

# The Impact of Live Streaming Behavior on Consumers' Consumption Intention

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**Abstract.** The emergence of the phenomenon of live streaming has led to the development of many industries at home and abroad at present, especially in the context of the COVID-19, live streaming has facilitated people's consumer life. In order to explore the current popularity of live streaming in China and to provide reasonable suggestions for the development of the live streaming industry, this paper investigated samples of various age groups around us by means of a questionnaire distribution. Research results show that the popularity of live behavior is not very high, there are still a lot of consumers more accustomed to the form of offline consumption, which also requires continuous innovation in the form of live, applicable to a variety of audience groups, live product quality reputation continues to improve, so that consumers' purchases are guaranteed. This paper conducts in-depth research on live broadcasting behavior, and also provides feasible suggestions for self-improvement of live broadcasting e-commerce, from the perspective of consumer preferences and consumer psychology.

## 1 Introduction

As a result of the epidemic, approximately 23% of consumers in China have shifted from offline to online purchases. If the epidemic continues, nearly 46% of consumers will shift to online purchases. In the case of such a large-scale consumption form of transformation, live broadcast will become one of the mainstream promotion mode of online consumption. Live broadcast has the characteristics of mass and wide spread, everyone can participate in live broadcast; at the same time, the impact of live broadcast on consumption is very wide, even if not through the form of direct participation in consumption activities, live broadcast can still improve visibility through its traffic, playing an indirect role in the promotion.

Most of the current shopping and gaming-based industries use live streaming to increase the heat, and the audience groups are generally younger, so increasing the popularity of live streaming behavior among the general public is the key to increasing consumer spending.

In the future era of rapid digital development, live streaming as an online fast communication method can provide great convenience for consumers. Consumers can select goods through live streaming and experience face-to-face live shopping. Live streaming opens up a new type of leisure and entertainment as one more channel for the public to get information.

The rapid development of live streaming has also bred many drawbacks. Due to the lower threshold of the live industry, after solving the employment problem also brought the professional level of practitioners is too low,

the spread of vulgar content in the live streaming as well as the integrity of the live broadcasters, have made consumers have concerns about the live broadcast. The serious Matthew effect of the live streaming industry makes it impossible for young anchors to accumulate enough traffic without being able to innovate and reform the live broadcast format. Therefore, rectifying the problems of the live streaming industry is also a top priority.

## 2 Literature Review

### 2.1 Factors Influencing Consumers' Consumption Intention

There are various factors that affect consumers' consumption intention, and this paper classifies the factors that affect consumers' willingness to consume into direct and indirect factors based on whether each type of factor has a direct or indirect effect on consumers' willingness to consume.

#### 2.1.1 Direct Factors.

Direct factors play a decisive role in consumers' shopping behavior. Among the direct factors affecting consumers' willingness to spend, consumers' disposable income and consumer demand are the two most important direct factors.

According to data from the National Bureau of Statistics, China's per capita disposable income in the first

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quarter of 2022 was 10,345 yuan, a nominal increase of 6.3% over the previous year and a real increase of 5.1% after deducting price factors.[1] At the same time, the national per capita consumption expenditure of 6,393 yuan, a nominal increase of 6.9% over the previous year, net of the impact of price factors, real growth of 5.7%.[2] It follows that with the positive effect of per capita disposable income on per capita consumption, consumers' willingness to consume will also be influenced by consumers' real disposable income, that is, their financial capacity.

Consumers have different needs for different consumption objects. According to the substantive content of consumption needs, they can be divided into material consumption needs and spiritual consumption needs. Material consumption demand refers to people's need for material goods for living. In the act of live streaming, consumers buy basic household goods in the activity of live streaming with goods is the material consumption demand. While spiritual consumption demand is the process by which consumers consume their needs for spiritual activities.[3] The degree of expansion and contraction of material consumption demand is relatively small, while the degree of expansion and contraction of spiritual consumption demand is large, therefore, the consumer's willingness to consume will also have a direct impact when choosing different content of consumption demand.

### *2.1.2 Indirect Factor.*

Indirect factors play a role in aiding consumers' consumption decisions. Among the indirect factors affecting consumers' consumption intention, brand effect and star effect are the two most important factors.

