

Study on Impulse Shopping Intention of Consumers in Live Broadcast Rooms based on Anchor Factors and Perceived Value

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Abstract:

In recent years, while live-stream e-commerce has experienced rapid growth, it faces dual challenges of high impulse purchase rates (65% unplanned consumption) and high return rates (28%-32%), along with trust crises caused by influencers' exaggerated promotions. This study constructs a model based on the S-O-R theory, using influencer professionalism (knowledge and experience) and emotional attachment (audience emotional connection) as stimulating factors (S), perceived value (functional and hedonic values) as mediating factors (O), and impulse shopping intention as the response (R). Empirical analysis of 171 valid questionnaires reveals that both influencer professionalism and emotional attachment significantly positively influence perceived value ($\beta=0.324$ and 0.532 , $p<0.001$), thereby enhancing impulse shopping intention. Notably, emotional attachment requires complete mediation through perceived value, whereas professionalism provides partial mediation. The research not only validates the decisive role of "human" elements in live-streaming but also offers theoretical support for enterprises to optimize influencer selection, enhance live-stream atmosphere, and improve platform algorithm design. Future studies could further validate the universality of these conclusions through larger sample sizes.

Keywords: Anchor professionalism; emotional attachment; perceived value; impulse shopping intention; S-O-R theory.

1. Introduction

This study examines the challenges faced by live commerce platforms in the context of rapid industry growth, particularly the conflict between Quest-Mo-

bile's high impulse purchase rate (65% unplanned purchases) and its elevated return rate (28%-32%), along with trust crises caused by exaggerated promotional claims by livestream hosts [1]. The research holds significant practical implications for optimiz-

ing livestream strategies, talent selection processes, and platform governance. It also fills a critical gap in applying S-O-R theory to dynamic livestream scenarios, offering a fresh perspective for consumer behavior studies

This study investigates how the two core traits of professional competence and affective attachment in live-streaming hosts influence consumers' impulse shopping intention through functional value and hedonic value. Using a structured questionnaire survey method, we designed 14 items based on the Likert 5-point scale to collect 171 valid samples. SPSS was employed for reliability/validity testing, factor analysis, and multiple regression analysis. This approach enables precise quantification of variable relationships and validates mediation models. The research aims to reveal the psychological pathway through which host characteristics drive consumption decisions, providing theoretical foundations for enhancing host capabilities, optimizing corporate marketing strategies, and improving industry regulation. To this end, we constructed an "S (Host Factors) -O (Perceived Value) -R (Impulse Intention)" model. Through empirical analysis, hypotheses were verified, ultimately leading to targeted recommendations.

In recent years, e-commerce has gradually become a crucial shopping method due to its immersive and highly interactive nature. Compared with traditional text-image or short video advertisements, the real-time interaction between live-streaming hosts and consumers significantly boosts impulse buying tendencies. Research indicates that factors such as hosts' professional expertise, emotional engagement, and audience interactions may serve as key drivers for purchasing decisions [2]. To investigate how hosts influence consumer impulse buying intentions, this study employs the "Stimulus-Organism-Response" (S-O-R) theoretical framework proposed by Mehrabian and Russell, which emphasizes how external factors affect individual psychological states to trigger behavioral responses [3]. In our analysis, hosts' professional attributes (S) and consumers' perceived value during live-streaming experiences (O) are considered stimulus factors, with the final outcome being impulse buying intention (R)[4].

2. Literature Review

In live shopping, consumers spend most of their time in a situation of information asymmetry and emotional excitement. Studies have shown that the interactivity in live broadcasting and the affinity of hosts can enhance consumers' trust and participation, thus stimulating impulse shopping [5]. In addition, when the anchor demonstrates certain professional ability, such as a detailed introduction of the product and display of the use of the product, the audience will be more likely to generate trust in the product introduced by the anchor.

In addition, the emotional bond between the anchor and the audience also has a certain impact on impulse consumption. It can be concluded that anchor professionalism and emotional attachment are the two main stimulus variables in this study.

Combined with the above analysis, this paper proposes the following four research hypotheses:

Hypothesis 1: The stronger the professionalism of the anchor is, the higher the impulse shopping intention of consumers will be [6];

Hypothesis 2: The stronger the emotional attachment consumers have to the anchor, the higher their impulse shopping intention will be.

Hypothesis 3: The influence of anchor professionalism on impulse shopping intention will be mediated by "functional value";

Hypothesis 4: The impact of anchor emotional attachment on impulse shopping intention will be mediated by hedonic value.

The purpose of these hypotheses is to explore how the characteristics of anchors affect consumers' perception and then stimulate consumers' impulsive consumption behavior

Based on the S-O-R theoretical framework, the model constructed in this paper is divided into three parts

Stimulus (S): anchor professionalism and anchor emotional attachment.

Organism (O): perceived value of consumers, including functional value and hedonic value.

Response (R): consumers' impulse buying intention.

Through this model, we try to understand how hosts affect consumer psychology, so as to provide a theoretical basis for enterprises to select hosts or plan live broadcast content, and also provide a reference for subsequent algorithm optimization and systematic recommendation of e-commerce platforms.

