Summer 7-26-2022

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<u>**Full Research Paper**</u>

The Influence of E-commerce Live Broadcasting on Consumers'
Purchase Intention in Online Celebrity Economy

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Abstract: With the rise of online celebrity's economy and the improvement of webcast technology, China's new Internet economy is also showing a diversified development trend. Affected by the 2020 epidemic, the purchasing power of domestic consumers in China also pushed the live delivery of goods in online celebrity to its peak, making it a hot spot of consumption today. This paper will start with the livestream marketing in online celebrity, based on the ABC attitude theory as the theoretical framework, explore which factors have an impact on consumers' purchase intention and further explore the influence effects of different influencing factors. The conclusion provides data support and decision-making for further market segmentation and differentiated marketing.

Keywords: Internet Celebrity Economy; E-commerce live-streaming; Consumers' purchasing intention; Multi-group analysis

1.   INTRODUCTION

As a new profit model of digital economy operation of "online drainage plus physical consumption", Internet live broadcast is achieving rapid development and live broadcast e-commerce has become a new shopping method popular with users. The upgrading of Internet technology is always accompanied by the emergence of new business models, online celebrity has become a new business model in the mobile Internet era. Influencer has a tendency to refer to "online celebrity" specifically, because it is generally believed that a real influencer should have a certain cashability, that is a person with the ability to influence potential buyers of a product or service by promoting or recommending the items on social media. Therefore, in this study, influencer will be used to represent online celebrity anchor in e-commerce live broadcast.

The rise of livestream e-commerce in online celebrity has not only changed people's shopping style, but also changed people's life and entertainment style. Based on this, this paper attempts to explore the influence of e-commerce live broadcast on consumers' purchase intention in online celebrity economy, which is of great significance for promoting the development of online celebrity's economic industry and e-commerce live broadcast.

2. THEORETICAL FRAMEWORK
2.1 ABC Attitude Model

ABC Attitude Model is a theoretical model in modern consumer behavior, which is composed of emotion, cognition and behavioral reaction tendency and is used to explain the psychological process of consumer attitude formation. Emotion refers to the emotions or feelings that consumers themselves have towards their attitude objects; Behavior refers to the consumer's willingness to take action on a certain attitude; It is the psychological process of cognitive consumers' information processing of attitude objects. In the actual research process, ABC attitude model is often used to study consumers' purchasing behavior tendency. In this study, it is found that the

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change of consumers' attitude has a great impact on consumers' purchasing decisions in ABC attitude theory, so ABC attitude theory is selected to provide a theoretical framework for the model construction of this study[1].

2.2 Research model

This paper mainly discusses the influencing factors of e-commerce live broadcast on consumers' purchase intention in online celebrity economy. From the literature review of related research on e-commerce live broadcast, it can be found that existing scholars mainly explore from micro and macro aspects. The micro aspect focuses on the personal attributes and interaction types of influencers, while the macro aspect is the overall dimension division of e-commerce live broadcast. Based on summarizing the research directions of different scholars and their own understanding of the concept of e-commerce live broadcast, this paper finally decides to divide e-commerce live broadcast from the whole[2].

Therefore, this study will be divided from three aspects: influencer, commodities and consumers, in which high interactivity, professionality and trust can be divided from the perspective of influencer, while preferential policies and high-quality content are divided from the perspective of commodities; Perception of risk is from the perspective of consumers. Taking the attitude of consumers as an intermediary variable. Influencer is relying on its own professional skills and high-quality information content, gradually makes its consumers deepen their cognition and emotion about products and influencer, and changes their behavior decisions under the influence of consumer attitude. The author has studied a large number of related literatures and combined with ABC attitude theory to build a conceptual model of the influence of e-commerce live broadcast on consumers' purchase intention in online celebrity economy as shown in Figure 1.
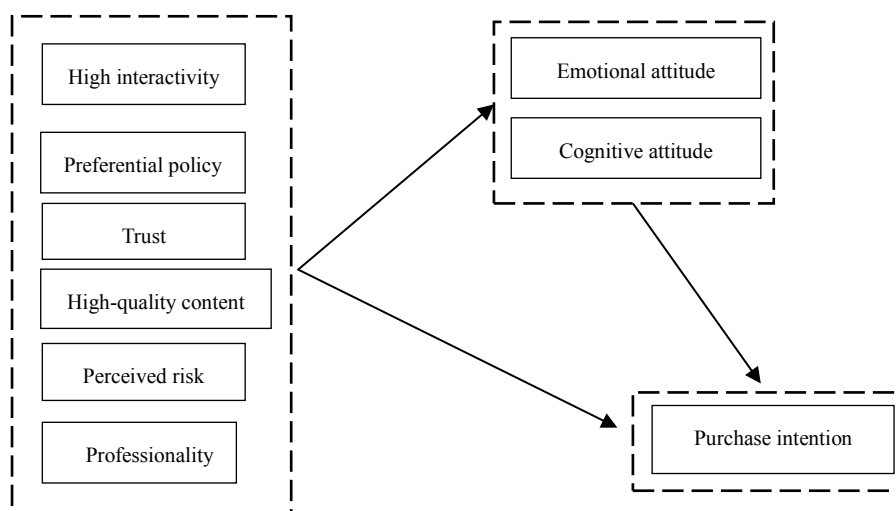

