# Research on the Relationship among Internet Celebrity Information Source, Consumer Identity and Consumers' Purchase Intention

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## Abstracts

In recent years, the rapid growth of web celebrity economy has brought about the rapid development of the live broadcasting industry, which adds a new form of diversified development to the new business form of the Internet economy. This innovation of consumption mode has also attracted more profound attention from the academic circle. Existing scholars have conducted a study on the relationship between web celebrity information sources and consumers 'purchase intention, but there are relatively few research results on exploring the relationship between web celebrity information sources, consumer identity and consumers' purchase willingness.Based on the social identity theory and stimulus response model (SOR), the theoretical model between web celebrity information source, consumer identity and consumer purchase intention is constructed. Through the questionnaire survey, the reliability, professionalism, interactivity, attraction and skill have a positive influence on consumer identity, and the reliability, professionalism, interactivity, attraction and consumer purchasing intention. Therefore, the reliability, professionalism, interactivity, attraction and skill of web celebrity information source have a positive effect on consumers' purchase intention.The research conclusion of this paper has certain practical guiding significance for the construction of web celebrity live broadcasting platform and consumers' rational participation in online live broadcasting shopping.

**Keywords:** Net Red Information; Source Consumer Identity; Consumer Purchase Intention

## Foreword

Every technological change brings the improvement of production capacity and promotes human economic and social development; the emergence and sustained and rapid development of Internet technology is the foundation and development of Internet economy."China's economy has shifted from a stage of high-speed growth to a stage of high-quality development."Reflected in the comprehensive growth of the efficiency, structure, stability, innovation and effectiveness of economic growth. China's original growth model is becoming more and more restricted, and it is urgent to change the development model, optimize the economic structure, and transform the growth drivers. One of the main Internet Plus goals of China's current social development is to implement the innovation-driven development strategy and improve the quality of economic development. Dai Kang and Xie Kai (2021 : 166-167) believe that with the current rapid development of Internet technology, the level of market economy under the background of the Internet has been rising, and the various industries that people are engaged in, are gradually using the Internet technology, and its importance and practical convenience are increasingly obvious. The Internet technology has been deeply

involved in now, into the work and life of the social people, can not be separated, make our way of life more simple and convenient. Zhao Ruju (2022 : 208-210) believes that, with the continuous development of modern technology and information technology and people's research on Internet technology, Internet technology has begun to integrate into different industries, making it develop in the direction of "Internet +", greatly enhancing the development vitality of the industry. It can be seen that Internet technology and modern economy, thus achieving deep integration, have made all unprecedented changes in production, exchange, distribution, consumption and other economic activities on the basis of Internet technology, and have profoundly affected the model of human economic life. With the depth of the development of mobile Internet technology, a large number of live APP have sprung up, the early Internet shopping platform such as Tmall, taobao, jingdong has opened the live shopping mode, and with TikTok, fast, small red book, tiger teeth, betyu emerging short video platform is accelerated the competition and evolution of live shopping mode. Liu Yingtuan (2017 : 7-10) believes that the "Internet celebrity economy" has become a new e-commerce model, which may overturn the traditional idea of relying on increasing new investment to stimulate economic growth. Zhao Ru and Zhang Nan (2016 : 21-22) believe that the web celebrity economy is essentially just a business model, which is a purposeful and targeted precision marketing method. Sun Jing and Wang Xinxin (2019 : 18-30) that in the net red flow cash increasingly rich and mature, around web celebrity consumption and economic activities has become a big hotspot of electronic commerce, and even become an important way to break through the bottleneck of e-commerce development, but web celebrity economy is still in its infancy, in the development of the future will encounter many problems and obstacles, this provides an opportunity for future research. According to the China Internet network information center released the 49th Internet development statistics report shows that as of December 2021, China online shopping users of 842 million, grew from December 2020, accounting for 81.6% of the overall Internet users, statistics show that online shopping has become a very important part of Chinese consumer shopping, online shopping mode is still in the process of rapid change. The Internet economy has been deeply integrated into people's production and life, and the mobile Internet technology has become one of the important technical means to promote the diversified development of the Internet economy.

## Literature review and research hypotheses

### 1.1 The relationship between web celebrity information source and consumers' purchase intention

Luo Zichan (2020 : 54) research has proved that the interactivity, professionalism, credibility and attraction of anchors have a positive impact on consumers' willingness to buy. Han Xiao et al. (2020 : 62-75) found that the anchor attributes affecting consumers' purchase intention are charm attributes, interactive attributes, display attributes and recommendation attributes. Zhao Baoguo, et al. (2021 : 1-6) confirmed in the research that the interaction, authenticity, professionalism and popularity characteristics of e-commerce anchors can enhance consumers' purchase willingness. Zhao Dawei et al. (2021 : 1-9) found that the interactive, professional attributes and charm attributes of e-commerce anchors affect consumers' purchase willingness. Gao Yunhui (2020 : 8) found that the professionalism, interaction and popularity of e-commerce anchors can enhance consumers 'perceived entertainment and perceived utilitarian value, while the perceived entertainment and perceived utilitarian value can positively affect consumers' purchase intention. In his study confirmed that the interactivity of e-commerce anchors significantly affects consumers' purchase intention.

