

From Anchor to Audience: The Influence Mechanism of Consumer Purchase Intention in Tourism E-commerce live Streaming

Lanlan Zhang¹, Pengrui Li²

¹Cheongju University, Cheongju-si, Korea, 28503;

²Yan'an University, Yan'an, Shaanxi, China, 716000

ABSTRACT

Tourism live streaming, as an emerging marketing strategy, has significantly enhanced consumers' shopping experiences, providing new growth opportunities and innovative perspectives for tourism enterprises and the broader industry. This study, based on survey data from 377 consumers of tourism e-commerce live streaming and grounded in the S-O-R theory, investigates the impact of live streaming features on consumers' purchase intentions through the lenses of flow experience and perceived trust. The research model was tested using structural equation modeling. The findings revealed that streamer characteristics not only directly influence viewers' purchase intentions but also indirectly affect them through flow experience and perceived trust. Similarly, platform characteristics impact purchase intentions indirectly via flow experience and perceived trust. In contrast, product characteristics exert a direct influence on purchase intentions without mediation. Furthermore, flow experience significantly enhances perceived trust. This study contributes to the theoretical understanding of tourism e-commerce live streaming and offers valuable managerial insights for tourism enterprises and live streamers.

KEYWORDS

Digital economy; Travel e-commerce; People-cargo-field; SOR theory

1 Introduction

With the rapid development of the "Internet Plus" era, self-media marketing has emerged as a pivotal marketing strategy. Tourism enterprises have astutely capitalized on this opportunity by utilizing internet platforms and live-streaming technology to vividly showcase diverse aspects of tourism products and services, such as "food, accommodation, transportation, travel, shopping, and entertainment." Through the professional presentations of streamers, these enterprises aim to attract viewers and encourage purchases^[1]. However, existing research predominantly focuses on aspects such as service scenario creation, the influence of streamers, and the precise delivery of information. The complexity of consumer decision-making processes and the dynamic relationships among "people, goods, and fields" within the context of tourism e-commerce live streaming have received insufficient attention. This lack of theoretical analysis constrains the development of frameworks in this field and limits the practical potential of e-commerce live streaming. To address these gaps, this study constructs a "people-goods-fields" logical framework to systematically examine the interactive mechanisms among key elements in tourism e-commerce live streaming and to elucidate how these factors shape consumer purchase intentions.

The Stimulus-Organism-Response (SOR) external stimuli (S) influence a person's cognitive and emotional states (O), which subsequently lead to changes in their behavioral intentions and psychological responses (R) (Su et al., 2017)^[2]. Stimuli typically refers to external factors that affect an individual's cognition and emotions. While the SOR model has been applied across various disciplines, research on its application to audience behavior in tourism e-commerce live streaming is still limited. For example, Liang et al. (2024), using the SOR framework in conjunction with presence theory, investigated how specific features of tourism live streaming enhance both physical and social presence, thereby increasing impulsive travel intentions^[3]. Similarly, Liu et al. (2022) explored how interactivity, authenticity, and entertainment in live streaming affect viewers' purchase intentions through the mediating roles of flow experience and trust, using the SOR framework as a foundation^[4]. Additionally, Ye et al. (2022) examined the effects of visual appeal and interactivity in tourism live streaming on consumer engagement during the COVID-19 pandemic, with spatial presence and flow experience serving as key mediators within the SOR framework^[5].

2 Research Hypothesis

2.1 People-Streamer Professionalism Impacts on mind-flow experience, perceived trust, and viewers' willingness to buy

During live streams, Streamers rely on their deep knowledge to offer comprehensive and detailed presentations of tourism Goods, while also providing objective responses to audience questions submitted through live comments. This is

a critical factor in influencing viewers' purchasing decisions. According to Wang et al. (2022), a Streamer's expertise and control over product information can significantly enhance consumer trust, thereby boosting their purchasing intent^[6]. A tourism Streamer with a high level of professionalism can present detailed product information concisely and efficiently, reducing the need for viewers to seek additional information through other channels. This streamlined process not only heightens the viewer's satisfaction but also encourages a flow state. Moreover, a Streamer's professionalism fosters greater trust from the audience in both the Streamer and the Goods being promoted. Viewers are more inclined to trust the information provided by Streamers with strong expertise and are more likely to follow his or her recommendations^[7]. In summary, the professionalism of tourism Streamers in e-commerce live streaming positively affects viewers' flow experience, perceived trust, and purchase intentions. Based on these findings, the following hypotheses are proposed:

- H1a: The professionalism of the Streamer has a positive impact on the audience's flow experience.
- H1b: The professionalism of the Streamer has a positive impact on the audience's perceived trust.
- H1c: The professionalism of the Streamer has a positive impact on the audience's purchase intentions.

