

The Impact of Short Video Engagement on Impulsive Buying Patterns and Customer Satisfaction Among Car Consumers: Exploring the Mediating Influence of In-Store Interaction and Psychological Intent

Jie Leng

School of Management Science and Engineering, Dongbei University of Finance & Economics, Dalian, 116025, China

Received: 03 Oct 2024
Revised: 17 Oct 2024
Accepted: 30 Oct 2024
Published: 09 Nov 2024

Abstract

Short videos significantly influence impulsive purchasing behavior and satisfaction of automobile consumers, with psychological intention and in-person interaction being key factors. However, the underlying mechanisms of how short video usage affects these aspects remain obscure. This study aimed to investigate the impact of short video use on impulsive buying behavior and satisfaction among car buyers, mediated by psychological intention and on-site interaction. Utilizing a longitudinal tracking approach grounded in the Stimulus-Organic-Response (SOR) model, we conducted a questionnaire survey of target customers of car dealerships in China. Our findings reveal that over-reliance on short video marketing can hinder positive in-person interactions between consumers and sales personnel, dampening psychological expectations and curbing impulsive shopping behavior, ultimately reducing consumer satisfaction. Conversely, short videos featuring positive social evaluations and high-credibility content bolster brand image and trust. Furthermore, constructive on-site interactions can elevate psychological expectations and positively influence impulsive purchase decisions. Onsite communication and psychological expectations were found to mediate the relationship between short video usage and consumers' impulsive buying intentions and satisfaction. However, the influence of short video usage on impulsive buying behavior and satisfaction varies among automobile consumers. Consequently, it is imperative to develop tailored marketing strategies and initiatives to enhance the car-buying experience, considering these psychological and behavioral dynamics.

Keywords: Short Video Use; Impulse Spending; Consumer Satisfaction; In-Store Interaction; Psychological Intent; Questionnaire Survey.



© 2024 by the authors; licensee Advances in Consumer Research. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY NC. ND) license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

In the realm of automotive sales, the intrinsic high value of vehicles, coupled with the constraints of limited physical distribution channels and pronounced regional disparities in pricing, has historically necessitated a multifaceted approach to obtaining vehicle-related information for consumers (Wang et al., 2023). This imperative has been further intensified by burgeoning consumer demand for transparency in the car purchasing process. With the advent of digital transformation, reliance on online platforms for procurement of automotive information has become increasingly prevalent, encompassing detailed vehicle specifications, user-generated reviews, and comparative pricing analyses (Pang & Ruan, 2024).

The integration of big data analytics and artificial intelligence has engendered the diversification and enrichment of short video content, aligning seamlessly with the mobile usage patterns of contemporary consumers. The meteoric rise of platforms such as TikTok and Kuaishou has not only amplified the reach of short video content, but also significantly influenced

the modalities of information acquisition and marketing within the automotive sector (C. Zhang, Pan, & Zhao, 2024). Initially, automotive manufacturers showed a discernible trend towards the adoption of short video marketing strategies. With its enhanced visual impact and immersive online experience, this medium has been shown to evoke a heightened propensity for impulsive purchasing among viewers upon exposure to marketing stimuli (Gao, Zeng, & Cheng, 2022). The substantial user base of these short video platforms has rendered this marketing approach a pivotal instrument in the e-commerce marketing arsenal. Prominent examples of companies that have allocated substantial resources to short video marketing include SAIC Volkswagen, BYD and Geely Enterprises. Second, the advent of short video platforms has significantly eroded the traditional informational barriers (Cheng, Su, Yang, Zarifis, & Mou, 2023). The proliferation of automotive reviewers, articulation of their opinions, and nuanced discourse on vehicle evaluations, complemented by the interactive nature of user reviews, collectively offer a novel and comprehensive informational landscape to short video consumers. This, in turn, fosters a more profound

understanding of a product's actual performance and user feedback, exerting a positive influence on consumer satisfaction. However, the phenomenon of false pricing, misleading advertising, and exaggeration of product features within short video content pose a risk of adversely affecting consumer information acquisition and subsequent decision-making processes (Meng et al., 2024). Consequently, the ascendancy of short video platforms is poised to precipitate a paradigmatic shift in consumer information acquisition, with profound implications for impulsive decision making and purchasing satisfaction within the automotive consumer demographic. Nonetheless, scholarly investigation into the effects of short video consumption on impulsive consumer purchase intentions and shopping satisfaction remains in its nascent stages.