Zheng Xing (2019 : 4) believes that the interaction between e-commerce anchors and consumers will make consumers have a heart flow experience, which has a positive impact on consumers' impulse purchase intention. Kong Jingjie (2014 : 9) believes that the higher the credibility of the source transmitted in the process of web celebrity live broadcast, the greater the impact on consumer behavior, that is, the credibility of the credit source has a positive effect on users' purchase intention.Till & Michael (2000 : 7) believes that when shopping online, consumers will judge the quality of goods by comparing different channels of information sources. When users feel that the source channel is more reliable, they will also transfer this trust to the trust in the product, which is more likely to produce consumer behavior. In other words, when the type of goods is the same, the higher source credibility will have a greater impact on consumers' willingness to buy. The professionalism of web celebrity refers to the relevant knowledge, experience or skills that Internet celebrities have and spread to their fans or more audiences. The professionalism of information sources has a positive impact on the change of consumer attitudes. BIASWAS et al. found that if the individual professionalism of high-tech products is highlighted in the advertising, consumers 'perception of the risk of the products will be significantly reduced, and the more professional the information source is, the more it will affect consumers' decision-making. Therefore, in the process of watching web celebrity live, web celebrity usually to a lot of professional products, the more professional, the more consumers will perceive for the product has to know abundant information, which reduces its time in a lot of products to understand the time and cost, the professional will enhance the willingness of consumers to buy products. Fan Xiaoping and Ma Qingguo (2009 : 149-157) pointed out that studying online interaction can bring users various psychological utility, such as sense of identity, entertainment and belonging. Through good online interaction, people are easy to get more pleasant feelings and sense of belonging.Bagozzi & Dholakia (2002 : 35-62) shows that the cognition, emotion and evaluation of identity can all affect users' desire to buy. Therefore, it can be seen that good interaction with merchants can make users obtain positive and pleasant emotional tendency and evaluation, and then affect users 'purchase intention, that is, interaction has a positive effect on users' attitude, and user attitude has a positive effect on users' purchase intention. It can usually be used by its delicate appearance, beautiful figure, sweet voice and superb skills. When the information source has a strong attraction, it will enhance consumers 'attention to the related products and brands, and stimulate consumers' curiosity and desire to explore the products, so that the audience will have a positive brand attitude and a strong purchase intention. Therefore, when consumers watch the web celebrity live broadcast, the higher the attraction of the BBB 1 itself, consumers will have a pleasant sense of pleasure to the beauty of the web celebrity, and improve the purchase willingness of consumers. Meng Lu et al. (2020 : 131-143) believe that skill refers to the audience perceiving the degree of live-streaming Internet celebrities' own skills and proficiency, such as their sweet voice and superb skills. The five characteristics of Internet celebrity information source are independent of each other and can act together on the inner feelings of the audience, so that the audience has a psychological awakening and forms a sense of identity, and then enhance the attention to web celebrity and the purchase intention of Internet celebrity products.

The hypothesis is made accordingly:

Suppose that the reliability characteristics of 1a web celebrity information source positively affect consumers' purchase intention.

Suppose that the professional characteristics of 1b web celebrity information source positively affect consumers' purchase intention.

Suppose that the interactive characteristics of 1c web celebrity information source positively affect consumers' purchase intention.

Suppose that the attraction characteristic of 1d web celebrity information source positively affects consumers' purchase intention.

Suppose that the skill characteristics of 1e web celebrity information source positively affect consumers' purchase intention.

**1.2 Intermediary role of consumer identity**

Kagan (1958 : 6) pointed out that the sense of identity (Identification) is a response to gain an individual's inner cognition, turning the nature or characteristics of identity events into part of the individual's psychological structure, where people see the identity event as if it happened to themselves. Weeler & Petty et al. (2005 : 787-797) believe that the identity assimilation effect indicates that individuals tend to give positive responses to external information consistent with their own identity in order to achieve the goal of improving themselves. Tu & Zhang (2012 : 35-42) believes that when an individual's psychological representation of identity is dominant, people often think that those information consistent with their identity is relevant, contributes to self-improvement, and therefore shows converging behavioral intention. Previous studies on consumer identity have focused on explaining how people form a sense of identity with their organizations or groups and on what does the influence of identity have on people's attitudes. Jin Liyin (2006 : 16-21) believes that corporate reputation, trust, visibility and social responsibility can affect consumers' identity. Onkvisit & Shaw (1987 : 13-23) believes that consumers will enhance their love for their corporate product brands, and even generate customer loyalty. The consumer identity defined in this study refers to the identity of consumers to the personal characteristics and attitudes of live Internet celebrities. The focus of the research is to answer consumers 'sense of identity with the unique characteristics of live-streaming Internet celebrities themselves, which will have an impact on consumers' subsequent behavior, and transform it into the external expression of the personal value structure model.Yu-Hui & Fang (2012 : 1790-1804) found that enterprises' feature management through network interaction can enable consumers to have a positive effect on corporate identity in cognition and emotion. Saffer et al. (2013 : 213-215.) also found that the interaction between enterprise community media and consumer networks has become a basic element for consumers to identify with Internet retail. When consumers feel the direct interaction between individuals and business operators, they are more willing to increase their own willingness to provide information, brand loyalty and purchase intention. When consumers watch net red live, and with live net red for real-time interaction, will produce a sense of social presence. Under the action of the social sense of presence, when consumers' inner selves are aroused, they can meet their own needs from the perspectives of compensation psychology, herd mentality and self-realization respectively, and then have a sense of identity with the characteristics and attitudes of Internet celebrities. The following assumptions are made accordingly:

Suppose that 2a consumer identity plays a mediating role between the reliability characteristics of web celebrity information sources and consumers' purchase intention.

