International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Analysis of Live Streaming -commerce Consumption Behavior and Optimization of E - commerce Strategies: A Study Based on Diverse Consumer Groups

Huang Shijia[1], Kang Jinhui[2], Zhang Qianqian[3]
[1,2,3]Zhengzhou University of Technology
[2]Email address: to.kang@163.com

***Abstract*—*With the development of the digital economy, "live streaming e- commerce" has emerged as a new e - commerce model. Thanks to its unique interactivity and immediacy, it has rapidly gained popularity and become a key factor driving the growth of the online retail market. However, this field faces challenges in aspects such as product quality control and consumer trust - building. This study aims to provide scientific and practical market strategy suggestions for enterprises by systematically investigating and analyzing the attitudes, purchasing motivations, and behavior patterns of different consumer groups towards live streaming e - commerce. Through data collection from 336 valid questionnaires and empirical tests, we identified the main factors influencing consumer behavior, including product price, after - sales service, platform reputation, etc., and found that there is a significant positive correlation among these factors. The research further reveals the unique behavior patterns of consumers with different genders, ages, educational backgrounds, occupations, and income levels. Based on the above findings, this paper puts forward optimization suggestions regarding product types, brand building, platform reputation management, pricing strategies, and live - streamer cultivation, with a view to promoting the healthy and sustainable development of the live streaming e - commerce industry and providing theoretical support for businesses to develop more precise and effective marketing strategies. In addition, this study also explores the importance of attracting the younger generation to join the live streaming e - commerce industry, believing that it will inject new vitality into the development of the digital economy*.

***Keywords*—** *Livestream shopping; Consumer behavior; E-commerce strategy; Group differences*.

I. INTRODUCTION

1.1 Research Background

In the wave of digital economy, "Live Delivery" as a new force in the field of e-commerce is rapidly rising with its unique interactivity and immediacy, and has become a key factor to promote the growth of online retail market. With the popularity of smart phones and the rapid development of Internet technology, the live delivery mode has not only changed the traditional way of shopping, but also greatly affected consumers' shopping behavior and consumption psychology. However, although this model has received wide attention and rapid promotion in the global scope, the research on in-depth analysis of its consumer groups is relatively lagging behind.

At present, the main challenges faced by live-feed carriers include the quality control of goods, the construction of consumers' trust and the saturation of the market. In addition, due to the significant differences in gender, age, educational background, occupation and economic level among consumer groups, how to formulate personalized marketing strategies according to the specific needs and preferences of different customer groups has become an urgent problem for e-commerce enterprises and live streaming platforms. Therefore, an in-depth study of the attitudes, purchase motives and behavior habits of different customer groups towards live delivery of goods will not only help enterprises to accurately position the market and optimize product strategies, but also provide an important guarantee for the healthy and sustainable development of the whole live delivery industry.

Based on the above background, this study intends to systematically investigate and analyze the consumption psychology and behavior patterns of different customer groups in order to provide scientific and practical market strategy suggestions for merchants. Through in-depth understanding of consumers' needs and preferences, this study hopes to reveal the potential opportunities and challenges of live-streaming with goods in different customer groups, and further promote innovation and development and industrial upgrading in this field.

1.2 Research Purpose and Significance

The purpose of this study is to explore the attitudes and purchase behaviors of different customer groups towards the "Live Delivery" model, in order to provide more accurate market positioning and marketing strategies for merchants and e-commerce platforms. Through a comprehensive understanding of the needs and preferences of various consumer groups, this research will help enterprises to tailor the live streaming content, thus improving the sales conversion rate, promoting the continuous development of the live delivery model, and improving the efficiency and personalized service level of e-commerce.

In addition, the significance of this research lies not only in helping enterprises to better grasp the market trend, but also in promoting closer and more effective interaction between consumers and businesses, so as to promote the development

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E - commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

of the entire e-commerce industry towards a more intelligent, convenient and personalized direction. Through in-depth research on different customer groups, the research results are expected to provide new ideas and directions for e-commerce enterprises and live streaming platforms. These new ideas may cover creative design of live streaming content, optimization of shopping experience and refinement of marketing strategies.

In the practical sense, the results of this research will inject new vitality and power into the innovation and development of the live - streaming cargo industry, provide substantive and innovative marketing strategies for enterprises, and point out the direction for the development of the live - streaming cargo industry. At the same time, by optimizing the consumer experience, the research results will also significantly enhance the consumer shopping experience, promote brand loyalty and word-of-mouth dissemination, and build a positive brand awareness and image.

II. LITERATURE REVIEW

2.1 Policy and Industry Status Analysis

At present, live delivery of goods has become an effective way to drive consumption and economic growth, which is of great help in solving many realistic problems in our society. At the same time, there are also problems in product quality assurance, inadequate professional skills of anchors, and ineffective industry supervision. These problems are also the key points in developing the national economy and promoting economic growth. Therefore, "how to develop new ideas of live delivery and explore the development path of e-commerce" is a topic worthy of in-depth study and has certain practical significance. This article reviews this.

Before the start of the study, a search was conducted through China HowNet with the keyword "live delivery+e-commerce live delivery" and a total of 5,636 literature results were retrieved. Among them, there are 3,796 academic journals, 6 doctoral theses and 967 master's theses. After reading and studying the existing literature, it is found that the research on the live streaming of goods mainly focuses on the following aspects:

2.1.2 Existing Problems and Shortcomings of Live streaming Cargo Carrying in China

Starting from the e-commerce products themselves. Su, J., & Zhang, S. J. (2024) pointed out in the research that in the process of product sales, consumers often encounter the situation that the quality of goods does not match the quality stated by the anchors. Many anchors are too eager to turn their advantage in fan numbers into their advantage in economic value, but ignore the adverse impact that the quality problem of goods will have on themselves. Qin, R., et al. (2023) also proposed to sell fake and shoddy products, which would harm consumers' live streaming.

