

Perceived Interactivity and Purchase Intentions on Short-Video Platforms: Parallel Mediation by Trust and Self-Control among Chinese Undergraduates

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Abstract: Short-video platforms integrate live demonstrations, public Q&A, and in-stream checkout, compressing the distance from attention to purchase. This study tests whether perceived interactivity shapes purchase intentions through concurrent relational and regulatory processes. A cross-sectional survey of Chinese undergraduates engaged in short-video commerce ($n = 931$) employed validated measures of perceived interactivity, trust, self-control, and purchase intentions. Partial least squares structural equation modeling in SmartPLS 4.1 with 5,000 bootstraps assessed a parallel-mediation model, with common-method diagnostics and predictive checks. Perceived interactivity showed a significant direct association with purchase intentions ($\beta = .259, p < .001$) and two significant indirect paths: a positive route via trust ($\beta = .147, p < .001$) and a positive route via reduced self-control ($\beta = .206, p < .001$), yielding a total effect of $\beta = .612$ ($p < .001$). The model explained substantial variance in intentions ($R^2 = .555$) and showed acceptable fit and predictive relevance. Findings indicate that interactive density both cultivates trust and temporarily taxes self-control, producing complementary influences on intention formation. Design implications include pairing responsive communication with pacing and light friction near commitment points. Limitations of cross-sectional inference and self-report measurement are noted, and we call for experimental and multi-method research.

Keywords: : Perceived interactivity; Short-video commerce; Trust; Self-control; Purchase intentions

1. INTRODUCTION

Short-video platforms have rapidly become hybrid environments that combine entertainment, social interaction, and commerce in a single stream (Lo et al., 2022). Viewers encounter live demonstrations, public question and answer exchanges, and one-tap transitions from viewing to checkout, compressing the distance between attention and action (H. Wang et al., 2024). Perceived interactivity denotes the extent to which an interface affords reciprocal communication, timely responsiveness, and user control during exchanges (Jiang et al., 2022). On short-video platforms, these qualities are salient and experienced as participatory properties of the encounter rather than static technical attributes (Scharlach and Hallinan, 2023). Interactive cues can shape two organismic states that matter for purchase decisions. Trust reflects confidence in a seller's ability, benevolence, and integrity under uncertainty (Hallikainen and Laukkanen, 2021). Self-control reflects short-term regulatory capacity when dense prompts and frequent calls to respond are present (Upshaw et al., 2024). Prior work has primarily emphasized relational pathways through trust, whereas potential regulatory pathways have received less attention, even though both may operate concurrently in fast-paced streams (Yang et al., 2024).

To anchor the context, the study focuses on Chinese undergraduates who regularly engage with short-video commerce, a population frequently exposed to public exchanges and in-stream checkout (Zhan and Zhu, 2025). The inquiry examines whether perceived interactivity relates to purchase intentions directly and indirectly through trust and self-control considered in parallel, with the direct path retained to evaluate partial mediation.



2. LITERATURE REVIEW

2.1 *Perceived interactivity and purchase intentions*

Perceived interactivity is the subjective experience that a medium enables reciprocal communication, timely responsiveness, and user control over exchanges (Joo and Yang, 2023). Short-video platforms exemplify these properties through live comment streams, visible reactions, instant Q&A, and seamless transitions from viewing to checkout, which render the interface participatory rather than purely broadcast (Liu and Zhang, 2024; Sun et al., 2019).

Within the stimulus–organism–response framework, interactive cues operate as stimuli that modify organismic states and subsequently shape responses such as intentions to purchase (Kim et al., 2020; L. Zhang et al., 2023). Higher perceived interactivity heightens social and cognitive engagement, increases perceived relevance and agency during the encounter, and lowers hesitation by making action feel immediately feasible inside the same channel (Gao et al., 2023). Social presence theory specifies the core psychological mechanism: contingent, two-way exchanges strengthen the sense that a real, attentive other is present in the interaction, conveying warmth and personal attention and thereby increasing message acceptance (Chen et al., 2023). In short-video shopping contexts, experiencing such presence during product presentation and seller–viewer exchanges is expected to translate into stronger purchase intentions (Jiang and Li, 2025; Ren et al., 2025). Accordingly, the following hypothesis is proposed.

H1. Perceived interactivity is positively associated with purchase intentions.