Figure 1. Hypothesis model

2.3 Research hypothesis

High interactivity refers to the mutual, timely and high-frequency interactive communication between the anchor and the consumer during the live delivery of goods in online celebrity. Preferential policies refer to a series of product preferential promotion activities adopted by Webmaster to encourage consumers to purchase during live broadcast, such as price reduction of products in live broadcast room, limited time spike snapping and product coupon distribution. Trust refers to the consumers' trust in influencer and the products introduced during the live broadcast, and is the fans' overall evaluation of influencer's ability and honesty[3]. High-quality content refers to the high-quality live broadcast content based on consumers, which not only displays the recommended products in all directions, but also meets the personalized requirements of consumers. Perceived risk refers to the risk caused by consumers' inability to know for sure whether their expected goal after purchase has been achieved in

all purchasing behaviors[4]. Professionality refers to the ability of influencer to have professional knowledge, professional ability and rich time experience in the recommended product field and to provide correct product information and answer product-related questions. Cognitive attitude is the cognitive feeling formed by consumers after obtaining and processing relevant information of products. Emotional attitude refers to the subjective feelings of consumers who are influenced by various factors in the process of watching online celebrity live broadcast with goods. According to the research conclusions of existing scholars and the observation of this study, the following assumptions are put forward:

Table 1. Research Hypothesis

Number	Hypothetical content
H1	High interactivity has positive affect on emotional attitude in the e-commerce livestreaming.
H2	High interactivity has positive affect on cognitive attitude in the e-commerce livestreaming.
H3	High interactivity has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H4	Preferential policy has positive affect on emotional attitude in the e-commerce livestreaming.
H5	Preferential policy has positive affect on cognitive attitude in the e-commerce livestreaming.
H6	Preferential policy has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H7	Trust has positive affect on emotional attitude in the e-commerce livestreaming.
H8	Trust has positive affect on cognitive attitude in the e-commerce livestreaming.
H9	Trust has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H10	High-quality content has positive affect on emotional attitude in the e-commerce livestreaming.
H11	High-quality content has positive affect on cognitive attitude in the e-commerce livestreaming.
H12	High-quality content has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H13	Perceived risk content has negative affect on emotional attitude in the e-commerce livestreaming.
H14	Perceived risk content has negative affect on cognitive attitude in the e-commerce livestreaming.
H15	Perceived risk content has negative affect on consumers' purchase intention in the e-commerce livestreaming.
H16	Professionality has positive affect on emotional attitude in the e-commerce livestreaming.
H17	Professionality has positive affect on cognitive attitude in the e-commerce livestreaming.
H18	Professionality has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H19	Cognitive attitude has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H20	Emotional attitude has positive affect on consumers' purchase intention in the e-commerce livestreaming.
H19a	Cognitive attitude plays an intermediary role between high interactivity and consumers' purchase intention.
H19b	Cognitive attitude plays an intermediary role between preferential policies and consumers' purchase intention.
H19c	Cognitive attitude plays an intermediary role between trust and consumers' purchase intention.
H19d	Cognitive attitude plays an intermediary role between content quality and consumers' purchase intention.
H19e	Cognitive attitude plays an intermediary role between risk perception and consumers' purchase intention.
H19f	Cognitive attitude plays an intermediary role between professionality and consumers' purchase intention.
H20a	Emotional attitude plays an intermediary role between high interactivity and consumers' purchase intention.
H20b	Emotional attitude plays an intermediary role between preferential policies and consumers' purchase intention.
H20c	Emotional attitude plays an intermediary role between trust and consumers' purchase intention.
H20d	Emotional attitude plays an intermediary role between content quality and consumers' purchase intention.
H20e	Emotional attitude plays an intermediary role between risk perception and consumers' purchase intention.
H20f	Emotional attitude plays an intermediary role between professionality and consumers' purchase intention.

