



Dual-Affect Mechanisms: How Time Scarcity and Quantity Scarcity Elicit Impulse Buying for Probabilistic Products through Concurrent Mediation of Anticipated Surprise and Regret

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Abstract. With the rapid expansion of probabilistic products in the consumer market, their unique decision uncertainty and emotionally stimulating properties provide new application scenarios for scarcity marketing strategies. However, existing research has yet to fully clarify the underlying psychological mechanisms through which scarcity tactics influence consumers' impulse buying behavior, particularly lacking an integrated framework that incorporates the mediating pathways of consumer anticipation and the moderating role of individual traits. This study integrates the Stimulus-Organism-Response (SOR) framework and Expectancy Theory. Employing structural equation modeling and Bootstrap testing on structured questionnaire data from 509 consumers, we empirically find that: (1) Both time scarcity and quantity scarcity not only directly and positively drive impulse buying behavior, but also indirectly influence consumption decisions through the parallel mediating pathways of anticipated surprise and anticipated regret. (2) Consumers' impulsive traits exert a differential moderating effect on the emotional pathways: the high-impulsivity group relies primarily on the affective gratification drive of surprise emotions, whereas the low-impulsivity group is significantly dominated by the loss aversion characteristic of regret emotions. Accordingly, this study proposes actionable suggestions for businesses to construct tailored marketing frameworks and provides empirical support for policy-driven sustainable consumption growth.

Keywords: Probabilistic Products, Scarcity Tactics, Consumer Anticipation, Impulsive Trait, Impulse Buying Behavior

artificially creates scarcity to stimulate consumers' purchase impulses, proves particularly effective in the consumption of probabilistic products. Market data indicates that China's probabilistic product market reached RMB 35 billion in 2024, driven by pervasive gamified consumption formats like blind boxes (e.g., collectible figurines) and surprise mechanics (e.g., randomized rewards). Industry analysis indicates such products amplify consumer sensitivity to scarcity cues by 40-60% compared to conventional goods, establishing them as ideal subjects for scarcity research. However, existing literature investigating the impact mechanism of scarcity marketing on probabilistic product consumption still exhibits the following critical research gaps: (1) There remains a scarcity of quantitative research concerning the effects of different types of promotional constraints; (2) The mediating mechanism of consumers' anticipated emotions has yet to be clarified. Key anticipated emotions triggered when consumers perceive scarcity stimuli—such as anticipated regret from missing opportunities or anticipated surprise from acquiring rare items—and their intrinsic pathways as mediating variables linking promotional constraints to the final impulse buying behavior, have not received sufficient attention or systematic empirical examination.

To bridge these gaps, this study innovatively integrates the Stimulus-Organism-Response (SOR) theoretical framework and Expectancy Theory to construct a theoretical model centered on a concurrent mediation mechanism. The SOR framework posits that environmental stimuli (S) trigger internal organismic states (O), which subsequently lead to behavioral responses (R). Building on this principle, our model structurally links time scarcity and quantity scarcity stimuli to consumers' affective states (O) and their resulting impulse buying behavior (R). Complementarily, Expectancy Theory focuses on motivation, positing that it arises from the belief that effort leads to performance (expectancy) and that performance yields valued outcomes (valence). Applying this lens, the theory explains the core motivational conflict in our context: consumers weigh avoidance (driven by anticipated regret, a negative valence outcome) against approach (motivated by anticipated surprise, a positive valence outcome). Critically, the probabilistic nature of the products amplifies this conflict by inherently intensifying both emotional pathways through outcome uncertainty. This integrated model systematically elucidates how distinct types of promotional constraints (time scarcity vs. quantity scarcity) differentially influence probabilistic product impulse buying behavior via shaping consumers' anticipated emotions (anticipated regret vs. anticipated surprise). The research aims to dissect the underlying psychological mechanisms driving probabilistic product consumption through scarcity marketing. Ultimately, it seeks to provide enterprises with a solid theoretical basis and actionable practical guidance for designing targeted marketing strategies that align with policy-driven sustainable consumption growth under the "stimulating consumption" initiative.

2 Literature review

2.1 Scarcity tactics and impulse buying behavior

Scarcity tactics, as crucial marketing tools, enhance product appeal by artificially creating perceptions of scarcity, thereby stimulating consumers' purchase desires and a

sense of urgency. Zeithaml^[1] indicates that perceived supply insufficiency can elevate a product's perceived value and attractiveness, consequently strengthening purchase intention. Building upon this, Barton et al.^[2] classified scarcity tactics into two categories based on the source of scarcity: Time scarcity emphasizes the timeliness of an opportunity, compelling consumers to rely on intuitive decision-making by compressing their cognitive processing time. For instance, as demonstrated empirically by Ma et al.^[3] in live-streaming e-commerce, countdown timers for discounts serve as a typical operationalization method and become a key factor driving impulse buying by intensifying time pressure. Quantity scarcity, on the other hand, highlights the limited availability and exclusivity of resources. Zhang et al.^[4], in a case study during the COVID-19 pandemic, confirmed that the supply shortage of medical protective products directly triggered consumers' panic-induced impulse buying. Based on the above, we propose the following hypothesis:

H1: The (a) time scarcity, and (b) quantity scarcity of scarcity tactics have a positive impact on impulse buying behavior.

