.878	0.768	204
After Sales Service	2.679	0.827	204

**Table 9** Regression analysis of the characteristics of live streaming services on consumer perceptions and consumer behavior

Models	Unstandardized coefficient		Standardization factor	t	Significance
	B	Standard Error	Beta		
(Constant)	-2.798	0.086		-9.7867	.000
Purchase Process	0.346	0.053	0.387	3.9674	.000
Consumer Experience	0.308	0.067	0.321	3.7353	.000

#### 4.3.2. Specific analysis

At present, in the continuous upgrading and optimization of the Internet, the live broadcast has entered a more mature stage, and its purchase process has been transformed from the initial complex mode to a one-click order, and based on different platforms, the complexity of its purchase process is not consistent, and it is clear from the data analysis that the simplicity of the purchase process will more promote the consumption of its goods by college students, and combined with the actual can be seen that not only the college student group, as far as all consumer groups It is clear from the data analysis that not only college students, but also all consumer groups, the rapid and convenient live shopping service will increase their consumption turnover rate, so the specific effect of this variable shows a positive correlation[4].

The live market of e-commerce is now showing the status quo of blossoming, and the competition for traffic and consumer market has become the main battlefield of live shopping merchants, and the communication between

anchors and consumers is particularly important in the operation mode of live shopping, and this consumption mode of real-time communication has become an important advantage of live services, and the data analysis shows that the consumption experience has a significant influence on the perception and behavior of college students, which indicates that when they are shopping for goods, college students pay more attention to their own consumer experience, and the consumer experience also influences their desire and actual behavior of consumption at the same time[5].

## 5. Epilogue

After the above empirical analysis, we know that based on the various influencing factors of e-commerce live broadcast on college students' consumption concept and consumption behavior, and from the actual background, we analyze the specific reasons for the significant impact of various variable factors, confirm the conclusions previously drawn and analyze the various impacts of e-commerce live broadcast on the consumption process of college students.

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