3. DATA COLLECTION

3.1 Samples selection and data collection

In this study, the official questionnaires were distributed mainly by the Questionnaires platform, with a total of 923 data, 710 valid questionnaires were finally obtained and 213 invalid questionnaires were excluded. The effective rate of this questionnaire distribution was 76.92%. In the following research, the valid sample data are analyzed and tested.

3.2 Descriptive analysis

In this study, for the main reasons why the respondents buy the products recommended by influencer, Likert 7 scale is used, which contains a series of explanations for the respondents. The object of this study is the users who have bought the products recommended by the anchor. The statistical characteristics of the respondents mainly include gender, age, educational background, occupation, live broadcast platform, shopping frequency, online shopping amount and the number of online celebrities that they pay attention to. Among the respondents, 35.6% were males and 64.4% were females. The crowded age is 3% under 18, 29.3% between 18 and 25, 28.3% between 26 and 29, 42.2% over 30. Bachelor's degree accounted for 74.4%; The online shopping amount is 40.1% between 500-1000 yuan and 27.9% between 1000-2000 yuan.

3.3 Reliability analysis

In this study, Cronbach's α coefficient was used to test the reliability and measure the internal consistency of the scale. The reliability values of all the questionnaire items shown in Table 2 are greater than 0.8, which indicates that each item has excellent reliability values and can be analyzed in the next step.

Table 2. Test Results of Reliability Analysis

Measurement scale	Number	Cronbach's α coefficient
High interactivity	4	0.895
preferential policy	4	0.814
Trust degree	3	0.890
Content quality	4	0.860
Perceived risk	3	0.890
Professionality	3	0.946
Cognitive attitude	3	0.853
Emotional attitude	3	0.861
Purchase intention	3	0.873
Questionnaire population	30	0.933

3.4 Validity analysis

In this study, confirmatory factor analysis was used to test the validity, the convergent validity and structural validity of the questionnaire were further tested. Convergence validity refers to the degree of correlation between different measurement items of the same variable, which is expressed by standardized factor load coefficient, average variance extraction value (AVE) and combination reliability (CR). If standardized factor load coefficient is greater than 0.6, AVE is greater than 0.5 and CR is greater than 0.6, it means that convergence validity is better. Discriminatory validity refers to the degree that different variables are uncorrelated with each other. If the square root of the AVE is greater than the correlation coefficient between different variables, then the discriminant validity meets the requirements[5].

By measuring the convergence validity of the above nine variables, it is found that the average load of all standard factors is greater than 0.6, the VAE of independent variables, dependent variables and intermediary variables are greater than 0.5 and their combined reliability is greater than 0.8. The above data results meet the criterion of validity, which indicates that the scale has good convergence validity.

Table 3 lists the correlation coefficient matrix between latent variables. By comparing the square root of diagonal AVE with the correlation coefficient of each variable, it can be seen that the absolute value of correlation coefficient between each variable is less than the square root of diagonal AVE. The above results reflect that the measurement items of different latent variables have good discrimination.

**Table 3. Correlation coefficient matrix and square root of AVE**

	High interactivity	preferential policy	Trust	Content quality	Perceived risk	Profess-ionality	Cognitive attitude	Emotional attitude	Purchase intention
High interactivity	0.825								
preferential policy	0.502	0.725							
Trust	0.566	0.464	0.855						
Content quality	0.569	0.594	0.472	0.778					
Perceived risk	0.031	0.089	-0.018	0.075	0.855				
Professionality	0.445	0.481	0.589	0.481	0.031	0.821			
Cognitive attitude	0.620	0.582	0.607	0.595	0.087	0.578	0.814		
Emotional attitude	0.597	0.555	0.663	0.591	0.005	0.621	0.740	0.803	
Purchase intention	0.636	0.607	0.645	0.637	-0.053	0.623	0.695	0.736	0.854

The analysis results of convergence validity and discrimination validity show that the structural validity of the questionnaire is good. It can be concluded that the questionnaire data used in this study meet the requirements of validity test and can be tested in the next step.