When examining the influence of short video usage on consumers' impulse purchase intentions and shopping satisfaction, it is essential to consider the unique characteristics of the automotive sales industry. Unlike traditional online retail models, which largely operate in a virtual environment, car sales still depend heavily on the experiential aspects of physical dealerships. Although consumers may gather information through a range of online channels, the process of purchasing a vehicle necessitates in-person engagement, such as understanding the vehicle's features and conducting test drives at a local dealership, thereby involving substantial on-site interaction (Sun, Lian, & Yang, 2022). Crucially, the quality of on-site communication plays a significant role in shaping consumers' decisions and experiences regarding vehicle purchases. Research indicates that an open and active information exchange between sales consultants and consumers can enhance consumers' product understanding and purchase intent (J. Liu & Zhao, 2024). However, the effects of different types of on-site communication on automotive purchase decisions may differ markedly. Drawing on decision-making theories within consumer behavior, on-site communication can be categorized into two distinct forms: open and problematic (Rehman et al., 2024). The former is characterized by transparent and unrestricted dialogue, whereas the latter may involve elements of information concealment and misdirection. Given the relatively underexplored nature of impulse consumption behavior in the automotive sector, the intricate relationship between on-site communication and car purchase satisfaction warrants further investigation. Hence, we propose the hypothesis that the nature of communication, whether open or problematic, will significantly impact consumers' automotive purchase decisions and overall satisfaction.

Moreover, prolonged use of short video platforms is likely to cultivate distinctive psychological expectations among consumers (Silas Souza et al., 2024). For instance, popular themes prevalent on platforms such as TikTok—such as "The Volkswagen Passat can be purchased for under 200,000 yuan" and "The Honda Fit

is the optimal choice within the 500,000-yuan range"—not only serve as recommendations, but also subtly influence consumers' perceptions of automobile brands and their cost-effectiveness. This influence aids in establishing ideal purchasing criteria within consumers' minds, leading them to favor well-recognized brands and models during the actual buying process, thereby impacting their purchase decisions (Pang & Ruan, 2024). Furthermore, consumers who internalize these psychological expectations tend to exhibit heightened expectations and satisfaction regarding their product purchases, which, in turn, reinforces their alignment with the provided suggestions. Consequently, short video content is becoming increasingly instrumental in shaping consumer psychology in the contemporary marketplace (Luo, Jiang, Li, Yi, & Tucker, 2023).

In the current academic landscape, numerous studies have examined the effects of short video usage on consumer behavior (Feng et al., 2024; Meng et al., 2024; Xiao et al., 2023) and shopping satisfaction (Lan & Liu, 2024; Y. Yang et al., 2024). However, within the context of the automotive industry, significant research gaps remain. Notably, the existing literature is yet to investigate the influence of short video content on impulse buying behavior and shopping decisions in this sector (Xin et al., 2024; Zhang et al., 2024). Furthermore, there is a dearth of empirical research focusing on onsite interaction processes that are critical to the automotive industry, particularly regarding the distinct roles of benign and problematic communication during these interactions. Additionally, most existing studies employ cross-sectional designs, which lack the longitudinal tracking data necessary for a comprehensive understanding of the effects of short video usage. In light of these deficiencies, this study seeks to address the aforementioned research gaps by systematically exploring the impact of short video usage on consumers' impulse purchase intentions and satisfaction, as well as the underlying mechanisms involved, from the perspectives of onsite interaction and psychological anticipation. By integrating these viewpoints, this study aims to provide novel theoretical insights and practical guidance for the development of short video marketing strategies and a deeper understanding of consumer decision-making processes.

Theoretical basis

2.1 SOR Model

The Stimulus-Organism-Response (SOR) model has gained considerable traction in the examination of consumer behavior and decision-making processes (Laos-Espinoza, Juaneda-Ayensa, García-Milon, & Olarte-Pascual, 2024). Within this framework, stimulus (S) denotes external factors that influence consumer behavior, organism (O) encapsulates the psychological mechanisms through which consumers process these stimuli into informational constructs, and response (R) corresponds to the resultant behavioral actions taken by consumers in response to these stimuli

(Cuong, 2024). The extensive application of the SOR model provides a robust empirical and methodological foundation for research endeavors (Huang, 2023), and its interdisciplinary nature facilitates a comprehensive analysis of automobile consumers' purchasing decisions from multiple vantage points. Consequently, this study aims to leverage the SOR model to investigate the effects of short video usage on automobile consumers' impulsive buying behavior and satisfaction and to elucidate the underlying mechanisms governing these impacts. By thoroughly examining how short videos influence consumer behavior across the three components of stimulus, organism, and response, this research seeks to contribute theoretical insights into the dynamics of short videos in the consumer decision-making process while also providing an empirical basis for the development of pertinent marketing strategies.