2.2 *The mediating role of trust*

Trust in digital commerce is a willingness to accept vulnerability to a seller's actions based on positive expectations of ability, benevolence, and integrity (Tikhomirova et al., 2021). On short-video platforms, perceived interactivity appears as timely replies, public question and answer exchanges, visible problem solving, and contingent communication (Zhang et al., 2024). Social exchange theory holds that reciprocal and responsive communication signals benevolence and commitment, which fosters relational confidence (Cropanzano and Mitchell, 2005). In line with the commitment and trust theory of relationship marketing, frequent and open communication builds trust and, in turn, facilitates cooperative intentions toward exchange (Badrinarayanan and Ramachandran, 2024). Perceived interactivity should therefore strengthen trusting beliefs by signaling competence and accountability when information asymmetry is salient (Zhang et al., 2022).

Trust is also a proximal driver of purchase intentions because it reduces uncertainty and perceived risk around the transaction (Al-Adwan et al., 2022). Uncertainty reduction theory argues that reciprocal interaction decreases ambiguity about a partner's qualities and likely behavior (Kramer, 1999). When consumers can ask clarifying questions, observe publicly archived answers, and view demonstrations within the same interface, diagnostic information increases and the act of purchasing appears safer and more feasible (Cheng et al., 2022). Attitudes toward buying therefore become more favorable and intentions strengthen (X. Wang et al., 2022). Accordingly, the following hypotheses are proposed.

H2. Perceived interactivity is positively associated with trust.

H3. Trust is positively associated with purchase intentions.

2.3 *The mediating role of self-control*

Self-control is the capacity to override prepotent impulses and align behavior with longer-term goals rather than immediate temptations (Gillebaart, 2018). It fluctuates as a state that can be taxed by concurrent demands on executive attention and response inhibition (Timme et al., 2022). The self-regulatory strength model proposes that exerting control consumes a limited resource, which temporarily diminishes subsequent regulatory capacity (Baumeister et al., 2024; MacKenzie and Baumeister, 2015). Short-video interfaces are rich in contingent feedback, prompts to react, and rapid calls to action (Guo et al., 2025a; Zhang et al., 2024). These interactive demands require continuous monitoring and selection among micro-responses, thereby drawing on the same control resources that support restraint (Parry and Roux, 2019). As perceived interactivity increases, users are more likely to experience regulatory fatigue, which manifests as lower momentary self-control during the shopping episode (Beuckels et al., 2021; Guo et al., 2025b).

Lower self-control, in turn, is associated with stronger readiness to buy (Nyrhinen et al., 2024). Dual-process accounts of judgment and decision making posit a competition between an impulsive, reward-sensitive system and a reflective, control-based system (Meisel et al., 2019). When control is weakened, immediate reward cues gain influence, risk is discounted, and approach tendencies toward hedonic consumption intensify (Moes et al., 2021).

Consumer research consistently links diminished self-control to heightened impulsive buying and stronger purchase intentions in online contexts (Chen et al., 2022). In short-video commerce, limited-time discounts, social proof counters, and frictionless checkout concentrate these reward cues within the same interactive stream, so that a transient drop in self-control is especially likely to translate into higher intentions to purchase the featured product (Zhou, 2024). Accordingly, the following hypotheses are proposed.

H4. Perceived interactivity is negatively associated with self-control.

H5. Self-control is negatively associated with purchase intentions.

2.4 Parallel mediation via trust and self-control

The theoretical accounts developed above imply that perceived interactivity can shape purchase intentions through more than one proximal pathway. Within the stimulus–organism–response perspective, perceived interactivity operates as a stimulus that alters organismic states relevant to exchange (Kim et al., 2020). One state concerns relational judgments (Kolbl et al., 2020). Responsive, reciprocal communication fosters confidence in a seller’s ability, benevolence, and integrity, thereby increasing trust, which is a well-established antecedent of intention to transact in digital commerce (Duong et al., 2025). A second state concerns momentary regulatory capacity. Dense, contingent interaction places continuous demands on monitoring and response selection, which can draw on limited self-regulatory strength and reduce self-control in the moment, making immediate action toward the focal product more likely (Han, 2023; Zhang et al., 2024). These two processes are conceptually distinct and can operate simultaneously during the same short-video shopping episode, so a parallel mediation structure is appropriate.

The model therefore anticipates significant indirect effects of perceived interactivity on purchase intentions through both trust and self-control while retaining a direct path (Fig. 1). The indirect effect via trust should be positive because higher perceived interactivity strengthens trusting beliefs, which in turn raise purchase intentions. The indirect effect via self-control should also be positive because higher perceived interactivity is expected to lower self-control, and lower self-control is associated with stronger purchase intentions. Accordingly, the following hypotheses are proposed.