4.RESULTS AND DISCUSSION

4.1 Verification of structural equation model

Structural Equation Model (SEM) is an empirical analysis model, which combines statistical techniques such as factor analysis and regression analysis. SEM can identify, estimate and verify the causal model, and can also be applied to latent variables that cannot be directly and accurately measured. Therefore, it can replace the traditional statistical methods to deal with these latent variables and their indicators[6]. Therefore, this paper chooses SEM to verify the theoretical model proposed in this paper. Guided by the theoretical model, this study constructs the empirical model as shown in Figure 2:
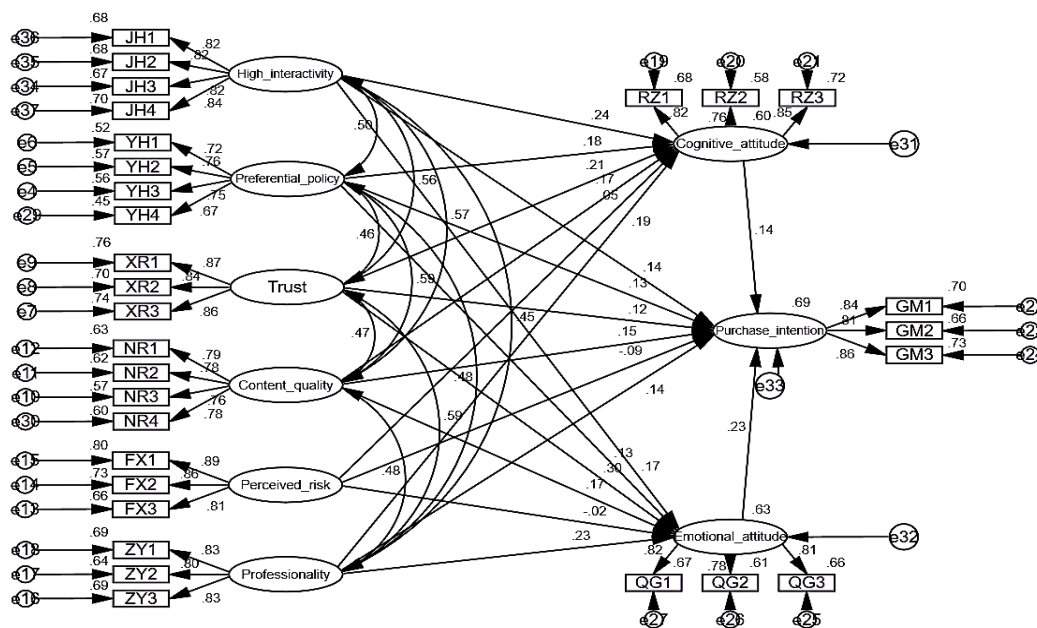
Figure 2. Empirical model

Analyzing the fitting degree of the model is an important step in empirical analysis by using structural equation model, judging the fitting degree of data to the whole theoretical model, after drawing the path map of the model, running the model and obtaining the model fitting index, path regression coefficient and statistical test value. As can be seen from Table 4, the goodness of fit index (GFI) of this research model and sample data is 0.916, the modified goodness of fit index (AGFI) is 0.906, the comparative fitness index (CFI) is 0.959, the standard fitting index (NFI) is 0.933 and the incremental fitting index (IFI) is 0.959.

Table 4. Fitting results of empirical model indicators

Statistical quantity	CMIN/DF	RMSEA	GFI	AGFI	CFI	IFI	NFI
Judging standard or critical value	<3	<0.05	>0.9	>0.9	>0.9	>0.9	>0.9
Measured value	2.459	0.045	0.916	0.906	0.959	0.959	0.933
Simulation fitting test	pass	pass	pass	pass	pass	pass	pass

4.2 Path analysis

Table 5. Full Model Path Analysis

Path			Estimate	S.E.	C.R.	P	Assumptions
High interactivity	→	Cognitive attitude	0.244	0.046	5.35	***	TRUE
Preferential policy	→	Cognitive attitude	0.195	0.051	3.78	***	TRUE
Trust	→	Cognitive attitude	0.172	0.037	4.63	***	TRUE
Content quality	→	Cognitive attitude	0.177	0.050	3.53	***	TRUE
Perceived risk	→	Cognitive attitude	0.038	0.022	1.70	0.089	FALSE
Professionality	→	Cognitive attitude	0.168	0.039	4.30	***	TRUE
High interactivity	→	Emotional attitude	0.182	0.046	3.94	***	TRUE
Preferential policy	→	Emotional attitude	0.144	0.052	2.76	0.006	TRUE
Trust	→	Emotional attitude	0.247	0.038	6.44	***	TRUE
Content quality	→	Emotional attitude	0.186	0.051	3.63	***	TRUE
Professionality	→	Emotional attitude	0.212	0.040	5.29	***	TRUE
Perceived risk	→	Emotional attitude	-0.018	0.023	-0.79	0.428	FALSE
High interactivity	→	Purchase intention	0.166	0.050	3.33	***	TRUE
Preferential policy	→	Purchase intention	0.160	0.055	2.90	0.004	TRUE
Trust	→	Purchase intention	0.112	0.042	2.64	0.008	TRUE
Content quality	→	Purchase intention	0.181	0.054	3.34	***	TRUE
Perceived risk	→	Purchase intention	-0.078	0.023	-3.35	***	TRUE
Professionality	→	Purchase intention	0.141	0.044	3.22	0.001	TRUE
Cognitive attitude	→	Purchase intention	0.159	0.058	2.76	0.006	TRUE
Emotional attitude	→	Purchase intention	0.254	0.060	4.21	***	TRUE

