

### A Study on the Influence of Age Factor on Consumer **Behavior in Live-streaming Shopping**

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#### **ABSTRACT**

This paper investigates the current situation and characteristics of China's live-streaming sale market, adopting literature research on the factors influencing consumer behavior in live-streaming shopping and consumer behavior of different age groups, based on which the relationship between different age groups and factors affecting consumer behavior in live-streaming shopping is studied by means of survey and statistics. The research finds that product popularity, product price, promotional activities, live-streaming platform and streamers are the main factors affecting consumers' shopping intentions, and there are significant differences in the response degree of different age groups to each factor. Through this study, we can more accurately grasp the characteristics of consumption behaviors of different age groups in livestreaming shopping, which not only helps live-streaming platforms and businesses to better meet consumer needs, but also reminds consumers of the importance of rational consumption.

**Keywords**: live-streaming shopping, factor of age, consumer behavior

#### 1.INTRODUCTION

#### 1.1. Live-streaming Sale Mode

The E-commerce live-streaming (hereinafter referred to as "live-streaming sale") is developed with the development of e-commerce and webcast. It is a new shopping method rising under the mobile media economy. China's live-streaming sale market started in 2009, and the market scale is expected to exceed 200 billion yuan

#### in 2021.[1]

At present, the mainstream live-streaming sale mode in China is to build a live platform on e-commerce websites, content platforms or social platforms. Merchants set up a live broadcast room on the platform, and the live-streamers (hereinafter referred to as "streamer") promotes goods (or services) through live broadcast. Consumers could understand the commodity information by watching the live broadcast and complete the transaction online.



Figure 1 Live-streaming sale conversion path[3]

(Figure 1 Photo credit: Original)

Among them: streamers are divided into merchants, merchants' hired personnel, professional streamers, etc. So far, there are many stars, celebrities, online stars and professional streamers play role as streamers, which are usually called "online influencer".(See Figure 1)

#### 1.2. Huge Market Scale

In 2009, the live-streaming sale mode started in China. At that time, some online celebrities mainly shared goods with fans. The year of 2016 is considered to be the first year of China's live-streaming sale year. Taobao, Jingdong and other e-commerce platforms have successively set up live-streaming departments, and live-streaming sale market has developed rapidly. In 2020, influenced by COVID-19, merchants went online to deliver goods through live broadcast. Taobao, Jingdong, Quick hand, Ticktock and other e-commerce websites and social platforms have become the mainstream platform of live-streaming sale in China, and the market scale has been further expanded.[2]

The scale of live-streaming users is huge. China has a large number of live-streaming users, which provides a huge development space for the live-streaming sale mode. According to the 49<sup>th</sup> statistical report on China's Internet Development released by China Internet Network Information Center on February 25, 2022, as of December 2021, the number of live-streaming users in China was 703.37 million, a year-on-year increase of 86.52 million, accounting for 68.2% of the total number of Chinese Internet users. Among them, the number of e-commerce live-streaming users was 464 million, with a year-on-year increase of 75.79 million, accounting for 44.9% of the total number of Internet users.[4]

The live-streaming market is huge. China has a huge online shopping market and keeps growing. According to the 49<sup>th</sup> statistical report on the development of China's Internet, in terms of online shopping, the number of users was 842.1 million, a year-on-year increase of 59.68 million, accounting for 81.6% of the total number of internet users. In 2021, online retail sales amounted to 13.1 trillion yuan, an increase of 14.1% year-on-year, of which the retail sales of physical goods accounted for 24.5% of the total retail sales of social consumer goods.[5]

According to the top 50 list of live-streaming sale in 2020 jointly released by Xinwaner and Guoji data in January 2021, the total sales in 2020 was 162.8 billion yuan, including 101.25 billion yuan for the top 10 streamers.[5]

#### 1.3. Significant Effect of Online Influencer

The online influencers have their own "halo", which has natural advantages in live-streaming sale. On one hand, the fan effect can bring considerable traffic for online influencers. On the other hand, online influencers have a high popularity. People who are not fans will also enter the webcast rooms because of their "popularity",

and the number of viewers is generally large. Coupled with the use of "bargains for seconds", "exclusive", "gifts" and other marketing promotions, a consumer can usually get a large number of orders in a short time.[6]

On July 12<sup>th</sup>, 2021, Chinese pop star Wang Leehom sold the vocal music course app "monthly learning" through webcast, with the price of each set of 1,699 yuan. In less than an hour, the number of viewers reached 12.3087 million, 728 sets of courses were sold, and the transaction amount was 1.2369 million yuan.[6]

#### 2. LITERATURE RESEARCH

Literature research is carried out from two aspects: the impact of live-straeaming sale on consumer behavior, and the consumption characteristics of different age consumer groups.