H6a. Trust mediates the positive association between perceived interactivity and purchase intentions.

H6b. Self-control mediates the positive association between perceived interactivity and purchase intentions, such that perceived interactivity reduces self-control and reduced self-control is associated with higher purchase intentions.

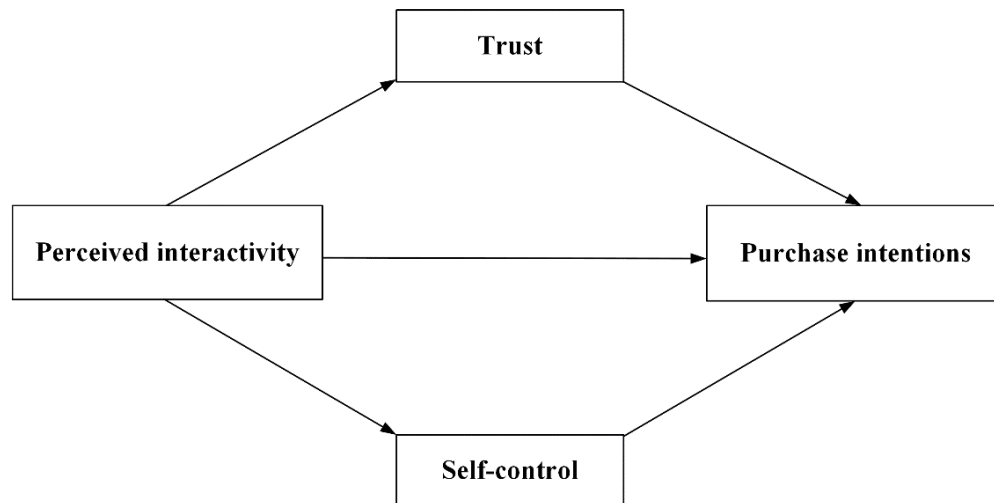


Fig. 1. Conceptual model

3. METHODOLOGY

3.1 Participants

Undergraduate students at a university in Guangxi, China, served as the target population. An a priori power analysis using G*Power 3.1.9.7 (Faul et al., 2007) was conducted for the primary test of an incremental effect in multiple regression. We specified a linear multiple regression, fixed model (R² increase), with one tested predictor among three total predictors, a small effect size ($f^2 = .02$), two-tailed testing, $\alpha = .01$, and desired power ($1 - \beta$) = .95. The analysis indicated a required sample of $N = 895$ (actual power = .950).

Data were collected online via Wenjuanxing using convenience sampling. Participation was voluntary and anonymous, and informed consent was obtained prior to survey initiation. Quality-control procedures excluded submissions exhibiting uniform responding (same option on $\geq 90\%$ of items) or completion times shorter than 120s. After screening, 931 valid questionnaires remained from 958 submissions (valid response rate = 97.18%). The final sample included 531 men (57.04%) and 400 women (42.96%), with a mean age of 21.03 years ($SD = 1.90$). No item-level missing data were present. The study protocol was approved by the Institutional Review Board of the authors' affiliated university.

3.2 Measures

a. Perceived interactivity

Perceived interactivity was assessed with the Measures of Perceived Interactivity scale (McMillan and Hwang, 2002), which operationalizes interactivity as a user perception encompassing three facets: direction of communication, user control, and timeliness of response. We used the 18-item version commonly reported in the literature, with items reflecting real-time conversational exchange, lack of delay, and engaging/controllable navigation. Participants responded on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating greater perceived interactivity.

To align the instrument with short-video commerce, items were contextually adapted (e.g., referencing live comment streams, seller Q&A, and in-app checkout) and anchored to a single focal episode: respondents first recalled a product they had seriously considered purchasing via a short-video channel in the past 30 days, and then evaluated that same channel throughout the questionnaire to maintain situational consistency across measures. The scale was administered in Chinese following a forward-back translation procedure by bilingual researchers, with cognitive pretesting on a small student group to ensure clarity; no substantive alterations to item meaning were required (Yao et al., 2024). Scoring followed the developers' guidance; higher values reflect greater perceived interactivity. Internal consistency for the total scale in this study was excellent (Cronbach's $\alpha = .90$).