Suppose 2b is that consumer identity plays an intermediary role between the professional characteristics of web celebrity information source and consumers' purchase intention.

Suppose that 2c consumer identity plays an intermediary role between the interactive characteristics of web celebrity information sources and consumers' purchase intention.

It is assumed that 2d consumer identity plays a mediating role between the attraction characteristics of web celebrity information sources and consumers' purchase intention.

Suppose 2e consumer identity plays an intermediary role between the skill characteristics of web celebrity information source and consumers' purchase intention.

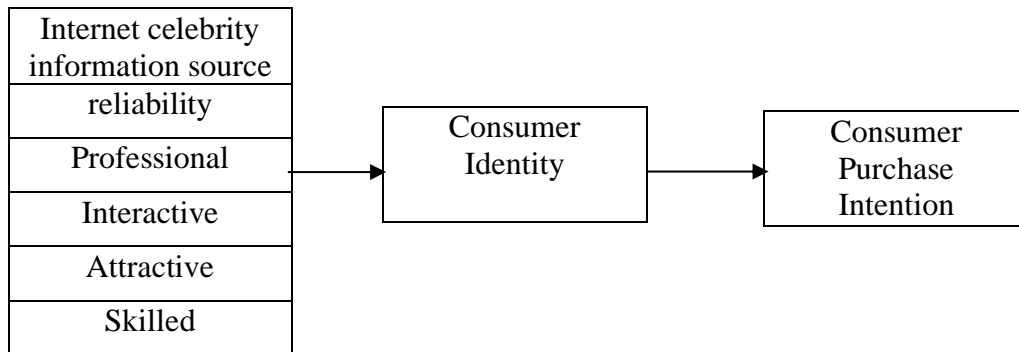**The theoretical model is shown in Figure 1:**



Figure 1 Hypothetical model diagram of the relationship between web celebrity information source and consumers' purchase intention

## Research methods

This paper uses the questionnaire survey method to carry out the research. The questionnaire survey is a method of information collection based on a specific sample, based on which the researchers hope to draw a quantitative description of the overall sample population. The sample of this paper comes from 25 provinces and municipalities directly under the Central Government in China. The respondents participating in the questionnaire can skillfully use computer or mobile phones to watch the live webcast, and have had the experience of online live shopping. The respondents of the group can have a good understanding of the questionnaire. The reason why I choose the research objects who have had online shopping experience as the sample is that these respondents have certain knowledge and ability, can skillfully use the Internet terminal use skills, and have certain consumption ability, so they have the basic quality to participate in online live broadcast shopping.

**2.1 Questionnaire design**

(1) Selection of survey respondents

The research object of this study is a live network shopping experience of Chinese citizens, in the case of the rapid growth of live electricity, web celebrity live with goods become a new popular, since 2018, web celebrity live with goods after more than a year of rapid growth, has become the electricity cannot be ignored the new sales channels, and gradually become a social phenomenon evolved into normal economic development. First, the number of users participating in live streaming viewing has increased year by year. Take Taobao as an example, in 2018, taobao live streaming platform delivery of goods exceeded 100 billion yuan and increased by nearly 400% year on year.In 2018, the number of Taobao live streaming increased by 180%, with more than 1,200 anchors with more than one million fans, more than 100 anchors with a monthly income of more than one million yuan, and 81 anchors with an annual turnover exceeding 100 million yuan.In 2019, the Double 11 live shopping market increased again, with 41.33 million viewers on mobile Taobao APP up 131%; on Double 11 in 2020 over 300 million in 2020, the GMV of live streaming in 2021 reached 131.86 billion, up 72.9 billion in 2020, up 80.9%. According to the above analysis, this study will participate in the online celebrity live shopping consumers as the object of the survey.

(2) The questionnaire design

The questionnaire includes four parts: web celebrity information source, consumer identity, consumers' purchase intention and personal information. Among them, the personal information section includes four questions: gender, age, education level and network age. In addition to personal information, all other questions were measured by Likert 5 point scoring method, 1 very disagree and 5 very agree.

In order to ensure the reliability and validity of the questionnaire, the scale used from authoritative journals at home and abroad, the study of this paper is based on the Chinese consumer situation, with reliability, professionalism, interactive, attractive, skilled five dimensions of web celebrity information sources, so using Liu Fengjun and of web celebrity information source dimension division, has been verified and Chinese version of web celebrity information source scale, web celebrity information source is divided into 5 dimensions 15 measurement items, and combined with the research situation.The scale was measured by Likert 5 point scoring, 1 strong disagreement and 5 strong agreement.

Identification research scale reference Wu (2007 : 194-210) on consumer identity (Consumer I dentity) research, including four items "you think you focus on web celebrity has excellent characteristics", "you watch live web celebrity live content empathy", "you think web celebrity live content can arouse your emotional reaction" and "you will focus on live the latest dynamic development of web celebrity", and combining the research situation modification, scale with Likert 5 point scoring measurement, 1 said very don't agree, 5 said very agree.