Consumer behavior refers to the behavior of consumers engaged in purchase, which is based on consumers' psychological activities. The consumer behavior is defined as "the dynamic interaction process of perception, cognition, behavior and environmental factors is the behavioral basis for human beings to perform the transaction function in life" by American Marketing Association (ASA).

### 2.1. Research on the Impact of Live-straeaming Sale on Consumer Behavior

Live-streaming sale mode. Liu [7] proposed that it is a business model integrating online video live broadcasting and e-commerce, with the main purpose of selling products or services. Guo [8] said that the development of this model was driven by live broadcast. Due to the emergence of a large number of live broadcast special apps, amateurs began to become "online influencer" by relying on the stable live broadcast environment of the live broadcast platform. After accumulating a lot of popularity and attention, they cooperated with online influencer incubation company to promote products on the live broadcasting platform and monetizing the traffic.

Live-streaming platform. Zhu and Huang [9] proposed that the perceived experience and perceived utility of the live-streaming platform have a positive impact on consumers' purchase intention. Liu et al. [10] found that online live shopping features such as interactivity, authenticity and visibility affect consumers' purchase behavior through intermediaries such as pleasure and trust.

Streamers. Maria Trhnen et al. [11] found that the personal attraction of the streamer during live broadcast and the interaction between the streamer and consumers have a significant impact on consumers' viewing intention. Yang et al. [12] pointed out that the match between the subject and the product of live-streaming

will affect consumers' purchase behavior, and the appropriate product spokesperson will affect consumers' perception of product characteristics, and then affect their purchase preference. Meng et al. [13] found that online influencers stimulate consumers' purchase intention through the characteristics of professionalism, interactivity, and attractivity.

Factors that influence purchasing behavior. Feng et al. [14] proposed that there are five types of factors, including consumers' personality characteristics, product internal clues, product external clues, consumption situation and social economy. Zhu et al. [15] affirmed the role of situational factors and confirmed the impact of external environment on consumers' internal perception by using the SOR model of psychology. Han and Tian [16] confirmed in their research that promotion, as a marketing factor, has an impact on consumers' attitude and behavior, and different promotion types have different degrees of influence. Li and Liu [17] proposed a new TPB model, emphasizing the impact of unique post purchase evaluation factors in China's e-commerce environment on consumer behavior.

# 2.2. Research on Consumer Groups of Different Ages

This paper selects two scholars' research on consumer groups of different ages in the United States and China, and sorts out the main viewpoints, which have a lot in common.

# 2.2.1. Michael R. Solomon's research on consumer groups of different ages in the United States [18]

In his book on consumer behavior, Michael R. Solomon, a professor at St. Joseph University, divided American consumers into seven groups according to the characteristics of the times, namely: interbellum generation (born in the early 20th century), silent generation (born during the two world wars), war baby generation (born during the second world war), baby boom generation (born from 1946 to 1964), generation X (born from 1965 to 1985), generation Y (born from 1986 to 2002), and generation Z (born from 2003 and later).

Michael R. Solomon pointed out that age cohort is composed of people of the same age with similar experience. They have many common cultural idols and have experienced important historical events together. The era of consumer growth has created a common cultural bond between them and other contemporaries. He explained the consumption characteristics of different age groups such as children, teenagers and mature consumers with examples.

Children are consumers in training. Parents often reward their children with products or take things away as punishment for their children. This way of material parenting shapes their children's behavior. At the same time, children play an important role in many family purchase decisions. When parents "surrender" to their children's request, parental yielding appears.

Teenagers experience the process of growing up from children to adults, and many exciting changes often occur. These changes have brought about the uncertainty of self, the need to belong, and the need to find their own unique identity when depressed. Young people often look for the "right" way to behave from their peers and advertisements. At the same time, this group has many needs (including some conflicting ones), such as experience, belonging, independence, responsibility and recognition.

In the mature consumer market, baby boomers (aged 35-54) are an important segment. According to Nielsen', baby boomers watch 9.34 hours of video a day, more than any other segment. At the same time, with the aging of the population and people living longer and longer, the group of the elderly (over 60 years old) is changing. They are interested in all kinds of things, are enthusiastic consumers who are willing and able to buy many goods and services and have maintained strong loyalty to their favorite brands for many years.