From the perspective of live anchor. Su, J., & Zhang, S. J. (2024) pointed out that the professional competence of anchors needs to be improved. Due to the low entry threshold of the anchors in the live streaming and cargo industry, the requirements for their professional qualities are also low. Therefore, the professional knowledge and quality cultivation of the anchors are uneven. This has led to many loopholes in e-commerce live streaming. In addition, Ma,X.L. (2023) also pointed out that false propaganda, the frequent phenomenon of anchors carrying goods, exaggerating the number of online viewers, misrepresenting sales volume and sales volume, and forging interactive content are all inducing consumers to place orders. In addition, the host evaded taxes and hit the bottom line of the law, which made it difficult to guarantee the order and quality of the e-commerce host.

Judging from the supervision department. Chen,Y.Y, et al. (2023) indicated that the supervision department lacked supervision and supervision power, and did not have enough time and energy to devote to such temporary and unexpected live delivery. Huang,M.x,et al. (2023) shows that the regulation of e-commerce live streaming government is facing unclear division of legal responsibilities, unclear definition of government regulatory actions, and especially the imperfect performance in consumer rights protection. The problems of single government supervision means, lagging action and inaction of e-commerce live streaming platforms all indicate that in the development process of e-commerce live streaming, the supervision department should step up improvement and seek a new way out for e-commerce development.

2.1.3 Development Trend of Live Tape Delivery

In the research of Ji,Fang. (2023), it is proposed that the development trend of live streaming e-commerce industry involves that live streaming is moving towards normalization and normalization. All walks of life conduct live e-commerce streamings across the border, and the e-commerce industry is in good shape. Moreover, the e-commerce industry will be managed in a standardized way, and the state will introduce various management systems and norms, which will provide institutional guarantee for the orderly and effective development of the e-commerce industry. The service scene and content are diversified, the style of the live streaming studio is different, the content is diversified and unique, which will drive the development of live streaming with goods in various aspects.

2.1.4 Group Status of E-commerce Development

The 55th Statistical Report on the Development of the Internet in China released by the China Internet Network Information Center in 2024 pointed out that the transaction volume of the live - streaming e - commerce industry reached 5.3 trillion yuan, with a year - on - year growth of 8.13%. The user base reached 590 million, a year - on - year increase of 3.8%. The annual per capita consumption amount was 9,550 yuan, showing a year - on - year growth of 29.06%. The middle-aged consumer group is an important group of live - streaming products. They have a certain stable income in the workplace and a higher consumption capacity. They have higher requirements on the quality and cost performance of live - streaming products. The participating groups of live streaming and cargo transportation are constantly expanding, involving various types of age and occupation. Whether it's being an anchor or shopping, many farmers, entrepreneurs, housewives, stars and workers are all involved in the development of live streaming and shopping. Kim, K.,et al. (2023) mentioned that with the continuous development of

Huang Shijia, Kang Jinhui, and Zhang Qianqian, “Analysis of Live streaming -commerce Consumption Behavior and Optimization of E - commerce Strategies: A Study Based on Diverse Consumer Groups,” *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

live e-commerce, the host group has become more diversified. Entrepreneurs from Dong Mingzhu, Yu Minhong and Luo Yonghao have joined in the live streaming to endorse their own enterprises and products. Mayors and county leaders have also become network anchors, bringing goods to their hometown in person. The network studio has become a new battlefield for local officials to help and support farmers. From this, the research on differentiated live streaming shows the continuous expansion and development of the live streaming group.

2.1.5 Relevant policy support and specifications

At present, the "Law of the People's Republic of China on Electronic Commerce" contains a number of supporting regulations for the development of electronic commerce. It continuously supports the development of electronic commerce through legal policies and live streaming of goods. However, there are still many problems in our country's live delivery of goods. Lin, L. (2023) pointed out in his research that the China Consumer Association has clearly pointed out that false propaganda is a common problem that needs to be regulated urgently in the current live delivery of goods. Even anchors sell expired and deteriorated products and products that do not meet the product quality standards, which seriously endanger the health of consumers and property safety. The Anti-Unfair Competition Law, the Advertising Law, the E-commerce Law, the Notice on Strengthening the Administration of Online Performances, and the Measures for the Administration of Online Performances and other laws all restrict and regulate e-commerce live streaming.

2.1.6 comments

Looking at the relevant research literature, many scholars, through the mutual influence between the live streaming and different groups, have pointed out that there are still many problems in the current live streaming, including the quality of the products selected, the skills of the anchors themselves and their personalities, the imperfect supervision system and the insufficient strength. At present, our country has both policy support and standard for live streaming, but live streaming should still be improved and developed from the aspects of product itself, anchor's own quality, live streaming platform and supervision department. These studies have provided theoretical basis and opportunity for this study.

This research will explore new ideas for the development of live - streaming goods on the basis of the development status of live - streaming goods and the status of the group, solve the existing problems, and provide the guarantee of ideas and talents for live - streaming goods, so as to promote the continuous progress of live - streaming goods and the sustained and stable economic development!

2.2 Questionnaire design

This questionnaire has been established after many revisions, combining with many existing documents and carefully examined by the instructors. In order to ensure the reliability and effectiveness of the questionnaire, pre-survey and reliability and validity analysis were carried out before the formal issuance of the questionnaire. Finally, the questionnaire was identified as three parts: basic information, basic use and influencing factors of purchase behavior.

