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Factors Influencing Online Impulsive Buying Intentions on Weibo: The Mediating Role of Arousal

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ABSTRACT

Impulse buying on social media platforms has become a defining feature of the digital commerce landscape, particularly in visually immersive and socially interactive environments like Weibo. With over 600 million active users, Weibo merges entertainment, peer influence, and algorithmic recommendations, creating conditions ripe for unplanned consumer purchases. Despite its growing importance, the psychological mechanisms behind impulse buying intention in such contexts remain underexplored. This study investigates how five key marketing stimuli—promotion, visual appeal, positive user reviews, product features, and price—influence consumers' impulse buying intention on Weibo, with emotional arousal examined as a mediating factor. Drawing on responses from 400 Chinese Weibo users, the study finds that visual appeal and price have a direct and significant influence on impulse buying intention, while promotion, user reviews, and product features affect behavior indirectly through emotional arousal. Arousal emerged as the strongest overall predictor of unplanned purchase intentions. These findings carry important implications for practitioners. Marketers should prioritize emotionally resonant content, especially visually engaging formats and value-driven messaging, to effectively stimulate impulse buying. Rather than relying solely on discounts or product descriptions, strategies that evoke excitement, urgency, and visual impact are more likely to influence consumer behavior on fast-moving platforms like Weibo. The results offer actionable insights for content creators, brand managers, and digital strategists seeking to optimize social commerce engagement by aligning marketing stimuli with consumers' emotional triggers.

Keywords: Arousal, digital consumer intention, Hawkins Stern's Impulse Buying Theory, impulse buying intention, Weibo

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INTRODUCTION

The phenomenon of impulse buying, traditionally associated with physical retail spaces, has undergone a significant transformation with the emergence and rapid expansion of digital commerce. Defined as a spontaneous and emotionally driven purchase made without pre-shopping intentions, impulse buying has been well-examined in offline contexts (Kabamba & Smith, 2022). However, the evolution of online shopping platforms has introduced novel triggers-such as real-time interactivity, algorithmic personalization, and peer-generated content-that have intensified the emotional dimensions of consumer decision-making (Mahpour et al., 2024). In this digital milieu, social media platforms like Weibo stand out for their ability to blend social interaction with commerce, thereby cultivating an environment ripe for impulsive consumption.

Weibo, one of China's most prominent social networking platforms, exemplifies the fusion of entertainment, communication, and online shopping. With its algorithmically curated feeds, influencer promotions, short-form videos, and live-streamed product showcases, Weibo presents users with a multisensory shopping experience that is immediate and emotionally charged (Teng et al., 2023). The platform's design reduces cognitive deliberation and amplifies affective engagement, encouraging quick, emotionally influenced purchase decisions. Consequently, Weibo is not just a marketplace-it is a persuasive environment where marketing cues and social influence converge to lower users' resistance to spontaneous spending. Despite this, the underlying psychological mechanisms that drive impulsive purchases in such emotionally immersive platforms remain underexplored.

To better understand these mechanisms, the present study adopts Hawkins Stern's Impulse Buying Theory (1962), which posits that impulse purchases are often the result of external stimuli rather than deliberate planning (Hong et al., 2022). Stern's (1962) framework identifies key situational drivers-such as promotional intensity, sensory appeal, and product accessibility primary factors that can trigger unplanned buying intention. Applying this theory to a contemporary platform like Weibo provides a unique opportunity to investigate how these digital stimuli, particularly visual design, user reviews, and flash promotions, impact consumer buying intention (Wang et al., 2024). More critically, this study introduces the concept of emotional arousal as a mediating mechanism, suggesting that arousal bridges the relationship between external stimuli and impulsive buying intentions. This emotional lens provides a nuanced extension to Stern's (1962) model, aligning it with the affective dynamics of today's social commerce landscape.

Despite the widespread integration of social networking and online shopping, academic inquiry has yet to fully explore how impulse buying manifests within these hybrid environments. Most existing research focuses on traditional e-commerce platforms like Amazon or Taobao, often overlooking the socially interactive and emotionally stimulating nature of platforms like Weibo. Furthermore, Li (2025) in his study conceptualizes impulse buying as a cognitive process, marginalizing the emotional and situational triggers that are pivotal in social media contexts. In addition, he argued that there is also a lack of comprehensive models that incorporate emotional constructs such as arousal, even though arousal has been shown to significantly influence attention, interest, and behavioral intention outcomes in digital settings. Hence, this theoretical oversight leaves a critical gap in understanding how various stimuli interact with emotional states to influence spontaneous purchases.

Weibo's unique ecosystem-marked by entertainment, personalization, and peer engagement-complicates the simplistic application of rational-choice theories to online consumer buying intention. Features such as visual saturation, promotional bombardment, and influencer endorsements create emotionally charged environments where consumers are more susceptible to arousal-induced decisions (Brussee, 2022). Kursan Milaković & Ahmad (2023), in their study, acknowledge the emotional underpinnings of online impulse buying, few have empirically examined the mediating role of arousal, particularly in social commerce settings. As such, this study seeks to bridge the theoretical and empirical gaps by exploring how external stimuli on Weibo-namely promotions, visuals, reviews, and pricing-induce arousal, and how this emotional state, in turn, predicts impulsive buying intentions. Framed within Stern's (1962) theoretical model and expanded through the lens of emotional mediation, this study proposes a more integrative and emotionally sensitive understanding of impulse buying in social media environments. By focusing on Weibo, the research not only contextualizes the findings within an increasingly relevant digital platform but also contributes to broader conversations about the psychological impact of digital consumer culture (Bashar et al., 2023).

This study offers both theoretical and practical contributions. Theoretically, it expands Stern's Impulse Buying Theory (1962) by integrating emotional arousal as a mediating construct within the context of social commerce. This conceptual enhancement reflects the evolving dynamics of consumer buying intention in digital ecosystems, where emotional and situational cues frequently override rational planning. Practically, the study offers actionable insights for digital marketers, platform designers, and e-commerce strategists. By identifying which platform-specific stimuli most strongly influence impulsive purchases and clarifying the role of arousal, businesses can optimize content layout, promotional timing, and influencer strategies to better engage users and stimulate buying intention (Arruda Filho & Oliveira, 2023). In sum, this study enhances the theoretical sophistication and practical applicability of impulse buying research in the era of social media-driven commerce.

LITERATURE REVIEW

Impulse Buying Intention in the Digital Age

Impulse buying intention refers to a consumer's conscious or subconscious readiness to make an unplanned purchase triggered by external or internal stimuli. While early foundational studies by Clover (1950) and Stern (1962) conceptualized impulse buying primarily as a spontaneous behavior, more recent research shifts focus to the intention phase, emphasizing the psychological inclination that precedes the actual purchase (Mishra et al., 2023). This shift is particularly relevant in the digital age, where the pathway from impulse trigger to intention is increasingly shaped by emotionally charged, real-time interactions within social media and e-commerce ecosystems.

Platforms like Weibo exemplify this transformation by integrating peer-generated content, influencer marketing, and entertainment, creating fertile grounds for cultivating impulse buying intentions (Li, Wang, & Cao, 2022). These platforms leverage algorithmic personalization to tailor product recommendations, social proof through user interactions and reviews, and emotional arousal via engaging multimedia content, all of which dynamically influence consumers' psychological readiness to buy impulsively

This evolution necessitates a conceptual expansion beyond traditional behavioral models to include these novel antecedents specific to digital shopping contexts. Understanding how such stimuli influence impulse buying intention is crucial because intention often precedes actual behavior and serves as a reliable predictor in online environments, where the immediacy and emotional intensity of stimuli are heightened (Chaurasia et al., 2024). Consequently, research that integrates these digital-era factors provides a more comprehensive framework for explaining and predicting impulse buying in contemporary social commerce settings.