2.2 The mediating effect of consumer anticipation

Consumer anticipation drives decision-making through pre-purchase emotional assessment. Bagozzi et al.^[5] posit that consumption decisions are governed by outcome-oriented emotional appraisals. Empirically, Mvondo et al.^[6] revealed that the uncertain design of blind boxes enhances hedonic benefits by eliciting anticipated surprise, while simultaneously triggering anticipated regret through perceived risk, thereby influencing consumer decisions. Building on the differentiation mechanism based on scarcity type: Time scarcity reinforces dual anticipation through time-limited decision pressure. Yang et al.^[7] found that time-limited blind box promotions heighten surprise expectations by stimulating interest. Conversely, Barton et al.^[2] demonstrated that for high-involvement products, time scarcity induces regret through opportunity cost evaluation. Quantity scarcity drives responses through resource constraints. Zhang & Zhang^[8] and Xu & Guo^[9], in blind box case studies, confirmed that quantity scarcity enhances surprise anticipation towards rare rewards by stimulating curiosity and positively influences purchase intention through perceived emotional product value, wherein surprise emotion plays a key mediating role. When resource constraints intensify, consumers develop a fear of missing out (FOMO). Zhang et al.^[10], via a medical product case study, proved that this fear mediates the relationship between scarcity and impulse buying. Specifically, the scarcity of medical protective products significantly increased impulse buying levels by exacerbating the fear of "missing the opportunity to possess them." Based on the above, we propose the following hypotheses:

H2: The (a) time scarcity, and (b) quantity scarcity of scarcity tactics have a positive impact on anticipated surprise.

H3: The (a) time scarcity, and (b) quantity scarcity of scarcity tactics have a positive impact on anticipated regret.

H4: Anticipated surprise has a mediating impact on the effect of (a) time scarcity, and (b) quantity scarcity on impulse buying behavior.

H5: Anticipated regret has a mediating impact on the effect of (a) time scarcity, and (b) quantity scarcity on impulse buying behavior.

2.3 The moderating effect of impulsive trait

Impulsive trait, as a key individual difference variable in consumer decision-making, moderates the strength of the effect of emotional pathways on behavior. Rook & Fisher^[11] found that consumers with high impulsive traits are more sensitive to spontaneous purchase stimuli; their shopping decisions exhibit greater openness and flexibility. This heightened sensitivity makes them react more strongly to emotional signals of both anticipated surprise and anticipated regret^[12,13], thus rendering their affective system more readily activated by strategies like scarcity marketing^[14]. Sarwar et al.^[13] further revealed in their study that individuals with high impulsive traits possess relatively weaker cognitive regulation abilities. They are more inclined to prioritize satisfying immediate emotional cravings while relatively underestimating potential negative consequences. This significantly reduces the resistance to converting emotionally driven impulses into purchasing behavior. Particularly when high-impulsive-trait consumers anticipate that not purchasing might induce feelings of regret—such as in situations involving the loss of scarce resources—their behavioral drive manifests with exceptional intensity. Therefore, we posit that impulsive trait systematically moderates the strength of the effects of both anticipated surprise and anticipated regret on impulse buying behavior. It serves as a key boundary condition for understanding how emotional pathways translate into actual behavior. Based on the above, our research framework is depicted in Figure 1, and we propose the following hypothesis:

H6: Impulsive trait has a moderating impact on the effect of (a) anticipated surprise, and (b) anticipated regret on impulse buying behavior.

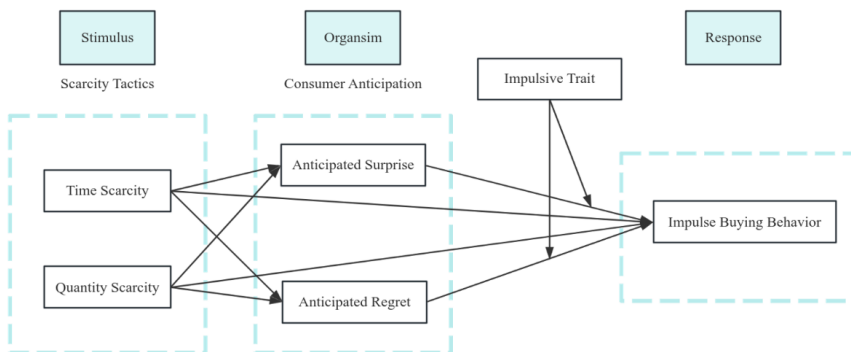


Fig. 1. Research framework.

