

# Analysis on Influencing Factors of Consumer Psychology and Engagement in Taobao Streaming Commerce

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## ABSTRACT

With the continuous progress of 5G and Internet technology, live streaming commerce has developed and popularized rapidly in China. In particular, under the background of COVID-19 pandemic, the market prospect of live business has been increasing. This paper adopts quantitative research methods, through 300 valid data obtained by questionnaire survey, analyzes the impact of different factors on the psychology and behavior of Taobao users of different ages, and focuses on the relationship between commodity preferential means and consumer participation. This paper holds that in the operation of e-commerce live broadcast, it is necessary to continuously enhance consumer awareness and consumer loyalty, adopting differentiated live consumption strategies for different ages will help to improve consumer participation. The results of this study may provide new insights into the marketing effect of streaming media live broadcasting platform and streaming media live broadcasting, and provide suggestions for the further development of streaming media live broadcasting business in the future.

**Keywords:** Consumer psychology, Taobao, Live streaming commerce

## 1. INTRODUCTION

Recently, new crown epidemic has hit most of China's physical industries, on the contrary, live streaming commerce has shown a trend of bucking the trend. In recent years, domestic live streaming commerce has become a new trend. With the development and application of 5G technology, consumers receive more information and enjoy better services during the shopping process of watching e-commerce live broadcasts. In addition, the dynamic information transmission of live broadcast marketing has given new information communication and dissemination methods, which has promoted the development of Chinese e-commerce live commerce. Real-time streaming commerce is an emerging form of online shopping. Sellers interact with broadcasters, community members and customers in real-time in the live broadcast room to help sell products [1]. Due to the unique characteristics of live commerce different from ordinary online shopping the live streaming commerce attract many practitioners to use it to enhance customers' immersion experience and assist customers to shop

online. As a subset of e-commerce, live streaming commerce integrates real-time social interactions via live streaming to facilitate shopping [2][3]. In China, the top five live streaming platforms used by respondents for live shopping are Taobao, JD.com, Tiktok, little red book and Kuaishou.

Taobao of Alibaba, China's largest online shopping website, launched its own live broadcast platform, Taobao live broadcast. Shopkeepers and brands can hire online celebrities with a large number of fans to help promote their products. At the same time, the link of the shopping page will remain on the streaming screen, or the shopkeeper can sell products on Taobao. For the specific content of sales, after entering the Taobao live broadcast page, consumers can understand the relevant information of products according to the guidance and instructions of the host, and click the link popped up on the page at a specific time to participate in activities such as rush buying red envelopes, coupons or free lucky draw. In addition, customers can also interact with the host in real time in the consumer communication area, and share the link of the live broadcast page with others. Taobao makes good use of the authenticity, visualization, and interactivity features of live

streaming, which has a mature and scientific live streaming process and system to attract customers engagement with merchants and promote the formation of purchase behaviors.

Live streaming has become an important academic topic. Some scholars have studied the relationship between live streaming media and consumers' impulse purchase intention [4]. Some scholars pay attention to the standardized governance of the negative phenomenon of live broadcasting [5]. Some scholars also pay attention to how to optimize the marketing mode of streaming media live broadcasting business [6]. Previous studies on streaming media live broadcasting from the perspective of consumers are relatively few. Therefore, this paper discusses the main factors affecting consumers' participation in live broadcasting from three aspects: Live shopping, consumer participation and consumer psychology. This paper will provide some theoretical basis for the development of life shopping in the future.

## 2. LITERATURE REVIEW

### 2.1. Customer psychology and customer engagement

Customer Psychology refers to all psychological activities of consumers in the process of product selection. Consumer psychology is defined as a series of psychological activities produced by consumer groups in the process of consumer product selection and evaluation based on their own preferences and actual needs [7]. In the consumption process, consumers first need to fully understand the product information, and then trigger the potential desire to buy. After being affected by various internal and external factors, they will eventually make purchases. This process is similar to the S-O-R model, that is, stimulus-individual physiological, psychological-response. As consumers will be affected by many factors in the live broadcast room, the psychological changes of consumers will directly affect their participation and shopping behavior.