III. DATA COLLECTION AND EMPIRICAL TESTING

3.1 Survey methodology

Through the "Questioning Star" platform, the online survey questionnaire was designed. With the help of the social platforms of the team members (such as QQ, WeChat, Weibo, Little Red Riding Book, etc.), random invitations were sent out to the eligible objects according to the sample, and the questionnaire survey was conducted. A total of 354 questionnaires were collected. Through the polygraph test, 336 valid questionnaires were selected, involving 29 provinces, municipalities directly under the central government and autonomous regions.

3.2 Reliability and validity test

TABLE 1. Reliability and validity analysis (N=336)

Variable	Cronbach's Alpha Value	Kmo
price of commodities	0.931	0.849
after-sales service	0.917	0.817
Platform reputation	0.943	0.863
Anchor with cargo	0.907	0.848
Interaction	0.924	0.852
Commodity brand	0.955	0.865

This paper uses SPSS27 to analyze the reliability and validity of the data. The results are shown in the table. The Cronbach's α value of each variable is above 0.9, and the Cronbach's α value of the overall sample is 0.985, which indicates that the scale has very good internal consistency and high reliability. The KMO value of each variable is above 0.8, the KMO value of the overall sample is 0.983, and the approximate chi-square value of Bartlett's spherical test is 10416.2, reaching a significant level (p=0.000), indicating that the scale has good structural validity.

3.3 Descriptive Statistical Analysis

3.3.1 Statistics on frequency distribution of basic information

Table 2 is a descriptive statistical analysis of 336 questionnaires. The results show that: in the gender distribution, men account for 47.62% and women account for 52.38% of the total. The gender ratio is basically balanced. In terms of age distribution and academic qualifications, 18-30 accounted for 33.93%, 31-45 accounted for 31.55% and 46-60 accounted for 34.52%, basically unchanged. In the distribution of educational background, 34.23% of them have high school education or below and 45.83% have undergraduate education. The highest proportion of vocational high school students; In the distribution of monthly disposable income, RMB3,000-5,000 accounted for the highest proportion, but there was no significant difference between them. In the distribution of the proportion of live streaming consumption in the overall shopping consumption, 20%-40% accounted for the highest proportion, reaching 35.42%.

3.3.2 Type of commodity in the studio

Whether shopping in the live studio or not spending money in the live studio, but watching the live show, people prefer daily groceries and food and beverage. However, the difference is that among the groups that have shopped in the studio, shoes, bags, clothing and cosmetic skin care category account for a relatively high proportion, while digital home

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

appliances and books, literature and innovation category are relatively low. But the reverse is the case for organizations that haven't purchased from the studio. Digital home appliances category exceeds shoes, bags, clothing category and books, literature and innovation category exceed cosmetic skin care category.

TABLE 2. Descriptive Statistical Analysis of Samples (N=336)

	attributive classification	frequency	percentage
gender	man	160	47.62%
	woman	176	52.38%
age	18-30	114	33.93%
	31-45	106	31.55%
	46-60	116	34.52%
educational background	High school and below	115	34.23%
	universities and colleges	51	15.18%
	undergraduate course	154	45.83%
	Master's degree or above	16	4.76%
occupation	student	104	30.95%
	other	10	2.98%
	Freelancer	54	16.07%
	Enterprise staff	51	15.18%
	Public institution staff	43	12.80%
	self-employed entrepreneur/businessman	74	22.02%
Monthly disposable income	Less than 2000	75	22.32%
	2000-3000	59	17.56%
	3000-5000	93	27.68%
	5000-8000	seventy-eight	23.21%
	More than 8000	31	9.23%
Share of live-air consumption in overall shopping consumption	10% or less	161	47.92%
	20%～ 40%	119	35.42%
	40%～ 80%	14	4.17%
	80% and above	four	1.19%
	Never spend money	38	11.31%

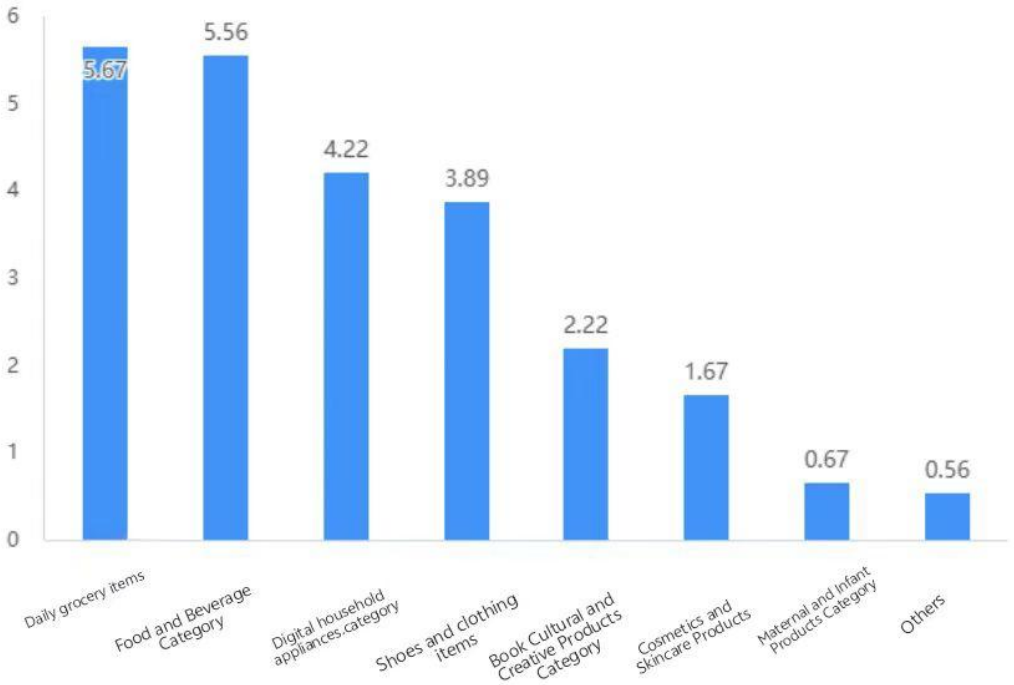

Figure 1. Sorts the types of live shopping items that you are willing to try in the future