2.2 Goods-Information authenticity The impact on flow experience, perceived trust, and audience purchase intention

In the digital economy, the "product" component in tourism e-commerce live streaming refers to the authenticity of the product information. As viewers cannot physically experience or interact with tourism Goods, authenticity has emerged as a crucial aspect of the tourism experience, leading to heightened expectations for reliable product information. Li et al. (2021) found that when Streamers accurately portray goods and offer credible evaluations and recommendations, it significantly boosts the audience's engagement in the live stream^[8]. Liu et al. (2022) further noted that authentic tourism e-commerce live streams effectively immerse viewers in the experience, enhancing situational involvement and eliciting positive emotional responses^[9]. Additionally, Liu et al. (2021) highlighted that authenticity is fundamental in tourism live streaming, as it not only increases audience trust and engagement but also significantly enhances purchase intention^[10]. Based on these insights, the following hypotheses are proposed:

- H2a: The authenticity of product information positively impacts the audience's flow experience.
- H2b: The authenticity of product information positively impacts the audience's perceived trust.
- H2c: The authenticity of product information positively impacts the audience's purchase intention.

2.3 Fields-Entertainment atmosphereThe impact on flow experience, perceived trust, and audience purchase intention

In the digital economy, the "Fields" of tourism e-commerce live streaming refers to the entertainment atmosphere cultivated within the live broadcast environment. During e-commerce live streaming, Streamers utilize a mix of elements—such as language, attire, and performance—alongside interactive platform features (e.g., regular giveaways, virtual red envelopes, and likes) to foster a lighthearted and enjoyable atmosphere. This atmosphere not only heightens audience engagement but also enhances perceived trust, catering to the emotional and psychological needs of viewers, which ultimately stimulates their purchasing behavior^[11]. Li and Peng (2021) noted that when individuals derive sufficient enjoyment from an activity, they often experience flow, a mental state marked by deep enjoyment and engagement^[12]. Therefore, this study suggests that the entertainment atmosphere in tourism e-commerce live streaming plays a pivotal role in driving the audience's flow experience, perceived trust, and purchase intention. Accordingly, the following hypotheses are proposed:

- H3a: The entertainment atmosphere positively affects the audience's flow experience.
- H3b: The entertainment atmosphere positively affects the audience's perceived trust.
- H3c: The entertainment atmosphere positively affects the audience's purchase intention.

2.4 The effect of mind-flow experiences on perceived trust

In the context of live streaming, flow experience refers to the state where individuals become entirely absorbed in an activity, dedicating their mental energy and simultaneously experiencing a high degree of pleasure and satisfaction. Perceived trust, on the other hand, represents the trust that viewers develop towards a product based on the Streamer's demonstrations, information delivery, and interaction in response to audience questions. Zhou (2013) emphasized the strong relationship between flow experience and perceived trust, noting that the sense of enjoyment experienced during shopping can trigger flow, which in turn enhances perceived trust^[13]. By gaining deeper insight into the tourism product through the live stream, viewers' perceived trust grows stronger, which reduces the psychological barrier to purchasing and ultimately boosts their willingness to buy. Consequently, the following hypothesis is proposed:

H4: Flow experience has a positive impact on perceived trust.

2.5 Mediating effects of mind-flow experience, perceived trust

Existing research has shown that impulse buying behavior in e-commerce live streams is shaped by factors such as product characteristics, social presence, platform features, and Streamer traits. At the same time, perceived trust, flow experience, and emotional responses act as key mediating variables^[14]. According to Liu Lingyu and Huang Longjun (2022), improving viewers' perceived trust, flow experience, and awareness of fair transactions while minimizing perceived risks can significantly boost their purchasing intentions^[15]. Moreover, Wei Jianfeng et al. (2022) observed that flow experience and perceived trust play a pivotal mediating role between Streamer attributes and the audience's impulse to buy^[7]. Consequently, it can be posited that the stronger the audience's trust in the tourism e-commerce live stream, the more likely they are to make a purchase. Based on this, the following hypotheses are put forward:

H5: Flow experience has a positive impact on the purchase intentions of tourism e-commerce live stream viewers.