Brand effect refers to the positive effect brought by the company through establishing a good brand image, gaining the recognition of consumers and making the brand known and approved by everyone. A good brand relies on various marketing tools to broaden consumers' perceptions of it, and likewise, the strengths and weaknesses of the brand influence consumers' choices. [4] The brand effect determines the positioning of the goods, and a good brand has the consumer motivation force.

The star effect means that the stars drive the popularity and sales of the products they endorse through their own fame, shaping a good image of the company and bringing positive effects at the same time. In order to establish their brand image and create brand awareness, companies will invite stars to endorse their brands, an emerging marketing tool that is very effective in today's increasingly developed film and television industry. In the case of webcasts, the popularity of the spokesperson or even the anchor of the product being sold will have an indirect effect on the willingness to consume.

## **2.2 The Vein Of Development Of The Live Streaming Economy**

### *2.2.1 The History Of The Live Streaming Economy.*

The development of the live streaming economy is due to the rapid development of technology today and the popularity of big data. Starting from the application of 3G technology and the promotion of smartphone use in 2008, video websites gradually emerged and handheld games also started to step into the Chinese market.[5] In 2008, the "video about 2010, China appeared live broadcast platform, mainly live games and other entertainment activities, the network live market is further vertical refinement. According to the statistics of CNNIC, as of June 2016, the scale of domestic webcasting users reached 325 million, accounting for 45.8% of the total number of Internet users. Among them, the scale of the active volume of users in the live video market has exceeded more than 20 million, marking the arrival of the era of universal live streaming.[6]

With the impact of the epidemic, e-commerce is becoming an important channel for people's consumption, according to data provided by the China Internet Network Information Center, by the end of 2021, the scale of China's online shopping users reached 842 million, of which, the scale of live e-commerce users reached 462 million, live has not only existed in entertainment activities, but also in a series of economic activities such as e-commerce shopping guide penetration, live groups will also be oriented to more age groups.[7]

Since 2015, due to the influx of capital, the live industry staged a "thousand broadcast war", not only the emergence of phenomenal traffic anchor, more stars have joined the live broadcast, and even government officials also personally help live with goods. With the development of the live economy, live goods began to live from the "hundred flowers" to the "giant hegemony" pattern over.[8] The flow and capital are gathering to the head platform at the same time, the live e-commerce sales have gained explosive growth.

According to the "2019 Taobao Live Ecological Development Trend Report" data, Taobao live platform in 2018 monthly live users grew 100% year-on-year, with over 100 billion goods, a year-on-year growth rate of nearly 400%, and more than 400 live rooms with more than 1 million goods per month, which has created a 100 billion dollar market.[9]

### *2.2.2 The Current State Of The Live Streaming Economy.*

Live e-commerce is the fastest growing business model innovation in China in recent years.[10] Live streaming as a new situation of consumption attracts consumers to make impulse purchases and drive incremental consumption. Live streaming is constantly evolving to become adapted to a wider range of consumer groups. From the perspective of the elderly population, at the end of 2020, China's elderly population over 60 years of age 264.02 million people, accounting for 18.7% of the total

population, in response to the phenomenon of a larger proportion of the elderly population, live streaming is also constantly lowering the threshold, increasing its richness, interactivity and sociality. [11]At the same time, the content of live streaming has been broadened, and the form of live streaming initially gained economic growth by spreading from culture to today's integration with agriculture, sports, and business to meet the diverse needs of society.

### 3 Questionnaire Design

#### 3.1 Sample Description

This paper investigates and counts the extent to which most consumers participate in the live streaming economic life by means of a questionnaire. This questionnaire is open to all age groups and aims to derive the proportion of different age groups involved in live e-commerce activities and the impact of live e-commerce on people's economic activities. A total of 150 questionnaires were distributed and 132 were returned, with an effective rate of 88%. Considering the efficiency of questionnaire distribution, all the questionnaires were distributed through online form. The demographics of the sample are shown in table 1-3.