# 2.2.2. Xudong Zhong's research on consumer groups of different ages in China [19]

Zhong Xudong, associate professor of Suzhou University, China, analyzed age roles in his book Consumer *Behavior: A Psychological Perspective* (2020), which is divided into five groups: children (0 ~ 11 years old), teenagers (11 ~ 12 years old), youth (15 ~ 35 years old), middle-aged (36 ~ 60 years old) and elderly (over 60 years old). Of which:

The consumer psychology and behavior of children vary greatly in the period of lactation, early childhood and childhood. The overall consumer psychology is dominated by emotion, and the purchase behavior is mainly dependent, but it is also possible to affect the parents' purchase decision.

The consumption psychology and behavior characteristics of teenagers are as follow. 1) Have a sense of adulthood and enhance their independence; 2) Unwilling to be bound by their parents, they demand to buy their favorite goods independently; 3) The propensity to buy begins to establish, and the buying behavior tends to be stable; 4) Compared with their families, they are more willing to accept the influence of society, vulnerable to advertising, have strong imitation ability, and prefer change and innovation.

The consumption characteristics of youth groups are often reflected in the pursuit of fashion, personality, beauty, change, innovation, quickness, and tend to spend money freely under impulse and emotion. The purchasing behavior of this group is diffusive and will have a far-reaching impact on other consumer groups. It is often the most active target of marketing.

Middle aged groups generally have their own career and relatively fixed income, they often have old parents to take care of and children to nurture. Their consumption mentality is practical, planned, pro-convenience and cautious. They pay more attention to other people's views and social evaluation in consumption, and often plays an important role in household consumption. They are buyers of durable consumer goods, high-end consumer goods or enjoyment products.

Due to the physiological evolution, the consumption psychology and behavior of the elderly group are different from other groups. The consumption characteristics are emphasizing usefulness, paying attention to health care, altruism and brand loyalty. Some elderly people have the phenomenon of compensatory consumption, that is, after their children become independent and their economic burden is reduced, they try to compensate for the consumption desire that could not be realized due to restrictions in the past.

#### 2.3. Summary of Literature Research

- 1) Live-streaming sale is a collection mode of "network live broadcasting + e-commerce", which has five characteristics. Firstly, it is based on network live broadcasting, which has two basic characteristics of instantaneity and interaction. Secondly, based on these two characteristics, two derivative characteristics are formed, which are high user viscosity and strong group atmosphere. Thirdly, based on the digital e-commerce platform, the feature of precision marketing is formed.
- 2) Based on the five characteristics of live marketing mode, as well as the combination of each other, it has a different impact on consumer behavior from other forms of online shopping, mainly from the five aspects of personal characteristics, product characteristics, streamers, group atmosphere and promotional activities.
- 3) From birth to aging, people have different psychological, cognitive and behavioral conditions at different stages, which can be divided into different age groups. Because of the different needs, interests and aesthetic tastes of different age groups, different consumption characteristics are formed. The same age group has the same or similar consumption characteristics, and the corresponding groups in different countries have similarities.

#### 3. INVESTIGATION AND RESEARCH

#### 3.1. Investigation Steps

This survey is divided into five steps: 1) using the

Wenjuanxing platform, a platform providing functions equivalent to Amazon Mechanical Turk, to create a questionnaire that can be filled in online; 2) Send the questionnaire link through WeChat; 3) The respondents fill the questionnaire online; 4) Wenjuanxing automatically counts each questionnaire; 5) The researcher analyzes that statistical data to draw conclusion.

#### 3.2. Questionnaire Design

There are 20 questions in the questionnaire, each of which has 2 to 7 options according to the situation, and the respondents are required to choose one of them. Among them, Questions 1 to 3 investigate the basic information of the respondents, including gender, age, and monthly disposable income. Question 4 investigates whether you have the experience of live shopping. If you have, continue to survey. If not, the survey is over. Questions 5 and 6 investigate the number and amount of live shopping per month. Questions 7 to 10 investigate the influence of brand, price, promotion and discount in live shopping. Questions 11 to 16 investigate the influence of streamers. Question 17 investigates the impact of live streaming platforms. Questions 18 and 19 investigate the influence of star streamers. Question 20 investigate the reasons that led to the purchase.

#### 3.3. Questionnaire Distribution

The questionnaire link is distributed on Wechat. Through the author's parents, family members, friends, and friends of parents, family members and their friends. It is sent to their respective circles of friends and Wechat groups, inviting those who receive the questionnaire link to fill in online anonymously.