The measurement of consumer purchase intention is based on Dodds (1991 : 307-319.) research, Including three items: "you have a great possibility to consider buying products recommended by live web celebrity", "you are willing to buy products recommended by live web celebrity" and "you will recommend products recommended by live web celebrity to others", And combined to modify the research situation, Including "I have a high interest in buying live-streaming products" and " If needed, I will consider buying the products advertised in the live broadcast marketing "and" If I buy the same type of products, I will be more willing to buy the products recommended by the live broadcast platform that I follow ". The scale is measured by Likert 5 point scoring, 1 completely impossible and 5 very likely

**Table 1: surface, items and source of the questionnaire**

| Second order configuration | First order configuration | Ask a | Ask the content | The source of the problem |
|---|---|---|---|---|
| Net red information source | reliability | KK1 | You think the content of the web celebrity live broadcast is credible | Liu Fengjun and Meng Lu (2018) |
| | | KK2 | You think the corresponding products recommended by web celebrity are more reliable | |
| | | KK3 | You trust the live Internet celebrities you watch | |
| | speciality | ZY1 | You think the live web celebrity you watch is professional | |
| | | ZY2 | You think the live Internet celebrities you watch have rich | |

| | | | |
|---|---|---|---|
| | | experience in using recommended products | |
| | ZY3 | You think the live web celebrity you watch has professional knowledge | |
| interactivity | HD1 | You think the live web celebrity you watch and you have a good interactive relationship | |
| | HD2 | You think you watch the live net red live content can let you effectively participate in | |
| | HD3 | You think you watch the live web celebrity live content can arouse your interest | |
| appeal | XY1 | You pay attention to the web celebrity because he (she) is very attractive | |
| | XY2 | The reason why you watch live web celebrity is because the appearance of web celebrity attracts you | |
| | XY3 | You think you watch the live web celebrity is very humorous | |
| Skill | JN1 | You think the live Internet celebrities you watch have special skills and expertise | |
| | JN2 | You think the live web celebrity you watch has a special talent specialty | |
| | JN3 | You think the live web celebrity you watch has professional marketing skills | |
| Consumer identity | RT1 | You think the web celebrity you focus on has excellent characteristics | Wu et al. (2007 : 194-210) |
| | RT2 | You feel the empathy of the live web celebrity live content | |
| | RT3 | You think the content of live streaming can evoke your emotional response | |
| | RT4 | You will pay attention to the latest dynamic development of live web celebrity | |
| Consumer purchase intention | M O1 | I have a high interest in buying live-streaming products | |

| | MO2 | If needed, I will consider buying products advertised in live marketing | Dodds（1991：307-319） |
|---|---|---|---|
| | MO3 | If I buy the same type of products, I would prefer to buy the products recommended by the live broadcasting platform that I follow | |

### 2.2 Sample collection and data collection

The sample characteristics are shown in Table 2 below:

Focus on the diversity of survey subjects when collecting data, Respondents are from 25 provinces, and municipalities, including Anhui, Beijing, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Ningxia, Shandong, Shanghai, Shanxi, Shaanxi, Sichuan, Tianjin, Xinjiang, Tibet, Yunnan, and Zhejiang; The respondents' occupations include government workers, company staff / managers, professionals (lawyers, doctors, etc.), teachers / researchers, students, workers, freelancers, and retirees; In addition to the geography and occupation of employment, Respondents also diversified in terms of their gender, age, education, and personal monthly income. Respondents with live-streaming online shopping experience were randomly selected to collect data through online answer papers, and asked the investigators in each region to investigate between 10 and 25 people. To ensure the quality of questionnaire filling, respondents under 15 years were automatically excluded. Respondents were selected at different times during the survey period and basically complied with the principle of random sampling, and 412 questionnaires were collected. In this study, the invalid questionnaire with all the questions were the same, and the 9 samples with the Internet celebrity information source, consumer identity, herd psychology and consumer purchase intention had the same choice answer and the answer time was completed within 1 minute. Finally, 403 samples were available for data analysis, with an efficiency of 97.8%.

**Table 2: Sample characteristics**

| project | class | sample number | percentage (%) |
|---|---|---|---|
| sex | man | 134 | 33.3 |
| | woman | 269 | 66.7 |
| age | 15-24 Years old | 218 | 54.1 |
| | 25-34 Years old | 64 | 15.9 |
| | 35-44 Years old | 77 | 19.1 |
| | 45-54 Years old | 23 | 5.7 |
| | Over 55 years old | 21 | 5.2 |
| marital status | unmarried | 234 | 58.1 |
| | married | 156 | 38.7 |
| | other | 13 | 3.2 |

| Education level | High school and below | 23 | 5.7 |
| | Specialist / undergraduate | 319 | 79.2 |
| | Master's degree or above | 61 | 15.1 |

## Data analysis

### 3.1 Analysis of reliability and validity

The reliability of the scale is analyzed, and the Cronbach's coefficient is mainly used to judge the overall reliability of the scale. In the other aspect, the single item-total correction coefficient (CITC coefficient) is used to judge the reliability of a single item. The analysis results are shown in the following table:

**Table 3: reliability analysis results**

| Configuration | Ask a | CITC | The coefficient after the deletion | The Cronbach's in each dimension | Cronbach's α |
|---|---|---|---|---|---|
| reliability | KK1 | 0.675 | 0.703 | 0.802 | |
| | KK2 | 0.696 | 0.689 | | |
| | KK3 | 0.593 | 0.805 | | |
| speciality | ZY1 | 0.611 | 0.778 | 0.806 | |
| | ZY2 | 0.684 | 0.702 | | |
| | ZY3 | 0.666 | 0.722 | | |
| interactivity | HD1 | 0.605 | 0.749 | 0.791 | 0.911 |
| | HD2 | 0.72 | 0.624 | | |
| | HD3 | 0.581 | 0.77 | | |
| appeal | XY1 | 0.649 | 0.609 | 0.759 | |
| | XY2 | 0.554 | 0.723 | | |
| | XY3 | 0.572 | 0.698 | | |
| Skill | JN1 | 0.675 | 0.589 | 0.763 | |
| | JN2 | 0.648 | 0.62 | | |
| | JN3 | 0.59 | 0.814 | | |
| Consumer identity | RT1 | 0.646 | 0.784 | 0.827 | 0.827 |
| | RT2 | 0.706 | 0.76 | | |
| | RT3 | 0.738 | 0.743 | | |
| | RT4 | 0.541 | 0.837 | | |
| Consumer purchase intention | MO1 | 0.689 | 0.7 | 0.767 | 0.767 |
| | MO2 | 0.703 | 0.662 | | |
| | MO3 | 0.617 | 0.666 | | |

Through the above analysis, we can see that the CITC value of each item of web celebrity information source is between 0.544-0.720, all greater than 0.5, and the reliability of 0.7, professional, interactive, attractive, skill Cronbach's coefficient are respectively 0.802,0.806,0.0791,0.759 and 0.763, all more than 0.7, and the Cronbach's coefficient of the

overall scale is 0.911, indicating that the internal consistency of the scale is very good. Net red information source scale has a high reliability, the stability of data analysis can be guaranteed. The CITC value of each item of consumer identity is between 0.646 and 0.738, all greater than 0.5. The Cronbach's coefficient of the overall scale is 0.827, indicating that the internal consistency of the scale is very good. The consumer identity scale has high reliability and ensures the stability of data analysis. The CITC value of each item of consumer purchase intention is between 0.617 and 0.703, which is more than 0.5. The Cronbach's coefficient of the overall scale is 0.767, indicating that the internal consistency of the scale is very good. The consumer purchase willingness scale has high reliability and ensures the stability of data analysis.

**Table 4: Results of the exploratory factor analysis**

| factor | number | Question item | factor loading |
|---|---|---|---|
| reliability | KK1 | You think the content of the web celebrity live broadcast is credible | 0.856 |
| | KK 2 | You think the corresponding products recommended by web celebrity are more reliable | 0.78 |
| | KK 3 | You trust the live Internet celebrities you watch | 0.588 |
| speciality | ZY1 | You think the live web celebrity you watch is professional | 0.625 |
| | ZY2 | You think the live Internet celebrities you watch have rich experience in using recommended products | 0.806 |
| | ZY3 | You think the live web celebrity you watch has professional knowledge | 0.79 |
| interactivity | HD1 | You think the live web celebrity you watch and you have a good interactive relationship | 0.623 |
| | HD2 | You think you watch the live net red live content can let you effectively participate in | 0.745 |
| | HD3 | You think you watch the live web celebrity live content can arouse your interest | 0.617 |
| appeal | XY1 | You pay attention to the web celebrity because he (she) is very attractive | 0.703 |
| | XY2 | The reason why you watch live web celebrity is because the appearance of web celebrity attracts you | 0.842 |
| | XY3 | You think you watch the live web celebrity is very humorous | 0.621 |
| Skill | JN1 | You think the live Internet celebrities you watch have special skills and expertise | 0.811 |
| | JN2 | You think the live web celebrity you watch has a special talent specialty | 0.8 |
| | JN3 | You think the live web celebrity you watch has professional marketing skills | 0.61 |

| | | | |
|---|---|---|---|
| Consumer identity | RT1 | You think the web celebrity you focus on has excellent characteristics | 0.813 |
| | RT2 | You feel the empathy of the live web celebrity live content | 0.856 |
| | RT3 | You think the content of live streaming can evoke your emotional response | 0.872 |
| | RT4 | You will pay attention to the latest dynamic development of live web celebrity | 0.718 |
| Consumer purchase intention | MO1 | I have a high interest in buying live-streaming products | 0.74 |
| | MO2 | If needed, I will consider buying products advertised in live marketing | 0.89 |
| | MO3 | If I buy the same type of products, I would prefer to buy the products recommended by the live broadcasting platform that I follow | 0.843 |

### 3.2 hypothesis test

(1) Main effect test

The hypothesis testing of this study used hierarchical regression with hypothesis testing for the main effect first. Test the impact of web celebrity information sources on consumers' purchase intention, Setting the consumer purchase intention as the dependent variable, Gender, age, marital status, net age, education level, type of work, and monthly income served as control variables, Web celebrity information source is an independent variable for regression analysis, By performing the regression analysis, Six models were constructed, Model 2 Display =0.517, $p < 0.001$, That is, the reliability characteristics of Internet celebrity information sources have a significant positive impact on consumers' purchase intention, Specific analysis is given in Table 5, The H1a main effect was verified; Model 3 Display =0.383, $p < 0.001$, That is, the professional characteristics of web celebrity information sources have a significant positive impact on consumers' purchase intention, Specific analysis is given in Table 5, The H 1b main effect was verified; Model 4 Display =0.490, $p < 0.001$, That is, the interactive characteristics of web celebrity information sources have a significant positive impact on consumers' purchase intention, Specific analysis is given in Table 5, The H 1c main effect was verified; Model 5 Display =0.360, $p < 0.001$, That is, the interactive characteristics of web celebrity information sources have a significant positive impact on consumers' purchase intention, Specific analysis is given in Table 5, The H 1d main effect was verified; Model 6 Display =0.443, $p < 0.001$, That is, the skill characteristics of web celebrity information source have a significant positive impact on consumers' purchase intention, Specific analysis is given in Table 5, The H 1e main effect was validated.