2.2 The impact of short video use on consumers' impulse buying behavior and satisfaction

In the discourse surrounding the influence of short videos on consumer behavior and decision making, it is evident that this emerging medium possesses distinct advantages over traditional media in terms of conveying product information, fostering user interaction, and enhancing communication efficiency (Cho, Jeong, & Park, 2024). Furthermore, user-generated evaluative content frequently found in short videos, including vehicle review segments and consumer assessment components in marketing videos, offers consumers a more scientific and objective basis for product evaluations, which can be conceptualized as a form of social evaluation utility (Pang & Ruan, 2024). Additionally, the phenomenon of information overload generated by short videos, coupled with the authenticity and credibility of their content, significantly influences consumer behavior (C. Zhang et al., 2024). Impulsive purchase intention is characterized by unplanned consumption behavior triggered by consumers' immediate impulses or sudden urges. The marketing and social evaluation functions inherent in short videos facilitate the dissemination of product information and deliver strong visual stimuli through video-driven content, thereby altering consumers' psychological experiences and intentions. This transformation in turn impacts the propensity for impulse buying (Ngo et al., 2024). Consumer satisfaction, defined as the degree to which consumers perceive their actual usage of a product or service to meet or exceed their expectations, reflects their overall assessment of the performance, quality, and value of the product or service, as well as their fulfillment of personal needs and anticipations. Short videos effectively enhance the conveyance of product information, and this increased transparency and interactivity in information delivery influences consumers' purchasing experiences, and consequently, their levels of satisfaction (Qin, Qiu, Zhao, Zhu, & Li, 2024). Thus, as an increasingly prevalent medium for information acquisition, short videos can fundamentally alter consumers' internal

psychological experiences and intention states, ultimately affecting their impulsive purchasing behaviors and overall satisfaction.

2.3 The mediating role of psychological intention and on-site interaction

Psychological Intention: The pervasive adoption of short videos significantly influences consumers' psychological expectations. The vivid content and engaging narratives characteristic of short video marketing effectively elevate consumers' anticipation of the target product, which in turn promotes impulsive consumption. Moreover, multidimensional social evaluation content featured in short videos can objectively highlight product deficiencies, thereby potentially diminishing consumers' psychological intent to purchase (Pang & Ruan, 2024). Collectively, these factors play a crucial role in shaping impulse-buying decisions. Furthermore, short videos influence consumer satisfaction levels by altering their psychological expectations. When consumers evaluate a product through short videos, the alignment between their actual purchase experience and the video content tends to enhance satisfaction; conversely, if the actual product fails to meet consumer expectations, this discrepancy may result in decreased satisfaction (Luo et al., 2023).

On-Site Interaction: The traditional automobile sales process often fosters irrational consumption behaviors among consumers, primarily because of exaggerated claims made by sales personnel. By contrast, short video platforms offer consumers intuitive access to automotive product information, significantly enhancing the transparency and credibility of the information presented. This characteristic encourages consumers to adopt a more focused approach when purchasing vehicles offline, thereby improving the efficiency of their interactions with the sales staff and reducing the likelihood of impulsive purchases (Chen, Wang, & Wei, 2023). Additionally, the comprehensive information conveyed through short video content aids consumers in circumventing misleading advertising and the inflated pricing strategies employed by merchants. This empowerment encourages them to make more informed choices regarding supplementary services, thereby influencing the on-site interaction process and ultimately affecting their overall satisfaction with the car purchasing experience (Farooq, Naseem, Ahmad, Awais Akbar, & Ullah, 2024).

3. METHODS

3.1. Participants

This study examines the target customer demographics of six new energy vehicle retailers in Northeast China from April to October 2024. A series of three follow-up surveys were conducted with respondents at one month (T1), three months (T2), and six months (T3) after the launch of a new energy vehicle model in China. During the T1 phase, 483 consumers participated in the

questionnaire survey, yielding a valid sample of 288 men (59.62%) and 195 women (40.37%). The average age of the participants was 36.86 years, with a standard deviation of 1.39 years, and the age range extended from 22 to 58 years, although 19 respondents did not provide age information. In the subsequent T2 phase, 421 participants were tracked successfully, representing 87.16% of the initial sample. In the T3 phase, 407 consumers completed the survey, accounting for 84.27% of the original participant group. Attrition rate analysis indicated no significant differences between the demographics of participants who dropped out and those who remained, with the exception of sex. Specifically, gender differences were statistically significant ($\chi^2 = 16.17$, $P < 0.001$), while other factors such as age,

family income, communication patterns, and psychological expectations did not demonstrate significant disparities. Key variables, including short video usage, effectiveness of live interactions, challenges associated with live interactions, psychological expectations, impulsive consumption behavior, and consumer satisfaction also did not show significant differences. A detailed sample distribution is provided in Table 1. Moreover, despite some degree of sample attrition during the study, the lack of significant differences in the key variables between the lost and retained samples bolsters the reliability of our findings. All participants provided informed consent before their participation in the study.

Table 1 Demographic characteristics of the participants

Variable	Characteristics	
Age, M (SD)	35.65	1.66
Gender, n (%)		
Male	239	58.42
Female	168	41.18
Grade, n (%)		
21-30	136	33.22
31-40	125	30.51
41-50	127	31.21
>50	19	4.67
Monthly income (RMB), n (%)		
<1000	15	3.69
1001-4000	125	30.71
4001-8000	152	37.35
8001-12,000	82	20.15
>12,001	33	8.1

Note: Percentages do not always equal 100 because of rounding; values may not always sum to the sample size because of missing data.