Huang Shijia, Kang Jinhui, and Zhang Qianqian, “Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups,” *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

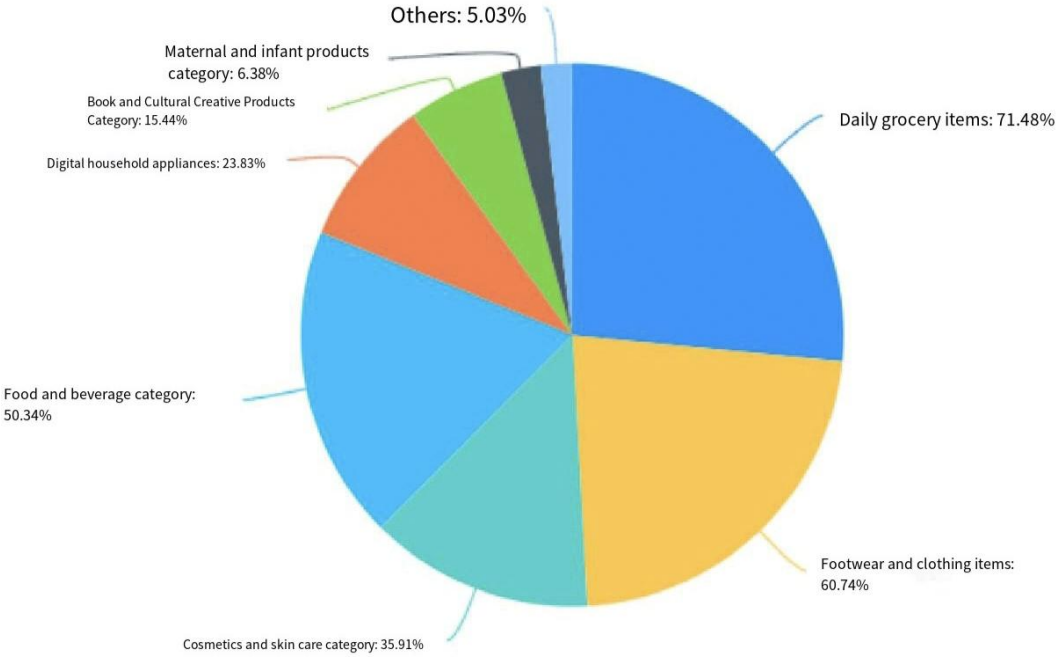

Figure 2. the preferred type of studio with goods

3.3.3 Young People's Willingness to Participate in the Live Tape Industry in the Future

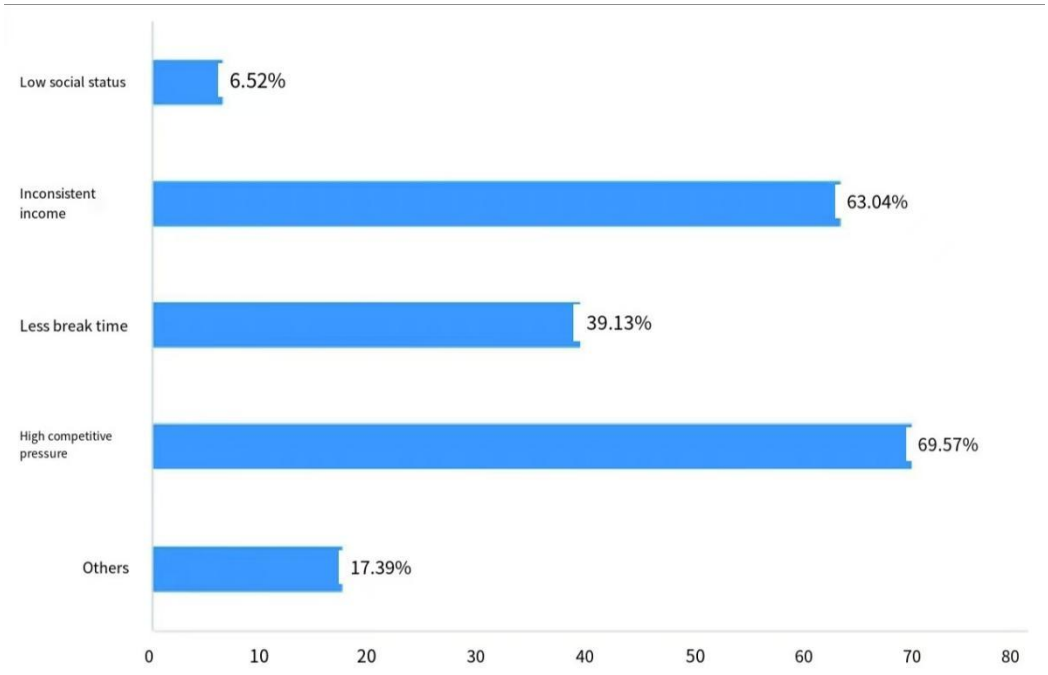

Figure 3. Reasons for Not Willing to Invest in Live Delivery Industry

According to the survey on the future participation intentions of young people aged 18-30 who have purchased goods on the air, the percentages of willing and unwilling are 53.06% and 46.94% respectively. Among the unwilling 46.94%, 63.04% said that the reason is unstable income, and 69.57% said that it is because they feel the pressure of competition in this industry, 39.13% said they have less rest time, and the other and social status are the least.

