

# Impact of Douyin Beauty Brand Live Streaming on Consumers' Purchase Intentions

Miaoling Ji\*

School of Economics and Management, Xi'an Technological University, Xi'an 710016, Shaanxi Province, China

\*Corresponding author: Miaoling Ji, 965489881@qq.com

**Copyright:** © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** Nowadays, Douyin has become an important channel for promoting beauty brands, and how to enhance the influence of Douyin beauty live broadcast is still a topic that needs to be explored. In this context, this paper investigates what factors in the process of recommending goods in Douyin beauty live broadcast will impact consumers' purchase intention. Through the questionnaire survey, regression analysis, and hypothesis testing, the model of the influence of Douyin beauty live broadcast on consumers' purchase intention is derived. Finally, based on the conclusions drawn, suggestions are made to beauty bloggers and Douyin live broadcasting platforms to promote the development of the entire beauty industry chain and optimize the experience of each participant in it.

**Keywords:** E-commerce live broadcast; Consumer purchase intention; Statistical analysis; Credibility proposal

**Online publication:** November 29, 2024

## 1. Introduction

Social progress has prompted people to pursue a higher external image so the demand for beauty products has increased dramatically. With the development of e-commerce, online platforms have become the main source for consumers to obtain beauty information. Nowadays, Douyin has become an important channel for the publicity and promotion of beauty brands, and how Douyin beauty live broadcasts can obtain fan loyalty and increase profitability is still a topic to be explored. In this context, this paper studies the influence factors of beauty opinion leaders on consumers' purchase intention and examines the constructed model through data analysis. Finally, the paper draws management insights.

In recent years, e-commerce live streaming has become a focal topic in academia, and numerous studies have confirmed its positive impact on enhancing consumers' purchase intention. Ma et al. revealed that four characteristics of e-commerce platforms, namely entertainment, sociality, security, and knowledge, influence impulsive buying behavior<sup>[1]</sup>. Zheng Cancan et al. explored the effects of price promotions, perceived interactivity, and impulsive traits in livestreaming situations on online shopping decisions<sup>[2]</sup>. Zhou Yongsheng et

al. explored the specific effects of the dimensions of cognitive social proximity and emotional social proximity on consumers' purchase intention [3]. Liu Yang et al. distinguished the interactions between the stimuli of interactivity, entertainment, authenticity, and visibility of live shopping [4]. Trust is an emotional bias that combines cognitive feelings and psychological cues, and Mayer et al. defined trust as the willingness to let the other person take control of one's own well-being if the willingness to trust the other person is greater increases at the same time [5]. Xu Jingxian et al. pointed out that trust is the first dominant factor when studying the occurrence of E-commerce among college students [6]. McAllister et al. divided trust into cognitive trust and affective trust, and pointed out that cognitive trust has a very high degree of uncertainty [7]. Das et al. attributed the factors that generate trust to both competence and goodwill and at the same time, it is closely connected with risk and uncertainty [8]. Zeithaml et al. expressed the perceived value as the difference between the benefits that consumers can obtain and the costs they pay within the scope of their perceptions when purchasing a product [9]. Sheth divided the perceived value into five dimensions and pointed out that the different dimensions of the perceived value need to be empowered according to the actual situation [10]. Li Zongwei et al. found that perceived social recognition of purchasing behavior has a positive correlation with consumers' promotion of social status [11]. Fishbein M et al. suggested that when a person engages in a certain behavior, it is usually dominated by behavioral willingness [12]. Sasha Liu et al. regarded this behavioral willingness as an important indicator for judging the actions taken by future consumers [13]. Online interactions between anchors and consumers in live-streaming environments affect consumers' shopping moods. Chen et al. found that interactive factors affect buyers' purchase intentions in livestreaming shopping [14]. Li et al. used structural equation modeling to analyze the impact of online interactions on people's impulsive shopping behaviors in an electronic livestreaming environment [15].

## 2. Model construction and research hypothesis

The model contains four main dimensions: communication subject, consumer trust, perceived value, and purchase intention. Trust and perceived value are intermediate variables that affect consumers' willingness to buy. The communication body directly affects consumers' purchase intention, while the perceived value and trust are intermediate variables that further influence consumers' purchase intention. The intermediate variables trust and perceived value will also have a mutual influence and promote the relationship between them. According to the model, the following hypotheses are proposed in **Table 1**.