3.2. Measures

3.2.1 Short Video Use

The analysis of short video utilization encompasses three sub-tables: short video marketing, social evaluation of products, and credibility of short video content. (1) Short Video Marketing: The marketing component was derived from the short video usage evaluation scale revised by Liu et al. (Q. Liu, Yu, & Yang, 2024), which has been tailored to reflect the usage characteristics of short videos among the targeted automotive consumer groups. To refine this scale, two additional items have been incorporated: (a) "In the previous week, what was the average amount of time you spent browsing automotive content on short video platforms each day?" and (b) "To what extent did short videos influence your decision to visit a local car dealership?" (2) Social Evaluation: For social evaluation pertaining to the dissemination of automotive product information via short videos, we utilized the product information evaluation scale modified by Zhang and Li (M. Zhang

& Li, 2024). This scale was enhanced by including two additional items: (a) "How much do you agree with the opinions of online automotive reviewers?" and (b) "To what extent do you trust online reviews related to vehicle products?" (3) Credibility of Short Video Information: The assessment of the authenticity of the information presented in short videos relies on the authenticity perception scale proposed by Zhang et al. (N. Zhang, Ruan, & Wang, 2024). All the newly introduced items employ on a 5-point Likert scale. Ultimately, the scores corresponding to each item were standardized and averaged for further analysis. The reliability of the integrated scale was commendable, with a Cronbach's alpha coefficient of 0.75 recorded at T1, indicating good internal consistency.

3.2.2 Psychological Intention

The psychological intention scale primarily draws upon the framework established by Vazquez et al. (Vazquez, Patel, Alvidrez, & Siliceo, 2023). This scale was designed to assess the psychological expectations index, specifically evaluating the self-disclosure behaviors of consumer groups. It encompasses a total of 12 items,

each rated on a 5-point Likert scale ranging from 0 to 4, where 0 denotes "completely inconsistent" and 4 signifies "completely consistent." In this study, the scale demonstrated strong internal reliability, as evidenced by a Cronbach's alpha coefficient of 0.82 T2.

3.2.3 On-Site Interaction

This study utilized a consumer communication scale that is grounded in the interpersonal relationship communication scale developed by Zhen et al. (Zhen, Yao, & Zhou, 2022). The scale comprises two subscales, each consisting of 10 items designed to assess the extent to which consumers are motivated to communicate with offline retail stores. The results indicated that both the positive field interaction subscale (Cronbach's alpha coefficient of 0.73) and the problematic field interaction subscale (Cronbach's alpha coefficient of 0.72) exhibited good reliability.

3.2.4 Impulsive Consumption Behavior

The impulse purchase intention scale utilized in this study primarily refers to the framework established by Gao et al. (Gao et al., 2022). This scale employs a 5-point Likert scale ranging from 0 (indicating complete non-conformity) to 4 (indicating complete conformity). It is organized into four dimensions: situational factors, personal characteristics, product characteristics, and social influence. In this study, the scale demonstrated excellent reliability, with a Cronbach's alpha coefficient of 0.912 at T3.

3.2.5 Consumer Satisfaction

To assess consumer satisfaction levels, this study employs the consumer satisfaction scale developed by Bortolotti et al. (Bortolotti, Moreira Junior, Bornia, Sousa Júnior, & Andrade, 2012). This scale is based on a 6-point Likert scale, with responses ranging from 0 (indicating no change) to 5 (indicating a significant change). Higher scores reflect greater consumer satisfaction. In this analysis, the scale exhibited good internal consistency with a Cronbach's alpha coefficient of 0.82 at T3.

3.3 Data Analysis

Data analysis was performed using SPSS version 20 and Mplus version 7.4. To ensure the reliability of the

questionnaire results, we performed a Harman single-factor test to evaluate potential common method biases. We aggregated the questionnaire data collected at three different time points and conducted exploratory factor analysis. The results revealed that the proportion of variance explained by a single factor was 12.66%, 12.72%, and 17.23% in the first, second, and third rounds of the questionnaire, respectively. All these percentages are substantially below the theoretical threshold of 40%, a finding that bolsters the credibility of our results by indicating that our data are not significantly influenced by common method bias.

4 RESULTS

4.1 Correlation analysis of research variables

The correlation analysis revealed (see Table 2) that consumer satisfaction exhibited a significant positive correlation with both social evaluation and positive on-site interaction in short videos. Conversely, there was a significant negative correlation with short video marketing, whereas no significant correlation was observed with short video content credibility, positive on-site interaction, problematic on-site interaction, and psychological expectations. Impulsive consumption behavior is negatively correlated with short video credibility, social evaluation of short videos, and problematic on-site interaction, but it shows a positive correlation with short video marketing, positive on-site interaction, and psychological expectations. Additionally, short video marketing displayed a significant negative correlation with positive field interaction and psychological expectations, along with a significant positive correlation with problematic field interaction. Social evaluation of short videos has a negative correlation with problematic field interactions and a positive correlation with psychological expectations. Furthermore, short video content credibility was significantly positively correlated with positive field interaction and negatively correlated with problematic field interaction. Positive field interactions correlate positively with psychological expectations and negatively with problematic field interactions. Finally, a significant negative correlation was found between problematic field interactions and psychological expectations.