3.3.4 Will you watch the live streaming of the shipment

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

Among those who did not shop in the live studio, 76.32% said they would not watch the live show and 23.68% said they would. The number of people who watched the live streaming with the goods was obviously less than the number who did not watch the live streaming with the goods.

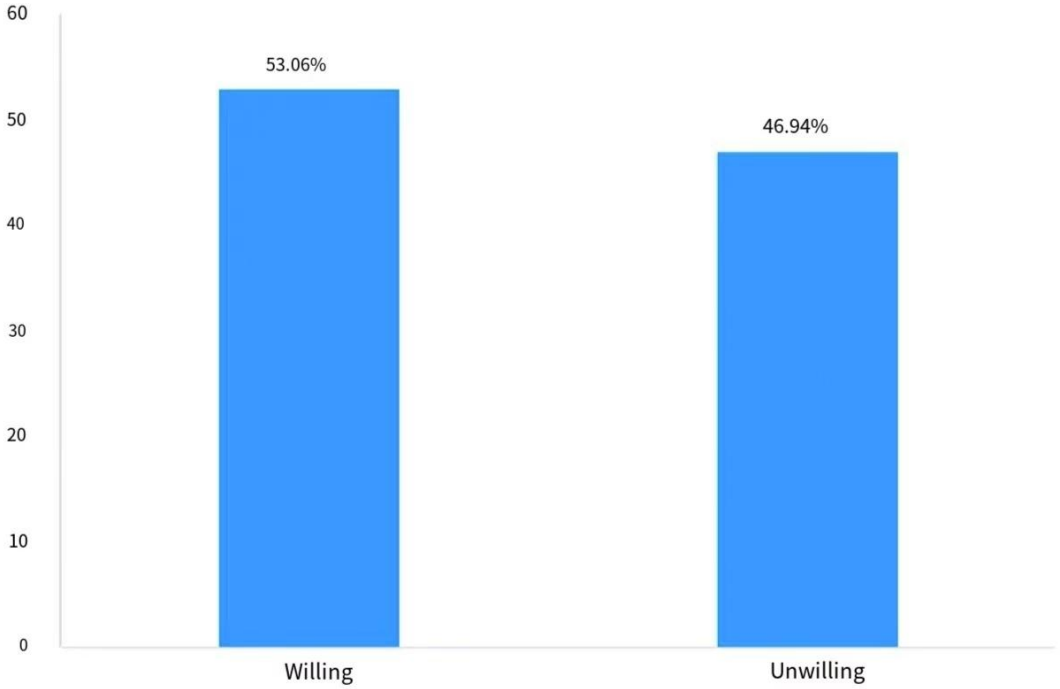

Figure 4. Will you be willing to participate in the live delivery industry in the future

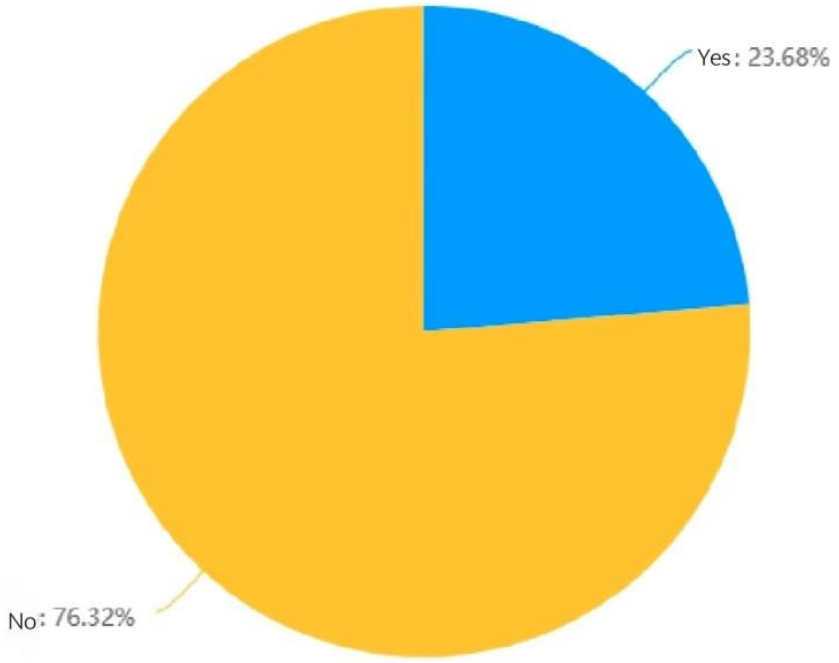

Figure 5: Will you watch the live streaming of the goods?