**Table 1.** Proposed research hypothesis

Dimensions	Hypothesis
Subject of communication	H1: Beauty anchor professionalism significantly influences consumers' purchase intention
	H2: Beauty anchor popularity significantly influences consumers' purchase intention
	H3: Homogeneity of beauty anchors significantly affects consumers' purchase intention
	H4: Beauty anchors' product involvement significantly influences consumers' purchase intention
	H5: Interactivity in Douyin livestreaming room significantly influences consumers' purchase intention
	H6: The quality of content in Douyin live streams significantly influences consumers' purchase intention
	H7: The timeliness of content shared in Douyin live streams significantly affects consumers' purchase intention

**Table 1 (Continued)**

Dimensions	Hypothesis
Subject of trust	H8a: Trust mediates the characteristics of live Douyin beauty broadcasts and consumer purchase intentions
	H8b: Trust mediates between beauty host professionalism and consumer purchase intentions
	H8c: Trust mediates between beauty anchor popularity and consumer purchase intentions
	H8d: Trust mediates the homogeneity of beauty anchors and consumer purchase intentions
	H8e: Trust mediates the product involvement of beauty hosts and consumer purchase intentions
	H8f: Trust mediates content quality and consumer purchase intentions in Douyin live streams
	H8g: Trust mediates interactivity and consumer purchase intentions in Douyin live streams
	H8h: Trust mediates the timeliness of content shared in Douyin live streams and consumer purchase intentions
Perceived functional value	H9a: Perceived functional value mediates the characteristics of Douyin beauty live streams and consumer purchase intentions
	H9b: Perceived functional value mediates beauty anchor professionalism and consumer purchase intention
	H9c: Perceived functional value mediates beauty anchor awareness and consumer purchase intentions
	H9d: Perceived functional value mediates the homogeneity of beauty anchors and consumer purchase intentions
	H9e: Perceived functional value mediates product involvement aConsumer Purchase Intentions of Beauty Hosts
	H9f: Perceived functional value mediates content quality and consumer purchase intention in Douyin live streams
	H9g: Perceived functional value mediates interactivity and consumer purchase intention in Douyin live streams
	H9h: Perceived functional value mediates timeliness and consumer purchase intentions of content shared in Douyin live streams
Perception of society valuable	H10a: Perceived social value mediates the characteristics of live Douyin beauty broadcasts and consumer purchase intentions
	H10b: Perceived social value mediates beauty anchor professionalism and consumer purchase intentions
	H10c: Perceived social value mediates the role of beauty anchors' popularity and consumers' purchase intentions
	H10d: Perceived social value mediates the homogeneity of beauty anchors and consumer purchase intentions
	H10e: Perceived social value mediates product involvement and consumer purchase intentions of beauty hosts
	H10f: Perceived social value mediates content quality and consumer purchase intentions in Douyin live streams
	H10g: Perceived social value mediates interactivity and consumer purchase intentions in Douyin live streams
	H10h: Perceived social value mediates the timeliness of content shared in Douyin live streams and consumer purchase intentions

### 3. Questionnaire design and survey

The variables involved in this study include the professionalism, popularity, homogeneity, and product involvement of beauty bloggers, the interactivity, content quality, and timeliness of shared content in Douyin live broadcasting rooms, as well as trust, perceived value, and consumers' purchase intention. The questionnaire design is carried out by referencing the results of previous studies and in combination with the characteristics of the Douyin beauty livestream room. The questionnaire design contains three parts, the first part is the basic information of consumers,

and the second part is the investigation of the basic knowledge and attitude towards Douyin Beauty Live. The third part is the scale part of the influence of Douyin Beauty Live on consumers' purchase intention. A total of 200 questionnaires were collected, 158 valid questionnaires, and the surveyed groups were concentrated in the age of 35, with female consumers in the majority.

## 4. Statistical analysis of data: Regression analysis

### 4.1. Construction of multiple linear regression model

Regression analysis is an important method to reveal the relationship and degree of influence between variables, and regression analysis is used to verify the assumptions made on the theoretical model. This paper establishes the multivariate linear regression model of Douyin Beauty Live on consumer purchase intention. Regression analysis is carried out through step-by-step analysis, and independent variables and mediator variables are added to the model in turn for verification, respectively analyzing the regression model of the independent variable on the dependent variable and the changes in the interpretation of the independent variable on the dependent variable when trust, perceived functional value, and perceived social value are used as the mediator variables, to explore the role of the mediator variables. It is assumed that  $Y_i$  is the purchase intention of beauty consumers,  $\alpha_i$  is the intercept,  $\beta_i$  is the coefficient of the independent variable, and  $e_i$  is the residual. The established model is as follows.