**Table 1.** Demographics of the sample Table— gender(Table credit: original)

Effective	Gender	Frequency	Percentage	Effective percentage	Cumulative percentage
	Male	28	21.2	21.2	21.2
	Female	104	78.8	78.8	100.0
	Total	132	100.0	100.0	

**Table 2.** Demographics of the sample Table— age(Table credit: original)

Effective	Age	Frequency	Percentage	Effective percentage	Cumulative percentage
	Under 20	25	18.9	18.9	18.9
	21-30	29	22.0	22.0	40.9
	31-40	19	14.4	14.4	55.3
	41-50	20	15.2	15.2	70.5
	51-60	11	8.3	8.3	78.8
	60+	28	21.2	21.2	100.0
	Total	132	100.0	100.0	

**Table 3.** Demographics of the sample Table— profession(Table credit: original)

Effective	Type	Frequency	Percentage	Effective percentage	Cumulative percentage
	State-owned enterprises	29	22.0	22.0	22.0
	Private enterprisesv	14	10.6	10.6	32.6
	Other ( teacher )	1	0.8	0.8	33.3
	Other ( retired )	1	0.8	0.8	34.1
	Other ( bank )	1	0.8	0.8	34.9
	Other ( Clothing )	1	0.8	0.8	35.7
	Business unit	5	3.8	3.8	39.5
	Retired	30	22.7	22.7	62.2
	Foreign companies	2	1.5	1.5	63.7
	Students	37	28.0	28.0	91.7
	Freelancer	11	8.3	8.3	100.0
	Total	132	100.0	100.0	

As can be seen from the figure, 21.2% of the sample were male and 78.8% were female, with significantly more women than men in the sample. The age distribution of the sample is more even, except for the 51-60 years old class, the difference in the percentage of the remaining ages is small.

#### 3.2 Questionnaire Design

The questionnaire was designed with 17 questions,

divided into two main sections, including basic information about the respondents (1-3 questions), and information about the respondents' preferences (4-17 questions). The distinction is made by the question "Do you usually have the habit of watching live broadcasts", respondents will answer "yes" or "no" to determine the next questions, which will give a general idea of the popularity of live streaming in people's daily lives. Meanwhile, in order to ensure the reliability and validity of the questionnaire, Likert's 5-level indicator

measurement method was used for the measurement of variables in questions 14-17. In other words, "1" means "strongly disagree" and "5" means "strongly agree". The

larger the number, the higher the degree of agreement. The questions of the questionnaire were set as shown in Table 4:

**Table 4.** The questions of the questionnaire (Table credit: original)

Type	Question No.	Question
Basic information of the respondents	1	Your gender
	2	Your age
	3	Your profession
Information on respondents' preferences	4	The most important shopping channel you usually use
	5	Whether you usually have the habit of watching live streaming
	6	Your most watched live streaming platform
	7	The type of live streaming you usually watch
	8	Your weekly shopping frequency
	9	How often you shop in the live room in a month
	10	Your monthly income level
	11	Your monthly living expenses
	12	Your monthly shopping amount (non-student)
	13	Your monthly shopping amount student)
	14	Factors that influence your choice to shop live
	15	Whether you have ever spent money impulsively in a live streaming
	16	Your reasons for not choosing live streaming shopping
	17	Whether you have ever over-hoarded in the live streaming

## 4. Data Analysis

### 4.1 Preference Of The Sample For Live Streaming Methods

From the analysis of the most important shopping channels of the samples, there were 71 samples, that is, 53.79% of the consumers would choose to spend through the app shopping platform, and only 1.52% of the consumers on overseas shopping. As seen through Table 3, men are more dependent on app shopping platforms than women, with 75% of men choosing app shopping platforms for shopping and only 48.1% of women. In addition, women prefer to shop through offline shopping malls (42.3%), which may be related to the fact that women are more interested in the quality of goods, and the quality assurance of offline shopping malls is higher than that of general app shopping platforms.

**Table 5.** Shopping channels for the sample (Table credit: original)

	Male	Female	Total	Percentage
Various software live streaming	0	8	8	6.06%
overseas shopping	0	2	2	1.52%
shopping in the mall	7	44	51	38.64%
App shopping platform	21	50	71	53.79%
Total	28	104	132	100.00%

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Various software live streaming	0	8	8	6.06%
overseas shopping	0	2	2	1.52%
shopping in the mall	7	44	51	38.64%
App shopping platform	21	50	71	53.79%
Total	28	104	132	100.00%

The preferences of different age groups for shopping methods are shown in Table 6. Over 76% of consumers under the age of 30 shop by using app shopping platforms, which is in line with the general perception that the younger you are, the more you can adapt to more advanced shopping method. In the sample survey, consumers over 50 years old spend on offline shopping malls, many older consumers pay more attention to the quality of goods, and offline shopping malls, although for the app shopping platform consumers will spend higher time costs, but offline shopping malls as the most traditional way of shopping, providing the convenience of operation on the way to shopping.

