

# The Impact of Social Presence on Consumers' Purchase Intentions: The Mediating Role of Emotional Perception

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**Abstract.** In 2022, China's digital economy reached approximately 50 trillion-yuan, accounting for over 40% of GDP. With the rapid growth of the digital economy, various sectors of the local life services industry have maintained steady expansion, with projections indicating that the industry will exceed 2.5 trillion yuan by 2025. Since 2023, TikTok has leveraged the traffic and user engagement of short videos to enter the local life services market, forming a three-way competitive landscape with Meituan and Ele.me. Based on social presence theory, this research performs an empirical investigation of the impact of short video platforms on the local life services sector. The study formulates research hypotheses and models, designs a questionnaire and scales, it utilises descriptive statistics, reliability analysis, validity analysis, correlation analysis, and regression analysis. The findings indicate that short videos have gained traction in local life services due to their alignment with service scenarios and adherence to social presence theory, which enhances consumer perceptions of usefulness and trust, ultimately positively impacting purchase intentions.

**Keywords:** Short videos; Marketing; Social Presence; Local Life Services.

## 1. Introduction

This study explores the opportunities emerging in the local life services sector and addresses the lack of theoretical research on local business models. Grounded in social presence theory and incorporating emotional perception as a mediating effect, this study investigates the mechanisms influencing consumer purchase intentions in the local life services market. The research is significant for providing guidance to businesses on short video promotional strategies and for fostering a healthy and rational consumption model for consumers. Specifically, the study examines how promotional short videos on local life platforms affect consumer purchase intentions, emphasising the significance of social presence in this situation. The research methodology includes literature review, survey-based research, data analysis, and empirical analysis. This approach facilitates an accurate understanding of consumer buying inclinations and contributes to the study of social presence. The ultimate research objectives are twofold: to establish the correlation between social presence and purchasing intention, and to assess whether emotional perception serves as a mediating factor. To achieve these objectives, the study conducts questionnaire design and data collection. Subsequently, descriptive statistical analysis, reliability and validity assessments, correlation analysis, and regression analysis were conducted prior to formulating findings.

## 2. Literature Review

### 2.1. Social Presence

Social presence refers to the extent to which individuals perceive the presence of others during mediated communication, which affects their interpersonal interactions [1]. Initially applied in communication theory, this concept has expanded to e-commerce, digital marketing, and online interactions.

With the in-depth exploration of social presence, scholars have recognized that a single-dimensional measurement fails to effectively capture an individual's authentic emotional experience. Consequently, research has shifted towards a multidimensional framework to provide a more accurate depiction of psychological states. Xie Ying et al. categorized social presence into co-presence,

communicative presence, and emotional presence. Building upon previous studies, they defined social presence in a live-streaming context as the interactivity between consumers and other participants in the streaming environment, as well as the salience of interpersonal relationships [2].

Numerous studies on social presence have revealed a strong correlation between social presence and online trust. For instance, Chinese scholars have found that online interactions with merchants can enhance consumers' perceived social presence, which in turn increases their trust in the integrity and benevolence of B2C e-commerce platforms [3]. Lu Hongbing, in the context of B2C online shopping, defined social presence as consumers' awareness of other participants during online transactions, which is accompanied by affective and cognitive alignment [4].

This study, based on the concept of social presence, examines the influence of brief video content on consumers' purchasing intentions. On one hand, it provides strategic direction for businesses in producing and deploying promotional short videos. On the other hand, by analyzing the factors influencing purchasing decisions, it helps consumers better assess the rationality of their consumption needs. Ultimately, this research contributes to fostering a more sustainable and rational local consumption model.

## 2.2. Emotional Perception

This study utilizes emotional perception to represent consumers' emotional responses and investigates how social presence affects their purchase intentions in the context of local life services. Emotional perception is divided into perceived usefulness and perceived trust, both of which act as mediating variables in the research framework.

Emotional perception plays a crucial role in shaping consumer purchase intentions. Eroglu et al. found that in an online shopping environment, emotional perception positively influences consumer satisfaction and purchase intention [5]. Similarly, Wei Jingqiu et al. confirmed that in a short video marketing context, emotional perception has a positive impact on consumers' willingness to purchase books [6].

In this study, emotional perception is further classified into perceived usefulness—the extent to which customers perceive the information presented in short videos as beneficial—and perceived trust—The degree to which consumers see the content as authentic and reliable.

## 3. Research Methodology

This research used a survey-based methodology, combining data analysis and empirical analysis to examine how promotional videos on short video platforms within local life service channels influence consumer purchase intentions. The study is based on the S-O-R (Stimulus-Organism-Response) theoretical framework and utilizes a five-item social presence scale, which includes:

- I . Feeling a feeling of human connection on the website;
- II . Experiencing a sense of privacy on the website;
- III. Perceiving a social connection on the website;
- IV. Sensing human warmth on the website;
- V . Detecting human sensitivity on the website (Gefen & Straub, 2004).