Wenjuanxing is one of the most professional online questionnaire platforms in China, which is fast, easy to use and cost-efficient. By the end of 2021, the Wenjuanxing platform had released 157 million questionnaires and collected 12.408 billion answers.

Wechat, which is similar to WhatsApp, KakaoTalk and LINE, is the most widely used instant messaging software in China. In 2020, 1.09 billion people opened WeChat every day, and 780 million people entered the circle of friends.

#### 3.4 Questionnaire Collection

The questionnaire will be sent out from 21:40 on March 27, 2022, Beijing time, to 21:40 on April 1, totaling 5 days. After the respondents fill in the questionnaire, it is automatically recorded by Wenjuanxing. A total of 502 questionnaires were recorded during the survey. In terms of filling time, 97.4% of the questionnaires were filled in from March 27 to 28. After checking the IP address of each questionnaire, there

is no duplicate filling phenomenon. Therefore, it can be considered that there are 502 respondents accepted the survey.

#### 4. INVESTIGATION AND ANALYSIS

#### 4.1. Reliability & Validity Analysis

In statistical survey, reliability and validity analysis of survey results are usually required. Reliability analysis is to test the stability, consistency and reliability of investigation results. Validity analysis is to test the accuracy and usefulness of test results.

#### 4.1.1 Reliability analysis

Cronbach's  $\alpha$  coefficient was used for reliability analysis,  $\alpha = (K/K-1) \ (1-\sum S_i^2/S_x^2)$ .  $\alpha$  is the reliability coefficient, K is the number of test questions,  $S_i^2$  is the variance of the score of question I, and  $S_x^2$  is the variance of the total score of all questions. Generally, when the reliability coefficient is above 0.9, it indicates that the reliability is very good, is good between 0.8 and 0.9, is relatively good between 0.7 and 0.8, and is acceptable between 0.6 and 0.7. If the value is below 0.6, revision is required.

Table 1 shows that the reliability coefficient of Clonbach Alpha and Clonbach Alpha based on standardized items is greater than 0.9, so the reliability of the data is very good.

Table 1 Reliability Analysis

	Clone Bach Alpha	Cloning Bach Alpha Based on Standardized Term
Questionnaire	0.954	0.954

#### 4.1.2. Validity analysis

KMO value and Bartlett sphericity are adopted for validity analysis. KMO value is used to compare simple correlation and partial correlation coefficients between items, and its value is between 0 and 1. The smaller the Bartlett sphericity test significance level (P<0.05), the more likely there is a meaningful relationship between the original variables.

Table 2 shows that the KMO value is 0.953, which is greater than 0.7, and the significance of the Bartlett sphericity test statistic is 0.000 < 0.01, so the validity of the data is very good.

Table 2 Validity Analysis

KMO sampling appropriateness	0.953
measure	0.900

Bartlett sphericity	Approximate square	3300.26 0
test	Degrees of freedom	45
	Significance	0.000

#### 4.2. Frequency Analysis

#### 4.2.1. Overall situation

 Table 3 Frequency Analysis

Name	Options	Frequency	Proportion
Gender	Male	260	51.8%
	Female	242	48.2%
Age	18)	28	6.8%
	18-25	60	14.5%
	26-35	127	30.8%
	36-45	116	28.1%
	46-55	59	14.3%
	56-65	15	3.6%
	66+	8	1.9%
Disposable income	0-3,000)	122	24.3%
(¥/month)	3,000- 5,000)	113	22.5%
	5,000- 8,000)	90	17.9%
	8,000- 10,000)	72	14.5%
	10,000- 20,000)	51	10.0%
	20,000+	54	10.8%
Live online shopping	Have	411	81.9%
experience	No	91	18.1%
Frequency of live	Less than once a month	51	12.4%
online shopping	Once a month	43	10.5%
	2-4 times per month	105	25.5%
	5-6 times per	98	23.8%
	4-5 times per week	76	18.5%
	1 or more times per day	38	9.2%
Live online	100)	161	39.0%
shopping amount	100-500]	135	32.7%

(¥/month)	500-1,000]	61	14.8%
	1,000- 3,000]	35	8.8%
	3,000+	21	5.1%

#### 4.2.2. Respondents' characteristics

Among the 502 samples, 260 were male and 242 were female, accounting for 51.8% and 48.2% respectively.