**Table 6.** Shopping styles of all ages (Table credit: original)

	Various software live streaming rooms	Percentage	overseas shopping	Percentage	Shopping in the mall	Percentage	App shopping platform	Percentage	Total
Under 20 years	2	8.00%	0	0.00%	4	16.00%	19	76.00%	25
21-30	1	3.45%	0	0.00%	4	13.79%	24	82.76%	29

31-40	3	15.79%	0	0.00%	4	21.05%	12	63.16%	19
41-50	1	5.00%	0	0.00%	7	35%	12	60.00%	20
51-60	1	9.09%	1	9.09%	7	63.64%	2	18.18%	11
Over 60 years	0	0.00%	1	3.57%	25	89.29%	2	7.14%	28

#### 4.2 Live Streaming Penetration Survey Results

Of the 132 samples surveyed, the popularity of live streaming is not very high at present, with a penetration rate of only 39% within the scope of the survey. Of the sample who do not watch live streaming, 81.25% do not choose to shop live because of the price of the product, the anchor, the sales method, the after-sales service and the quality of the selection. The quality of the live streaming selection was the most important concern of the sample, with 42.5% of the sample believing that the quality of the live streaming selection did not meet expectations. Among the samples watching live streaming, the proportion of the population of different age groups watching live streaming basically shows a decreasing trend with the increase of age, which is in line with people's basic perception, except for the group of 21-30 years old, the proportion of the sample population watching live streaming in this group is even lower than the group of 41-50 years old, so it can be inferred that the current audience age group of live streaming is more on the younger side, which is also in line with the characteristics of young people who are more receptive to new things(table 7).

**Table 7.** Live streaming penetration rate by age group(Table credit: original)

	Not	Yes	Total	Percentage
Under 20	12	13	25	52.00%
21-30	18	11	29	37.93%
31-40	9	10	19	52.63%

**Table 8.** Sample preferences for different live streaming platforms and categories (Table credit: original)

Platform	No. of people	Types	No. of people
Short video apps such as Tiktok and Kuaishou	24	Shopping live	37
Huya and Douyu platforms	2	Game live	11
Shopping App such as Tmall and Taobao	19	Fitness live	1
Bilibili	4	Financial Management live	0
Red	2	Other	3
Other	1		

Among those surveyed, 42.31% (more than 4) believe they often engage in impulse spending in live streaming, 28.85% (3) believe they occasionally engage in impulse spending in live streaming, and 28.84% (less than 3) believe they have not engaged in impulse spending in live streaming(table 9). From the survey results, it can be seen that live-streaming is a sales practice that can, to a certain extent, stimulate consumers' potential desire to consume and stimulate them to purchase goods that they themselves have not planned to buy.

41-50	12	8	20	40.00%
51-60	7	4	11	36.36%
Over 60	22	6	28	21.43%

As for the channel to watch live, 46.2% of the total sample chose short video apps such as Tiktok and Kuaishou, short video apps cover a wide range of content and are more convenient to use, so they can meet the various needs of users. The sample of Huya and Douyu platforms that chose to mainly broadcast games was smaller, mostly young users. Tmall and Taobao, which are mainly shopping apps, accounted for 36.5%. Table 8 of the statistical results, 71.2% of the respondents to watch the shopping live mainly, most of the rest for the game live (21.2%), live currently more in the form of entertainment to serve the user. According to statistics, 618 shopping activities of year 2022, Taobao live broadcast account number year-on-year growth of 12.4%, turnover of more than 100 million live 32, turnover of more than 10 million live 434; big anchor transaction year-on-year growth of 63%, store broadcast transaction year-on-year growth of 22%. At the same time, Tiktok e-commerce released the "2022 Tiktok 618 Goodies Festival" data report, showing the consumption trends of the platform during the event. The report shows that from June 1 to 18, Tiktok e-commerce live broadcast totaled 40.45 million hours, and the short video of hanging shopping carts was played 115.1 billion times. This shows that the short video and shopping platform live broadcast also has a great role in promoting consumer consumption.