Table 2 Correlation analysis among research variables

	Category	M±SD	1	2	3	4	5	6	7	8
1	T3 Consumer satisfaction	53.25±20.55	1							
2	T3 Impulse spending	24.21±15.86	0.093	1						
3	T1 Short video marketing	28.35±7.22	-0.252*	0.162*	1					

4	T1 Social evaluation in short videos	30.42±3.72	0.151*	-0.251*	0.053	1				
5	T1 Short video content credibility	34.35±5.35	0.068	-0.162*	0.039	0.062	1			
6	T2 Positive on-site interaction	32.33±5.87	0.137*	0.188*	-0.290*	0.051	0.137*	1		
7	T2 Problematic live interaction	25.32±8.21	0.042	-0.255*	0.325*	-0.396*	-0.144*	-0.172*	1	
8	T2 Psychological expectation	31.35±6.35	0.055	0.225*	-0.181*	0.320*	0.068	0.128*	-0.163*	1

Notes: *P<0.05, **P<0.01.

4.2 Main effect test

From an overall perspective: (1) The utilization of short videos exerts a significant negative impact on consumers' impulsive purchase intentions, with a path coefficient of -0.456 ($P < 0.001$). This indicates that, within the short video marketing context, increased information transparency contributes to a reduction in consumers' impulse purchase intentions. This phenomenon may occur because highly transparent information empowers consumers, enabling them to evaluate the true value of products or services more rationally, thereby diminishing the likelihood of impulsive buying behavior. Furthermore, transparent information offers consumers a comprehensive basis for decision making, allowing for a more in-depth analysis of product characteristics and potential risks, which ultimately enhances the quality of their decisions. Additionally, improvements in information transparency may lower consumers' perceptions of uncertainty regarding the outcomes of their purchases and mitigate perceived risks, both of which are key factors contributing to reduced willingness to make impulsive purchases.

(2) The use of short videos also has a significant negative impact on consumer satisfaction, with a path coefficient of -0.346 ($P < 0.001$). The decline in satisfaction can be attributed to several factors. First, increased information transparency may lead to information overload, where excess information causes confusion and stress among consumers, thereby reducing overall satisfaction. Second, transparent information can elevate consumer expectations, and when actual product performance fails to meet these heightened expectations, satisfaction declines naturally. Moreover, a multitude of choices can result in "choice overload," leaving consumers feeling overwhelmed during the decision-making process, which adversely affects the purchasing experience. Regarding the sub-dimensions of the influence of short video usage, the main effect path test results, as shown in Table 3, indicate that short video marketing positively affects impulsive consumption behavior. By contrast, the social evaluation and credibility of short videos negatively influence consumers' impulsive consumption behaviors. Additionally, consumer satisfaction is adversely affected by short video marketing and short video credibility, whereas social evaluation of short videos has a positive impact on consumer satisfaction.

Table 3 Main effect test results

Path	Effect size	S.E.	P	95%CI
T1 short video marketing →T3 impulsive consumption behavior	0.221	0.006	0.829	-0.016~0.023
Social evaluation in T1 short video →T3 impulsive consumption behavior	-0.124	0.045	0.644	-0.082~0.044
T1 short video credibility →T3 impulsive consumption behavior	-0.252	0.054	0.114	-0.135~-0.025
T1 Short video Marketing →T3 Consumer satisfaction	-0.111	0.003	0.525	-0.026~0.023

Social evaluation in T1 short video →T3 Consumer satisfaction	0.224	0.022	0.431	-0.031~0.024
T1 Short video credibility →T3 Consumer satisfaction	-0.152	0.034	0.013	-0.024~-0.013

4.3 multi-mediation model test

To further explore the mechanism of short video use on impulse consumption behavior and consumer satisfaction, based on the hypotheses and relevant analysis results, this study constructed a multiple mediation effect model, as shown in Figure 1. The model was tested, and the results showed that the model fit the data perfectly. Further path analysis shows that T1 short video marketing can negatively predict the psychological expectations of T2 consumers ($\beta = 0.368$, $P < 0.001$). The effects on T2 benign field interaction and problematic field interaction were not significant ($\beta = 0.002$, $P < 0.001$; $\beta = -0.011$, $P < 0.001$). Social evaluation in T1 short video can positively predict T2 consumers' psychological expectations, positive on-site interaction and problematic on-site interaction ($\beta = 0.116$, $P < 0.001$; $\beta = 0.215$, $P < 0.001$; $\beta = 0.105$, $P < 0.001$). T1 short video credibility can positively predict problematic live interaction ($\beta = 0.185$, $P < 0.001$), but has no significant impact on consumer