In terms of age, people aged 26 to 35 were the most, accounting for 30.1%. Those aged 66 and above are the least, accounting for 1.8%. (See Figure 2)

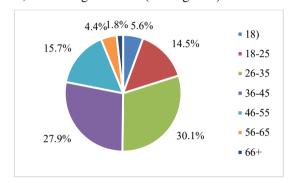
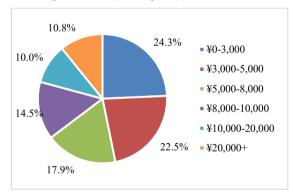


Figure 2 Age Distribution of the Sample Investigated

In terms of monthly disposable income, people with less than 3,000 yuan are the most, accounting for 24.3%. People with 10,000 to 20,000 yuan are the least, accounting for 10%. (See Figure 3)



**Figure 3** Monthly Purchasing Expenditure Distribution of the Sample Investigated

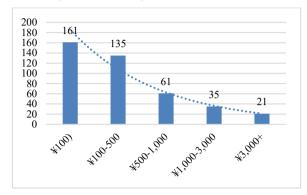
#### 4.2.3. Distribution of live-streaming shopping

Among the 502 samples, 411 people have live-streaming shopping experience and 91 don't have, accounting for 81.9% and 18.1% respectively.

Among the 411 people with live-streaming shopping experience, 194 are male, accounting for 74.6% of male respondents, while 217 are female, accounting for 90% of female respondents.

Of the monthly consumption of live-streaming

shopping, the number of people with less than 100 yuan, 100 to 500 yuan, 500 to 1,000 yuan, 1,000 to 3,000 yuan and more than 3000 yuan are 161, 135, 61, 35 and 21 respectively. With the increase of monthly consumption amount, the number of people shows a significant decreasing trend. (See Figure 4)



**Figure 4** Distribution of the Number of People In the Consumption Range of Live S hopping

As a new way of shopping, live-streaming shopping has fully entered Chinese society and is accepted by different age groups with an average participation rate near 80%, in which female participants are more than male. However, the purchase frequency and consumption amount data show that the live-streaming shopping market still has a large space for development.

#### 4.3. Cross-over Analysis Based on Age Group

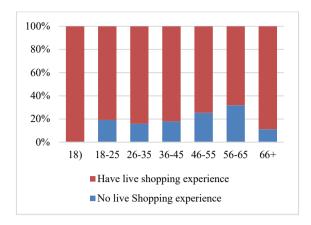
Taking the age as the main axis, the analysis is carried out from four aspects.

#### 4.3.1. The relationship between age and livestreaming shopping

The analysis considers three factors of shopping experience, shopping frequency and shopping amount.

#### 4.3.1.1 Shopping experience

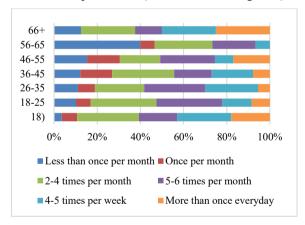
People aged under 18 (100.0%), 66 and above (88.9%), and 26 to 35 (84.1%) rank the top three age groups with live-streaming shopping experience. At the same time, live-streaming consumers also account for more than 80% in the two age groups of 36 to 45 and 18 to 25. The lowest proportion was 68.2% in the 56-65 age group. (See Table 4 and Figure 5)



**Figure 5** Live-streaming Shopping Experiences of Each Age Group

#### 4.3.1.2 Shopping frequency

For monthly live-streaming shopping frequency, the sample of 2-4 times per month is the largest over all age groups, accounting for 25.5%, and the second is that of 5-6 times per month, accounting for 23.8%. Frequency of less than once a month accounts for 12.4%, and that of once a week or more accounts for 9.2%. Within different age groups, people buy at least once per day are mostly found in age groups of 66 and above, 18 and below, as well as 46 to 55, accounting for 25%, 17.9% and 16.9% respectively. 40% people between 56 to 65 years old buy less than once per month. (See Table 5 and Figure 6)



**Figure 6** Monthly Live Shopping Frequency of Each Age Group

#### 4.3.1.3 Shopping amount

The monthly live-streaming shopping amount is basically less than 500 yuan in all age groups, and the proportion in groups of 18 years old and below and 55 to 65 years old is about 50%, while other age groups are over 70%. For different age groups, the sample of live-streaming shopping more than 3,000 yuan per month, the age group under 18 years old is the most, accounting for 17.9% of the age group. Except for 56 to 65 years old, the proportions of other age groups are not high, in which groups of 46 to 55 years old and 66 years old and above

are even 0%. (See Table 6 and Figure 7)

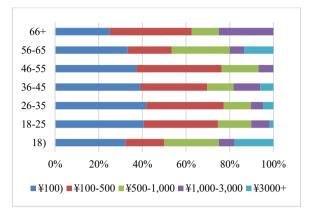


Figure 7 Monthly Live-streaming Shopping Amounts of Each Age Group

The proportions of people of different age groups participating in live shopping are all relatively high. Among them, the age of 18 and below has the highest participation rate, which reflects the characteristics of being willing to accept social influence, which also shows the importance of strengthening education and guidance. The over-66s came in second, changing traditional perceptions of the elderly. Those aged 18 to 25, 26 to 35, 36 to 45, and 46 to 55 are the main participants, accounting for 87.6% of the total. Participation was lowest among those aged 56 to 65.