3.4 Correlation Analysis on Influencing Factors of Consumer Behavior

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

TABLE 3. Correlation Analysis of Influencing Factors of Consumer Behavior

	Commodity price dimension	After-sales service dimension	Platform word-of-mouth dimension	Anchor with cargo dimension	Interactive situation dimension	Commodity brand dimension	consumer behaviour
Commodity price dimension	one						
After-sales service dimension	.881**	one					
Platform word-of-mouth dimension	.912**	.887**	one				
Anchor with cargo dimension	.826**	.863**	.854**	one			
Interactive situation dimension	.909**	.879**	.927**	.872**	one		
Commodity brand dimension	.908**	.879**	.916**	.841**	.910**	one	
consumer behaviour	.590**	.575**	.573**	.545**	.580**	.535**	one

As can be seen from Table 3, among the six influencing factors, there is a correlation between them, and there is a positive correlation between the influencing factors, among which the two influencing factors with the greatest positive correlation are commodity price factors and interaction factors. There is no negative correlation between the influencing factors and consumer behavior, and there is a significant positive correlation.

3.5 Analysis of Differences in Consumers' Purchasing Behavior

3.5.1 Analysis of Differences in Consumer Behavior between Different Gender

TABLE 4. Analysis of Gender Differences in Consumer Behavior

	man	woman	T	P
Commodity price dimension	3.22±1.54	3.70±1.18	-3.221	0.001
After-sales service dimension	3.09±1.44	3.52±1.15	-3.04	0.003
Platform word-of-mouth dimension	3.25±1.52	3.60±1.16	-2.414	0.016
Anchor with cargo dimension	2.81±1.42	3.28±1.14	-3.277	0.001
Interactive situation dimension	3.06±1.45	3.54±1.15	-3.349	0.001
Commodity brand dimension	3.42±1.57	3.79±1.24	-2.341	0.02

Through independent sample T test analysis, we can find that the P value of each probability is below 0.05, with significant difference. In the mean score of the four influencing factors, the biggest difference between male and female consumers is commodity price factor, anchor factor and interaction factor. In the mean score of each factor, women are significantly more than men, which indicates that women have more purchase experience and pay more attention to these factors that affect purchase.

3.5.2 Analysis of Differences in Consumer Behavior of Different Ages

TABLE 5. Analysis of Differences in Consumer Behavior among Different Ages

	18-30	31-45	46-60	F	P
Commodity price dimension	3.35±1.50	3.67±1.26	3.42±1.35	1.59	0.206
After-sales service dimension	3.33±1.47	3.50±1.20	3.14±1.24	2.099	0.124
Platform word-of-mouth dimension	3.31±1.47	3.60±1.23	3.41±1.33	1.269	0.283
Anchor with cargo dimension	3.10±1.42	3.27±1.19	2.81±1.24	3.66	0.027
Interactive situation dimension	3.21±1.45	3.51±1.20	3.23±1.28	1.851	0.159
Commodity brand dimension	3.48±1.54	3.77±1.28	3.61±1.40	1.126	0.325

Through one-way ANOVA, it can be found that except for the influential factors of cargo anchors, the corresponding probability P value of consumers of different ages for each influential factor is higher than 0.05, with no significant difference. Among the influencing factors of the anchor, the score of young consumers is significantly higher than that of older consumers, indicating that young consumers pay more attention to the factor of anchor. In addition, among the six influencing factors, consumers in the 31-45 age group have the highest scores. They are the main consumer group. Compared with consumers in the 18-30 age group, consumers have more experience in purchasing and higher income. Compared with consumers in the 46-60 age group, consumers are more open and more receptive to new things.

3.5.3 Analysis of Differences in Consumer Behavior with Different Education Background

TABLE 6. Analysis of Differences in Consumer Behavior with Different Education Background

	High school and below	universities and colleges	undergraduate course	Master degree or above	F	P
Commodity price dimension	3.46±1.33	3.49±1.31	3.49±1.44	3.41±1.45	0.027	0.994
After-sales service dimension	3.21±1.24	3.26±1.89	3.39±1.39	3.52±1.51	0.567	0.637
Platform word-of-mouth dimension	3.43±1.29	3.46±1.30	3.44±1.41	3.36±1.43	0.023	0.995
Anchor with cargo dimension	3.00±1.26	2.94±1.24	3.11±1.35	3.30±1.39	0.48	0.696
Interactive situation dimension	3.31±1.27	3.40±1.26	3.28±1.37	3.33±1.47	0.108	0.956
Commodity brand dimension	3.66±1.37	3.58±1.37	3.60±1.47	3.50±1.47	0.095	0.963

There is no significant difference in the average score of this influencing factor among consumers with different educational backgrounds, with the probability P values all greater than 0.05, which is greater than the significance level, indicating that consumers with different educational

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

backgrounds have basically the same degree of attention to the influencing factor, and there is no significant difference.

3.5.4 Analysis on Differences of Consumer Behavior in Different Professions

Among them, in the analysis of platform word-of-mouth factors, the probability P value is less than 0.05, which is less than the significance level. This indicates that consumers of different occupations pay different attention to platform word-of-mouth factors, and the probability P value corresponding to other influencing factors is greater than 0.05, which shows no significant difference in scores.

3.5.5 Analysis of Differences in Consumer Behavior with Different Income

In the mean score of influencing factors of different income levels, the consumer probability P value of different income levels is greater than 0.05, which indicates that there is no significant difference in the degree of importance of influencing factors among consumers of different income levels. Regardless of the income level of the consumer groups, the scores on the influencing factors of commodity brands are generally high. It shows that no matter which income level the consumer group pays more attention to the commodity brand.