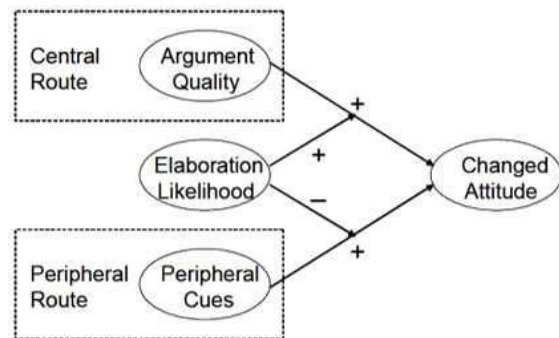
Engagement denotes the degree to which an individual perceives something as significant or relevant to himself/herself based on the needs, interests, and values [8]. Consumer engagement is the extent to which consumers are involved and connected to a company's products or activities. For an example, if brands sell through taobao, although online shopping has become more and more common, consumers cannot see or touch the products in person when purchasing products online, which makes customers feel distrustful of online shopping. However, live streaming has eased customer anxiety to a certain extent, and can attract customers to interact. There are many ways for customers to demonstrate engagement in Taobao Live, such as likes, comments (customers who have already

used the product comment on the product in the comments section, potential customers asking questions about the product to the host, etc.), retweets or purchases. In the process of live streaming commerce, how merchant use marketing methods to grasp customer psychology so as to alleviate customers' doubts and enhance trust is a topic worthy of research.

### 2.2. Elaboration Likelihood Model (ELM)

The specific dual process theory of interest to this study is the elaboration likelihood model (ELM). The Exhaustive Likelihood Model (ELM) was developed by psychologists Richard E. Petty and John T. Cacioppo. As the most influential theoretical model in consumer information processing, the The basic principle of the ELM model is that different methods of persuasion depend on the high probability of fine processing of the communicated message. The central path of persuasion is particularly effective when the likelihood of fine processing is high, while the marginal path is effective when this likelihood is low. According to Luo et al, the exhaustive likelihood model is directly related to the influence process and its impact on human perception and behaviour, and also explains why a given influence process may lead to different outcomes for different users in a given usage setting [8]. Therefore, through the ELM model, it is scientific to analyze the different responses of Taobao users of different age groups when they are subjected to the same influencing factors.

The central and peripheral routes of attitude change are typically operationalized in ELM research using the argument quality and peripheral cues constructs respectively, as shown in Figure 1.



**Figure 1** Elaboration Likelihood Model

Consumers' purchasing activities with a high degree of participation means that consumers can seriously consider the specific information provided by the merchants when forming their attitudes towards products, and conduct careful analysis and induction, which ultimately leads to a change or formation of attitudes. This persuasion process is called the core approach to attitude change. The opposite of the core approach is the peripheral approach of attitude change. In the peripheral approach, consumers do not actively

consider the specific information of the product. The persuasive influence is through factors or technical hints that are not closely related to the brand and the product itself. Generated after making contact. There is a significant difference between the central route and the peripheral route. The central route requires a considered understanding of the parameters, assessing the quality of those parameters and combining multiple and sometimes conflicting parameters into an overall evaluative judgement, whereas the peripheral route is less demanding and it simply requires the subject's association with significant positive or negative cues related to the attitude of the object [9].

### 3. METHODS

This study adopted quantitative research method. This paper collected 303 questionnaires, excluding 3 respondents who did not watch Taobao live broadcast within 3 months, and the other 300 respondents were valid samples. This paper divided all respondents into two groups, 30 years and over (30-60 years old) and young consumers under 30 years old. This paper set 13 questions from the perspectives of recent viewing frequency, gender, occupation, satisfaction, age, income and influencing factors. In the selection of influencing factors, it was mainly divided into seven items, namely evaluation, discount, good sales, display and use, celebrities, the appearance of the host and the ability of the host.

Among all respondents, men accounted for 48.67% and women 51.33%. 10% of respondents are between 0-18 years old. 41.67% of the respondents are aged between 18-29, 31% between 30-49 and 17.33% between 50-60. Among the 300 respondents, high school students accounted for 1.33%, bachelor's degree accounted for 10.67%, master's degree accounted for 5.67%, and social people accounted for 82.33%. 16% of the respondents have a monthly income of less than 3500 yuan, 65% have a monthly income of between 3500 yuan and 10000 yuan, and 19% have a monthly income of more than 10000 yuan. All respondents were randomly selected online.

#### 3.1. Research Model

Based on the ELM model and considering the characteristics of Taobao Live, the central path contains several factors of the product itself; considering the influence of the celebrity effect, we designed KOL, Celebrities and Third party messages as peripheral paths. In our study, the central and peripheral paths of consumers' attitudes towards products in different age groups are usually implemented using parameter quality and peripheral cue structure respectively, as shown in Figure 2.