## 4.3.2. The relationship between age and purchase intention

In this part of the study, the four factors of product popularity, product price, promotional activities and livestreaming platform are adopted as variables affecting the purchase intention, aiming to study the impact of various variables on different age groups.

Among the four factors, the product price factor has the greatest impact on the age group of 18 and below, accounting for 96.4% of this age group, while other age groups are basically below 40%. For product popularity factor, except for the age group of 18 and below, the overall trend is that with the increase of age, the greater the degree of influence. And it is opposite to the influence of product price factor. Promotional activities factor has the greatest impact on people aged 66 and over, reaching 87.5%, while it has the least impact on 18 and under, with only 10.7%. Live-streaming platform factor is basically insensitive to the age group of 18 and below, while its impact on other age groups is over 50%, and the age group of 66 and overreaches 75%. (See Table 7 and Figure 8)

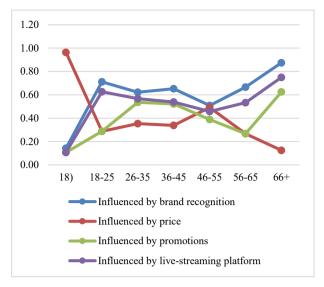


Figure 8 Influential Factors of Purchase Intention

For different age groups, people under 18 years old are most concerned about the product price factors. The age group of 18 to 25 pays more attention to product popularity and live-streaming platform factors. 26 to 35 years old, 36 to 45 years old, pay basically equal attention to the other three factors except for the product price factor. In the age group of 46 to 55, the influence of the four factors is roughly the same. In the age group of 66 and above, more than half of the people pay attention to product popularity, promotional activities and live-streaming platforms, and only a small number of people are affected by product price.

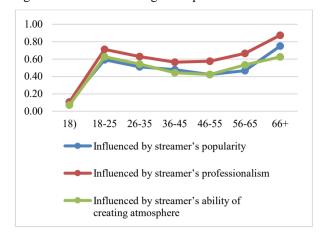
From the perspective of live-streaming shopping intention, the four factors of product popularity, product price, promotional activities and live-streaming platform have different effects on different age groups. The under-18s pay high attention to price, which is almost the only factor affects them. On the other hand, price factor has the least influence on all the other age groups. On the contrary, all the other age groups pay relatively high attention to product popularity except for teenagers. Promotional activities and live-streaming platform factors are not significantly influencing for all age groups, but for those aged 66 and above, they are important influencing factors.

### 4.3.3. The relationship between consumer's age and the streamer

Streamer's popularity, professionalism, and ability of creating atmosphere are taken as variables to study the influence of these variables on different age groups.

Among the three factors, streamer's professionalism has the highest impact on all age groups, and the proportion of other age groups affected is more than 60% except 18 years old and below. The influence of the streamer's popularity and ability of creating atmosphere on each age group is basically the same. However, in the

age group of 66 and above, the popularity factor is 15% higher than that of creating atmosphere.



**Figure 9** Influential Factors of Streamers In Different Age Groups

For different age groups, 18 years old and below are little affected by the streamers, and the proportions affected by the three factors are all around 10%. From 18 to 55 years olds have similar influence by streamer's popularity and ability of creating atmosphere. People over 66 are most easily influenced by streamers, and the rates of professionalism, popularity and ability of creating atmosphere reach 87.5%, 75.0% and 62.5% respectively. (See Table 8 and Figure 9)

The streamer plays an important role of affecting consumer behavior, and the three factors of streamer's popularity, professionalism and ability of creating atmosphere have different effects on different age groups. The streamer's professionalism has a high impact on all age groups. The influence of streamer's popularity and ability of creating atmosphere on all age groups is basically the same. For the over-66s, the influence of streamer's popularity is relatively great.