psychological expectations and problematic live interaction ($\beta = -0.015$, $P > 0.05$; $\beta = 0.023$, $P > 0.05$). T2 positive field interaction can positively predict T2 psychological expectation and impulsive consumption behavior ($\beta = 0.133$, $P < 0.05$; $\beta = 0.118$, $P < 0.001$), but the predictive effect on T3 consumer satisfaction is not significant ($\beta = 0.022$, $P > 0.05$); T2 psychological expectation can significantly positively predict T3 impulse consumption behavior ($\beta = 0.212$, $P < 0.05$), but has no significant predictive effect on T3 consumer satisfaction ($\beta = 0.002$, $P > 0.05$). T2 problematic field interaction can negatively predict T3 consumer satisfaction and impulsive consumption behavior ($\beta = -0.112$, $P < 0.05$; $\beta = -0.135$, $P < 0.01$), had no significant predictive effect on T2 psychological expectations ($\beta = -0.046$, $P > 0.05$). Based on the above results, this study conducted a bias-corrected bootstrap test on the significance of the mediation effect (La Vecchia, Moor, & Scaillet, 2023); the results are shown in Table 4.

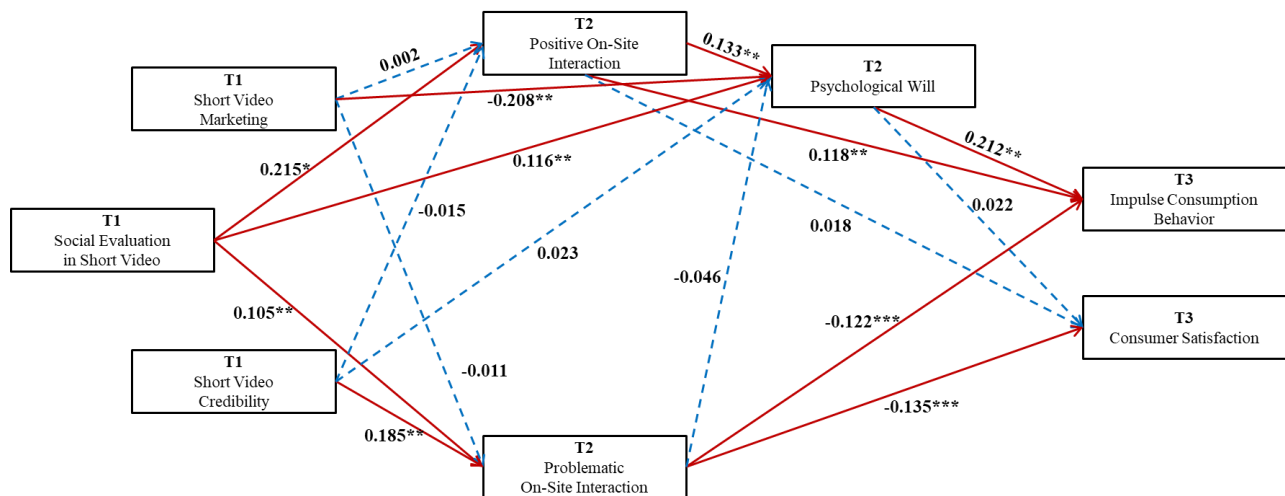


Figure 1. Multiple mediation effect path diagram

Table 4 The result of path test of mediating effect

Path	S.E.	P	95%CI
T1 short video usage →T2 psychological expectation →T2 impulsive consumption behavior	0.006	0.829	-0.016~0.023
T1 short video usage →T2 benign on-site interaction →T3 impulsive consumption behavior	0.045	0.644	-0.082~0.044
T1 short video usage →T2 problematic live interaction →T3 impulsive consumption behavior	0.054	0.013	-0.135~-0.025
T1 short video use →T2 benign on-site interaction →T2 psychological expectation →T3 impulsive consumption behavior	0.030	0.020	-0.038~-0.003

T1 short video use →T2 problematic live interaction →T2 psychological expectation →T3 impulsive consumption behavior	0.015	0.015	-0.022~-0.002
T1 short video usage →T2 psychological expectations →T3 Consumer satisfaction	0.014	0.817	-0.013~0.006
T1 short video usage →T2 positive live interaction →T3 consumer satisfaction	0.032	0.029	0.015~0.161
T1 Short video usage →T2 problematic live interaction →T3 Consumer satisfaction	0.031	0.044	-0.111~-0.003
T1 short video usage →T2 positive live interaction →T2 psychological expectation →T3 consumer satisfaction	0.008	0.364	-0.007~0.024
T1 short video usage →T2 problematic live interaction →T2 psychological expectation →T3 consumer satisfaction	0.004	0.361	-0.003~0.014

DISCUSSION

This study investigated the effects of short video usage, on-site interaction, and psychological expectations on impulsive consumption behavior and consumer satisfaction through a longitudinal tracking approach. The findings reveal that short video usage exerts a significant direct predictive effect on consumer satisfaction and impulsive consumption behavior, in contrast to the results of the existing literature on consumer behavior (Gao et al., 2022; Y. Yang et al., 2024). This discrepancy can be attributed to the incorporation of mediating variables such as on-site interactions and psychological expectations.