The questionnaire was designed based on this scale, as well as the social presence measurement scale proposed by Zhao Hongxia et al. The survey was distributed using Wenjuanxing, an online questionnaire platform, facilitating efficient data collection and subsequent analysis [3].

To ensure the accuracy and reliability of respondents' answers, short video images were carefully selected and embedded within the questionnaire. This approach allowed respondents who had not recently encountered short video advertisements to watch the content directly within the survey and provide responses based on their experience.

Finally, data collected through the survey was analyzed using SPSS 24.0, employing various statistical methods to derive the study's final conclusions.

### 3.1. Research Model

The S-O-R model (Stimulus-Organism-Response model, as shown in Figure 1) is frequently used in modern research to study consumer shopping behavior. This model establishes the relationship between external stimuli, internal perception, and consumer behavior.

On short video platforms, social presence is primarily reflected in users' cognitive and emotional perceptions, both of which have a direct impact on their behavioral intentions within virtual communities. In this study, five dimensions—contact, privacy, social connection, warmth, and emotion—are selected to form the external stimulus variable (S). Perceived usefulness and perceived trust are chosen as the internal state (O) of consumer behavior.

Under the stimulus of social presence in a video environment, consumers undergo changes in their internal states, specifically in their perception of usefulness and trust. These changes ultimately lead to the response (R), which manifests as purchase intention.

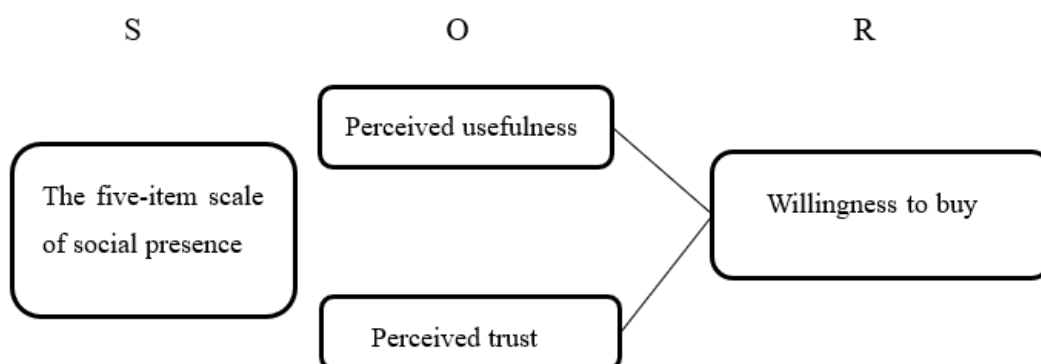


Fig. 1 Stimulus-Organism-Response model

### 3.2. Questionnaire Design

This study delivered a total of 328 questionnaires, and after removing invalid responses, 284 valid questionnaires were retained. The survey was conducted online by distributing a QR code for respondents to access the questionnaire.

Based on the previous analysis, the questionnaire comprised three components. The initial section gathered demographic data, covering four key dimensions: gender, age, occupation, and monthly income. The second section guided participants to watch a short video advertisement embedded in the questionnaire, after which they answered the subsequent questions based on their viewing experience. The third section consisted of measurement scales, including the short video advertisement content scale, the audience emotional experience scale, and the purchase intention scale.

The measurement scales utilised in this study were derived from existing scales. All items in the scales were constructed on a five-point Likert scale, with "1" denoting "strongly disagree" and "5" indicating "strongly agree." A higher score indicates a stronger agreement from the respondent with the respective statement.

### 3.3. Research Hypotheses

One of the key characteristics of short video platforms is their ability to deliver content precisely to users based on algorithm-driven recommendations. Similarly, in the local life service sector, platforms leverage user interest data to promote advertisements for local businesses. Regarding short video advertisements, Gu Yuanping et al. identified three key attributes that influence audience attitudes toward online video advertisements: informativeness, interactivity, and entertainment value [7].

Perceived usefulness denotes the degree to which consumers get valuable knowledge about products or services in a retail context. It serves as a critical factor in determining purchase intentions

or consumer behaviors, as it helps streamline the decision-making process and improve shopping efficiency. When consumers receive more useful information from the platform, their perceived trust in the platform increases, leading to a stronger purchase intention [8].

In general, short video content that is more professionally produced, effectively showcases product features, and actively engages audiences contributes to the formation of cognitive and emotional social presence [9]. These elements, in turn, shape consumers' perceptions of usefulness and trust, ultimately influencing their purchase intentions.