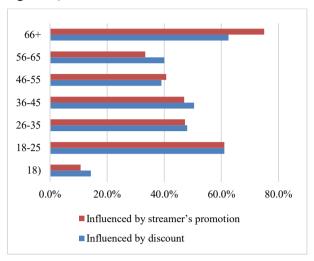
# 4.3.4. The relationship between age and the purchase of temporarily unnecessary products

To study the influence of different factors on different age groups on the purchase of temporarily unnecessary products, the factors of discounts and streamer promotion are adopted as variables.

In terms of buying temporarily unnecessary products, the group 66 years old and above is the highest, reaching 75%, with 18 to 25 years old followed by more than 60%, 26 to 35 years old and 36 to 45 years old about 50%, 46 to 55 years old and 56 to 65 years old about 40%. People of 18 and under is the lowest, which is less than 15%. (See Table 9)

In terms of the influence of streamer's promotion and discount, except for the age group of 66 and above, there is little difference between the two factors among the

other age groups. For the age group of 66 and above, streamer's promotion is 12.5% higher than discount. (See Figure 10)



**Figure 10** Distribution of Temporarily Unnecessary Products Purchased by each age group

It's common for consumers in all age groups that sometimes they buy temporarily unnecessary products in live-streaming shopping, and the average influence is over 50%, among which people of 66 and above are affected the most. Therefore, it is particularly important for consumers to maintain rational. In terms of the influence of streamer's promotion and discount, except for the age group of 66 and above, there is little difference between the two factors among the other age groups. The influence of streamer's promotion is significantly higher than discount on people of 66 and above.

Table 4 Live-streaming Shopping Experience of Each Age Group

		18)	18-25]	26-35]	36-45]	46-55]	56-65]	66+	Subtotal
Have	Number	28	59	127	115	59	15	8	411
experience	Proportion	100.0%	80.8%	84.1%	82.1%	74.7%	68.2%	88.9%	81.9%
No	Number	0	14	24	25	20	7	1	91
experience	Proportion	0.0%	19.2%	15.9%	17.9%	25.3%	31.8%	11.1%	18.1%
Subtotal	Number	28	73	151	140	79	22	9	502

Table 5 Monthly Live-streaming Shopping Frequency of Each Age Group

Frequency of live online shopping		18)	18-25]	26-35]	36-45]	46-55]	56-65]	66+	Subtotal
Less than once	Quantity	1	6	14	14	9	6	1	51
a month	Proportion	3.6%	10.2%	11.0%	12.2%	15.3%	40.0%	12.5%	12.4%
	Quantity	2	4	10	17	9	1	0	43
Once a month	Proportion	7.1%	6.8%	7.9%	14.8%	15.3%	6.7%	0.0%	10.5%
2-4 times per	Quantity	8	18	29	33	11	4	2	105
month	Proportion	28.6%	30.5%	22.8%	28.7%	18.6%	26.7%	25.0%	25.5%
5-6 times per	Quantity	5	18	36	20	15	3	1	98
month	Proportion	17.9%	30.5%	28.3%	17.4%	25.4%	20.0%	12.5%	23.8%
4-5 times per	Quantity	7	8	31	22	5	1	2	76
week	Proportion	25.0%	13.6%	24.4%	19.1%	8.5%	6.7%	25.0%	18.5%
1 or more times	Quantity	5	5	7	9	10	0	2	38
per day	Proportion	17.9%	8.5%	5.5%	7.8%	16.9%	0.0%	25.0%	9.2%
The number of liv	ve shoppers	28	59	127	115	59	15	8	411

Table 6 Monthly Live-streaming Shopping Amounts of Each Age Group

live-streaming sho (yuan/month)	opping amount	18)	18-25]	26-35]	36-45]	46-55]	56-65]	66+	Subtotal
100)	Quantity	9	24	53	45	22	5	2	160
100)	Proportion	32.1%	40.7%	41.7%	39.1%	37.3%	33.3%	25.0%	38.9%

	Quantity	5	20	45	35	23	3	3	134
100-500]	Proportion	17.9%	33.9%	35.4%	30.4%	39.0%	20.0%	37.5%	32.6%
E00 1 000]	Quantity	7	9	16	14	10	4	1	61
500-1,000]	Proportion	25.0%	15.3%	12.6%	12.2%	16.9%	26.7%	12.5%	14.8%
1,000-3,000] Quantity	Quantity	2	5	7	14	4	1	2	35
	Proportion	7.1%	8.5%	5.5%	12.2%	6.8%	6.7%	25.0%	8.5%
3000+	Quantity	5	1	6	7	0	2	0	21
3000+	Proportion	17.9%	1.7%	4.7%	6.1%	0.0%	13.3%	0.0%	5.1%
The number of live shoppers		28	59	127	115	59	15	8	411