The results indicate a significant negative correlation between short video marketing and consumer satisfaction and impulsive consumption behavior. This negative relationship primarily arises from the tendency toward short video marketing at the expense of content quality and the specific needs of consumers, ultimately leading to diminished consumer satisfaction with products or services. This perspective also diverges from traditional views on the impact of short video marketing on consumer behavior. Our analysis has carefully considered the critical role of social evaluation, a factor that is often overlooked in the existing literature, revealing nuances that previous studies have failed to address (Yin et al., 2024). Consequently, marketing strategies should emphasize understanding consumer expectations and enhancing the shopping experience to improve overall satisfaction.

Moreover, the research shows that positive social evaluation and constructive on-site interaction are significantly positively correlated with consumer satisfaction. This finding suggests that favorable social feedback can bolster consumers' trust and engagement, thereby enhancing their satisfaction levels. Conversely, impulsive consumption was negatively correlated with short video content credibility, social evaluation, and problematic live interactions, while exhibiting a significant positive correlation with short video marketing strategies, positive live interactions, and psychological expectations. These results imply that high-quality short video content and positive social

feedback can mitigate impulsive consumption, whereas effective marketing strategies and environments that align with psychological expectations may facilitate such behavior. Our research findings address the deficiencies in prior studies regarding the impact of short videos on consumption decision-making (Feng et al., 2024; Shen & Wang, 2024), highlighting the significant role of positive shopping guidance conveyed through short video content. For instance, the Chery Arezer 8 model, which received mixed reviews upon its market launch, subsequently garnered increased consumer favor owing to the positive evaluations featured in short videos. This shift illustrates how favorable short video content can enhance market demand and influence consumer preferences.

Additionally, the study revealed a negative correlation between short video marketing and both positive on-site interaction and psychological expectations, whereas problematic on-site interaction was positively correlated with short video marketing. This finding suggests that excessive marketing efforts may inhibit positive interactions and diminish consumers' psychological expectations. In parallel, positive social evaluation can enhance brand image and elevate psychological expectations, whereas high-credibility short video content can effectively foster positive interactions, thereby improving consumer satisfaction and trust. The aforementioned conclusions illuminate the mediating roles of on-site interaction and psychological intention, highlighting a significant departure from traditional studies that typically examine a single mechanism of action related to short videos (D. He et al., 2024; L. Yang et al., 2024). Consequently, automobile sellers should integrate the on-site stages of automobile consumption with multichannel psychological expectations to effectively shape and enhance consumption guidance.

Positive interactions significantly bolster psychological expectations, whereas negative interactions deter them. Notably, short video usage has a significant negative effect on impulsive purchase intentions, primarily because of its enhanced information transparency, which enables consumers to evaluate products more rationally.

However, information overload and a plethora of choices may adversely affect consumer satisfaction. The above conclusions illustrate the significant impact of short videos on consumers' impulsive consumption behaviors, in contrast to traditional research that merely addresses the promotional aspects of short videos in stimulating impulsive purchases (Manganelli & Forest, 2024; Wang, 2024). Our study reiterates that the enhancement of social evaluation facilitated by short video content is a critical factor influencing consumers' purchasing decisions, and should not be overlooked.

Through an analysis of multiple intermediary models, this study elucidates that short video marketing has a significant negative predictive effect on psychological expectations, while social evaluation positively influences both psychological expectations and on-site interaction. Furthermore, constructive on-site interactions promote psychological expectations and impulsive consumption, whereas problematic interactions negatively affect consumer satisfaction and impulsive consumption. These findings provide a comprehensive framework for the practical application of short video marketing, illustrating how consumer behavior and satisfaction can be influenced by optimizing social evaluations, enhancing live interactions, and aligning with psychological expectations. Therefore, marketers should prioritize content quality and interaction effects to enrich the overall consumer experience.

CONCLUSION

This study addresses the unique format of the automobile sales process by analyzing the effects of short video usage on impulsive consumption and consumer satisfaction from a longitudinal tracking perspective, with particular emphasis on the mediating roles of on-site interaction and psychological anticipation. The findings indicate that direct sales orientation in short video marketing tends to diminish consumer satisfaction, whereas positive social evaluations and effective interactions can enhance it. Impulsive consumption is negatively correlated with content credibility and social evaluation, and positively correlated with marketing strategies, positive interactions, and psychological expectations. Excessive reliance on short videos may inhibit positive interactions and lower psychological expectations. Additionally, positive social reviews and credible content can enhance brand image and trust, whereas constructive interactions can elevate psychological expectations. The use of short videos can reduce consumers' propensity for impulsive purchases by increasing information transparency. However, information overload can lead to decreased consumer satisfaction. This research demonstrates that on-site communication and psychological expectations play significant mediating roles between short video usage and consumers' intentions for impulsive consumption and overall satisfaction. Thus, marketers should

prioritize content quality and the effects of interactions to enhance the consumer experience.