b. Trust

Trust was measured using the Chinese Trust Scale (CTS; Xie et al., 2024), a culturally grounded instrument developed from the three-factor model of Chinese trust. The CTS comprises 20 statements that load on three dimensions: trust from others, trust in others, and public awareness. Participants responded on a six-point Likert scale ranging from 1 (completely disagree) to 6 (completely agree), with higher values indicating greater trust. In this study, the CTS was administered in Chinese following the authors' original wording and response format. Scoring followed the instrument developers' guidance, and higher composite scores reflect greater overall trust. Internal consistency for the total scale in the present sample was good (Cronbach's $\alpha = .88$).

c. Self-control

Self-control was assessed with the 13-item Brief Self-Control Scale (BSCS; Tangney et al., 2018), using the validated Chinese revision (Unger et al., 2016). Although the BSCS is scored as a single index, its items are drawn from five content domains of the parent Self-Control Scale: general capacity for self-discipline, deliberate/non-impulsive action, healthy habits, work ethic, and reliability. Participants rated each statement on a five-point Likert scale from 1 (not at all like me) to 5 (very much like me). Negatively worded items were reverse-coded and summed so that higher total scores indicate greater dispositional self-control.

To maintain situational consistency with the other measures, respondents answered with reference to the same short-video shopping episode specified earlier in the survey. Internal consistency for the total BSCS score in the present sample was acceptable (Cronbach's $\alpha = .84$).

d. Purchase intentions

Purchase intentions were measured with a five-item semantic-differential scale adapted from Spears and Singh's (2004) purchase intention measure. Items asked respondents to indicate their likelihood of buying the focal product

associated with the same short-video shopping episode referenced throughout the survey. Each item used a seven-point bipolar format (e.g., unlikely–likely, improbable–probable, definitely not buy–definitely buy, definitely do not intend to buy–definitely intend to buy, very low purchase interest–very high purchase interest), with higher values reflecting stronger intentions to purchase.

To ensure linguistic and contextual equivalence, the scale was administered in Chinese following forward–back translation by bilingual researchers, with cognitive pretesting on a small undergraduate group. For situational consistency across measures, participants first identified a short-video commerce episode from the past 30 days in which they seriously considered a specific product, and then evaluated purchase intentions for that same focal product and channel. Internal consistency for the total scale in this study was excellent (Cronbach's $\alpha = .94$).

3.3 Data analysis

A cross-sectional design was used. Analyses were conducted in SPSS 25.0 and SmartPLS 4.1. Data were screened according to the a priori inclusion rules described in the Participants section; no item-level missing values were detected, so all analyses relied on complete cases. Descriptive statistics and Pearson correlations were computed in SPSS. Unless otherwise noted, tests were two-tailed with $\alpha = .05$, and standardized estimates (β) are reported where available.

To assess potential common method bias (CMB), a confirmatory single-factor solution was estimated in SmartPLS by loading all indicators on one latent factor and comparing its fit and explanatory power with the theoretically specified multifactor measurement model. Full-collinearity variance inflation factors (VIFs) within the PLS environment were also inspected against conventional thresholds. In addition, a common-method factor (CLF) variant was estimated by loading a latent method factor on all reflective indicators to gauge average method loadings and any shifts in structural coefficients.

Hypotheses were tested with partial least squares structural equation modeling (PLS-SEM) in SmartPLS 4.1 using the a priori parallel-mediation model in which perceived interactivity predicts purchase intentions directly and indirectly via trust and self-control. Model estimation followed standard two-stage procedures. For the measurement model, indicator reliability (outer loadings), internal consistency (Cronbach's α and composite reliability), and convergent validity (average variance extracted, AVE) were evaluated. Indicators with loadings near or above .70 were retained; items between .40 and .70 were considered for removal only if doing so improved AVE and reliability without compromising content coverage. Discriminant validity was examined using the Fornell-Larcker criterion, cross-loadings, and the heterotrait–monotrait (HTMT) ratio, interpreting HTMT values below .85 to .90 as acceptable.

For the structural model, multicollinearity among predictors was assessed via inner VIFs. Model quality was summarized using coefficients of determination (R^2) for endogenous constructs, effect sizes (f^2) for individual paths, and predictive relevance (Q^2) via blindfolding where applicable. Indirect effects through trust and self-control were estimated via nonparametric bootstrapping with 5,000 resamples and bias-corrected 95% confidence intervals; an indirect effect was considered statistically significant when its confidence interval excluded zero. Out-of-sample predictive performance was evaluated using PLSpredict, inspecting Q^2_{predict} values and root-mean-square errors relative to a linear benchmark. In sensitivity analyses that included continuous covariates, predictors were mean-centered to aid interpretability and reduce nonessential collinearity.