Note: '***' represents p<0.001

From the data in Table 5 it can be seen that for the cognitive attitude, high interactivity (0.244) has the greatest influence on it. The influencer can communicate and interact with consumers efficiently, answer the questions put forward by consumers in time, meet the personalized needs of consumers and increase consumers' cognitive attitude to promote their purchase intention. As for emotional attitude, trust (0.247) and professionality (0.212) have the greatest influence on it. Through professional explanations and professional answers, influencer has met the needs of consumers, enhanced consumers' trust in products and influencer, consumers' emotional attitude will be more positive, thus promoting consumers' purchasing behavior. As for purchase intention, emotional attitude (0.254) can influence consumers' purchase intention more than cognitive attitude (0.159), so influencer should pay more attention to the change of consumers' emotional attitude.

As can be seen from Table 5, it is concluded that high interactivity, preferential policies, trust, high quality of content have significant positive effects on consumers' attitudes, while perceived risks do not meet the assumption. That is, H1, H2, H4, H5, H7, H8, H10, H11, H16 and H17 hold true, while H13 and H14 are not.

For the path analysis of the dimensions of online celebrity live broadcast and the intermediary variables on the dependent variables' purchase intention, it is found that the significant levels of high interactivity, preferential policies, trust, high quality of content, perceived risk, professionality, cognitive attitude and emotional attitude are p-value<0.05, which indicates that all independent variables and intermediary variables have significant influence on the dependent variables, so assumptions that are H3, H6, H9, H12, H15, H18 and H11 hold true.

4.3 Hypothesis test of intermediary relationship

In this study, Bootstrap method is used to calculate the coefficient product ab and select its confidence interval for the analysis of multiple mediating effects[7]. The mediating effect is tested according to whether the indirect effect includes 0 in the 95% confidence interval. When the confidence interval does not include 0, it means that the effect is significant, when it includes 0, it is not significant. Set the Bootstrap times to 5000 and the confidence interval of deviation correction and improvement to 95%[8]. Calculate the coefficient and its confidence interval by Bootstrap method and get the data in Tables 6 and Table 7.

4.3.1 Test the mediating effect of cognitive attitude

Table 6. Test results of mediating effect of cognitive attitude

Standardized Bootstrap Mediating Effect Test						
Path	Effect value	S.E.	Bias- corrected 95%CI		P	Assumption
			Lower	Upper		
High interactivity → cognitive attitude → purchase intention	0.033	0.018	0.007	0.079	0.0098	True
Preferential policy → cognitive attitude → purchase intention	0.024	0.014	0.005	0.063	0.0091	True
Trust → Cognitive Attitude → Purchase Intention	0.029	0.015	0.006	0.070	0.0107	True
Quality → Cognitive Attitude → Purchase Intention	0.023	0.014	0.004	0.063	0.0148	True
Risk perception → cognitive attitude → purchase intention	0.007	0.006	-0.001	0.024	0.0693	False
Professionality → Cognitive Attitude → Purchase Intention	0.026	0.015	0.005	0.070	0.0113	True

The results in Table 6 show that the mediating effect of perceived risk to reduce purchase intention by reducing cognitive attitude is not significant, with the effect value of 0.007 and the confidence interval of [-0.001,0.024], including 0 and the relational hypothesis H19e has not been verified. Other variables have significant mediating effect of promoting purchase intention by improving cognitive attitude and the confidence interval does not include 0. The relational hypotheses H19a, H19b, H19c, H19d and H19f are verified.