Table 7 Influential Factors of Purchase Intention In Different Age Groups

Influenced by purchase intention		18)	18-25]	26-35]	36-45]	46-55]	56-65]	66 +
Affected by the popularity of the	Quantity	4	42	79	75	30	10	7
product	Proportion	14.3%	71.2%	62.2%	65.2%	50.85%	66.7%	87.5%
^ ££ ±     ±    £	Quantity	27	17	45	39	29	4	1
Affected by the price of products	Proportion	96.4%	28.8%	35.4%	33.9%	49.15%	26.7%	12.5%
Affected by promotional activities	Quantity	3	17	68	60	23	4	5
Affected by promotional activities	Proportion	10.7%	28.8%	53.5%	52.2%	38.98%	26.7%	62.5%
Influenced by the live broadcast	Quantity	3	37	72	62	27	8	6
platform	Proportion	10.7%	62.7%	57.0%	53.9%	45.76%	53.3%	75.0%
The number of live shoppers		28	59	127	115	59	15	8

Table 8 Influential Factors of Streamers In Different Age Groups

Influenced by the streamers		18)	18-25]	26-35]	36-45]	46-55]	56-65]	66+
Influenced by the popularity of the streamers	Quantity	3	35	65	55	25	7	6
	Proportion	10.7%	59.3%	51.2%	47.8%	42.4%	46.7%	75.0%
Influenced by the professionalism of	Quantity	3	42	80	65	34	10	7
the streamers	Proportion	10.7%	71.2%	63.0%	56.5%	57.6%	66.7%	87.5%
Influenced by the atmosphere	Quantity	2	37	69	51	25	8	5
created by the streamers	Proportion	7.1%	62.7%	54.3%	44.3%	42.4%	53.3%	62.5%
The number of live-streaming shoppers		28	59	127	115	59	15	8

Table 9 Factors Affecting The Purchase of Temporarily Unnecessary Products for Each Age Group

Buy products that are not needed for the time being		18)	18-25]	26-35]	36-45]	46-55]	56-65]	66+
Affected by price concessions	Quantity	4	36	61	58	23	6	5
	Proportion	14.3%	61.0%	48.0%	50.4%	39.0%	40.0%	62.5%
Influenced by the host's	Quantity	3	36	60	54	24	5	6
introduction	Proportion	10.7%	61.0%	47.2%	47.0%	40.7%	33.3%	75.0%
The number of live shoppers		28	59	127	115	59	15	8

#### 5. CONCLUSION

By literature research, actual observation and questionnaire analysis, the following conclusions are drawn:

The mode of live-streaming sale is a collection mode

of "live-streaming + e-commerce", with characteristics of instantaneity, interactivity, high user viscosity, strong group atmosphere and precise marketing. Meanwhile, consumers' behavior is mainly influenced by personal characteristics, product characteristics, streamers, group atmosphere and promotional activities.

People have different psychological, cognitive and

behavioral conditions at different ages, which can be divided into different age groups. Because of the different needs, interests and aesthetic tastes of different age groups, different consumption characteristics are formed. The same age group has the same or similar consumption characteristics, and the corresponding groups in different countries have similarities.

As a new way of shopping, live-streaming shopping has fully entered Chinese society and is accepted by different age groups. In terms of age groups, people aged under-18s and over-66s are the two groups with the highest participation. People aged between 18 and 55 are the main participants in live-streaming shopping. Participation was lowest among people aged 55 to 65.

From the perspective of live-streaming shopping intention, the four factors of product popularity, product price, promotional activities and live-streaming platform have different effects on different age groups. Price factor is paid high attention by people under 18, while it has the least influence on all the other age groups. On the contrary, all the other age groups pay relatively high attention to product popularity except for teenagers. Promotional activities and live-streaming platform factors are not significantly influencing for all age groups, but for those aged 66 and above, they are important influencing factors.

The streamer plays an important role of affecting consumer behavior, and the three factors of streamer's popularity, professionalism and ability of creating atmosphere have different effects on different age groups. The streamer's professionalism has a high impact on all age groups. Except the over-66s, the influence of streamer's popularity and ability of creating atmosphere on all age groups is basically the same. For the over-66s, the influence of streamer's popularity is greater.

It's common for consumers in all age groups to buy temporarily unnecessary products in live-streaming shopping. Therefore, it is particularly important for consumers to maintain rational. Meanwhile, providing proper guidance and education to the teenagers participate in live-streaming shopping is necessary.

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