3 Research method

3.1 Questionnaire design and measurement

The questionnaire comprised three sections. Section one focused on participants' awareness and familiarity with probabilistic products. A screening question, "Have you ever bought probabilistic products?", was placed at the beginning to ensure sample validity. Section two contained the variable items, measuring the constructs of scarcity tactics, consumer anticipation, impulsive trait, and impulse buying behavior. All items were measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Specifically: scarcity tactics was measured with 6 items. Adapted from Inman & McAlister^[15] and Aggarwal et al.^[16], these items were categorized into two dimensions: time scarcity and quantity scarcity, reflecting the types of promotional constraints. consumer anticipation, comprising its two dimensions (anticipated surprise and anticipated regret), was measured with 7 items adapted from Simonson^[17] and Finn^[18]. Impulsive trait was measured with 4 items adapted from Rook & Fisher^[11] and Jing & Xiong^[19]. Impulse buying behavior was measured with 4 items adapted from Jing & Xiong^[19] and Youn & Faber^[20]. All scales were adapted based on expert feedback from scholars to specifically investigate impulse buying behavior and its influencing factors for probabilistic products from a scarcity marketing perspective. Section three collected participants' basic demographic information, primarily including gender, age, occupation, and monthly disposable income.

3.2 Pretest, sampling and data collection

To ensure scale validity, a pilot survey was conducted with 182 target consumers, confirming good reliability for all scales (Cronbach's $\alpha > 0.70$). The formal study employed stratified quota sampling across three platforms: Questionnaire Star (60%), WeChat communities (25%), and Taobao probabilistic product forums (15%). Participants met strict eligibility criteria: (1) aged 18-45 years, (2) verified ≥ 1 probabilistic purchase in the prior six months through purchase records/screenshots, and (3) residence in Tier 1-3 cities per China's GB/T 4754-2017 urban classification standard. IP/MAC address verification prevented duplicate submissions. During September 2024, 550 responses were collected. After excluding 41 invalid cases (incomplete responses or failure in attention-check questions), 509 valid samples were retained (effective rate: 92.55%). The sample exhibited representative characteristics: gender distribution was balanced (male 48.55%, female 51.45%), majority aged 18-30 years (68.17%), with university students as the largest occupational group (55.63%), and monthly disposable income concentrated at RMB 3,001-5,000 (52.73%).

4 Empirical results

4.1 Reliability and validity

The reliability and validity of the research scales were analyzed using IBM SPSS 26.0, with the results presented in Table 1, the Cronbach's α coefficients for all six constructs—the two dimensions of scarcity tactics, the two dimensions of consumer anticipation, impulsive trait, and impulse buying behavior—ranged from 0.799 to 0.878; combined with Corrected Item-Total Correlations (CITC) all exceeding 0.50, these results indicate good internal consistency of the scales. Furthermore, the Kaiser-Meyer-Olkin (KMO) measure exceeded 0.70 and Bartlett's Test of Sphericity was significant, indicating its suitability for factor analysis. The factor loadings for the six constructs ranged between 0.782 and 0.869, and the Accumulated Percentage of Explained Variance (APEV) ranged from 65.78% to 73.65%. These findings collectively demonstrate good convergent validity for the scales, indicating they sufficiently capture the majority of the information for each construct.

Table 1. Reliability and validity.

	Construct & Item	Cronbach's α	CITC	Factor load- ing
TS	1. I feel that the promotional sales period for probabilistic products is usually short.	0.799	0.642	0.835
	2. I feel that the time available to decide whether to purchase a promotional probabilistic product is very limited.		0.663	0.865
	3. I feel that the purchase deadline for promotional probabilistic products is very pressing.		0.637	0.834
QS	1. I feel that the opportunity to purchase promotional probabilistic products is limited.	0.818	0.645	0.818
	2. I feel there is competition from other buyers when purchasing promotional probabilistic products.		0.678	0.827
	3. I feel that I must buy before others to obtain the promotional probabilistic product.		0.682	0.836
AS	1. The thought of acquiring a limited-edition probabilistic product makes me feel satisfied.	0.837	0.699	0.852
	2. The thought of acquiring a limited-edition probabilistic product makes me feel satisfied.		0.632	0.782
	3. The thought of having the opportunity to purchase a promotional probabilistic product makes me feel joyful.		0.667	0.823
AR	1. The thought of missing the opportunity to buy a promotional probabilistic product makes me feel regretful.	0.862	0.715	0.847
	2. The thought of not participating in the probabilistic product promotion makes me feel a sense of loss.		0.722	0.851
	3. The thought that I might miss the opportunity to buy a promotional probabilistic product makes me feel regretful.		0.689	0.829
	4. The thought that the stock of promotional probabilistic products is limited makes me feel anxious.		0.694	0.831
IT	1. I believe I should buy goods I like immediately upon seeing them.	0.842	0.662	0.814
	2. I believe I often do not make shopping plans.		0.699	0.845
	3. I believe my shopping decisions depend on my feelings at the moment.		0.668	0.816