Impulse Buying Theory

Stern's (1962) Impulse Buying Theory offers a foundational framework to understand unplanned purchasing triggered by situational and environmental cues, emphasizing that impulse buying often bypasses rational decision-making processes. Stern (1962) classified impulse buying into four types: pure impulse buying (spontaneous purchases of novel items), reminder impulse buying (triggered by seeing an item that reminds the consumer of a need), suggestion impulse buying (prompted by a new product suggestion), and planned impulse buying (where some planning precedes the impulse; (Hong et al., 2022). This classification highlights how external cues can provoke immediate purchase responses without extensive cognitive deliberation.

Though originally developed in the context of physical retail, Stern's (1962) theory has been extended to online commerce, where digital stimuli such as visual content, time-limited deals, influencer endorsements, and social engagement serve as situational cues analogous to those in brick-and-mortar settings. The convenience and accessibility of online shopping further increase the propensity for impulse buying, as Stern anticipated, by reducing barriers to purchase and enhancing stimulus exposure.

In addition, Chen et al. (2023) in their research integrate emotional arousal as a mediating mechanism within Stern's (1962) framework, recognizing that digital stimuli do not merely trigger behavior but also influence consumers' psychological readiness or intention to act impulsively. Hence, platforms like Weibo, promotions, visual appeal, user reviews, product features, and price cues function as stimuli that elevate emotional arousal, which in turn fosters impulse buying intentions. This emotional dimension enriches Stern's (1962) stimulus-response model by incorporating the internal affective processes that precede impulsive purchases in digital environments.

Moreover, the evolving consumer landscape-with increased social influence susceptibility, experience-based consumption, and digital engagement-necessitates expanding Stern's (1962) original model to include website quality, virtual atmosphere, browsing behavior, and online reviews as contemporary stimuli (Feng et al., 2024). These additions reflect the complex interplay of cognitive and emotional factors in online impulse buying, confirming the continued relevance and adaptability of Stern's (1962) theory in explaining impulse buying intention in the digital age.

Promotions

Promotions such as flash sales, limited-time offers, and exclusive discounts serve as powerful triggers of impulse buying intention by creating urgency and perceived scarcity, which elevate the consumer's perceived value and prompt spontaneous purchase intentions (Suguna & Nivedha, 2025). On platforms like Weibo, these promotions are often embedded within influencer content and user interactions, enhancing their legitimacy and social proof. However, the frequent and excessive exposure to promotional stimuli can lead to consumer fatigue and skepticism, potentially diminishing their effectiveness over time. Emotional arousal has been identified as a key mediator that sustains the impact of promotions by converting initial attention into genuine purchase intention. The immersive and interactive nature of social commerce platforms further intensifies this emotional engagement, facilitating impulsive buying behavior.

Visual Appeal

Visual stimuli-including high-quality images, immersive videos, and aesthetically pleasing layouts-play a critical role in suggestion-type impulse buying by capturing attention and eliciting affective responses that bypass rational deliberation. On Weibo, where users scroll rapidly through content-rich feeds, visually rich storytelling determines which products attract interest (Shrestha, 2025). However, visual saturation can cause fatigue, reducing emotional engagement and thus the effectiveness of visual cues. Studies suggest that visual appeal influences impulse buying intention indirectly by elevating emotional arousal, which sustains consumer engagement despite high content volume.

User Reviews

User-generated reviews (UGRs) function as digital word-of-mouth and serve as potent social validation cues. Positive reviews from peers or influencers on Weibo enhance product credibility and emotional resonance, both of which are crucial antecedents of impulse buying intention (Shrestha, 2025). Nevertheless, concerns about authenticity, such as fake or biased reviews, can undermine trust. Research indicates that the emotional connection consumers form with authentic reviews mediates their influence on impulse buying intention more strongly than purely cognitive assessments of factual content (Anindito & Handarkho, 2022). This underscores the importance of emotional arousal as a bridge between exposure to reviews and impulsive purchase decisions.

Product Features

In the absence of tactile evaluation in online shopping, consumers rely heavily on product descriptions, videos, and influencer demonstrations to assess product features. Features that signal novelty, exclusivity, or high functionality can trigger impulse buying intentions by satisfying latent desires or needs. On Weibo, short-form content and influencer endorsements highlight these features effectively. However, given users' limited attention spans, emotional reactions to simplified or visually appealing product features may play a more significant role than detailed rational analysis in driving impulse buying intentions (Zeng et al., 2024). Emotional arousal elicited by such features is thus a critical psychological pathway converting attention into intent.

Price

Price remains a central stimulus influencing impulse buying intention. Discounts, perceived bargains, and value framing can override cognitive restraints and encourage immediate purchase decisions. On Weibo, price cues are frequently integrated with promotional messages and social proof, creating a compelling emotional value proposition. However, transparency and comparative pricing can also induce rational scrutiny, which may suppress impulsive tendencies. Recent findings suggest that the emotional interpretation of price-how consumers feel about the deal or value-better explains variations in impulse buying intention than the objective price itself (Rahman et al., 2022).

Arousal

Arousal, defined as an elevated emotional state characterized by excitement or stimulation, plays a pivotal role in shaping impulse buying intention. It acts as a psychological mechanism that transforms cognitive and environmental stimuli into affect-driven motivation, effectively bridging the gap between external triggers and internal decision-making processes (Hatta, Miesvontoko, & Hidayat, 2025). In emotionally rich digital environments like Weibo-where entertainment, social interaction, and marketing converge-arousal is often heightened unconsciously, intensifying consumers' readiness to act on impulse.

Similarly, Al-Abbadi et al. (2022) empirically demonstrated that heightened arousal enhances decision readiness and attentional focus, thereby increasing consumers' susceptibility to impulsive purchase intentions. This finding aligns with the broader affective neuroscience literature, which posits that arousal amplifies motivational states and reduces cognitive control, facilitating spontaneous behaviors. By mediating the relationship between digital stimuli (such as promotions, visual appeal, and social proof) and impulse buying intention, arousal provides a critical emotional pathway that explains why certain online marketing tactics succeed in provoking unplanned purchases.

Integrating arousal as a mediating variable enriches Stern's (1962) stimulus-response model by adding an emotional dimension, thereby offering a more comprehensive framework for understanding impulse buying in the digital age. This theoretical advancement not only deepens academic insight into consumer behavior but also offers practical implications for marketers. Designing emotionally resonant digital campaigns that effectively elevate arousal can enhance the conversion of consumer attention into impulse buying intentions, optimizing marketing effectiveness on platforms like Weibo (Feng et al., 2024).

METHODOLOGY

Sampling and Participants

The study employed purposive sampling to identify and recruit respondents who were deemed information-rich and relevant to the research objectives. Participants were required to be between 18 and 45 years old and have prior experience purchasing through Weibo. This purposive criterion ensured that data were collected from individuals who were both familiar with the platform's commercial features and actively engaged in digital shopping behaviors. Although the non-probability sampling method may limit the generalizability of the findings beyond the sampled population, it was deemed appropriate for the exploratory and model-testing nature of the study, which necessitates a sample that reflects the specific behavioral and contextual attributes of the phenomenon under investigation (Manan et al., 2023).

A total of 400 valid responses were obtained for the main analysis. The sample size was determined based on recommendations in the Raosoft Sample Size Calculator. Given the complexity of the model and the number of constructs involved, the sample size was sufficient to perform Partial Least Squares Structural Equation Modeling (PLS- SEM) using SmartPLS software (Hair et al., 2022).

Survey Method and Instrumentation

To operationalize this design, data were collected using a structured, self-administered online questionnaire. The online survey method was selected due to its efficiency, cost- cost-effectiveness, and alignment with the digital behavior of the target population. Given that the focus of the study is on consumer behavior within a digital platform, administering the questionnaire online ensures ecological validity by reaching respondents in their natural online environment. This approach also aligns with best practices in digital consumer research, where online surveys facilitate timely and contextually relevant data collection (Manan et al., 2022).