4.3.2 Test the mediating effect of emotional attitude

Table 7. Test of Mediating Effect of Emotional Attitude

Standardized Bootstrap Mediating Effect Test						
Path	Effect value	S.E.	Bias- corrected 95%CI		P	Assumption
			Lower	Upper		
High interactivity → cognitive attitude → purchase intention	0.039	0.020	0.011	0.094	0.0027	True
Preferential policy → cognitive attitude → purchase intention	0.029	0.018	0.004	0.076	0.0250	True
Trust → Cognitive Attitude → Purchase Intention	0.067	0.027	0.024	0.132	0.0013	True
Quality → Cognitive Attitude → Purchase Intention	0.039	0.021	0.010	0.094	0.0037	True
Risk perception → cognitive attitude → purchase intention	-0.005	0.008	-0.026	0.008	0.3571	False
Professionality → Cognitive Attitude → Purchase Intention	0.053	0.023	0.020	0.113	0.0008	True

The results in Table 7 show that the mediating effect of perceived risk to reduce consumers' purchase intention by reducing consumers' emotional attitudes is not significant, with the effect value of -0.005 and the confidence interval of [-0.026,0.008], including 0 and the relationship hypothesis H20e has not been verified. Other variables have significant mediating effect of promoting purchase intention by improving emotional attitude, and the confidence interval does not include 0. The relational hypotheses H20a, H20b, H20c, H20d and H20f are verified.

It is found that perceived risk has no significant negative impact on consumer's emotional attitude and consumer's cognitive attitude and some mediating effects of consumer's attitude between perceived risk and

consumer's purchase intention are not significant. This study believes that the reason for this conclusion comes from consumers' irrational consumption and online red anchors and consumers are active in the live broadcast of goods. Communication and professional explanation make consumers' uncertainty about purchasing products not have a significant negative impact on their cognition of products and influencers and perceived risk has no significant impact on cognitive attitude[9]. Stimulated by the high-quality content and preferential policies produced by influencers, consumers' uncertainty about purchasing products will not make consumers lose interest in products or generate negative emotions, perceived risks have no significant impact on consumers' emotional attitudes. In this study, the measurement of perceived risk only focuses on the financial risk and psychological risk brought by the uncertainty of consumers' purchase of products, without considering other risk dimensions[10]. The influence of online celebrity's professionalism, high interactivity and preferential policies on consumers' attitude is far greater than that of perceived risk.

4.4 Multi-group model analysis

The author thinks that in-depth study on the differences of consumers' purchasing intentions among groups with different individual characteristics in the process of live delivery of goods in online celebrity is conducive to further subdividing the research objectives. Therefore, based on the hypothesis test of the research on the influence of live e-commerce on consumers' purchasing intentions in online celebrity economy, this study takes gender, age and online shopping amount as research variables and makes an empirical study by multi-group analysis method in structural equation model[11].

4.4.1 Multi-group analysis based on age

Using multi-group structural equation model analysis, consumers in the age group below 29 years old are defined as young people (n=411) and consumers in the age group above 30 years old are defined as elderly people (n=299). In order to further analyze the moderating effect of young people and elderly people on consumers' purchase intention of live e-commerce, the multi-group structural equation model is used for analysis, and the structural coefficients of men and women are set to be equal and the structural coefficient model is tested under the assumption that the measurement coefficient model is true.

Table 8. Age multi-group analysis

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Structural weights	20	27.381	0.125	0.002	0.002	-0.001	-0.001
Structural covariances	36	58.491	0.010	0.004	0.004	-0.001	-0.001
Structural residuals	39	62.511	0.010	0.004	0.005	-0.001	-0.001
Measurement residuals	69	95.017	0.021	0.007	0.007	-0.002	-0.002

According to Table 8, the P value of multi-group structural coefficient is 0.125, which is greater than 0.05 and does not reach the significant level, indicating that there is no significant difference in structural coefficient model between young people and elderly people. The above results can only show that there is no significant difference in the whole phenomenon, and the parameter pairing is used to test individual paths. In order to further explore the significant differences between young people and older people on those paths, in the Critical Ratios for Differences Between Parameter (Measurement Weight), it is found that the critical ratio of preferential policies to cognitive attitudes is -2.059 and the critical ratio of content quality to cognitive attitudes is 2.667. The critical ratio of professionality to cognitive attitude path in online celebrity is-2.196; The critical ratio of preferential policies to emotional attitudes is-2.152; The critical ratio of content to emotional attitude is 2.000; The critical ratio of professionality to emotional attitude path in online celebrity is-2.317; Specifically, the differences between the two groups are as follows:

The influence of preferential policies of young people on cognitive attitude is greater than that of elderly people (young people: Estimate=0.252, elderly people: Estimate=0.023). This can be understood as comparing with the elderly group, the preferential attributes of the products of the young group have a greater influence on the cognitive attitude. Generally speaking, the young group has fewer personal assets and lower disposable income, the discount promotion will stimulate young consumers' cognition of product information, so as to complete the purchase behavior. However, the elderly people's personal assets are generally rich, and they no longer need cheap goods. The preferential policies for goods have not changed much about their cognition of goods. The influence of content quality of the elderly group on cognitive attitude is greater than that of the young group (young people: Estimate=0.111, elderly people Estimate=0.415). The results show that the elderly group pays more attention to the influencer's careful and detailed introduction of product information and the high-quality content presented to consumers in the live broadcast. For the elderly, the high-quality content is easier for them to know, they pay more attention to the quality of products and think about the practicality of products. The influence of online celebrity specialty of young people on cognitive attitude is greater than that of online celebrity specialty of old people (young people: Estimate=0.228, old people: Estimate=0.055). This can be understood as compared with the elderly group, the young group is more likely to receive the introduction of professional products from influencer, get the information of products and the value of use form cognitive feelings.

The influence of preferential policies of young people on emotional attitudes is greater than that of elderly people (young people: Estimate=0.211, elderly people: Estimate=-0.275). This can be understood as comparing with the elderly group, the preferential attributes of products of the young group have a greater influence on emotional attitudes, the preferential attributes of commodities make young people more excited, and the young group needs to enjoy preferential prices and buy commodities that are actually more favorable than the original price. However, the elderly people's personal assets are generally rich, and they no longer need cheap goods. On the contrary, the strong preferential policies for goods will make the elderly people feel disgusted and have doubts about the quality of goods. The influence of content quality of the elderly group on emotional attitude is greater than that of the young group (young people: Estimate=0.154, elderly people Estimate=0.379). The results show that the high-quality live broadcast content reflected by the anchor in online celebrity can make the elderly group feel happy, thus agreeing with the anchor's point of view and forming buying behavior. The influence of online celebrity specialty of young people on emotional attitude is greater than that of online celebrity specialty of old people (young people: Estimate=0.287, old people: Estimate=0.102).influencer professionally disseminates product information and young consumers are more likely to accept this information dissemination, resulting in positive emotions about consumer behavior.

4.4.2 Multi-group analysis based on online shopping amount

Based on the multi-group structural equation model, consumers whose online shopping amount is less than 1000 yuan are defined as low consumers (n=389) and consumers whose online shopping amount is more than 1000 yuan are defined as high consumers (n=321).

Table 9. Multi-group Analysis of Online Shopping Amount

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Structural weights	20	38.142	0.009	0.003	0.003	0.000	0.000
Structural covariances	36	90.963	0.000	0.006	0.007	0.002	0.002
Structural residuals	39	94.213	0.000	0.007	0.007	0.002	0.002
Measurement residuals	69	126.216	0.000	0.009	0.009	0.000	0.000

In order to further analyze the moderating effect of high consumers and low consumers in purchasing intention, the comparison between unrestricted model and restricted model was studied. Set the structural coefficients of high consumers and low consumers to be equal and test the structural coefficient model under the assumption that the measurement coefficient model is correct. Table 9 shows that the P-value of multi-group structural coefficients is 0.009, which is less than 0.05 and reaches a significant level, indicating that there is a significant difference between the path coefficients of high consumers and low consumers on consumers' purchase intention in e-commerce live broadcast.

Further exploration shows that there are significant differences in those path coefficients between the two groups. In Critical Ratios for Differences Between Parameter (Measurement Weight), it is found that the critical ratio of high-quality content to purchase intention path is 2.425 and the critical ratio of trust to emotional attitude path is 2.510. The critical ratio of high interactivity to cognitive attitude path is -3.248 and that of high interactivity to emotional attitude path is -4.085. So, the differences between the two groups are as follows:

The influence of content quality of low consumers on purchase intention is greater than that of high consumers (high consumers: Estimate=0.033, low consumers: Estimate=0.307). The comprehensive display of commodities by anchors and personalized demand for consumers are more likely to meet the requirements of low consumers, prompting consumers to have purchase behavior.

The influence of the trust of low consumers on emotional attitude is greater than that of high consumers (high consumers: Estimate=0.157, low consumers: Estimate=0.347). The professional description and personalized recommendation of influencer will make it easier for low consumers to generate trust, thus generating pleasant emotions. Low consumers are more likely to gain this trust and increase their purchase intention than high consumers.