$$\text{Model 1: } Y_1 = \alpha_1 + \beta_1 * \text{sex} + \beta_2 * \text{age} + \beta_3 * \text{occupation} + \beta_4 * \text{income}$$

$$\text{Model 2: } Y_2 = \alpha_2 + \beta_5 * \text{Professionalism} + \beta_6 * \text{Visibility} + \beta_7 * \text{Homogeneity} + \beta_8 * \text{Product Involvement} + \beta_9 * \text{Interactivity} + \beta_{10} * \text{Content Quality} + \beta_{11} * \text{Timeliness}$$

$$\text{Model 3: Trust} = \alpha_3 + \beta_{12} * \text{Professionalism} + \beta_{13} * \text{Visibility} + \beta_{14} * \text{Homogeneity} + \beta_{15} * \text{Product Involvement} + \beta_{16} * \text{Interactivity} + \beta_{17} * \text{Content Quality} + \beta_{18} * \text{Timeliness}$$

$$\text{Model 4: } Y_3 = \alpha_4 + \beta_{19} * \text{Professionalism} + \beta_{20} * \text{Visibility} + \beta_{21} * \text{Homogeneity} + \beta_{22} * \text{Product Involvement} + \beta_{23} * \text{Interactivity} + \beta_{24} * \text{Content Quality} + \beta_{25} * \text{Timeliness} + \beta_{26} * \text{Trust}$$

$$\text{Model 5: Perceived Functional Value} = \alpha_5 + \beta_{27} * \text{Expertise} + \beta_{28} * \text{Visibility} + \beta_{29} * \text{Homogeneity} + \beta_{30} * \text{Product Involvement} + \beta_{31} * \text{Interactivity} + \beta_{32} * \text{Content Quality} + \beta_{33} * \text{Timeliness}$$

$$\text{Model 6: } Y_4 = \alpha_6 + \beta_{34} * \text{Professionalism} + \beta_{35} * \text{Visibility} + \beta_{36} * \text{Homogeneity} + \beta_{37} * \text{Product Involvement} + \beta_{38} * \text{Interactivity} + \beta_{39} * \text{Content Quality} + \beta_{40} * \text{Timeliness} + \beta_{41} * \text{Perceived Functional Value}$$

$$\text{Model 7: Perceived Social Value} = \alpha_7 + \beta_{42} * \text{Professionalism} + \beta_{43} * \text{Visibility} + \beta_{44} * \text{Homogeneity} + \beta_{45} * \text{Product Involvement} + \beta_{46} * \text{Interactivity} + \beta_{47} * \text{Content Quality} + \beta_{48} * \text{Timeliness}$$

$$\text{Model 8: } Y_5 = \alpha_8 + \beta_{49} * \text{professionalism} + \beta_{50} * \text{visibility} + \beta_{51} * \text{homogeneity} + \beta_{52} * \text{product involvement} + \beta_{53} * \text{interactivity} + \beta_{54} * \text{content quality} + \beta_{55} * \text{timeliness} + \beta_{56} * \text{perceived social value}$$

### 4.2. Regression equation

Through the regression of the control variable with the willingness to buy, it can be obtained that the regression equation of model one is:  $Y_1 = 2.578 + 0.249 * \text{gender}$ . Through the regression of the independent variable with the willingness to buy, it can be obtained that the regression equation of model two is:  $Y_2 = 0.641 + 0.26 * \text{professionalism} + 0.223 * \text{content quality}$  of the Douyin live broadcasting room. Through the regression of the independent variable on the mediator variable trust, it can be seen that the fit of the model is poor and none of them are significant, so the effect of the independent variable on trust can be disregarded in the subsequent study.



Through the regression of the independent variables and trust in the willingness to buy, the regression equation of model four can be obtained as  $Y_3 = 0.48 + 0.293 * \text{professionalism}$ . Through the regression of the independent variable on the mediator variable perceived functional value, the regression equation of model V can be obtained as follows:  $\text{perceived functional value} = 2.075 + 0.356 * \text{the content quality of the Douyin live broadcasting room} - 0.194 * \text{the popularity of the beauty anchor}$ . By regressing the perceived functional value and the characteristics of the beauty anchor and the characteristics of the Douyin live room as independent variables at the same time, the regression equation of model VI can be obtained as:  $\text{purchase intention} = 0.605 + 0.26 * \text{beauty anchor professionalism}$ . By regressing the independent variable on the intermediate variable perceived social value, the regression equation of model VII can be obtained as:  $\text{perceived social value} = 1.171 + 0.293 * \text{content quality}$ . By regressing the perceived social value and the characteristics of opinion leaders and content as independent variables at the same time to explore the mediating effect of perceived social value between the independent variables and purchase intention, the regression equation of model VIII can be obtained as follows:  $\text{purchase intention} = 0.218 + 0.351 * \text{perceived social value} + 0.273 * \text{professionalism}$ .