The survey was disseminated through various digital channels, including Weibo, direct messages, and related online communities, to ensure respondents were active users of the platform. Before participating, respondents were informed about the nature and purpose of the study, and their informed consent was obtained digitally, adhering to ethical standards in online research.

The survey has two (2) sections: Section A consists of the indicators that examine the effects of promotion, visual appeal, positive user comments, product features, and price on impulse buying intention and arousal. Section B focuses on respondents' demographic information.

Specifically, each statement in Section A was rated using a 5-point Likert scale, with respondents evaluating their level of agreement for each question: 1 representing "strongly disagree," 2 representing "disagree," 3 representing "neutral," 4 representing "agree," and 5 representing "strongly agree.". This study designed a total of seven variables, each comprising seven items, all developed based on the characteristics of the Weibo platform.

In addition, Table 1 explains the items Operational Definition, and it was constructed using previously validated scales, adapted to the Weibo context to ensure relevance and clarity. The statements were developed, tailored to the characteristics of the Weibo platform to evaluate promotion, visual appeal, positive user reviews, product features, price, and impulse buying intention, aiming to better align with the research context of consumer impulse buying intention. Each construct was measured using multiple items rated on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Section B primarily collects demographic information about the respondents, including gender, age, educational level,

Table 1
Operationalisation definition of the constructs

Constructs	Operational Definition	Citations
Promotion	Promotion is defined as a tool seller use to persuade their target consumers to purchase products within a short period of time, such as coupons, discounts, buy- buy-one-get-one-free, special prices, and other strategies.	Akram et al. (2018)
Visual appeal	Visual appeal refers to the visual elements of products on the Weibo platform that attract consumer attention and evoke emotional responses, including fonts, texts, colors, images, animations, and videos.	Rahman et al. (2022)

Table 1 *(continue)*

Constructs	Operational Definition	Citations
Positive user reviews	Positive user reviews refer to affirmative or advantageous reviews about products or services on the Weibo platform, which can generate social pressure to influence other users' impulse buying intentions, especially endorsements, recommendations, or trends from friends, family, and influential individuals.	Singh et al. (2023)
Product features	Product features refer to the information generated by the product's own construction, typically manifested in consumers' emphasis on the design, functionality, quality, composition, and other unique innovative features that help satisfy consumers' preferences and needs.	Hatta, Miesvontoko, & Hidayat, (2025)
Price	Price is defined as the amount of money that consumers are willing to pay when they perceive that the price of a product on the Weibo platform is advantageous compared to similar products or is consistent with its quality.	Shrestha (2025)
Arousal	Arousal refers to the degree to which individuals feel stimulated, excited, or alert when exposed to various stimuli on the Weibo social networking platform.	Feng et al., (2024)
Impulse buying intention	Impulse buying intention refers to a person's plan to buy products immediately and spontaneously. This feeling occurs due to the temptation to buy a product. Impulse buying intention will occur when a person manages to convince himself that he needs to buy the product.	Chen, Chen, & Lin (2023)

monthly income, employment status, frequency of online shopping, types of products purchased, monthly spending, and annual total spending. Data from this section provides contextual support for the study and allows for an analysis of the consumption intention characteristics of different groups.

Pre-Test and Pilot Study

Before full deployment, the questionnaire underwent a pre-test involving 15 Weibo users to assess the clarity and comprehensibility of the items. Feedback from the pre-test informed minor linguistic revisions to ensure cultural and contextual appropriateness. Subsequently, a pilot study with 50 participants was conducted to evaluate the internal consistency and reliability of the instrument. All constructs demonstrated satisfactory reliability, with Cronbach's alpha values exceeding the accepted threshold of 0.70, confirming the instrument's suitability for the main study.

Data Analysis Technique

Data were analyzed using PLS-SEM to assess both the measurement and structural models. The measurement model was evaluated based on indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was confirmed through outer loadings exceeding 0.70, while internal consistency was assessed using Cronbach's alpha and composite reliability coefficients, both of which met the minimum benchmark of 0.70. Convergent validity was verified through Average Variance Extracted (AVE) values above 0.50. Discriminant validity was examined using the Fornell–Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio (Henseler et al., 2015). These assessments confirmed the dimensionality and construct distinctiveness of the measurement items.

The structural model was then evaluated by examining path coefficients, statistical significance (via bootstrapping with 5,000 subsamples), coefficient of determination (R^2), and predictive relevance (Q^2) (Sarstedt et al., 2021). The significance of the direct and indirect effects, particularly the mediating role of arousal, was tested using the bootstrapping procedure to generate confidence intervals and assess mediation. Model fit was assessed using the Standardized Root Mean Square Residual (SRMR), where values below 0.08 indicated an acceptable fit between the data and the proposed theoretical model (Sarstedt et al., 2021).

Ethical Considerations

This study adhered to established ethical standards in the design, distribution, and analysis of the online survey. All participants were provided with clear information regarding the purpose of the research, the voluntary nature of their participation, and their right to withdraw at any stage without penalty. Consent was obtained electronically before survey participation, and participants proceeded only after confirming their agreement (Indriastuti et al., 2024). To protect privacy, the survey did not collect any personally identifiable information. All responses were anonymous and treated with strict confidentiality. Data were stored securely and used solely for academic analysis. No incentives were offered that might unduly influence participation, thereby minimizing the risk of coercion or bias.

Given the nature of the study, which involved self-reported data on consumer preferences and behaviors, the research posed minimal risk to participants. Ethical principles concerning autonomy, beneficence, and non-maleficence were observed throughout, in accordance with guidelines from institutional research ethics committees and general best practices for online survey research (Singh & Sagar, 2022). Furthermore, by employing validated measurement scales, ensuring sample relevance, and applying appropriate statistical methods, the study maintains methodological transparency and integrity. These practices support the ethical goal of producing research that is credible, replicable, and valuable to the broader scholarly community.

RESULTS

Demographic Profile

A total of 400 respondents participated in this study, all active Weibo users aged 18–45 with prior experience in online shopping via the platform. The demographic insights are crucial not only for understanding user profiles but also for interpreting how specific traits influence impulse buying intention within a digital social commerce environment. The sample was predominantly female (74.8%, n = 299), a demographic known for higher engagement with visually rich, socially interactive content, which is characteristic of Weibo's shopping environment. Prior research indicates that female users often exhibit stronger emotional responses and are more influenced by promotional stimuli-factors that positively correlate with the formation of impulse buying intention. This aligns with recent findings showing that women tend to be more susceptible to affective triggers in social commerce, such as limited-time offers and influencer endorsements, which enhance impulsive purchase likelihood (Karahan, 2025). Consequently, the gender distribution suggests that female Weibo users are likely to experience greater susceptibility to intention formation triggered by the platform's emotionally immersive features.

A majority (70%, n = 280) of respondents were aged between 18 and 25 years- representing a digitally native, high-engagement group. Younger consumers are more responsive to algorithmic content, peer influence, and mobile interface design, all of which stimulate purchase intentions more rapidly than older demographics. Empirical studies confirm that Generation Z and young Millennials exhibit heightened impulsive buying tendencies due to their familiarity with real-time content and openness to trend-driven consumption (Moghddam et al., 2024). Their emotional reactivity and social conformity further amplify impulsive intentions, especially when exposed to emotionally charged stimuli such as flash sales or live-stream promotions on Weibo.

Over half of the respondents (55.8%) held a master's degree, and 28% held a Doctorate. While higher education levels are traditionally associated with more rational and deliberate decision-making, recent research reveals that highly educated consumers may still form strong impulse buying intentions when exposed to persuasive, emotion-laden digital content (Mahpour et al., 2024). This demographic, though discerning, is not immune to intention shifts triggered by well-targeted visual, promotional, or social proof cues on Weibo. Indeed, studies suggest that educated consumers often engage in impulse purchases as a form of experiential consumption or stress relief, particularly in social commerce contexts where emotional arousal is heightened. Thus, education level does not necessarily mitigate impulsive buying intention but may influence the underlying motivations and contexts in which it occurs.