3. Methods of Research

3.1 Research Model

The theoretical model of this study is based on the S-O-R model, and the core path is "anchor traits - perceived value - impulse shopping intention." Through this construction model, we can clearly understand the role of anchors in guiding consumption and decision-making, especially in generating purchase impulses by influencing consumers' subjective perception.

3.2 Variable Setting

Three types of variables were designed in this study:

Independent variables: anchor professionalism and anchor emotional attachment;

Mediating variables: perceived value (specifically including functional value and hedonic value);

Dependent variable: impulse buying intention.

The professionalism of the anchor is mainly reflected in the clear understanding, expression and logical ability of the anchor for the commodity; Emotional attachment is reflected in the audience's love for the anchor and other emotional connections. Perceived value is divided into functional value and hedonic value, with functional value focusing on the practical value and cost performance of products, while hedonic value is related to the pleasure of watching live broadcasts and the atmosphere created by the anchor [7].

3.3 Questionnaire Design and Measurement Tools

In order to collect the experimental data, this study uses a structured questionnaire, using the five-point Likert scale (1= strongly disagree, 5= strongly agree), and the topic options refer to mature scales and are adjusted according to the e-commerce live broadcast. The questionnaire has a total of 14 questions, covering three types of variables: anchor characteristics, perceived value, and impulse shopping intention.

3.4 Data Sources and Sample Characteristics

This study targeted consumers with experience in live-stream shopping. A total of 171 questionnaires were collected, with 171 valid samples. Among these, 56.73% were male and 43.27% were female; the primary occupation was student, accounting for 31.58%; and the age group was primarily concentrated between 18 and 23 years old, accounting for 28.07%. Data analysis was conducted using SPSS software, employing the following methods: first, descriptive statistical analysis was performed to present the sample structure; second, reliability analysis (Cronbach's α) was conducted to validate the internal con-

sistency of each variable, with all α values exceeding 0.86, indicating good reliability; Third, validity analysis (KMO = 0.963, Bartlett's sphericity test $p < 0.001$) confirmed the suitability of the data for factor analysis; subsequently, principal component analysis was used to extract four dimensions, explaining a cumulative variance of 74.87%; finally, multiple regression analysis was employed to explore the direct and indirect effects of live streamer factors on perceived value and impulse purchasing intent and to further test the existence of mediating effects.

4. Data Analysis and Results

4.1 Descriptive Statistics

A frequency analysis was conducted on the personal basic information section of the questionnaire. The total number of questionnaires was 171. In terms of gender distribution, males accounted for 56.73%, and females accounted for 43.27%. Occupational distribution showed that students were the most numerous, accounting for 31.58%, followed by office workers at 25.73%. In terms of age, the 18–23 age group had the highest proportion at 28.07%. The questionnaire covered research subjects across multiple age groups.

4.2 Reliability Testing

This study used Cronbach's alpha to test reliability. A higher Cronbach's alpha indicates higher reliability of the scale. As shown in Table 1, the α coefficients for perceived value, host professionalism, host emotional attachment, and impulse shopping intention are 0.908, 0.888, 0.901, and 0.860, respectively. All α coefficients exceed 0.7, indicating good consistency among the items within each dimension. This suggests that the scale has good reliability and the data are reliable.

Table 1. Reliability statistics for each dimension

Dimension	Cronbach's Alpha coefficient
Perceived value	0.908
Broadcaster professionalism	0.888
Broadcaster emotional attachment	0.901
Impulse buying intention	0.860

4.3 Factor Analysis

This paper uses KMO and Bartlett's sphericity test to examine the content reliability of the scale. Factor analysis is used to conduct information condensation research on the questionnaire. First, the suitability of the research

data for factor analysis is analyzed. As shown in Table 2, KMO is 0.963, greater than 0.6, and $p < 0.05$, which meets the prerequisites for factor analysis, indicating that the research data is suitable for factor analysis. According to the initial eigenvalue table in Table 3, the eigenvalues of the first three factors are greater than 1, indicating that these

three factors can explain most of the variance.

Table 2. KMO and Bartlett's test

KMO Value		0.963
Bartlett sphericity test	approximate chi-square	5175.357
	<i>df</i>	253
	<i>p</i> Value	0.000

Table 3. Total variance explained

Element	Initial eigenvalues			Extract load squares			Rotational load squares			
	Total	variance percent-age	Cumula-tive %	Total	variance percent-age	Cumula-tive %	Total	variance percent-age		
1	7.886	56.327	56.327	7.886	56.327	56.327	3.084	22.030		22.030
2	1.165	8.322	64.649	1.165	8.322	64.649	2.611	18.647		40.677
3	755	5.393	70.042	755	5.393	70.042	2.558	18.274		58.951
4	676	4.831	74.873	676	4.831	74.873	2.229	15.922		74.873
5	574	4.099	78.972							
6	524	3.744	82.716							
7	474	3.386	86.102							
8	411	2.935	89.037							
9	366	2.618	91.655							
10	314	2.241	93.896							
11	275	1.963	95.859							
12	217	1.553	97.413							
13	186	1.328	98.740							
14	176	1.260	100.000							

4.4 Regression Analysis

Table 4 shows that the adjusted R-squared is large, indicating that the model has strong explanatory power. Table 5 reflects the overall significance of the model, which is less than 0.05, indicating that it is highly significant.