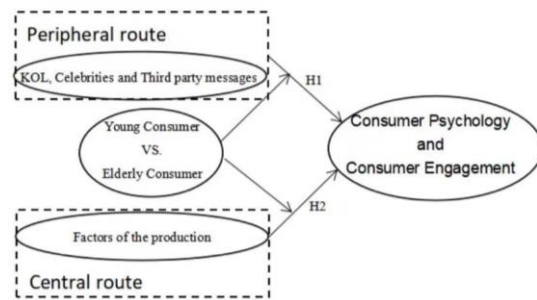


Figure 2 Research Model

### 3.2. The Variables and the Routes

#### 3.2.1. Peripheral Route: KOL, Celebrities and Third party messages

Previous studies have shown that external environmental factors influence the emotional states of the consumer [10]. We call the emotional state of consumers when shopping as "attitudes". In psychology, an attitude is a psychological construct, it is a mental and emotional entity that inheres in, or characterizes a person [11]. The psychological state of consumers often directly affects consumer engagement. reported that involvement is attributable to external factors, and it is an internal psychological process of information-processing. Therefore, it is feasible for us to use celebrity participation, the host's factors and third-party speeches as a Peripheral Route that affects consumer psychological changes and consumer participation.

Celebrities are well-known individuals who receive significant media attention [12]. Today, the continuous economic development of Internet celebrities has attracted a large amount of business investment. Through live broadcasting, celebrities changed the lives of young consumer and even changed the ecosystem of China's e-commerce. Therefore, many broadcasters are celebrities, and so they use their celebrity effects to conduct business activities [1].

A streamer, usually a KOL (key opinion leader, e.g. a popular V-blogger), has his or her own streaming style, specialty, personality or attractiveness [13]. As a concept of marketing, KOL is usually defined as: a person who has more and more accurate product information, is accepted or trusted by related groups, and has a greater influence on the buying behavior of the group. Therefore, merchants use KOL's popularity and expertise to hire KOL as the host of the live broadcast room. In a live streaming commerce process, KOL (the host) often wins the attention of consumers through professional skills or superior appearance conditions. Because of the real-time interactivity of live broadcasts, the audience's attention will unconsciously shift from the information itself to the persuader,

prompting them to pay attention to external clues, such as the charm of KOL [14]. Meanwhile, the interaction between customers and other community members will bring them a sense of identification [15]. For example, the popular hosts Li Jiaqi and Wei Ya in Taobao live streaming commerce. Many customers will choose to enter the live broadcast room to interact or purchase products because of the online host’s high popularity.

Third party messages usually refer to the opinions or questions about the product posted by consumers in the comment area. This is an uncontrollable factor because it is the customer who posted the review, not the merchant. However, such evaluations often have certainly authenticity, which is also an important indicator of whether customers choose to buy the product in the live broadcast room. Some users who have purchased a product can spread their experience of using the product through the comment area. In addition, some potential consumers can also ask the host about the product through the comment area. This is considered a phenomenon of interpersonal contact. According to Xu et al, Warm human contact is developed in live streaming commerce, which may not only facilitate viewers to understand a product, but also develop emotional engagement [16].

**3.3.2. Central Route: Factors of the production**

Involvement is eventually reflected as the correlation of this information and intrinsic needs, resulting in consumer preferences, attention, and participation for products, services, or brands [17]. Discount, whether it is online shopping or offline shopping, it is a means that businesses often use to attract customers. There are many types of discounts in the live broadcast room. In e-commerce live streaming, operators initiate several types of relational bonds, such as employing broadcasters, and give consumers special price offers or discount coupons, to motivate audiences to engage in live streaming activities [18]. No matter when and where, the discounts are very attractive to customers. Sell well, specifically, it refers to whether the sales volume of the products in the live-streaming room page is large. When the host announces the start of the purchase, the general product will have a specific inventory or the merchant will limit the purchase time. If the product is hot, it will soon be sold out by consumer. This also reflects a kind of conformity psychology of consumers-if others buy, I will also buy. As Hu said, in general, a typical live streaming activity for selling products involves a broadcaster uploading the real-time video to demonstrate different perspectives of the products and encourage the audience to purchase them [18]. For the example, if a business sells a pajama in the live broadcast room, they will ask a dedicated model or host to try on the pajama, showing the look and details of the pajama from all angles, including

telling the customer what fabric the pajama is, the length of the clothes, the available colors and so on.