4. RESULTS AND DISCUSSION

4.1 Results

This study, based on questionnaire data from Chinese undergraduate students, uses PLS-SEM to quantitatively analyze whether perceived interactivity influences purchase intention through concurrent relational and moderating processes. Based on the statistical results of various indicators, it objectively demonstrates the correlation characteristics between different variables and provides data support for subsequent discussion and conclusions.

a. Common method bias

Because all focal variables were obtained from self-reports in a single session, the potential for common method bias (CMB) was considered (Kamakura, 2010). Several procedural remedies were implemented: participation was anonymous and voluntary, item blocks were presented in randomized order within constructs, and construct labels were minimized on-screen to reduce evaluation apprehension. In addition, responses were anchored to a single, concrete short-video shopping episode to enhance contextual specificity across instruments.

Statistically, a confirmatory single-factor model was estimated in SmartPLS 4.1 by constraining all indicators to load on one latent factor and comparing its fit with the theoretically specified multifactor measurement model. The single-factor solution showed clearly inferior fit (SRMR = 0.152, d_ULS = 5.147, d_G = 5.876, NFI = 0.612) relative to the multifactor model (SRMR = 0.058, d_ULS = 0.934, d_G = 1.287, NFI = 0.905), indicating that a single common factor could not account for the observed covariation (Δ SRMR = 0.094; Δ NFI = -0.293). As an additional diagnostic, full-collinearity variance inflation factors (VIFs) were inspected for the latent constructs (Cheah et al., 2023); all were below conservative thresholds (perceived interactivity = 2.18, trust = 1.96, self-control = 2.07, purchase intentions = 2.24), suggesting that CMB did not introduce problematic collinearity.

A latent common-method factor (CLF) variant was also estimated in which a method factor loaded on all reflective indicators alongside their theoretical constructs (Wedel and Kamakura, 2001). Average method loadings were small ($M = .14$, range = .06–.22), and introducing the CLF produced only trivial changes in structural coefficients ($|\Delta\beta| \leq .03$) and explained variance ($\Delta R^2 \leq .01$). Taken together, the procedural remedies and convergent statistical evidence indicate that CMB is unlikely to threaten the validity of the study's conclusions.

b. Descriptive statistics and correlations

Descriptive statistics (M , SD) and bivariate Pearson correlations for all focal variables ($n = 931$) are shown in Table 1. On their respective response scales, perceived interactivity was moderate ($M = 4.97$, $SD = 1.49$), as were purchase intentions ($M = 3.89$, $SD = 1.89$); trust averaged 3.42 ($SD = 1.25$) and self-control averaged 3.05 ($SD = 1.06$). Zero-order correlations indicated that perceived interactivity correlated positively with trust ($r = .435$, $p < .01$) and purchase intentions ($r = .562$, $p < .01$), and negatively with self-control ($r = -.498$, $p < .01$). Trust correlated positively with purchase intentions ($r = .530$, $p < .01$), whereas self-control correlated negatively with both trust ($r = -.379$, $p < .01$) and purchase intentions ($r = -.623$, $p < .01$). All coefficients were below .70, suggesting no evidence of bivariate redundancy among constructs prior to model estimation.

Table 1. Descriptive statistics and correlations among study variables

	M	SD	1	2	3	4
1 Perceived interactivity	4.967	1.485	1			
2 Trust	3.423	1.254	.435**	1		
3 Self-control	3.052	1.064	-.498**	-.379**	1	
4 Purchase intentions	3.892	1.886	.562**	.530**	-.623**	1

Note. ** $p < .01$

c. Parallel mediation effects

A parallel mediation model was estimated in SmartPLS 4.1 using PLS-SEM with 5,000 bias-corrected bootstrap resamples (two-tailed). Perceived interactivity served as the exogenous predictor, trust and self-control were modeled as parallel mediators, and purchase intentions was the endogenous outcome; the direct path from perceived interactivity to purchase intentions was retained to test partial mediation. Model quality and predictive relevance were acceptable (SRMR = 0.061, d_ULS = 0.982, d_G = 1.301, NFI = 0.902). Endogenous variance explained was substantial, with $R^2 = .555$ for purchase intentions, $R^2 = .268$ for trust, and $R^2 = .316$ for self-control. Blindfolding indicated positive predictive relevance ($Q^2 = .393$ for purchase intentions; .178 for trust; .214 for self-control). Inner VIFs indicated no problematic multicollinearity (perceived interactivity = 2.18, trust = 1.96, self-control = 2.07, purchase intentions = 2.24). Effect-size estimates (f^2) suggested that perceived interactivity had a large impact on trust ($f^2 = .366$) and self-control ($f^2 = .462$); within the purchase-intentions equation, the contributions of trust ($f^2 = .146$) and self-control ($f^2 = .193$) were medium, and the direct contribution of perceived interactivity was small-to-medium ($f^2 = .115$). Out-of-sample prediction via PLSpredict yielded positive Q^2_{predict} values for all purchase-intention indicators (range = .118–.246), and PLS RMSEs were lower than those of the linear benchmark for four of five indicators, supporting meaningful predictive performance. Standardized estimates are reported (Fig. 2).