## 5. Results of hypothesis testing

The above analyses are used to validate the assumptions previously made in this paper and to draw conclusions as follows.

For the main effects hypotheses, hypotheses H1 and H6 hold, and the other hypotheses do not.

For the mediating role of trust, hypothesis H8b holds and the other hypotheses do not.

For the mediating role of perceived functional value, H9a, H9b, H9c, and H9f hold, and the other hypotheses do not.

For the mediating role of perceived social value, H10a, H10b, and H10f hold, and the other hypotheses do not.

## 6. Conclusions and recommendations

This paper constructs a model of the influence of the Douyin beauty live broadcast on consumers' purchase intention through literature combing, data statistical analysis, and mediation effect test. Based on this, the following suggestions are put forward for beauty bloggers and Douyin live broadcasts to promote the development of the beauty industry chain. First, expand publicity to enhance the visibility of beauty hosts. Visibility affects perceived value, which in turn affects purchase intention. Anchors should achieve large-scale traffic diversion through effective publicity and self-marketing to increase display opportunities, attract consumers, and cultivate loyalty. Second, improve the professionalism of beauty anchors. With the development of the beauty field, anchors need to develop unique skills to enhance fan retention and influence. Professionalism affects perceived value and purchase intention, so anchors should continuously improve their professionalism in beauty. Third, strictly control the quality of content and objective delivery of information. Live content directly affects consumers' willingness to buy, even if the anchor is popular, if the content is boring or the goods are uninteresting, it will still lead to consumers not wanting to buy. Douyin platform should also more strictly control the quality of live content.

## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Ma H, Mei H, 2019, Empirical Research on the Decision-Making Influence Factors in Consumer Purchase Behavior of Webcasting Platform. *Proceedings of the Twelfth International Conference on Management Science and Engineering Management*.
- [2] Zheng CC, 2019, Research on the Influencing Factors of Consumers' Impulsive Buying Behavior based on Online Shopping Live Streaming Context, thesis, Anhui University.
- [3] Zhou YS, Tang SH, Xiao J, 2021, Research on Consumer Purchase Intention of E-commerce Live Streaming Platform — Based on the Perspective of Social Proximity. *Contemporary Economic Management*, 43(1): 40–47.
- [4] Liu Y, Li Q, Yin M, 2020, Research on the Impact of Webcast Shopping Features on Consumer Purchasing Behavior. *Soft Science*, 34(6):108–114.
- [5] Mayer RC, Davis JH, Schoorman FD, 1995, An Integrative Model of Organizational Trust. *Academy of Management Review*, 20(3): 709–734.
- [6] Xu JX, 2018, Analysis of Factors Influencing College Students' Consumption Trust in M-Commerce Environment. *Journal of Hubei University of Economics (Social Science Edition)*, 15(11): 32–35
- [7] McAllister DJ, 1995, Affect and Cognition based Trust as Foundations for Interpersonal Cooperation in Organizations. *Academy of Management Journal*, 38(1): 24–59
- [8] Das TK, Teng BS, 1998, Between Trust and Control: Developing Confidence in Partner Cooperation in Alliance. *Academy of Management Review*, 23(3): 419–512
- [9] Zeithaml VA, 1988, Consumer Perception of Price Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 1988(7): 2–22.
- [10] Sheth JN, Newxnan BL, Gross BL, Why We Buy What We Buy: a Theory of Consumption Values. *Journal of Business Research*, 1991(2): 159–170.
- [11] Lee ZW, 2017, What Factors Influence Consumers' Online Purchase Decisions? — The Driving Role of Customer Perceived Value. *Management Review*, 29(8): 136–146.
- [12] Fishbein M, Ajzen I, 1975, *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Addison-Wesley, Massachusetts.
- [13] Liu SS, 2018, Exploration of the Communication Mode of Opinion Leaders in Short Video APPs —Taking Douyin as an Example. *Media Forum*, 1(23): 37–38.
- [14] Chen H, Zhang S, Shao B, 2022, How do Interpersonal Interaction Factors Affect Buyers' Purchase Intention in Live Stream Shopping? The Mediating Effects of Social Media. *Internet Research*, 32(1): 335–361.
- [15] Li G, Jiang Y, Chang L, 2022, The Influence Mechanism of Interaction Quality in Live Streaming Shopping on Consumers' Impulsive Purchase Intention. *Frontiers in Psychology*, 2022(13): 918196.

### Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.