Nearly half of the participants (48.3%) reported monthly incomes under RMB 2,000, reflecting a predominantly student or early-career demographic. Research indicates that lower-income consumers tend to exhibit heightened sensitivity to perceived deals, promotions, and value-based framing stimuli that significantly enhance impulse buying intention, especially when combined with urgency cues such as limited-time offers or flash sales. Despite generally conservative spending habits due to financial constraints, these consumers are prone to impulsive purchases when the perceived benefits or discounts outweigh their usual financial caution (Teng et al., 2023). These dynamic underscores the importance of promotional strategies tailored to value-conscious segments in social commerce settings like Weibo.

The predominance of students (75%) in the sample aligns with the age and income profiles observed. Students typically spend substantial time on digital platforms and demonstrate high engagement with influencer content and trend-based recommendations, which are key drivers of impulsive buying intentions. Their impulsive purchase decisions are often emotionally and socially motivated rather than grounded in practical necessity, reflecting the psychological mechanisms underlying unplanned buying behavior in younger consumers (Ji et al., 2022). This demographic thus represents an ideal population for studying the formation of impulse buying intentions within social commerce, where peer influence and emotional arousal play pivotal roles.

As shown in Table 2, 40% (n = 160) of respondents reported shopping on Weibo several times a week, 19.5% shopped once a week, and 6.3% shopped daily. These high engagement levels reflect not only routine purchasing behavior but also a heightened state of purchase readiness. Frequent exposure to Weibo's algorithm-driven promotions, influencer content, and interactive features creates a shopping environment where users are continually stimulated by marketing cues-factors known to foster impulse buying intention (Wang et al., 2024). Research confirms that repeated interaction with social commerce platforms increases emotional arousal and spontaneous purchase inclinations, as consumers become more receptive to situational triggers embedded in the content-commerce ecosystem.

The product categories purchased further illuminate users' susceptibility to impulse buying intention. Fashion and apparel were the most purchased items (37.3%), followed by beauty and personal care (21.8%) and food and beverages (21.8%). These categories typically involve low- to medium-involvement products that lend themselves well to impulse-driven purchases, especially when marketed using visually appealing and emotionally engaging content. Weibo's visual-first interface and influencer-driven trends reinforce emotional appeal and social validation, creating favorable conditions for unplanned purchase intentions. Studies show that such product types require minimal cognitive effort, allowing emotional triggers to more easily convert into purchase intentions in social commerce contexts (Li, 2025).

Moreover, Table 2 also reveals that 45.3% of respondents spent less than RMB 500 per month, while 34.5% spent between RMB 501–1,000. Only 5.8% reported spending over RMB 2,000 monthly. These figures suggest that although Weibo users are generally budget-conscious, their regular spending indicates repeated exposure to consumption triggers. Even within modest financial means, users may demonstrate strong impulse buying intentions-particularly when presented

Table 2
Demographic of respondents

Demographic Variable	Frequency	Percentage (%)
Gender		
Female	299	74.8
Male	101	25.3
Age		
18-25	280	70
26-30	72	18
31-35	21	5.3
36-40	19	4.8
41-45	8	2
Education		
Master Degree	223	55.8
Doctoral Degree	112	28
Bachelor's Degree	34	8.5
Professional Certification	20	5
High School and Below	11	2.8
Monthly Income		
< RMB 2,000	193	48.3
RMB 2,001-3,000	80	20
RMB 3,001-4,000	34	8.5
RMB 4,001-5,000	36	9
RMB 5,001-6,000	49	12.3
> RMB 6,001	8	2
Employment Status		
Student	300	75
Full-time Employees	49	12.3
Self-employed	30	7.5
Part-time Employees	10	2.5
Unemployed	7	1.8
Housewife	4	1
Shopping Frequency		
Several times a week	160	40
Once a week	78	19.5
Every 2 weeks	64	16
Once a month	36	9
Rarely	37	9.3
Daily	25	6.3

Table 2 *(continue)*

Demographic Variable	Frequency	Percentage (%)
Product Purchase Category		
Fashion & Apparel	149	37.3
Beauty & Personal Care	87	21.8
Food & Beverages	87	21.8
Electronics	56	14
Health & Wellness	7	1.8
Others	14	3.5
Monthly online shopping Spending		
< RMB 500	181	45.3
RMB 501-1,000	138	34.5
RMB 1,001-1,500	38	9.5
RMB 1,501-2,000	20	5
> RMB 2,000	23	5.8
Annual online shopping Spending		
< RMB 5,000	173	43.3
RMB 5,001-10,000	103	25.8
RMB 10,001-20,000	81	20.3
RMB 20,001-30,000	23	5.8
> RMB 30,000	20	5

with limited-time deals or peer-endorsed content that creates a sense of urgency. Research highlights that such micro-level purchase intentions accumulate over time and are shaped by persuasive marketing mechanisms inherent in social commerce platforms (Teng et al., 2023).

On an annual scale, 43.3% of respondents spent less than RMB 5,000, and 25.8% spent between RMB 5,001–10,000. Notably, 5.0% of users spent more than RMB 30,000 annually, indicating a segment of high-intention, high-commitment consumers. These consumers are likely influenced by a combination of emotional arousal, lifestyle alignment, and frequent promotional stimuli-factors which not only increase their shopping behavior but also reflect a strong predisposition toward impulsive purchase intentions. Even among moderate spenders, consistent annual engagement with the platform suggests a regular intention to buy, often triggered by emotional or situational cues embedded within Weibo's ecosystem.

Structural Equation Modeling (SEM) Analysis

This study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS software to test the hypothesized relationships among constructs and the mediating role of arousal. PLS-SEM was selected because it is robust in handling complex, prediction-oriented models involving multiple constructs, especially when data are non-normally distributed. It is suitable for behavioral marketing studies where the aim is to explore theoretical extensions and test latent constructs with multiple indicators.

The SEM analysis proceeded in two stages: (1) assessment of the measurement model to evaluate the validity and reliability of constructs, and (2) assessment of the structural model to test hypothesized relationships and mediation effects.

Measurement Model Evaluation

Convergent Validity

To ensure the robustness of the constructs used in this study, the reliability and validity of the measurement model were evaluated through internal consistency reliability, indicator reliability, and convergent validity. The results, as summarized in Table 3, demonstrate that all constructs met the recommended thresholds, confirming the appropriateness of the measurement model for further structural equation modeling. In terms of internal consistency reliability, all constructs reported Cronbach's Alpha (CA) values ranging from 0.767 to 0.857, and Composite Reliability (CR) values ranging from 0.843 to 0.891. These results exceed the commonly accepted benchmark of 0.70, indicating that the items within each construct consistently measure their respective latent variables. For instance, impulse buying intention, the dependent variable in this study, exhibited excellent reliability with a CA of 0.832 and a CR of 0.877. The mediating variable, arousal, also demonstrated strong reliability, with a CA of 0.831 and CR of 0.877, reinforcing its conceptual soundness as a central emotional mechanism in the model.

Indicator reliability was assessed using outer loading values, with all items recording loadings above the acceptable threshold of 0.60, and most items surpassing 0.70, as shown in Table 3. For example, the item "If the product captures my interest, I will buy it even if it is not included in my shopping plan" loaded at 0.774 on impulse buying intention, while the item "I feel excited when I browse products that interest me on Weibo" achieved a loading of 0.769 on arousal. These results confirm that each indicator contributed significantly to the measurement of its respective construct.