**Table 5: Results of the main effect hypothesis testing**

| variable | Consumer purchase intention | | | | | |
|---|---|---|---|---|---|---|
| | model 1 | model 2 | model 3 | model 4 | model 5 | model 6 |
| sex | 0.131** | 0.077 | 0.076 | 0.088* | 0.116* | 0.112* |
| age | 0.013 | -0.001 | 0.010 | -0.019 | 0.011 | 0.009 |
| marital status | 0.077 | 0.091 | 0.057 | 0.081 | 0.082 | 0.097 |
| Net age | 0.048 | 0.022 | 0.058 | 0.044 | 0.042 | 0.061 |
| Education level | 0.035 | -0.003 | -0.015 | -0.041 | 0.004 | -0.028 |
| type of work | -0.003 | -0.006 | -0.021 | 0.009 | 0.011 | 0.011 |
| monthly income | 0.015 | 0.111 | 0.091 | 0.112 | 0.056 | 0.055 |
| reliability | | 0.517*** | | | | |
| speciality | | | 0.383*** | | | |
| interactivity | | | | 0.490*** | | |
| appeal | | | | | 0.360*** | |
| Skill | | | | | | 0.443*** |
| F | 1.734 | 17.722*** | 9.006*** | 15.522*** | 8.376*** | 12.634*** |
| $R^2$ | 0.034 | 0.289 | 0.171 | 0.262 | 0.161 | 0.224 |
| After the adjustment of $R^2$ | 0.014 | 0.272 | 0.152 | 0.245 | 0.142 | 0.207 |
| VIF | <3 | <3 | <3 | <3 | <3 | <3 |

(2) Test of the intermediary effect

The second link is the verification of the mediation effect. Mediator effect verification generally adopt three-step method, first verify the relationship between the independent and dependent variables, independent variables and the relationship between intermediary variables, the second step to verify the relationship between the intermediary and dependent variables, the third step will independent and intermediary variables as independent variables to verify the relationship between them, and then before and after to compare the parameter value, see whether the intermediary variable is partial mediation or complete mediation, the following test according to the above steps. The significant correlation between independent variables and dependent variables, and then the relationship between independent variables and intermediary variables has been verified. As shown in Table 6, the influence of the characteristics of web celebrity information sources on consumer identity, consumer identity and consumer purchase intention, and the intermediary role of web celebrity information source and consumer purchase intention is shown in Table 8.

**Table 6: Analysis of the influence of web celebrity information source on consumer identity**

| variable | Consumer identity | | | | | |
|---|---|---|---|---|---|---|
| | model 7 | model 8 | model 9 | model 10 | model 11 | model 12 |
| sex | 0.046 | -0.017 | -0.040 | -0.009 | 0.022 | 0.016 |
| age | 0.055 | 0.039 | 0.051 | 0.015 | 0.051 | 0.049 |
| marital status | -0.021 | -0.005 | -0.052 | -0.016 | -0.013 | 0.009 |
| Net age | 0.026 | -0.003 | 0.043 | 0.022 | 0.018 | 0.046 |
| Education level | $0.133^{**}$ | 0.088 | 0.054 | 0.036 | 0.082 | 0.036 |
| type of work | 0.023 | 0.020 | -0.005 | 0.038 | 0.046 | 0.044 |
| monthlyincome | -0.087 | 0.025 | 0.033 | 0.035 | -0.020 | -0.025 |
| reliability | | $0.598^{***}$ | | | | |
| speciality | | | $0.599^{***}$ | | | |
| interactivity | | | | $0.617^{***}$ | | |
| appeal | | | | | $0.586^{***}$ | |
| Skill | | | | | | $0.684^{***}$ |
| F | 0.985 | $24.713^{***}$ | $24.022^{***}$ | $27.304^{***}$ | $24.134^{***}$ | $39.117^{***}$ |
| $R^2$ | 0.020 | 0.361 | 0.355 | 0.382 | 0.356 | 0.473 |
| After the adjustment of $R^2$ | 0.000 | 0.347 | 0.340 | 0.368 | 0.341 | 0.460 |
| V IF | <3 | <3 | <3 | <3 | <3 | <3 |

**Table 7: Analysis of the influence of consumer identity on consumers' purchase intention**

| variable | Consumer purchase intention | |
|---|---|---|
| | model 1 | model 13 |
| sex | $0.131^{**}$ | $0.108^{*}$ |
| age | 0.013 | -0.015 |
| marital status | 0.077 | 0.088 |
| Net age | 0.048 | 0.035 |
| Education level | 0.035 | -0.031 |

| | | |
|---|---|---|
| type of work | -0.003 | -0.014 |
| monthly income | 0.015 | 0.058 |
| Consumer identity | | $0.498^{***}$ |
| F | 1.734 | $16.757^{***}$ |
| $R^2$ | 0.034 | 0.277 |
| After the adjustment of $R^2$ | 0.014 | 0.261 |
| VIF | <3 | <3 |