H5a: Flow experience mediates the relationship between Streamer expertise and purchase intention.

H5b: Flow experience mediates the relationship between product information authenticity and purchase intention.

H5c: Flow experience mediates the relationship between the entertainment atmosphere of the live stream and purchase intention.

H6: Perceived trust positively impacts the purchase intentions of tourism e-commerce livestream viewers.

H6a: Perceived trust mediates the relationship between Streamer expertise and purchase intention.

H6b: Perceived trust mediates the relationship between product authenticity and purchase intention.

H6c: Perceived trust mediates the relationship between the entertainment atmosphere of the live stream and purchase intention.

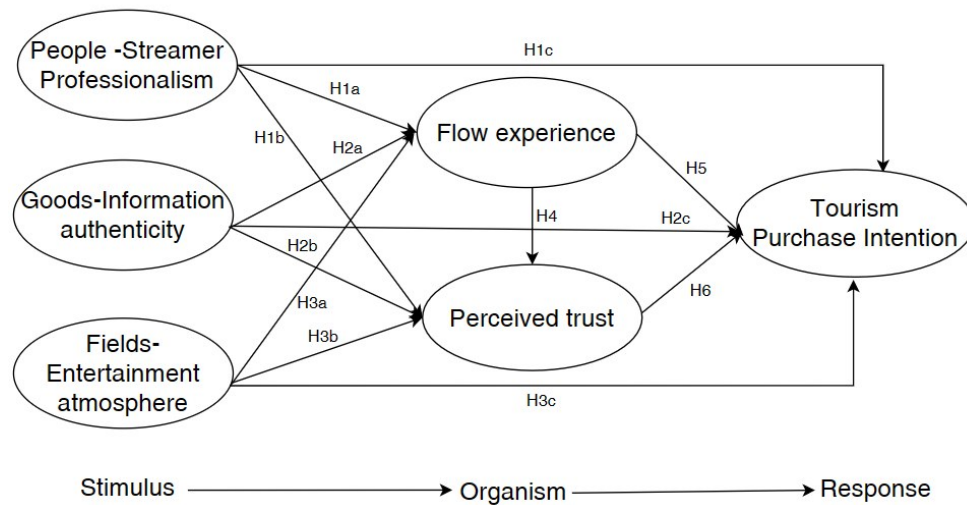


Figure 1 The impact of live broadcast of travel e-commerce on viewers' purchase intention in the digital economy: a log frame model based on the People-Goods-Fields explanation

2.6 Questionnaire Design

The survey questionnaire consisted of two parts: (1) demographic information (e.g., gender, age, education level) and (2) six core variables: streamer professionalism, information authenticity, entertainment atmosphere, flow experience, perceived trust, and purchase intention. The measurement scales were adapted from authoritative studies: streamer professionalism from Liu Juan (2016) and Meng Fei (2012); information authenticity and purchase intention from Liu et al. (2022); entertainment atmosphere from Chen (2018); flow experience from Richard et al. (2016); and perceived trust from Zhou Yongsheng et al. (2020) and Chang (2008). All items were measured using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). A pilot study with 50 respondents was conducted to refine the questionnaire. The final version was distributed to individuals who had recently watched e-commerce live streams via WeChat and QQ using Questionnaire Star links, resulting in 428 responses, of which 377 were valid, yielding an effective response rate of 88.08%.

The demographic profile of the respondents reveals a nearly balanced gender distribution, with 51.99% being male and 48.01% female. Educational attainment varies, with 15.12% having a Junior High School education or below, 32.63% completing Vocational School or High School, 35.54% holding an Associate Degree or Bachelor's Degree, and 16.71%

achieving a Graduate Degree or higher. Age-wise, 5.04% are under 18 years old, 20.95% fall within the 18–25 age range, 45.62% are aged 26–40, and 28.38% are over 41 years old. In terms of viewing behavior, the frequency of watching travel live streams per week shows that 43.24% watch less than 2 times, 48.54% watch 2–4 times, 6.63% watch 5–7 times, and only 1.59% watch more than 7 times. Regarding monthly disposable income, 11.94% earn below 2,000 RMB, 28.91% earn between 2,000 and 4,000 RMB, 34.51% earn between 4,001 and 6,000 RMB, and 22.02% earn above 6,000 RMB. This comprehensive demographic data highlights the diversity of the respondents in terms of gender, education, age, viewing habits, and income levels.