The influence of high interactivity among high consumers on cognitive attitude is greater than that among low consumers (high consumers: Estimate=0.442, low consumers: Estimate=0.133). The timely and efficient interaction between influencer and consumers has a greater influence on high consumers' cognitive attitude. High consumers need to see the true side of products and ask anchor questions to meet their individual needs, thus forming their own cognitive feelings. Higher consumers are more likely to have cognitive feelings and purchase behaviors.

The influence of high interactivity of high consumers on emotional attitude is greater than that of low consumers (high consumers: Estimate=0.412, low consumers: Estimate=0.015). The timely and efficient interaction between influencer and consumers has a greater influence on high consumers' emotional attitude. High consumers ask influencer in time according to their own needs and the feedback of product information generates their love and pleasure for influencer, thus promoting.

5. CONCLUSIONS AND LIMITATIONS

5.1 Conclusions

In this research, 710 valid data were collected, the validity test, structural equation modeling, hypothesis test, mediation effect test and multi-group analysis were carried out on the data. The conclusions are as follows:

(1) High interactivity, preferential policies, trust, high quality of content, perceived risk and professionality of online celebrity have significant influence on consumers' purchase intention. Perceived risk has a relatively small negative impact on purchasing intention, while high interactivity, preferential policies, trust, quality of content, perceived risk and professionality have a relatively large positive impact on consumers' purchasing intention. Consumer's cognitive attitude and consumer's emotional attitude have a significant impact on

purchasing intention. The result shows that emotional attitude (0.254) can influence consumers' purchasing intention more than cognitive attitude (0.159), so influencer should pay more attention to the change of consumers' emotional attitude. High interactivity, preferential policies, trust, high quality content and professionality have significant positive effects on consumers' attitudes. The results show that professionality (0.212) and trust (0.247) have the greatest influence on consumers' emotional attitudes. It is found that high interactivity (0.244) has the greatest influence on consumers' cognitive attitude.

(2) Consumers' attitude plays an intermediary role in consumers' purchase intention during the live broadcast of e-commerce in online celebrity economy. The results show that, except perceived risk, all the other independent variables have a significant impact on consumers' purchase intention through consumer attitudes, and consumer attitudes play a partial intermediary role in the process of independent variables and consumers' purchase intention.

(3) Comparison of the influence mechanism of consumers' personal characteristics on the purchase intention of e-commerce live broadcast. Taking consumers' age and online shopping amount as moderating variables, this paper empirically studies the differences of the effects of moderating variables on consumers' purchase intention by using the multi-group method of structural equation model. Comparing the path coefficients of older and younger consumers, the results show that there are significant differences in path coefficients between different ages. Comparing the path coefficients of low and high consumers, the results show that there are significant differences in path coefficients between different online shopping amounts.

5.2 Limitations

This study has some limitations that need be addressed by future research. First, the proportion of statistical characteristics of sample data is not balanced. The proportion of women in this study is relatively large, while that of men is relatively small. Secondly, the influencing factors of the study are incomplete and the e-commerce live broadcast environment is complex, so we can dig out more important and representative influencing factors.

6. MANAGEMENT SUGGESTIONS

Through the literature study, as well as the actual textual research and empirical results in the research process, the author puts forward some management suggestions for influencer, e-commerce live marketing and consumers respectively.

Firstly, pay attention to the trust of fans. It is an important part of the commercial value of online celebrity's fan anchor and fans are also the main consumers. Therefore, online celebrity's anchor should pay attention to the cultivation of trust with fans. In the process of live broadcast with goods, influencers enhance consumers' trust in influencers and their knowledge of recommended product information through various live broadcast methods. As an opinion leader in this field, Anchor needs to actively interact with consumers and patiently answer their product questions, so that consumers can have a more intuitive and in-depth understanding of the products sold and achieve the purpose of promoting their purchase intention[12].

Secondly, improve the information dissemination quality of products. E-commerce companies should fully exchange information with influencer on products, so that consumers can master more basic information of products when influencer broadcasts goods; E-commerce companies should also expand omni-channel, not only through Tmall and WeChat channels, but also through Xiaohongshu, Weibo, Tik Tok and other platforms, so that the information of star products or explosions can be transmitted to consumers' hands through public domain traffic[13]. Only when consumers pay wide attention can e-commerce companies control the market.

Thirdly, consumers should get more information. By comparing the reference information about products from different online stores and other platforms, we can ensure the subjective understanding of products from

multiple dimensions, identify the authenticity of the product information introduced by online celebrity's anchor, and then judge whether it can meet our own needs and avoid impulse buying.

ACKNOWLEDGEMENT

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