TABLE 7. Analysis of Differences in Consumer Behavior among Different Professions

	student	Public institution staff	self-employed entrepreneur/businessman	Freelancer	Enterprise staff	other	F	P
Commodity price dimension	3.33±1.56	3.53±1.17	3.58±1.30	3.43±1.43	3.80±0.98	2.60±1.83	1.736	0.126
After-sales service dimension	3.27±1.51	3.55±1.09	3.23±1.20	3.29±1.39	3.55±0.92	2.33±1.76	1.868	0.099
Platform word-of-mouth dimension	3.26±1.52	3.67±1.15	3.60±1.26	3.31±1.41	3.68±0.98	2.50±1.80	2.267	0.048
Anchor with cargo dimension	2.99±1.44	3.19±1.06	3.18±1.28	2.89±1.29	3.25±1.06	2.05±1.64	1.92	0.09
Interactive situation dimension	3.17±1.51	3.49±1.15	3.40±1.24	3.23±1.37	3.55±0.89	2.60±1.85	1.431	0.213
Commodity brand dimension	3.42±1.59	3.66±1.22	3.79±1.32	3.55±1.48	3.97±0.96	2.73±2.07	2.093	0.066

TABLE 8. Analysis of Differences in Consumer Behavior with Different Income

	Less than 2000	2000-3000	3000-5000	5000-8000	More than 8000	F	P
Commodity price dimension	3.32±1.58	3.61±1.15	3.71±1.09	3.24±1.63	3.44±1.28	1.661	0.159
After-sales service dimension	3.26±1.52	3.35±1.12	3.56±1.05	3.08±1.51	3.22±1.22	1.537	0.191
Platform word-of-mouth dimension	3.25±1.51	3.46±1.19	3.72±1.05	3.24±1.60	3.48±1.26	1.844	0.12
Anchor with cargo dimension	2.98±1.42	3.14±1.20	3.30±1.09	2.84±1.46	2.88±1.26	1.633	0.165
Interactive situation dimension	3.15±1.50	3.44±1.12	3.48±1.02	3.16±1.58	3.35±1.27	1.078	0.367
Commodity brand dimension	3.43±1.60	3.77±1.19	3.81±1.10	3.40±1.68	3.70±1.39	1.406	0.232

3.6 Analysis of Participation in "Live Delivery"

3.6.1 Overview of Binary logistic Model

Binary logistic model is a statistical model used to deal with classification problems, which is usually used to predict one of two possible results. This model is based on logistic function and can map the input features to a probability range between 0 and 1. At this point, we need to define the classification problem as a classification variable and assign it to 0 and 1.

According to the contents of this research report, it is a [0,1] binary classification variable whether the consumer has ever participated in the "live delivery" activity. The regression analysis model of binary classification variable in logistic better meets the comprehensive modeling and analysis requirements of binary classification variable data, and has become a common method to classify the explained variables. The specific model is as follows:

$$\pi_{ij} = \frac{exp\left(\beta_0 + \beta_1 x_{i1} + \ldots + \beta_p x_{ip}\right)}{1 + exp\left(\beta_0 + \beta_1 x_{i1} + \ldots + \beta_p x_{ip}\right)}$$

Judging the regression coefficient by the Wald value, the greater the Wald value, the more significant the influence of the regression coefficient. the specific formula is as follows:

$$Wald = \left(\frac{B}{S.E.}\right)^2 = \left(\frac{\hat{\beta}_j}{\sqrt{D\left(\hat{\beta}_j\right)}}\right)^2$$

3.6.2 Definition and Assignment of Variables

TABLE 9. Definition and Assignment of Binary logistic Variables

Variable type	Variable name	Variable definition and assignment
dependent variable	Proportion of live studio consumption in overall shopping consumption	Yes = never spent money, no =10% and above +20%~40%+40%~80%+80% and above
independent variable	gender	1= male, 2= female
	age	1=18-30, 2=31-45, 3=46-60
	educational background	1= high school and below, 2= junior college, 3= undergraduate, 4= master and above
	occupation	1= students, 2= public institution staff, 3= self-employed, 4= freelancers, 5= enterprise staff, 6= others
	Monthly disposable income	1 = less than 2000, 2=2000-3000, 3=3000-5000, 4=5000-8000, 5 = more than 8000

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

Result analysis

TABLE 10. Hosmer-Lemelshaw Test

step	chi-square	freedom	significance
one	3.304	eight	0.914

Table 10 The result after Hosmer-Lemelshaw test is 0.914>0.05. The original assumption is accepted and the model test is passed, which indicates that the model is in good fitting condition.

TABLE 11. Results of Binary logistic Regression Coefficients

	B	standard error	Wald	freedom	significance
gender	1.17	0.423	7.651	one	0.006
Age (18-30)			0.315	2	0.854
Age (31-45)	-0.323	0.918	0.124	one	0.725
Age (46-60)	-0.055	1.006	0.003	one	0.956
Educational background (high school and below)			0.724	three	0.868
Educational background (junior college)	0.546	0.695	0.618	one	0.432
Educational background (undergraduate)	0.389	0.648	0.361	one	0.548
Educational background (postgraduate degree or above)	-0.129	0.875	0.022	one	0.883
Occupation (student)			9.691	five	0.084
Occupation (public institution staff)	-1.751	0.911	3.698	one	0.054
Occupation (self-employed)	1.183	0.873	1.836	one	0.175
Occupation (freelancer)	0.533	0.81	0.432	one	0.511
Occupation (enterprise staff)	-1.607	1.192	1.816	one	0.178
Occupation (other)	-0.437	0.602	0.528	one	0.468
Monthly disposable income (less than 2000)			9.684	four	0.046
Monthly disposable income (2000-3000)	-0.52	0.676	0.592	one	0.442
Monthly disposable income (3000-5000)	-0.515	0.837	0.379	one	0.538
Monthly disposable income (5000-8000)	-2.044	0.834	6.01	one	0.014
Monthly disposable income (above 8000)	-0.921	0.965	0.91	one	0.34

Under the significance level of 5%, gender and monthly disposable income have significant influence on whether to participate in "live delivery" activities. In the analysis of the influencing factors of monthly disposable income, only the impact of less than 2000 and 5000-8000 is significant, with the corresponding value of B less than 0, indicating that the probability of participating in the "Live Delivery" activity is lower for the consumer group with monthly disposable income of less than 2000. Age, educational background and occupation have no significant influence on whether to participate in the "Live Delivery" activities.