**Table 8 Analysis of the intermediary role of consumer identity in web celebrity information source and consumers' purchase intention**

| variable | Consumer purchase intention | | | | |
|---|---|---|---|---|---|
| | model 14 | model 15 | model 16 | model 17 | model 18 |
| sex | $0.082^*$ | $0.094^*$ | $0.091^*$ | $0.107^*$ | $0.106^{**}$ |
| age | -0.013 | -0.011 | -0.023 | -0.012 | -0.009 |
| marital status | 0.091 | 0.076 | 0.080 | 0.085 | 0.091 |
| Net age | 0.023 | 0.040 | 0.037 | 0.035 | 0.044 |
| Education level | -0.030 | -0.039 | -0.055 | -0.033 | -0.042 |
| type of work | -0.011 | -0.018 | -0.001 | -0.008 | -0.005 |
| monthly income | 0.104 | 0.077 | 0.099 | 0.064 | 0.064 |
| reliability | $0.336^{***}$ | | | | |
| speciality | | $0.128^*$ | | | |
| interactivity | | | $0.287^{***}$ | | |
| appeal | | | | 0.104 | |
| Skill | | | | | $0.191^{**}$ |
| Consumer identity | $0.303^{***}$ | $0.425^{***}$ | $0.327^{***}$ | $0.437^{***}$ | $0.369^{***}$ |
| F | $23.224^{***}$ | $17.594^{***}$ | $21.175^{***}$ | $17.326^{***}$ | $18.372^{***}$ |
| $R^2$ | 0.347 | 0.287 | 0.327 | 0.284 | 0.296 |
| After the adjustment of $R^2$ | 0.332 | 0.271 | 0.311 | 0.268 | 0.280 |
| V IF | <3 | <3 | <3 | <3 | <3 |

Due variable for consumer purchase intention, model 14 is on the basis of model 2 to add the intermediary of consumer identity, excluding the control variable and web celebrity information source variable, consumer identity can additional contribution namely R variation of 31.3%, model 14 overall interpretation of variation significance test F value of 23.224

(p=0.000 <0.001). Meanwhile, comparing model 2 and model 14, we can see that the value of reliability decreases from 0.517 to 0.336; and the regression coefficient of consumer identity is significant (=0.303, p=0.000 <0.001), indicating that consumer identity plays a partial role between reliability and consumer purchase intention, and H2a is verified.

Due variable for consumer purchase intention, model 15 is added on the basis of model 3 consumer identity the intermediary variable, excluding the control variable and web celebrity information source variable, consumer identity can additional contribution namely R variation of 25.4%, model 15 overall interpretation of variation significance test F value of 17.594 (p=0.000 <0.001). Meanwhile, comparing models 3 and 15, we can see that the value of professionalism decreases from 0.383 to 0.128; and the regression coefficient of consumer identity is significant (=0.425, p=0.000 <0.001), indicating that consumer identity plays a intermediary role between professionalism and purchase willingness, and H2b is verified.

Due variable for consumer purchase intention, model 16 is on the basis of model 4 add consumer identity this intermediary variable, excluding the control variable and web celebrity information source variable, consumer identity can additional contribution namely R variation of 29.3%, model 16 overall interpretation variation significance test F value of 21.175 (p=0.000 <0.001). Meanwhile, comparing model 4 and model 16, we can see that the value of interaction decreases from 0.490 to 0.287; and the regression coefficient of consumer identity is significant (=0.327, p=0.000 <0.001), indicating that consumer identity partially mediates between interaction and consumer purchase intention, and H2c is verified.

Due variable for consumer purchase intention, model 17 is on the basis of model 5 to join the consumer identity this intermediary variable, excluding the influence of control variables and web celebrity information source variable, consumer identity can additional contribution namely R variation of 25% of the interpretation force, model 17 overall interpretation of the variation significance test F value of 17.326 (p=0.000 <0.001). Meanwhile, comparing model 5 and model 17, we can see that the value of attraction drops from 0.360 to 0.104; and the regression coefficient of consumer identity is significant (=0.437, p=0.000 <0.001), indicating that consumer identity plays a complete intermediary role between attraction and consumer purchase intention, and H2d is verified.

Due variable for consumer purchase intention, model 18 is on the basis of model 6 to add consumer identity this intermediary variable, excluding the control variable and web celebrity information source variable, consumer identity can additional contribution namely R variation of 26.2%, model 18 overall interpretation of the variation significance test F value of 18.372 (p=0.000 <0.001). Meanwhile, comparing models 6 and 18, we can see that the value of skill decreased from 0.443 to 0.191; and the regression coefficient of consumer identity was significant (=0.369, p=0.000 <0.001), indicating that consumer identity plays a intermediary role between skill and purchase willingness, and H2e was verified.

## Conclusion and discussion
### 4.1 Study Conclusion
In this paper, based on the SOR theory, Collect 403 valid questionnaires from 25 provinces and municipalities, including Anhui, Beijing, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Ningxia, Shandong, Shanghai, Shanxi, Shaanxi, Sichuan, Tianjin, Xinjiang, Xizang, Yunnan and Zhejiang, The paper deeply analyzes the four variables of web celebrity information source, consumer identity, herd psychology and consumer purchase intention, and the interaction

between various dimensions, A total of 10 study hypotheses were proposed, The empirical process is well validated, The validity and reliability of the study conclusions are also demonstrated.