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Standard estimation error
1	.786 ^a	.618	.611	.59523

a. Predictive variables: (constant), anchor professionalism, emotional attachment

Table 5. ANOVA^a

	Model	Sum of squares	Degrees of freedom	Mean square	F	Significance
1	Regression	61.242	2	30.621	86.427	000 ^b
	Residual	37.910	107	354		
	Total	99.153	109			

a. Dependent variable: perceived value

ism, emotional attachment

b. Predictive variables: (constant), anchor professional-

Table 6. Coefficient α

	Model B	unstandardised coefficient		standardisation coefficient	t	Significance
		standard error	Beta			
1	(Consant)	582	245		2.372	019
	Emotional attachment	544	082	532	6.667	000
	Professionalism of anchors	312	077	324	4.063	000

a. Dependent variable: perceived value

Table 6 shows that both emotional attachment and host professionalism have a significant positive impact on consumers' perceived value, with emotional attachment having a greater impact.

Hypotheses 1, 2, 3, and 4 were all validated.

Hypothesis 1: Host professionalism has a positive impact on consumers' impulse buying intentions.

Hypothesis 2: Host emotional attachment has a positive impact on consumers' impulse buying intentions.

Hypothesis 3: Perceived value plays a positive mediating role in the positive impact of streamer professionalism on consumers' impulse purchasing intentions.

Hypothesis 4: Perceived value plays a positive mediating role in the positive impact of streamer emotional attachment on consumers' impulse purchasing intentions.

5. Discussion

This study, set against the backdrop of live-streaming e-commerce, systematically explores how streamer professionalism and emotional attachment influence consumers' impulsive purchase intentions through perceived value, based on the Stimulus-Organism-Response (S-O-R) theoretical model. Through empirical analysis of 171 valid questionnaire responses, the following key conclusions were drawn.

This study delves into the mechanisms of streamer-related factors in live-streaming shopping scenarios, revealing that both streamer professionalism and consumers' emotional attachment to the streamer significantly and positively influence perceived value, highlighting the central role of the "human" factor in live-streaming e-commerce.

Specifically, streamer professionalism not only enhances consumers' trust and understanding of product information but also improves their perception of the functional value of products. Meanwhile, the emotional bond established between the streamer and the audience significantly enhances consumers' hedonic value experience by fostering emotional resonance and psychological attachment. Further mediation analysis indicates that perceived value plays a crucial mediating role in how streamer-related factors influence impulsive purchasing behavior. Among these, streamer professionalism exhibits a partial mediation effect through perceived value, suggesting that its impact on purchasing decisions is not solely mediated by perceived value but may also involve other indirect mechanisms. In contrast, streamer emotional attachment exerts its influence entirely through perceived value, indicating that perceived value is the primary pathway driving purchasing behavior. These findings deepen our understanding of the dual-dimensional structure of perceived value (functional and hedonic) in live-streaming contexts and provide a theoretical foundation for future research.

Moreover, this study carries significant practical implications. On one hand, the results offer theoretical support for streamers to enhance their influence and build long-term trust relationships with consumers, helping them optimize their communication strategies and interaction techniques. On the other hand, the study provides businesses with scientific evaluation criteria and strategic guidance for streamer selection and live-streaming scenario design, particularly in aligning brand positioning with streamer personas. Additionally, the findings can serve as empirical support for live-streaming platforms in optimizing algorithm recommendation mechanisms, constructing user profiles, and formulating content regulation policies,

thereby contributing to the healthy and standardized development of the live-streaming e-commerce industry.

6. Conclusion

This study has made positive progress at both theoretical and empirical levels, filling the gap in the application of the S-O-R (Stimulus-Organism-Response) theory in the highly dynamic and interactive environment of live-streaming e-commerce and expanding the theory's applicability in digital media and consumer behavior research. By introducing streamer professionalism and emotional attachment as key stimulus variables and validating the mediating role of perceived value in impulsive purchasing decisions, the study further deepens the understanding of consumer psychology and behavioral decision-making mechanisms. At the same time, the study addresses the urgent need for theoretical guidance in the live-streaming e-commerce field, establishing a robust bridge between academic research and industry practice.

However, this study's sample primarily focuses on specific platforms and demographics, posing limitations in representativeness and restricting the generalizability of the conclusions. Future research could expand sample diversity by including consumers from different regions, age groups, and cultural backgrounds. Additionally, methods such as scenario simulation experiments and longitudinal research designs could be employed to enhance external validity and causal inference capabilities. Furthermore, variables such as algorithm recommendation mechanisms and social interaction intensity could be introduced to explore the comprehensive effects of multi-dimensional interactive factors on consumers' psychological states and behavioral responses in live-streaming contexts. Such

efforts would continue to advance the theoretical development and practical innovation of the S-O-R theory in emerging consumption environments.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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