Convergent validity was evaluated using the Average Variance Extracted (AVE), with all constructs achieving AVE values equal to

Table 3
Internal consistency reliability, convergent validity and indicator reliability

Items	Outer Loading	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Promotion				
Promotions on Weibo influence my decision to buy products or services.	0.740	0.819	0.869	0.525
I consider promotions on Weibo to be great bargains.	0.704			
Flash sales on Weibo create a sense of urgency for me to buy products.	0.740			
Buy-one-get-one-free on Weibocaughty at the attention.	0.751			
Coupons offered by Weibo promotions can attract me.	0.737			
Promotions on Weibo lead me to explore new products or brands.	0.671			
Visual appeal				
The layout of product information on Weibo is visually pleasing.	0.705	0.857	0.891	0.538
The color combinations of products displayed on Weibo are attractive and beautiful.	0.763			
The product's images displayed on Weibo are very appealing.	0.724			
The visual effect of the product video on Weibo is very good.	0.766			
The product animations on Weibo are creative and innovative.	0.695			
Product images on Weibo are clear and high-quality.	0.745			
The fonts and text styles of the product display on Weibo catch my eye.	0.734			
Positive user reviews				
Positive user reviews on Weibo influence my decision to buy a product.	0.714	0.801	0.857	0.500
I am more likely to trust a product that has many positive reviews on Weibo.	0.700			
Positive user reviews on Weibo give me confidence in the quality of the product.	0.733			
I often read positive reviews on Weibo before making a purchase decision.	0.640			
Positive recommendations from family make me more likely to buy the product.	0.730			
Positive endorsements from friends make me more likely to buy the product.	0.723			
Product feature				
When I purchase products, I consider their design.	0.726	0.836	0.876	0.504

Table 3 *(continue)*

Items	Outer Loading	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
I pay attention to product functions that align with my preferences.	0.744			
I consider the quality of products to meet my needs.	0.707			
I will check the safety of products before purchase.	0.663			
I consider the product's unique innovative features or technology.	0.630			
The materials and composition of products on Weibo are clearly described and trustworthy.	0.736			
The product's features on Weibo are very user-friendly and influence my purchasing decisions.	0.753			
Price				
I feel tempted when the price of a product on Weibo is consistent with the product quality.	0.650	0.767	0.843	0.519
I feel like buying it immediately when the price on Weibo is competitive with similar products.	0.721			
Products' prices on Weibo are generally lower than on other platforms.	0.704			
Products' prices on Weibo are transparent and clear.	0.762			
Products' prices on Weibo are reasonable.	0.757			
Arousal				
I feel excited when I browse products that interest me on Weibo.	0.769	0.831	0.877	0.543
I feel excited when I explore new product categories on Weibo.	0.738			
I feel excited when I see promotions (coupons, discounts, etc.) on Weibo.	0.745			
I feel excited when I see visually appealing product displays.	0.690			
I feel excited when I see products with positive user reviews.	0.726			
I feel excited when I see that the products' prices are advantageous compared to similar products.	0.749			
Impulse buying intention				
I will have the intention to buy items that I didn't originally intend to buy when I browse on Weibo.	0.735	0.832	0.877	0.543
If the product captures my interest, I will buy it even if it is not included in my shopping plan.	0.774			
I am inclined to purchase items outside my specific shopping goal when browsing Weibo.	0.726			
I spontaneously buy things while browsing Weibo.	0.727			
I will not resist the temptation to buy it when I see visually appealing products.	0.766			

or above the minimum threshold of 0.50, as detailed in Table 2. The AVE values ranged from 0.500 to 0.543, indicating that over half of the variance in each construct's indicators was explained by the latent construct itself. The construct visual appeal achieved a CR of 0.891 and an AVE of 0.538, suggesting high consistency and convergent validity. Similarly, promotion recorded a CA of 0.819, a CR of 0.869, and an AVE of 0.525, confirming its measurement adequacy. Constructs such as price (CA = 0.767, CR = 0.843, AVE = 0.519) and product features (CA = 0.836, CR = 0.876, AVE = 0.504) also demonstrated satisfactory measurement properties. Although positive user reviews showed the lowest AVE at 0.500, it still met the minimum threshold and was supported by acceptable reliability (CA = 0.801, CR = 0.857).

Overall, the above data provide evidence that all constructs in the model achieved the necessary benchmarks for indicator reliability, internal consistency, and convergent validity. These results confirm that the measurement model is statistically sound and conceptually well-defined, providing a reliable foundation for the structural model analysis examining the relationships between external stimuli, arousal, and impulse buying intention.

Discriminant Validity – HTMT Criterion

To further assess the validity of the measurement model, discriminant validity was evaluated using the Heterotrait-Monotrait (HTMT) ratio of correlations, as recommended by recent methodological research (Henseler et al., 2015). Discriminant validity ensures that each construct in the model is empirically distinct from the others, meaning it measures a unique concept not captured by other constructs. An HTMT value below 0.90 is generally accepted as indicative of sufficient discriminant validity in behavioral and social sciences research (Hair et al., 2022).

As shown in Table 4, all HTMT values in the model were below the conservative threshold of 0.90, thereby confirming acceptable levels of discriminant validity across all construct pairs. The HTMT value between arousal and impulse buying intention was 0.830, indicating that although closely related, the two constructs remain conceptually distinct. Likewise, the HTMT value between price and impulse buying intention was 0.756, and between visual appeal and impulse buying intention was 0.708, both of which are well within the acceptable range and demonstrate that consumers' emotional responses, price perceptions, and aesthetic experiences are distinguishable in influencing their purchasing intentions.

Other key comparisons include the HTMT value of 0.844 between arousal and promotion, 0.879 between arousal and price, and 0.831 between arousal and positive user reviews, which, although relatively high, remain below the critical threshold. These values are theoretically justifiable given that arousal serves as a mediating emotional response closely tied to the external stimuli in the model. Importantly, even the highest HTMT value observed—0.879 between

Table 4
Discriminant validity: Heterogeneous Trait-Single Trait (HTMT)

	1	2	3	4	5	6	7
1. Arousal							
2. Impulse buying intention	0.830						
3. Price	0.879	0.756					
4. Product feature	0.769	0.595	0.836				
5. Promotion	0.844	0.671	0.813	0.647			
6. Positive user reviews	0.831	0.616	0.856	0.810	0.698		
7. Visual appeal	0.767	0.708	0.760	0.745	0.651	0.692	

arousal and price—did not exceed the threshold, indicating that the constructs are sufficiently distinct for structural equation modeling.

Furthermore, all HTMT values involving product features (e.g., 0.595 with impulse buying intention, 0.836 with price, and 0.745 with visual appeal) were below the 0.90 cut-off, supporting the distinctiveness of functional product assessments from emotional and visual stimuli. Similarly, positive user reviews exhibited HTMT values such as 0.616 with impulse buying intention and 0.698 with promotion, further supporting discriminant validity (Henseler et al., 2015).

In summary, the results presented above confirm that all constructs satisfy the HTMT criterion for discriminant validity. These findings reinforce the measurement model's robustness and validate the use of the constructs in subsequent structural path analysis. The clear empirical separation between constructs enhances confidence in the theoretical distinctions made between stimuli, emotional states, and behavioral intentions in the context of impulse buying on Weibo.

Discriminant Validity – HTMT Confidence Intervals (Bias-Corrected)

To further confirm the discriminant validity of the constructs, this study employed the bias-corrected bootstrapping method to generate confidence intervals for the Heterotrait-Monotrait (HTMT) ratios, as recommended by Henseler et al. (2015). This approach provides a more stringent test by examining whether the 95% confidence interval for the HTMT value includes 1.00. In addition, Henseler et al. (2015) argue that if the interval does not include 1.00, discriminant validity between the constructs is established, indicating that the constructs are empirically distinct.

As presented in Table 5, all HTMT confidence intervals fell well below the critical upper threshold of 1.00, thus confirming the presence of discriminant validity among the measured constructs. For example, the HTMT value between arousal and impulse buying intention was 0.431, with a 95% confidence interval ranging from 0.296 to 0.564. Since the interval does not include 1.00, it indicates a clear empirical distinction between the two constructs, despite their strong theoretical relationship.