(1) Web celebrity information source has a promoting effect on consumers' purchase intention

According to the study of the relationship between various dimensions of web celebrity information sources and consumers 'purchase intention, it can be seen that web celebrity information source has a significant positive impact on consumers' purchase intention, and reliability has the greatest impact on consumers' purchase intention, followed by interactivity, skill, professionalism, and finally attraction. First of all, there is a significant positive impact between the web celebrity information source and consumers' purchase intention, which means that when consumers trust and recognize the web celebrity information source, and at the same time, they think that web celebrity and their products recommended are reliable, then consumers are more likely to have their willingness to consume. Secondly, in terms of the impact of consumers 'purchase willingness, reliability has a greater impact on consumers' purchase intention, which also shows that in the five dimensions shown by the live broadcast of web celebrity, consumers first generate purchase willingness based on the identification of web celebrity and their products promoted.

(2) Internet celebrity information source has a promoting role in identifying consumer identity

Through the web celebrity information source dimensions and the relationship between consumer identity research, web celebrity information source has significant positive impact on consumer identity, skill is the biggest influence on consumer identity, followed by interactivity, professional, reliability, finally is attractive, and skill influence on consumer identity than cultural goodwill and landscape goodwill influence on consumer identity. First of all, there is a significant positive impact between web celebrity information source and consumer identity. Consumer identity is a subjective feeling of individual consumers, which shows that when a specific web celebrity information source is recognized, its consumer identity is relatively high. Secondly, in the comparison of the degree of influence on consumer identity, the skill has a greater impact on consumer identity, which also shows that when consumers are watching web celebrity live, think that the web celebrity is a certain talent, marketing skills and other skills, the high recognition of the web celebrity, its live web celebrity identity is high. This also further verifies the importance of live web celebrity information source, which knows the sense of identity when watching web celebrity live broadcast.

(3) Consumer sense of identity plays an intermediary role in the relationship between web celebrity information sources and consumers' purchase intention

Consumer identity in web celebrity information source characteristics reliability, professional, interactive, skill and consumer purchase intention between the intermediary role, which also means that when consumers are watching web celebrity live, recognition to web celebrity information source, and produce purchase intention, consumer identity will promote consumer willingness to buy, web celebrity information source and consumer identity to consumer to buy willingness to promote consumer purchase intention.

**4.2 Theoretical contribution**

The theoretical contributions of this conclusion are as follows:

(1) To verify the relationship between web celebrity information sources and consumer purchase intention, reliability, professionalism, interactivity, attraction, ability, ability, ability, reliability (=0.517), interactivity (=0.490), skill (=0.443), professionalism (=0.383) and

attraction (=0.360).

(2) The relative role of reliability, professionalism, interactivity, attraction and skill on consumer identity is clarified, from large to small: skill (=0.684), interactivity (=0.617), professionalism (=0.599), reliability (=0.598), and finally attraction (=0.586).

(3) Consumer identity plays a complete intermediary role between the characteristic attraction of web celebrity information sources and consumers' purchase intention. This also shows that the attraction of web celebrity information sources will make consumers have a full sense of identity with live web celebrity, and directly affect consumers' willingness to buy.

### 4.3 Management enlightenment

The conclusion obtained in this study is that when attracting consumers for shopping, various live broadcasting platforms should pay attention to improving the reliability and information source of live broadcast Internet celebrities, so as to improve the possibility of consumers watching web celebrity live broadcast and generating purchase intention. In the live broadcasting activities, various live broadcasting platforms should pay attention to the training and selection of highly skilled live web celebrity celebrities, so as to improve consumers' sense of identity with live web celebrity celebrities.The sense of consumer identity has a significant positive impact on consumers' purchase willingness, which shows that when people watch web celebrity live broadcast and intend to buy, the higher their sense of identity of the information source, the stronger their willingness to buy. Therefore, from the perspective of live streaming platforms and live streaming Internet celebrities, in order to facilitate consumers to place orders, it is necessary to take various measures to effectively improve consumers' identity to livestrestreaming BBB 1.

### 4.4 Study limitations

There are still many aspects worth discussing and improving in this study, and the author believes that there are mainly the following shortcomings: First, the limitations of the sample. First, the narrow survey scope and small sample number in this study due to time and cost constraints. This study is mainly using convenience method chose only the Chinese part with webcast shopping experience of teachers and students as a sample, with college students sample as the main body of the questionnaire survey, although considering the college students as the future consumption subject, the consumption behavior and psychological analysis is of great significance, but relative to China's multi-level consumption structure, this study may be underrepresented. In future studies, the sample size can be expanded to expand the sample to consumer groups of different ages, different cultural levels, and different income levels, thus increasing the representativeness of the sample and further testing the hypothesis. Secondly, this study only explores the intermediary role of consumer identity, and in the future research, the influence mechanism of Internet celebrity information sources on consumers' purchase intention should be further explored. Third, the limitations of the study methodology. Like most existing studies, due to the difficulty of data acquisition, this study only uses cross-sectional research data, rather than tracking the research objects for a long time to obtain dynamic research data, so we cannot draw fully positive conclusions on the causal relationship among the variables in the theoretical model.

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