Perceived interactivity positively predicted trust ($\beta = .518$, 95% CI [.454, .575], $p < .001$) and negatively predicted self-control ($\beta = -.562$, 95% CI [-.616, -.508], $p < .001$), supporting H2 and H4. Trust was positively related to purchase intentions ($\beta = .284$, 95% CI [.221, .350], $p < .001$), whereas self-control was negatively related to purchase

intentions ($\beta = -.366$, 95% CI $[-.429, -.300]$, $p < .001$), supporting H3 and H5. The direct path from perceived interactivity to purchase intentions remained significant ($\beta = .259$, 95% CI $[.188, .328]$, $p < .001$), which is consistent with and supports H1. Bootstrap tests supported two specific indirect effects from perceived interactivity to purchase intentions: via trust ($\beta = .147$, 95% CI $[.113, .186]$, $p < .001$) and via self-control ($\beta = .206$, 95% CI $[.168, .246]$, $p < .001$), supporting H6a and H6b. The total indirect effect was $\beta = .353$ (95% CI $[.307, .403]$, $p < .001$), yielding a total effect of $\beta = .612$ (95% CI $[.561, .657]$, $p < .001$). The variance-accounted-for (VAF) was 57.7%, indicating substantial partial mediation. A contrast of the two specific indirect effects showed that the pathway through self-control was modestly larger than the pathway through trust (difference = .059, 95% CI $[.008, .115]$, $p = .034$).

Table 2. Parallel mediation results (standardized estimates)

Effect	β	95% CI	p
Perceived interactivity $\rightarrow$ Trust	.518	[.454, .575]	< .001
Perceived interactivity $\rightarrow$ Self-control	-.562	[-.616, -.508]	< .001
Trust $\rightarrow$ Purchase intentions	.284	[.221, .350]	< .001
Self-control $\rightarrow$ Purchase intentions	-.366	[-.429, -.300]	< .001
Perceived interactivity $\rightarrow$ Purchase intentions (direct)	.259	[.188, .328]	< .001
Indirect via Trust	.147	[.113, .186]	< .001
Indirect via Self-control	.206	[.168, .246]	< .001
Total indirect	.353	[.307, .403]	< .001
Total effect	.612	[.561, .657]	< .001

Note. Endogenous R2: Purchase intentions = .555; Trust = .268; Self-control = .316. *** $p < .001$.

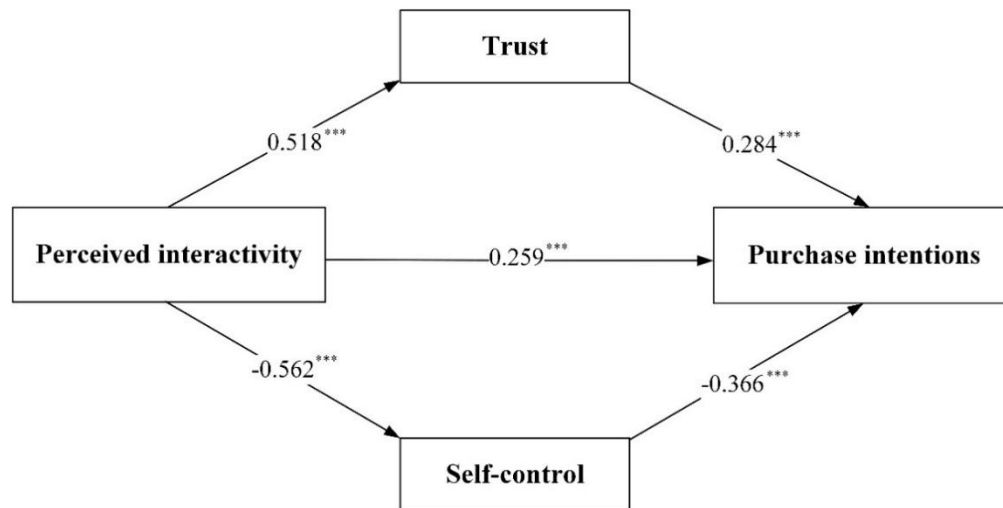


Fig. 2. Effects diagram (path model) of perceived interactivity on purchase intentions via trust and self-control