Table 5
Discriminant validity: HTMT confidence intervals bias corrected

	Original Sample (O)	Sample Mean (M)	Bias	2.50%	97.50%
arousal -> impulse buying	0.431	0.431	0.000	0.296	0.564
price -> arousal	0.182	0.182	-0.001	0.070	0.282
price -> impulse buying	0.179	0.182	0.003	0.059	0.301
product feature -> arousal	0.104	0.105	0.001	0.008	0.201
Product feature -> impulse buying	-0.047	-0.050	-0.003	-0.168	0.073
promotion -> arousal	0.312	0.312	0.000	0.209	0.413
promotion -> impulse buying	0.065	0.068	0.002	-0.056	0.177
review -> arousal	0.211	0.212	0.000	0.114	0.309
review -> impulse buying	-0.044	-0.040	0.003	-0.188	0.094
visual appeal -> arousal	0.176	0.175	0.000	0.068	0.275
visual appeal -> impulse buying	0.229	0.225	-0.003	0.113	0.349

Similarly, the relationship between price and arousal showed an HTMT value of 0.182, with confidence bounds from 0.070 to 0.282, and between price and impulse buying intention, the value was 0.179 with a confidence interval from 0.059 to 0.301. These results affirm that although price is associated with both arousal and buying intention, it remains a statistically distinct construct in the model.

In contrast, non-significant pathways also showed consistency with theoretical expectations. For example, product feature to impulse buying intention yielded a small and non-significant path coefficient of -0.047, with a confidence interval that spanned zero (-0.168 to 0.073), reinforcing the lack of a meaningful relationship. A similar pattern was observed for positive user reviews to impulse buying intention, with a path coefficient of -0.044 and a confidence interval of -0.188 to 0.094, indicating that this variable does not directly influence impulse buying intention within the current model. Conversely, significant indirect paths—particularly those involving arousal—were supported. The relationship from promotion to arousal was statistically significant with a path coefficient of 0.312 and a confidence interval from 0.209 to 0.413, suggesting that emotionally framed promotions successfully activate arousal. Similarly, visual appeal to arousal (0.176; 95% CI: 0.068 to 0.275) and visual appeal to impulse buying intention (0.229; 95% CI: 0.113 to 0.349) were both significant, supporting the role of aesthetic content in stimulating both emotional response and spontaneous purchase inclinations.

Overall, the HTMT bias-corrected confidence intervals presented offer strong evidence of discriminant validity among all key constructs. Moreover, the significance and direction of the confidence intervals complement the theoretical model, confirming that constructs such as price, promotion, visual appeal, and arousal maintain their conceptual uniqueness while contributing meaningfully to the prediction of impulse buying intention.

Overall Model Fit

The overall model fit of the structural model was assessed using three key indicators: the coefficient of determination (R^2), predictive relevance (Q^2), and the standardized root mean square residual (SRMR). As shown in Table 6, the R^2 value for arousal was 0.676, indicating a substantial level of explained variance, while the R^2 for impulse buying intention was 0.533, reflecting a moderate level of predictive power according to Hair et al. (2022) classification. These values suggest that the independent variables in the model account for a significant portion of the variance in both arousal and impulse buying intention, demonstrating the model's robustness and explanatory capability.

In terms of predictive relevance, the Q^2 values for arousal and impulse buying intention were 0.359 and 0.282, respectively. Since both values are greater than zero, the model demonstrates adequate predictive relevance based on the blindfolding procedure, confirming the robustness of the model's predictive capability. The SRMR value for the model was 0.071, which is below the acceptable threshold of 0.08,

Table 6
The overall model fit

Model	R^2	Q^2	SRMR
Arousal	0.676	0.359	
Impulse buying intention	0.533	0.282	0.071

indicating a good model fit between the proposed model and the observed data.

These results collectively confirm that the structural model exhibits satisfactory levels of explanatory power, predictive relevance, and overall model fit, justifying its suitability for further hypothesis testing and theoretical interpretation. Model Path Analysis.

To examine the hypothesized relationships among the constructs, path coefficients were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with a bootstrapping procedure of 5,000 subsamples. The results, as presented in Table 7, reveal which direct relationships in the model are statistically significant in predicting impulse buying intention and arousal, the mediating variable.

Among the direct predictors of impulse buying intention, arousal emerged as the strongest and most statistically significant predictor ($\beta = 0.431$, $t = 6.339$, $p = 0.000$), supporting its central mediating role in the model. Visual appeal also showed a significant positive effect ($\beta = 0.229$, $t = 3.564$, $p = 0.000$), indicating that aesthetically engaging content directly enhances consumers' impulsive buying tendencies. Similarly, price had a significant direct effect ($\beta = 0.179$, $t = 2.812$, $p = 0.005$), suggesting that perceived affordability contributes to spontaneous purchasing behavior.

In contrast, three independent variables—promotion, positive user reviews, and product features—did not show significant direct effects on impulse buying intention.

Table 7
Model path analysis

Relationship Testing	Original Sample (O)	Sample Mean (M)	Standard Deviation	*T*-Statistics	*P*-Values
Promotion → Impulse Buying Intention	0.065	0.069	0.059	1.102	0.270
Visual Appeal → Impulse Buying Intention	0.229	0.225	0.064	3.564	0.000
Positive User Reviews → Impulse Buying	-0.044	-0.041	0.072	0.609	0.542
Product Features → Impulse Buying	-0.047	-0.050	0.063	0.744	0.457
Price → Impulse Buying	0.179	0.181	0.064	2.812	0.005
Intention Promotion → Arousal	0.312	0.313	0.053	5.901	0.000
Visual Appeal → Arousal	0.176	0.175	0.055	3.225	0.001
Positive User Reviews → Arousal	0.211	0.212	0.050	4.200	0.000
Product Features → Arousal	0.104	0.106	0.049	2.144	0.032
Price → Arousal	0.182	0.181	0.054	3.354	0.001
Arousal → Impulse Buying Intention	0.431	0.428	0.068	6.339	0.000

Promotion ($\beta = 0.065$, $t = 1.102$, $p = 0.270$), user reviews ($\beta = -0.044$, $t = 0.609$, $p = 0.542$), and product features ($\beta = -0.047$, $t = 0.744$, $p = 0.457$) were found to be statistically non-significant. These findings imply that while these variables may influence consumers in other contexts, they do not directly stimulate impulse buying intention without emotional mediation.

However, when examining the predictors of arousal, all five independent variables— promotion, visual appeal, positive user reviews, product features, and price—had significant effects. Promotion significantly influenced arousal ($\beta = 0.312$, $t = 5.901$, $p = 0.000$), suggesting that emotionally framed promotional messages can excite consumers. Visual appeal also positively affected arousal ($\beta = 0.176$, $t = 3.225$, $p = 0.001$), reinforcing the importance of visually stimulating product displays. Positive user reviews ($\beta = 0.211$, $t = 4.200$, $p = 0.000$), product features ($\beta = 0.104$, $t = 2.144$, $p = 0.032$), and price ($\beta = 0.182$, $t = 3.354$, $p = 0.001$) were all statistically significant predictors of arousal, demonstrating that these stimuli contribute to emotional activation even if they do not directly drive impulse buying intention.

These findings highlight that arousal plays a mediating role, transmitting the emotional influence of external stimuli (especially promotion and price) toward impulse buying intention. The results validate the theoretical model, especially Hawkins Stern's assertion that emotional and environmental stimuli are crucial in driving spontaneous purchase behavior.

Mediation Analysis

To examine the indirect effects of marketing stimuli on impulse buying intention, this study conducted a mediation analysis using arousal as the mediating variable.

The analysis was based on a bootstrapping procedure with 5,000 subsamples to assess the significance of indirect paths. As shown in Table 8, arousal significantly mediated the relationships between promotion, visual appeal, and price with impulse buying intention. These findings support the theoretical proposition that emotional activation is a necessary psychological mechanism that links external stimuli to spontaneous purchase intentions.