Despite the insights provided in this study, several limitations must be acknowledged. First, the sample size was relatively small, which may restrict the generalizability of the findings. Second, the characteristics of the automotive industry and short video platforms differ from those of other information channels, necessitating caution when extrapolating these results to other consumer types and product categories. Finally, because this study is based on current data, it cannot fully predict future changes or establish definitive causal relationships.

Declarations

Ethical Approval: We confirm that the study was conducted in accordance with the Helsinki Declaration and received ethical approval from the University's review board.

Consent to participate: Not Applicable

Consent for publication: Not applicable

Availability of data and materials: All data generated or analysed during this study are included in this published article.

Competing interests: The authors declare that they have no competing interests.

Funding: Authors declare that they can afford the payment for the article publication fee at the payment time. (Self-sponsor)

Authors' contributions: J.L. was responsible for researching, organizing and writing the manuscript.

Acknowledgments: Not applicable

REFERENCES

1. Discussion Feng, Y., Zhai, M., & Du, Y. (2024). *The effects of mini-detail short videos on consumer purchase intention on Taobao: A TAM2-based approach*. *Entertainment Computing*, 51, 100745.
2. Gao, P., Zeng, Y., & Cheng, Y. (2022). *The Formation Mechanism of Impulse Buying in Short Video Scenario: Perspectives From Presence and Customer Inspiration*. *Frontiers in Psychology*, 13.
3. He, D., Yao, Z., Teo, T. S. H., Ma, Y., & Xu, W. (2024). *How social learning drives customer engagement in short video commerce: An attitude transfer perspective*. *Information & Management*, 61(6), 104018.
4. He, P., Shang, Q., Pedrycz, W., & Chen, Z.-S. (2024). *Short video creation and traffic*

- investment decision in social e-commerce platforms. *Omega*, 128, 103129.
5. 5.Lan, Y., & Liu, G. (2024). Consumers' rational attitudes toward online shopping improve their satisfaction through trust in online shopping platforms. *Current Psychology*.
 6. 6.Manganelli, L., & Forest, J. (2024). Spending Motives Matter: Using Self-Determination Theory to Explore the Effects of Motives for Spending on Psychological Health. *Trends in Psychology*, 32(2), 541-571.
 7. 7.Meng, L., Kou, S., Duan, S., & Bie, Y. (2024). The impact of content characteristics of Short-Form video ads on consumer purchase Behavior: Evidence from TikTok. *Journal of Business Research*, 183, 114874.
 8. 8.Pang, H., & Ruan, Y. (2024). Disentangling composite influences of social connectivity and system interactivity on continuance intention in mobile short video applications: The pivotal moderation of user-perceived benefits. *Journal of Retailing and Consumer Services*, 80, 103923.
 9. 9.Shen, X., & Wang, J. (2024). How short video marketing influences purchase intention in social commerce: the role of users' persona perception, shared values, and individual-level factors. *Humanities and Social Sciences Communications*, 11(1), 290.
 10. 10.Wang, S., Lin, Y., & Zhu, G. (2023). Online reviews and high-involvement product sales: Evidence from offline sales in the Chinese automobile industry. *Electronic Commerce Research and Applications*, 57, 101231.
 11. 11.Wang, Y. (2024). Analysis of users' impulse purchase behavior based on data mining for e-commerce live broadcast. *Electronic Commerce Research*.
 12. 12.Xiao, L., Li, X., & Zhang, Y. (2023). Exploring the factors influencing consumer engagement behavior regarding short-form video advertising: A big data perspective. *Journal of Retailing and Consumer Services*, 70, 103170.
 13. 13.Xin, M., Liu, W., & Jian, L. (2024). Live streaming product display or social interaction: How do they influence consumer intention and behavior? A heuristic-systematic perspective. *Electronic Commerce Research and Applications*, 67, 101437.
 14. 14.Yang, L., Yuan, X., & Yang, X. (2024). Study of the influencing mechanism of user interaction behavior of short video e-commerce live-streaming from the perspective of SOR theory and interactive ritual chains. *Current Psychology*, 43(35), 28403-28415.
 15. 15.Yang, Y., Gao, J., & Qi, J. (2024). Moderating effect of consumers' opinion leader acceptance: Exploring the relationship between livestreaming shopping and online shopping safety satisfaction. *Electronic Commerce Research*.
 16. 16.Yin, X., Li, J., Si, H., & Wu, P. (2024). Attention marketing in fragmented entertainment: How advertising embedding influences purchase decision in short-form video apps. *Journal of Retailing and Consumer Services*, 76, 103572.
 17. 17.Zhang, Y., Zhang, T., & Yan, X. (2024). Understanding impulse buying in short video live E-commerce: The perspective of consumer vulnerability and product type. *Journal of Retailing and Consumer Services*, 79, 103853.