4.2 Discussion

This study investigated how perceived interactivity on short-video platforms relates to purchase intentions through two organismic states, trust and self-control, within a stimulus–organism–response perspective. The structural model yielded three convergent findings. First, perceived interactivity was positively associated with purchase intentions. Second, interactivity showed two significant indirect pathways, a positive route via heightened trust and a positive route via reduced momentary self-control. Third, the direct path from interactivity to intentions remained

significant, indicating partial mediation and the possibility of additional processes that also carry influence. Model diagnostics supported these conclusions, with acceptable misfit, meaningful predictive relevance, and substantial explained variance in intentions.

a. Interpreting the dual-route process

The pattern clarifies how interactive cues can both reassure and accelerate consumer action during the same encounter. When exchanges feel reciprocal and responsive, audiences infer ability, benevolence, and integrity, which strengthens willingness to transact (Duong et al., 2025). At the same time, dense and contingent prompts place continuous demands on monitoring and choice among micro-responses, drawing on the same regulatory resources that enable restraint (Liu and Zhang, 2024). As a result, interactivity can transiently reduce self-control, allowing immediate reward cues to weigh more heavily in intention formation (Khoi and Le, 2024). The present evidence shows that these organismic states are not mutually exclusive, and that their concurrent operation helps to explain why highly interactive streams can simultaneously cultivate confidence and make immediate action more likely (Yang et al., 2024).

An additional nuance concerns relative magnitude. Although the trust pathway was statistically and practically meaningful, the pathway through reduced self-control was modestly larger. In fast-paced short-video shopping, where attention is fragmented and calls to action are frequent, transient reductions in control may therefore be a particularly potent conduit from interactivity to intention (Zhang et al., 2024). This reading does not diminish the centrality of trust in digital exchange. Rather, it indicates that relational assurance and control depletion operate in parallel and should be modeled together to capture the net motivational state that precedes intention.

b. Positioning within and extending existing theory

The findings extend the stimulus–organism–response account of interactive persuasion by specifying two complementary organismic mechanisms that translate interface experience into behavioral disposition (Majeed et al., 2022). Prior work often privileges a single mediator, typically trust or usefulness related beliefs (J. Wang et al., 2022). By demonstrating parallel mediation through both trust and self-control, the present model links relational inferences with state-level regulatory capacity in the same episode. This dual-route interpretation integrates social presence and relationship marketing perspectives with resource-based views of self-regulation and aligns them with the distinctive tempo of short-video commerce (Hu and Chaudhry, 2020).

The preserved direct effect from perceived interactivity to intentions suggests that the influence of interactivity is not exhausted by these two states. Additional unmeasured processes may contribute, for example perceived enjoyment, flow, perceived diagnosticity, social proof, or action affordances that make buying feel immediately feasible within the same channel (Sun et al., 2019). Conceptually, these candidates represent cognitive, affective, and affordance-based routes that may co-fluctuate with trust and self-control, implying a broader mesosystem of organismic states rather than a single dominant pathway.

c. Conceptual scope and generalizability

The interpretation offered here is most applicable to settings that share three features with the focal context. First, interaction is contingent and rapid, such that viewers experience frequent prompts to respond (Liu and Zhang, 2024). Second, presentation and checkout are tightly coupled within the same interface, which shortens the intention-to-action distance (Han, 2023). Third, audiences are familiar with the platform’s communication norms, which allows responsive cues to be read as credible signals (Wang et al., 2023). In environments that lack one or more of these conditions, interactivity may still matter, but the relative strength of the trust route versus the self-control route may shift. These scope conditions specify when the present dual-route account is likely to generalize and when alternative mechanisms, such as deliberative evaluation or social endorsement, may dominate.