**Table 9.** Impulse consumption level(Table credit: original)

		Sample No.
Level of impulsiveness	1	11
	2	2
	3	15
	4	8
	5	14

Of those surveyed, 36.54% believe they often overboard items on live streaming rather than buying on demand. 26.92% believe they occasionally hoard items on

live streaming, and 36.54% believe they have not hoarded items on live streaming. From the survey results(table 10), it is clear that more consumers hoard goods in live streaming shopping than do not. Excessive hoarding of goods not only causes financial losses, but also creates waste. Live streaming shopping as a consumer behavior can have an impact on causing consumers to consume irrationally.

**Table 10.** Sample hoarding level (Table credit: original)

		Sample No.
Hoarding level	1	11
	2	8
	3	14
	4	10
	5	9

### 4.3 Consumption Habit Survey Results

The surveyed sample generally consumed less than 5 times a week, with 93 samples accounting for 70.4% of the total. In order to facilitate the exploration of the relationship between consumers' participation in live-streaming activities and their shopping frequency in the consumption process, the other 80 samples who do not watch live-streaming were removed. From the results in Table 11, it can be seen that 34.6% of consumers who participated in live events purchased the majority of their purchases for the week.

**Table 11.** Sample shopping frequency (Table credit: original)

	Frequency of shopping in the live streaming room in a week			
Frequency of shopping in a week	Under 2 times	2-5times	5-8times	Above 8 times

**Table 12.** Income and consumption levels of active employees (Table credit: original)

Income level	Consumption level	
	Absolute value	Percentage
Under 3000 ( 4.21% )	Under 1000	100%
	1000-3000	78.78
	3000-5000	18.19
3000-6000 ( 44.21% )	Under 1000	3.03
	1000-3000	50
	3000-5000	50
6000-9000 ( 22.11 )	Under 1000	20
	1000-3000	30
	3000-5000	20
Over 9000 ( 29.47% )	5000	30

Under 5 times	25	8	0	1
5-10 times	5	5	2	1
10-15times	3	0	1	0
Above 15 times	0	0	0	0

### 4.4 Income And Consumption Level Of The Sample

For the working people sample (table 12), the income level is concentrated in 3,000-6,000, accounting for almost half, and 6,000-9,000 and 9,000 or more account for almost a quarter each. Combined with the consumption level, the sample of each income level, the amount of consumption is basically smaller than the amount of income, in a more rational consumption level. Among them, the sample at the income level of 6000-9000 has a significantly lower consumption amount than the income amount. Combined with the age of the sample, most of the samples at this income level are 30-50 years old and are at the age when they need to raise the next generation and support the previous generation. The income of this age group is mainly used to meet the basic consumption needs such as car loan, mortgage and education, and there is not much money for enjoyment spending.

The survey shows that online shopping has surpassed offline shopping and become the main shopping channel for consumers. And live streaming shopping is not as popular as imagined, only 6.06% of the sample choose live streaming shopping, the development of live economy is only in the primary stage. In the sample, only 39.39% of the sample usually have the habit of watching live streaming, less than half of the total sample, indicating that watching live streaming has not yet become a common way of life, and the popularity of live streaming still needs to be improved.

## 5. Conclusion

The results of the study show that live streaming behavior has a positive guiding effect on consumers' consumption intentions, and consumers' intentions can have a counter

effect on live streaming behavior. According to research data found that most consumers for live streaming selection based on different, more attention or in the quality of live products, as offline shopping can allow consumers to make direct purchases, consumers can intuitively see the good and bad products, and even some offline physical stores will let provide samples to

consumers experience. But live streaming is an online format for selling products, using convenience and affordable prices as a gimmick to attract consumers. The product quality is an important factor for consumers to consider, and this is one of the bases for consumers to choose whether to watch the live streaming and whether to shop through the live streaming.

Live operators still have to improve the quality of their products if they want to make their live broadcasts bigger. First, they can provide a trial period for consumers, consumers can choose whether to buy according to the results of their own experience, which also requires mutual trust between live operators and consumers. Secondly, live operators do not need to keep the price low, although the price is inversely proportional to the demand, but in the case of increasing levels of economic development, it is more important to consider the consumer's consumer psychology, and the price difference between the direct broadcast price and the price of the product in the mall is too large to make consumers doubt the quality of the product. Third, Operators need to innovate live streaming content according to the needs of different age groups. Now the live streaming on the market is still dominated by games and shopping, according to the results of the study, most older consumers do not watch the live streaming, and the live streaming of games and shopping is also uneven, less hot live broadcasters can consider changing the form and content of the live streaming, starting from a different age market may be able to get more business opportunities.

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