In basis of these discoveries, the study posits the following hypotheses:

H1: The existence of social interaction exerts a beneficial influence on audience purchase intention.

H2a: Social presence positively influences perceived usefulness.

H2b: Social presence positively influences perceived trust.

H3: Emotional perception serves as a mediating variable between social presence and purchasing intention.

These hypotheses primarily examine the relationship between social presence and purchase intention while also highlighting the mediating role of emotional perception in this process [10]. To enhance the readability of variables in the study, Table 1 presents the corresponding variable notation.

Note: Emotional perception (UT) is the weighted average of perceived usefulness (U) and perceived trust (T).

**Table 1.** Variable Notation Explanation

variable	symbol
A sense of social presence	S
Perceived usefulness	U
Perceived trust	T
Willingness to buy	W
Affective sensation	UT

## 4. Research Results

According to the data tables, a total of 284 participants responded to the survey. Among them, 76.76% reported having encountered promotional videos from local businesses on short video platforms, while 23.24% stated that they had not. This indicates that short video advertising has become a popular method for local business promotion. However, a considerable portion of consumers have yet to engage with such content.

For businesses, this suggests an opportunity to increase their marketing efforts on short video platforms to reach a broader audience and attract more potential customers.

### 4.1. Reliability and Validity Testing

Reliability testing evaluates the consistency and stability of the measuring scales included in the questionnaire of this study. The research utilises SPSS 24.0 and employs the commonly utilised Cronbach's alpha coefficient approach to assess dependability.

The reliability coefficients for different dimensions are as follows:

Social presence dimension (items S1-S5): 0.983 - 0.985

Perceived usefulness dimension (items U1-U3): 0.971 - 0.975

Perceived trust dimension (items T1-T3): 0.968 - 0.971

Purchase intention dimension (items W1-W3): 0.972 - 0.973

The Cronbach's alpha values for all scales exceed 0.96, indicating that the questionnaire exhibits strong stability in its design. This suggests that respondents are unlikely to produce significant errors due to changes in content or format, ensuring a high level of internal consistency and structural reliability.

Since the questionnaire was adapted from established scales in previous research, an exploratory factor analysis (EFA) was performed utilising SPSS 24.0 to evaluate the validity of all measurement dimensions. The findings are displayed in Table 2.

**Table 2.** Variable validity test

KMO and Bartlett tests		
Number of KMO sampling suitability quantities		.987
Bartlett sphericity test	Approximate chi square	9754.166
	Variance	91
	Significance	.000

Table 2 indicates that the Kaiser-Meyer-Olkin (KMO) sampling adequacy test produces a high score of 0.987, indicating a significant degree of information overlap among the variables and a strong correlation between them. The Bartlett's test of sphericity yields a chi-square statistic of 9754.166 and a p-value of 0.000, reaching an extremely significant level. Both tests confirm that the questionnaire demonstrates high validity, ensuring that it effectively reflects the characteristics and behaviors of the surveyed respondents.

**4.2. Correlation Analysis**

**Table 3.** Pearson Correlation analysis

	S1	S2	S3	S4	S5	U1	U2	U3	T1	T2	T3	W1	W2	W3
S1	1													
S2	.931**	1												
S3	.946**	.937**	1											
S4	.940**	.927**	.935**	1										
S5	.944**	.937**	.946**	.943**	1									
U1	.951**	.939**	.949**	.950**	.951**	1								
U2	.946**	.928**	.941**	.941**	.948**	.951**	1							
U3	.943**	.927**	.951**	.936**	.943**	.943**	.946**	1						
T1	.949**	.931**	.952**	.940**	.952**	.956**	.950**	.943**	1					
T2	.942**	.926**	.952**	.932**	.947**	.946**	.941**	.943**	.939**	1				
T3	.933**	.928**	.944**	.933**	.949**	.948**	.942**	.935**	.944**	.939**	1			
W1	.944**	.942**	.941**	.946**	.945**	.953**	.948**	.947**	.953**	.937**	.946**	1		
W2	.950**	.928**	.943**	.944**	.946**	.943**	.942**	.944**	.948**	.946**	.935**	.945**	1	
W3	.946**	.929**	.957**	.934**	.950**	.943**	.942**	.946**	.946**	.946**	.938**	.948**	.948**	1

\*\* . At the 0.01 level (two-tailed), the correlation was significant.

After the questionnaire met the required reliability and validity standards, a correlation analysis was conducted. Generally, Correlation coefficients vary from -1 to 1. A correlation coefficient with an absolute value around 1 signifies a robust link between the two variables. Conversely, the greater the distance from 1, the weaker the association.