4.3 Implications and limitations

a. Implications for theory

The present findings refine stimulus–organism–response accounts of interactive commerce by specifying two complementary organismic conduits from perceived interactivity to purchase intentions. Evidence for parallel mediation indicates that relational assurance (trust) and momentary regulatory capacity (self-control) co-operate during short-video shopping rather than acting as alternative explanations. This dual-route interpretation integrates

social presence and relationship marketing perspectives with resource-based views of self-regulation, and it explains why highly interactive streams can both reassure audiences and accelerate decisions in the same episode (MacKenzie and Baumeister, 2015). The preservation of a significant direct effect suggests that additional organismic states, such as perceived enjoyment, flow, perceived diagnosticity, or action affordances, likely operate alongside trust and self-control. Future models that nest these states within a broader mesosystem may capture more of the variance in intentions and yield sharper process predictions.

b. Implications for practice and policy

For platform teams and sellers, the results support investments that raise the quality of reciprocal communication (L. Wang et al., 2024). Timely answers to questions, transparent resolution of concerns, visible follow-ups, and concrete demonstrations appear to cultivate trust, which is consistently associated with stronger purchase intentions (Istanbulluoglu and Sakman, 2024). At the same time, designers should recognize that dense, contingent interactive prompts can tax momentary control and tilt users toward immediate action (Nyrhinen et al., 2024). Choice architectures that pace prompts, sequence information from overview to specifics, and add light friction at commitment points can help preserve self-control without materially suppressing conversion (Park et al., 2023). Examples include structured comparison views, easy “save for later” and revisit options, confirmation dialogs that summarize price and shipping, and default reminders about return windows (Popovich and Hamilton, 2021). From a consumer-protection perspective, clear disclosures, easy cancellation workflows, spending limits for minors, and throttles on rapid repeat purchases are prudent safeguards when interactivity is intentionally amplified (Totzek and Jurgensen, 2021). For brand managers, the relative size of the two indirect paths implies that strategies which both signal credibility and avoid cognitive overload will be most effective in short-video contexts where attention is fragmented and calls to action are frequent (G. Zhang et al., 2023).

c. Limitations and directions for future research

Several limitations temper interpretation and point to concrete next steps. First, the cross-sectional design cannot adjudicate causal ordering. Experiments that manipulate response latency, prompt density, or conversational contingency and then track changes in trust and state self-control would provide stronger causal inference (Caillon et al., 2021). Second, all focal variables were self-reports collected in a single session, which raises the possibility of method variance despite procedural and statistical diagnostics (Podsakoff et al., 2024). Multi-method designs that pair psychometrics with behavioral telemetry, such as clickstream sequences or checkout completions, can reduce shared-method bias and test intention–behavior translation (Han and Ellis, 2023). Third, the sample comprised Chinese undergraduates within a specific platform ecology, which may limit generalizability. Replication with older consumers, different cultures, and alternative commerce formats, including live-stream auctions and influencer storefronts, is recommended. Fourth, measurement choices emphasized global trust and a brief self-control scale to preserve parsimony. Seller-specific trust, episodic state self-control, and finer-grained affective states such as urge or arousal may explain additional variance and clarify the residual direct path (Duong et al., 2025). Fifth, likely moderators were not tested. Product type, price level, scarcity cues, prior parasocial relationships, trait impulsivity, and media multitasking should be examined to determine when the trust route or the self-control route predominates. Finally, comparative model assessments across PLS-SEM and covariance-based SEM, use of longitudinal panel designs, and predictive evaluations with holdout or time-split validation would strengthen claims about both explanatory and forecasting performance (Wang et al., 2017).

5. CONCLUSION

This study shows that perceived interactivity in short video commerce strengthens purchase intentions both directly and through two organismic states operating in parallel. Higher interactivity increases trust, and it also reduces momentary self-control, with the latter route being modestly larger. The model explains substantial variance in intentions while retaining a significant direct effect, which indicates partial mediation. Conceptually, these findings advance a stimulus, organism, and response account in which relational assurance and regulatory capacity are complementary processes. Interactivity can reassure through responsive communication and, at the same time, accelerate decisions by taxing control resources. Practically, effective designs pair clear, timely, and credible interactions with pacing and light friction near commitment points to preserve user control while maintaining conversion. Future work should test causal links by manipulating specific interactive features and should examine boundary conditions such as product type, price, and audience characteristics. Recognizing both routes provides a concise framework for understanding and optimizing persuasive design in short video commerce.

Ethics approval and consent to participate

Ethics approval and consent to participate. The study protocol was approved by the Institutional Review Board of the authors' affiliated university. All procedures complied with the Declaration of Helsinki. Informed consent was obtained from all participants prior to data collection.

Competing interests

The authors declare no competing interests.

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