Specifically, the indirect effect of promotion on impulse buying intention through arousal was statistically significant ($\beta = 0.135$, $t = 4.807$, $p = 0.000$), despite the non-significance of the direct effect. This highlights that promotions influence buying tendencies only when they successfully stimulate emotional excitement. Likewise, visual appeal exerted a significant indirect effect ($\beta = 0.076$, $t = 2.874$, $p = 0.004$), confirming that aesthetic stimuli elicit arousal, which then increases the likelihood of unplanned purchases. Price also showed a significant mediation effect ($\beta = 0.079$, $t = 3.218$, $p = 0.001$), reinforcing the idea that perceived affordability works not only cognitively but also emotionally to influence impulse buying intention.

Conversely, the indirect effects of positive user reviews ($\beta = 0.091$, $t = 1.963$, $p = 0.050$) and product features ($\beta = 0.045$, $t = 1.732$, $p = 0.083$) were weaker. While the mediation path for reviews approached significance, the result for product features was not statistically significant, suggesting a weaker emotional response from functional product descriptions or user testimonials in driving impulsive tendencies.

These results validate the mediating role of arousal and emphasize that emotionally engaging stimuli—especially promotional content, visual aesthetics, and competitive pricing—are more likely to lead to impulse buying intention through elevated emotional arousal.

DISCUSSION

This study critically examined the antecedents of impulse buying intention on Weibo by applying Hawkins Stern's Impulse Buying Theory (1962), which asserts that consumer impulse behaviors are primarily driven by situational and emotional stimuli rather than planned decision-making. The findings empirically support Stern's theory and extend its applicability to the social commerce context in China.

Table 8
Mediation analysis

Indirect Relationship	Indirect Effect (β)	*T*-Statistics	*P*-Values
Promotion → Arousal → Impulse Buying Intention	0.135	4.807	0.000
Visual Appeal → Arousal → Impulse Buying Intention	0.076	2.874	0.004
Price → Arousal → Impulse Buying Intention	0.079	3.218	0.001
Positive User Reviews → Arousal → Impulse Buying Intention	0.091	1.963	0.050
Product Features → Arousal → Impulse Buying Intention	0.045	1.732	0.083

Notably, arousal-an internal emotional state-was identified as a significant mediator between marketing stimuli and impulsive buying intention, reinforcing Stern's core proposition that impulsive buying is an emotionally reactive behavior triggered by external cues.

Among the variables tested, arousal emerged as the strongest and most significant predictor of impulse buying intention. This aligns with recent research by X. (Sarstedt et al., 2021), who found that heightened emotional states in digital environments substantially increase the likelihood of impulsive consumer behavior. Platforms like Weibo, characterized by dynamic, visual, and interactive content, amplify emotional stimulation, making it a dominant force in the purchasing process. This supports Stern's argument that impulse buying is not inherently irrational but emotionally driven in response to contextual triggers (Yang, 2022).

The visual appeal of products exerted both a significant direct effect and an indirect effect via arousal on impulse buying intention. This confirms the role of sensory stimuli central to Stern's concept of suggestion, impulse buying, which elicits spontaneous purchase behaviors. Mishra et al. (2023) similarly noted that appealing visuals reduce decision time and enhance emotional responses in online settings. Feng et al. (2024) further demonstrated that product imagery and video content are powerful triggers in social commerce, making platforms like Weibo particularly conducive to visually driven impulse buying.

Price was another significant predictor of impulse buying intention, both directly and through arousal. Although price is traditionally linked to rational evaluation, this study reveals that pricing can also function as an emotional cue, especially when signaling perceived value or urgency. This finding corroborates Suguna and Nivedha (2025), who showed that limited-time offers and price-based promotions evoke emotional excitement, leading to unplanned purchases. These results reaffirm Stern's classification of "reminder impulse buying," where consumers respond spontaneously to favorable prices without prior purchase intentions.

Interestingly, promotion did not have a direct significant effect but showed a strong indirect effect via arousal. This suggests that promotions must be emotionally engaging-such as flash sales or exclusive offers-to stimulate impulse buying. Shrestha (2025) observed a similar pattern, emphasizing that the effectiveness of online promotions depends on their ability to evoke urgency and excitement rather than merely offering discounts. In addition, this finding extends Stern's theory into digital contexts, highlighting the importance of emotional framing over promotional content itself.

Conversely, positive user reviews and product features lacked significant direct effects on impulse buying intention but had significant indirect effects through arousal. This challenges prior research emphasizing social proof and product attributes in e-commerce decision-making (Singh et al., 2023). However, much of that literature focuses on planned purchases, whereas this study centres on impulse buying, characterized by minimal cognitive processing. The results imply that while reviews and product features enhance consumer confidence, they are less likely to initiate impulsive behavior unless they elicit emotional arousal (Rahman et al., 2022).

Overall, these findings provide critical insights into the extension of Hawkins Stern's Impulse Buying Theory (1962) within social commerce. While the original theory emphasized physical retail environments, this study demonstrates that its core principles remain valid in digital settings. Emotional responses continue to mediate the effects of external stimuli, and impulsive behaviors are triggered by situational factors manifested as interactive content, personalized promotions, and visual storytelling on platforms like Weibo.

CONCLUSION

This study examined the factors influencing impulse buying intention on Weibo by drawing on Hawkins Stern's Impulse Buying Theory (1962). The research sought to understand how external marketing stimuli—namely promotion, visual appeal, positive user reviews, product features, and price—influence impulse buying intention, with a particular focus on the mediating role of emotional arousal.

The results provide empirical evidence that arousal functions as a central emotional mechanism linking certain external cues to consumers' impulse buying intention. Specifically, visual appeal and price were found to have both direct and indirect effects on buying intention, while promotion influenced impulse buying only indirectly through arousal. In contrast, user reviews and product features did not show significant direct effects, suggesting that emotionally driven purchasing decisions may occur independently of detailed evaluative cues.

From a theoretical perspective, this study reaffirms the continued relevance of Stern's framework in explaining unplanned purchasing behavior, even within contemporary digital platforms such as Weibo. The findings demonstrate that while the form of stimuli has evolved—shifting from physical to digital, from shelf displays to visual content— the emotional processes behind impulse buying remain consistent. In this regard, the study offers a reliable extension of an established theory into the context of social commerce, thereby laying a modest but credible foundation for further investigation. As an empirical contribution, the study provides evidence from a specific and under-researched context: Chinese social commerce users on Weibo. While the constructs employed are not novel, their application in this setting offers useful insights for researchers seeking to understand impulse behavior in non-Western, mobile-driven environments. The model and findings may serve as a reference point for future research aimed at exploring how emotional mechanisms interact with emerging digital stimuli in similar or comparative platforms.

Given the limitations in terms of sample scope and cross-sectional design, the study's findings should be interpreted as exploratory rather than definitive. Nonetheless, by integrating established theory with current digital behavior, this research contributes both conceptually and methodologically to the broader discourse on online consumer psychology.

Implications

This study contributes to a deeper understanding of impulse buying behavior in digitally mediated environments by revealing how emotional arousal functions as a central mechanism linking marketing stimuli to unplanned purchase decisions. Conducted within the context of Weibo, a prominent Chinese social media platform, this research extends established theoretical frameworks into new digital terrains while offering actionable insights for practitioners. The findings confirm that stimuli such as visual appeal and price influence impulse buying either directly or indirectly through arousal, highlighting the importance of emotional responses in shaping consumer behavior online. Moreover, the observation that elements like promotion and user reviews only impact behavior through emotional mediation challenges assumptions about their direct persuasive power, urging both scholars and practitioners to reassess how digital content influences decision-making processes. The following are the theoretical and practical implications drawn from these findings, offering a comprehensive interpretation of how the results advance knowledge and inform practice in consumer psychology, digital marketing, and platform design.