IV. Suggestions on Improving the Development Path of Live E-commerce Based on the Purchasing Behavior of Different Consumer Groups

4.1 Commodity Type

Through the questionnaire survey, it is found that as the female group and the middle-aged group aged 31-45 years old have long been the main consumption force in the live streaming room, the type of goods sold and the target group targeted by the live streaming with goods are too fixed, and some other potential purchasers are lost. Therefore, it is necessary to closely follow the market trend and enrich and optimize the types of goods sold in the studio by means of combining related or complementary goods.

4.2 commodity brand

Through a questionnaire survey, it was found that all groups attached importance to commodity brands. Therefore, we should make full use of the brand effect of commodities. When selecting products, the studio should strictly select high-quality brand products, and the anchor should show the advantages of the products in detail to enhance the audience's trust and purchase intention.

4.3 Platform Word of Mouth

Through the questionnaire survey, it is found that different professions attach different importance to the platform word of mouth. Therefore, professional characteristics and word-of-mouth customization should be strengthened, and big data should be used to analyze the consumption habits, information access channels and trust preferences of different professional groups, so as to customize word-of-mouth communication strategies that meet their characteristics. In addition, no matter what the consumer's occupation is, authenticity and transparency are the keys to establishing a good reputation on the live streaming platform. The platform should ensure the authenticity of the live streaming content and avoid exaggerated publicity and false marketing.

4.4 commodity prices

Through a questionnaire survey, it is found that the higher the monthly disposable income, the less likely it is to be willing to purchase goods on the air. From this, we can see that most of the people who shop in the studio are those with lower incomes. Therefore, it is necessary to intensify the promotion of commodity prices on-air so as to effectively increase the sales volume of commodities.

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.

4.5 In respect of the anchor with cargo

Through a questionnaire survey, it was found that the young group paid more attention to the factor of anchor with goods. Therefore, it is necessary to strengthen the training of professional and charismatic anchors, pay attention to content innovation and differentiation, and adopt marketing measures such as inviting stars and online celebrity to enhance the attraction and influence of live streamings.

4.6 Future Development

Through the questionnaire survey, it is found that with the development of the society, the young group has changed their traditional thinking. More than half of the 18-30-year-old group surveyed are willing to invest in the live streaming industry in the future. Relevant industry managers should seize the opportunity to provide a perfect innovation platform, establish an incentive mechanism, adjust the strategies and business models in a timely manner according to the policy and market changes, attract more aspiring young people to join the industry, and inject fresh blood into the development of China's digital economy. In addition, a large part of the people who do not shop in the studio do not watch the live streaming. Aiming at this part of the group, we should deeply explore their psychology and increase other aspects of marketing publicity.

REFERENCES

[1]. Chen, Y. Y., Yang, J., & Yang, J. L. (2023). The impact mechanism of agricultural product live e-commerce on consumers' purchase intention. Journal of Tongling University, (06), 20-26. doi:10.16394/j.cnki.34-1258/z.2023.06.005.
[2]. Huang,M.xe, Ye,Y.q, & Wang,W. (2023). The influence of live streamer types on consumers' purchase intention and behavior under different types of products. Nankai Business Review, 26(2).
[3]. Ji Fang. (2023). Analysis of factors and countermeasures affecting consumers' purchase intention of fresh agricultural products live broadcast by e-commerce. Grain Science & Technology & Economy, 48(1).
[4]. Kim, K., Chung, T. L. D., & Fiore, A. M. (2023). The role of interactivity from Instagram advertisements in shaping young female fashion consumers' perceived value and behavioral intentions. Journal of Retailing and Consumer Services, 70, 103159.
[5]. Lin, L. (2023). Methodology of live commerce operation – Starting from the three elements of "people, goods, place". Economic Research Guide, (22), 44-47.
[6]. Ma X L. (2023). A Research on the impact of e-commerce live streaming on consumers' impulsive purchasing in Yinchuan. Chinese Science and Technology Journal Database (full-text Edition) Economic Management, (01), 034-037.
[7]. Qin, R. R., Zhou, Z. W., Chai, Y. Q., & Meng, Y. H. (2023). Metaverse empowerment in consumer sector transformation from the perspective of "people, goods, place". Small and Medium Enterprise Management & Technology, (20), 149-151.
[8]. Su, J., & Zhang, S. J. (2024). Research on live streaming slice-based sales model from the perspective of "people, goods, place". News World, (01), 57-59. doi:10.19497/j.cnki.1005-5932.2024.01.006.
[9]. Zhu, W., Wang, L., Wang, Y., & Chen, M. (2021). The Effect of online word-of-mouth on perceived usefulness and purchase intention of female consumers. Law & Economics, (06), 89-95.

Huang Shijia, Kang Jinhui, and Zhang Qianqian, "Analysis of Live streaming -commerce Consumption Behavior and Optimization of E -commerce Strategies: A Study Based on Diverse Consumer Groups," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 11, pp. 479-488, 2025.