This study utilizes SPSS 24.0 and applies Pearson correlation coefficients to measure the degree of correlation between each variable. The detailed results are presented in Table 3.

From Table 3, it can be observed that all variables exhibit a positive and significant correlation (p < 0.01). This result not only aligns with the hypotheses proposed earlier in the study but also provides a strong foundation for the subsequent regression analysis.

**4.3. Regression Analysis**

The initial stage in the conventional Baron and Kenny technique is to confirm the primary effect link between the independent variable and the dependent variable. Therefore, this study first examines whether there is a direct causal relationship among the different dimensions of short video advertisement content as the independent variable.

By conducting regression analysis using SPSS 24.0, the detailed results are presented in Table 4.

**Table 4.** Regression analysis of social presence and purchase intention

		Dependent variable: Purchase intention W
Independent variable: social presence S	S1	0.237***
	S2	0.125**
	S3	0.262***
	S4	0.210***
	S5	0.209***
R <sup>2</sup>		0.778
adjust R <sup>2</sup>		0.774
F		195.312

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

From Table 4, it can be observed that when the five dimensions of social presence in short videos are included as independent variables in the regression equation, each variable's standardized coefficient is significant. The adjusted R<sup>2</sup> value is 0.774, demonstrating that the regression model accounts for 77.4% of the variance in audience purchase intention.

Specifically, the standardized coefficients  $\beta$  for S1-S5 are all greater than 0.2, and  $p < 0.01$ . This outcome substantiates that social presence in short video content positively influences audience purchase intention, hence corroborating hypothesis H1.

**Table 5.** Regression analysis of social presence and purchase intention

		Dependent variable: perceived usefulness U
Independent variable: social presence S	S1	0.233***
	S2	0.097**
	S3	0.266***
	S4	0.230***
	S5	0.220***
R <sup>2</sup>		0.787
adjust R <sup>2</sup>		0.783
F		205.326

**Table 6.** Regression analysis of social presence and perceived trust

		Dependent variable: perceived trust T
Independent variable: social presence S	S1	0.168***
	S2	0.068**
	S3	0.361***
	S4	0.134***
	S5	0.301***
R <sup>2</sup>		0.786
adjust R <sup>2</sup>		0.782
F		203.807

Based on the results in Table 5 and Table 6, The hypotheses H1, H2a, and H2b are all substantiated.

By conducting a series of analyses, including descriptive statistical examination of the sample, reliability and validity testing of the questionnaire, correlation analysis of the variables, and regression analysis of influencing factors, all proposed hypotheses have been verified and confirmed.

This suggests that the social presence demonstrated by advertising videos positively influences audience purchase intention, perceived utility, and perceived trust. Furthermore, when audiences perceive usefulness and trust, their purchase intention is further strengthened.

## 5. Discussion

Social presence positively influences consumers' perceived utility and trustworthiness. Local life promotional short videos utilize simulated environments to construct realistic business scenarios, presenting and explaining products comprehensively through video. By integrating products into real-life contexts, these videos evoke emotional resonance between the product and users, bridging the emotional gap between businesses and consumers. Additionally, the entertainment and engaging nature of video content cater to both shopping and leisure needs, making social presence highly effective in conveying information and emotions. Consumers can perceive this information with high quality, enhancing their cognitive understanding. The more accurate the information, the richer the presentation methods, and the more intuitive and accessible the content, the easier it is for consumers to comprehend and accept it. This, in turn, reduces concerns about the new local life consumption model, thereby increasing their perception of usefulness and trust.

Perceived utility and perceived trust positively influence buying intention. The study findings demonstrate that consumer purchase intention is affected by perceived utility and perceived trust. The greater the utility of information transmitted via e-commerce live streaming, the more pronounced the consumer's intention to purchase. Moreover, trust is a crucial prerequisite for consumers to engage in transactions. The local life consumption model involves online purchasing and offline consumption. Before visiting a physical store, consumers may experience concerns and uncertainty due to information asymmetry. Enhancing the usefulness of information cues and fostering a sense of trust are essential to alleviating consumer concerns and are key factors in generating purchase intention. The results of this study corroborate the studies of Gefen and Karahanna, affirming that consumers' perceived utility and perceived trust positively affect purchase intention.

## 6. Conclusion

This study's findings demonstrate that social presence positively influences consumers' perceived usefulness and trustworthiness. Moreover, it is determined that both perceived utility and perceived trust favourably affect purchase intention.

This study provides valuable insights for future research in this field, particularly in understanding the operational models of live streaming and local life services, as well as their impact on consumer purchase intention. Future research should focus on how to more precisely deliver content tailored to consumer interests to stimulate higher levels of consumption.

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