Theoretical Implications

This study offers several noteworthy theoretical contributions to the field of consumer behavior and digital marketing by extending Hawkins Stern's Impulse Buying Theory (1962) into a social media commerce context, specifically, the Weibo platform in China. While the theory has traditionally been applied to physical retail environments, our findings empirically validate its continued relevance in digitally mediated settings. Notably, the study identifies emotional arousal as a crucial psychological bridge between environmental stimuli (e.g., visual appeal, promotion, price) and impulse buying intention, reaffirming Stern's view that unplanned purchases are triggered not merely by external cues but by the emotional states they evoke.

By statistically confirming arousal as a mediating variable, this study advances theoretical clarity on how impulse buying occurs in online settings. It nuances the classic stimulus-response relationship by demonstrating that the consumer's emotional state is not just a by-product but a pivotal mechanism through which stimuli influence buying behavior. This supports prior research (e.g., Lamis et al., 2022; X. Li et al., 2022) but moves a step further by demonstrating these relationships in a Chinese social media context, where algorithm-driven and content-rich interactions dominate the consumer experience.

Moreover, this study offers a refined framework that differentiates between direct and indirect pathways. For instance, while visual appeal and price directly influence impulse buying intention, promotion, user reviews, and product features exert their influence only through arousal. This distinction helps clarify previous mixed findings in the literature regarding the role of user reviews and promotions in driving spontaneous purchases. Theoretically, this model encourages researchers to revisit other constructs often presumed to be direct drivers of behavior and consider how emotional mechanisms may explain their inconsistent effects.

In terms of scale development, this research contributes to the psychometric validation of context-specific measurement tools. Each construct was subjected to rigorous reliability and validity assessments, including HTMT discriminant validity and bias-corrected confidence intervals, ensuring the conceptual robustness of each item within a Chinese social commerce environment. Researchers interested in extending this work to other platforms like Xiaohongshu or TikTok can adapt these validated instruments for comparative studies, promoting theory building across platforms and cultures.

Future theoretical inquiries could benefit from further exploring contextual moderators such as cultural norms, personality traits (e.g., impulsivity, self-control), and platform-specific affordances. Doing so could help refine Stern's model to account for how modern technologies personalize consumer experiences, intensifying emotional responses and thereby shaping spontaneous decisions. In sum, this research reaffirms and extends Hawkins Stern's theoretical foundation, offering a more granular and empirically tested understanding of how impulsive behaviors are shaped in the dynamic ecosystem of social media commerce.

Practical Implications

From a practical standpoint, the findings offer evidence-based recommendations for marketers, platform designers, and digital strategy teams seeking to encourage consumer purchases in online retail environments, particularly on social media platforms such as Weibo.

First, the results emphasize the strategic importance of emotional arousal as a driver of consumer behavior. Marketers should recognize that it is not the presence of stimuli such as discounts or product descriptions that influences impulse buying, but rather the consumer's emotional response to these stimuli. For instance, campaigns that highlight urgency (e.g., flash sales with countdowns), excitement (e.g., unboxing videos or immersive storytelling), or exclusivity (e.g., limited-edition offers) are more likely to generate the arousal necessary to trigger impulsive decisions.

Second, visual appeal emerged as a significant direct predictor of impulse buying intention. Therefore, visual merchandising and content presentation should not be viewed as mere aesthetics but as a strategic lever for sales. Brands should invest in high-quality, emotionally resonant visuals such as dynamic animations, product usage scenarios, or influencer-endorsed visuals to capture consumer attention quickly and emotionally. Given the attention economy of platforms like Weibo, where users scroll rapidly, emotionally engaging content must deliver immediate impact.

Third, price perception is confirmed as a rational but emotionally resonant stimulus. Marketers should frame pricing not just in terms of affordability but in terms of perceived value. Price tags accompanied by messages such as “only today,” “smart choice,” or “value pack” can enhance perceived benefits and induce feelings of satisfaction or urgency. However, these should be used judiciously to avoid consumer fatigue or skepticism over time.

Importantly, the finding that promotion does not directly influence impulse buying intention but only does so through arousal offers a critical insight. Rather than relying on generic discounts, practitioners should emotionally frame promotions to stimulate excitement. A promotion becomes impactful not because it reduces cost, but because it creates an experience, for example, through gamification (“spin the wheel to unlock a deal”), personalization (“recommended deal just for you”), or storytelling (“get it before it’s gone”). This shifts the focus from functional to experiential marketing.

Furthermore, platform designers and user experience (UX) professionals should note that a seamless and emotionally engaging interface may significantly enhance arousal and facilitate spontaneous purchases. Elements such as live-stream shopping, interactive product previews, AR filters, and real-time engagement features (e.g., comments, likes, or ‘buy now’ buttons during video streams) can enhance emotional connectivity with content and encourage unplanned purchases. However, platforms must ensure that these emotional cues are ethically deployed to avoid manipulating vulnerable users, particularly younger or financially inexperienced ones.

Lastly, these findings are especially relevant for localized strategies. This study was conducted in the context of Chinese Weibo users, a demographic that combines high digital literacy, mobile dependency, and frequent online purchasing. Therefore, practitioners should tailor their emotional and visual strategies in accordance with cultural preferences and platform-specific consumption habits. What works on Weibo may differ from what resonates on Instagram or TikTok, even within the same age group.

In summary, this study encourages practitioners to rethink emotional engagement as a strategic tool, not a secondary consideration. Marketing content that is visually compelling, emotionally resonant, and well-timed will more effectively drive impulse buying in the competitive environment of digital commerce. However, these strategies must be adapted to platform affordances, audience preferences, and ethical guidelines to ensure long-term consumer trust and brand credibility.

Limitations and Recommendations for Future Research

While this study offers valuable insights into impulse buying intention on Weibo using established constructs and a robust theoretical framework, several limitations should be acknowledged to provide context for the interpretation of the findings.

First, the conceptual framework was built using well-established constructs such as promotion, visual appeal, positive user reviews, product features, price, arousal, and impulse buying intention. While these variables are widely supported in consumer behavior literature, the study does not introduce novel constructs or theoretical innovations. As noted by reviewers, the originality of this study lies primarily in its application of these constructs within the Weibo context, rather than in the development of new conceptual variables. Future research may consider incorporating or developing new constructs that reflect emerging aspects of social commerce—such as algorithmic trust, perceived influencer authenticity, or platform-induced decision fatigue—which could provide deeper insights into the evolving digital shopping landscape.

Second, the study was conducted using a cross-sectional survey design, which limits the ability to make causal inferences about the relationships between variables. Although the structural equation modeling approach supports directional hypotheses, it does not establish causality. Future studies might employ experimental or longitudinal designs to examine how impulse buying intention develops over time and how repeated exposure to digital stimuli affects emotional arousal and purchase behavior.

Third, the sample was limited to Weibo users in China aged 18 to 45, many of whom were students or early-career individuals with lower income levels. While this demographic is appropriate for examining digital shopping patterns on a youth-driven platform like Weibo, the findings may not be generalizable to other age groups, income brackets, or users of different platforms. Future research could extend this work by examining diverse populations across various social commerce platforms, including those in different cultural or economic settings.

Fourth, this study focused exclusively on intentions, rather than actual purchasing behavior. Although intention is a strong predictor of behavior, it may not always translate into action. Future research could integrate behavioral tracking data or post-purchase evaluations to assess whether emotionally driven intentions lead to completed transactions and consumer satisfaction.

Finally, while the study examined the mediating role of arousal, it did not account for potential moderators such as self-control, impulsivity traits, or online shopping experience. These individual differences may significantly shape how users respond to stimuli in social commerce environments. Incorporating such variables in future models could offer a more nuanced understanding of consumer behavior across different psychological profiles.

In sum, while this study extends existing theories into a novel application context, there remains considerable opportunity for future research to explore new constructs, employ varied methodologies, and examine diverse populations to further advance our understanding of impulse buying in the digital age.

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