3 Analysis of results

3.1 reliability analysis

The reliability and validity of the scale were rigorously evaluated. Cronbach's α coefficients for streamer professionalism (0.832), information authenticity (0.820), entertainment atmosphere (0.825), flow experience (0.925), perceived trust (0.900), and purchase intention (0.834) all exceeded the 0.7 threshold, indicating strong reliability. Validity was assessed using confirmatory factor analysis (CFA), with a chi-square to degrees of freedom ratio (χ^2/df) of 1.643, below the acceptable upper limit of 3, and indices such as GFI, IFI, TLI, and CFI all above 0.90. The RMSEA value was 0.041, below the 0.08 threshold, confirming good model fit. The AVE values ranged from 0.6153 to 0.7569, and CR values ranged from 0.8263 to 0.9253, satisfying the criteria of $AVE > 0.5$ and $CR > 0.7$. Additionally, the square root of the AVE for each variable exceeded the correlation coefficients with other variables, confirming acceptable convergent and discriminant validity. These results demonstrate that the scale possesses strong reliability and validity.

As shown in the discriminant validity table, the absolute values of the correlation coefficients between any two factors are all smaller than the square root of the AVE for the respective factors. This demonstrates that the factors are sufficiently distinct, affirming the reliability of the scale's discriminant validity.

3.2 AMOS common method bias

Confirmatory factor analysis was conducted to assess common method bias across all self-reported items. The results revealed that $\chi^2/df = 13.995$, $\chi^2/df = 13.995$, CFI = 0.507, GFI = 0.556, AGFI = 0.451, NFI = 0.490, and RMSEA = 0.186, indicating that no significant common method bias was present. As shown in the table below, six factors have eigenvalues greater than 1, accounting for a cumulative variance contribution of 77.143%. Of particular note is that the variance explained by the first factor is 36.998%, which is less than the 40% threshold, indicating that common method bias is not a concern.

3.3 Reliability and Validity Analysis

The reliability and validity of the measurement scales were rigorously assessed. Cronbach's α coefficients for anchor characteristics (0.832), product characteristics (0.820), platform characteristics (0.825), flow experience (0.925), perceived trust (0.900), and purchase intentions (0.834) all exceeded the accepted threshold of 0.7, demonstrating strong reliability. Validity was confirmed through confirmatory factor analysis (CFA), with $\chi^2/df = 1.643$ (< 3), GFI, IFI, TLI, and CFI indices > 0.90 , and RMSEA = 0.041 (< 0.08), indicating a good model fit. AVE values ranged from 0.6153 to 0.7569, and CR values ranged from 0.8263 to 0.9253, meeting the standards of $AVE > 0.5$ and $CR > 0.7$. The square roots of the AVE values exceeded inter-variable correlations, affirming acceptable convergent and discriminant validity. These results confirm the scales' robust reliability and validity.

4 Conclusions and discussion of the study

This study, grounded in the S-O-R model and employing the "person-product-place" framework, examines the impact of flow experience and perceived trust on the purchasing intentions of viewers in tourism e-commerce live streaming. The findings indicate that streamer professionalism and the entertainment atmosphere significantly enhance viewers' flow experience, whereas the authenticity of product information does not have a notable effect (H2a not supported). This suggests that achieving flow experience requires a deeper level of immersion. Streamer professionalism and product information authenticity positively influence purchase intentions, while the entertainment atmosphere does not (H3c not supported), implying that viewers primarily seeking entertainment are less likely to convert their engagement into purchase behavior. Flow experience mediates the relationships between streamer professionalism, entertainment atmosphere, and purchase intentions but plays a weaker mediating role in the pathway involving information

authenticity (H4b not supported). Perceived trust fully mediates the relationships between "person," "product," and "place" and purchase intentions, highlighting its critical role in purchasing decisions.

Based on these findings, the study offers the following recommendations: enhance streamer professionalism through systematic training to improve their expertise; utilize digital technologies to present product information authentically and comprehensively; and create an engaging entertainment atmosphere through innovative interactions to attract and sustain audience attention while increasing their engagement. These strategies can effectively enhance viewers' purchase intentions, foster deeper integration between online and offline channels, and provide strong support for tourism enterprises' marketing initiatives.

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