In addition, consumer of different ages often make different behaviors because of the same factors, or they may make different choices because of the same factors. Therefore, we choose age as a variable to study the external routes. The influence of factors and factors in the central route on consumers.

**3.3. Research Hypotheses**

H1: Compared to the elderly consumer, the discounts on products tend to affect the interactive behavior of young consumer.

H2: Compared to the young consumer, celebrities participate in live broadcasts has less impact on the consumption behavior of elderly consumers.

**4. RESULTS**

**4.1. Reliability and Validity Analysis**

Kronbach's alpha value indicates the level of consistency between items. Generally, more than 0.7 is an acceptable value of Cronbach's alpha value. Cronbach’s alpha value was used for reliability analysis to verify the internal consistency of the project. In all variables, the alpha value of Kronbach is greater than 0.80 (Table 1), so we can consider that all variables in the model have sufficient reliability.

**Table 1.** Reliability Analysis

Variables	N. of Items	Cronbach's Alpha
Peripheral Route	4	.900
Central Route	3	.824

Peripheral Route: KOL, Celebrities and Third party messages

Central Route: Factors of the production.

**4.2. Data Analysis**

The paper used age as a variable to analyze the importance of factors that customers of different age groups pay attention to when participating in activities. In order to ensure that the experimental results are more fair and accurate, we divided consumer under 30 years old as Young consumer, and consumer over 30 years old as Elderly consumer.

According to statistics, figure 3 is the importance of factors affecting audience behavior. The abscissa is factors, the ordinate is importance. Questionnaire questions are set using likert scale, and the influence is 1-7 from low to high. Figure 3 shows that the young

consumer pay more attention to the discount than elderly consumer.

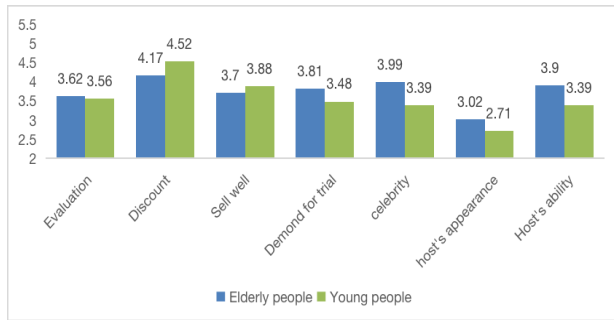


Figure 3 Influencing factors of consumer behavior

In fact, this result deviates from the expected conclusion of this paper, but when this paper first studied the audience income, this survey found that because the audience is still in the early stage of school or work, the economic situation of the audience under the age of 30 is generally lower than that of the audience over the age of 30. Among consumers with an income of less than 2000 yuan, young consumers account for a very high proportion. On the contrary, among consumers with an income of more than 5000 yuan, the proportion of elderly consumers is significantly higher. When we look at the last three other factors in Figure 4, we find that young consumers care more about their favorite celebrities than older consumers, but older consumers don't pay much attention to celebrity factors, even lower than the median. Then I checked the information. According to statistics, in 2017, nearly 75% of the star fans of the microblog platform were under the age of 30.

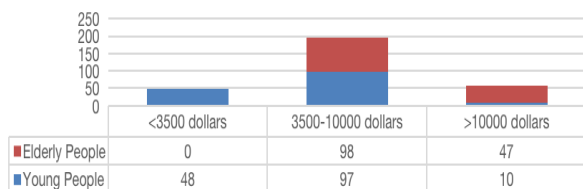


Figure 4 Percentage of consumer with monthly income

### 5. CONCLUSION

Taking Taobao live broadcast as an example, this paper mainly analyzes the main factors affecting consumers' participation in live broadcast. The study finds that there are differences in consumer demand and willingness of consumers of different ages. Compared with older consumers, product discounts tend to affect the interactive behavior of young consumers. From a certain point of view, the economic ability of young consumers is generally lower than that of elderly consumers aged 30 or over. When choosing products, they pay more attention to the price and cost-effectiveness of products, and are more willing to carry out positive publicity. Customers over the age of 30 do

not value whether celebrities participate in the live broadcast. The most important point is that in China, only a very small number of customers over the age of 30 are star followers. In contrast, customers under the age of 30 are often more likely to become star followers. All the results remind businesses that consumers of different ages should pay attention to different factors, make full use of existing resources, greatly increase user participation and further promote the development of live broadcast delivery.

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