	4. The thought of not buying something I like makes me feel dissatisfied.	0.671	0.821
IBB	1. I will immediately place an order to purchase the promotional probabilistic product.	0.758	0.869
	2. I will buy the promotional probabilistic product without much thought.	0.725	0.832
	3. I will buy the promotional probabilistic product even if it wasn't planned.	0.743	0.860
	4. I will proactively choose the probabilistic products recommended in promotions.	0.717	0.843
Metrics		≥0.70	≥0.50 ≥0.70

Note: TS= time scarcity; QS=quantity scarcity; AS=anticipated surprise; AR=anticipated regret; IT= impulsive trait; IBB=impulse buying behavior; CITC=corrected item-total correlation

4.2 Structural equation model

To examine the influence relationships among scarcity tactics, consumer anticipation, and impulse buying behavior for probabilistic products, this study established a structural equation model (SEM) with scarcity tactics (time scarcity and quantity scarcity) as the independent variables, consumer anticipation (anticipated surprise and anticipated regret) as the mediating variables, and impulse buying behavior as the dependent variable. The model fit was assessed using IBM AMOS 28.0, with the results presented in Figure 2. The results indicate a good overall model fit: $\chi^2/df = 1.717$, RMSEA = 0.038 (< 0.08), PGFI = 0.689 (> 0.50), NFI = 0.949, IFI = 0.978, CFI = 0.978, and TLI = 0.973, all of which meet or exceed their respective recommended thresholds.

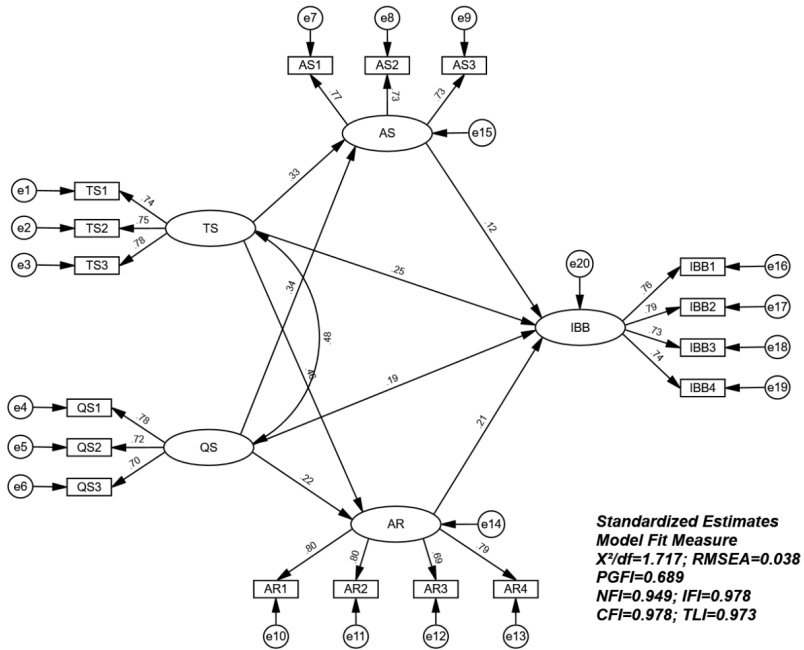


Fig. 2. Results of the proposed model.

Path coefficients revealed that both time scarcity and quantity scarcity exerted significant positive effects on impulse buying behavior, thereby supporting Hypothesis H1. Furthermore, both types of scarcity tactics also demonstrated significant positive effects on both anticipated surprise and anticipated regret, confirming Hypotheses H2 and H3.

For the mediation effect test, this study employed the Bootstrap method with a resampling size of 5000 and a 95% confidence interval to evaluate the mediation effects. The results demonstrated that time scarcity and quantity scarcity not only had positive direct effects on impulse buying behavior but also exerted significant indirect effects on impulse buying behavior through consumer anticipation. Specifically, consumer anticipation acted as a partial mediator in the relationship between scarcity tactics (both time and quantity scarcity) and impulse buying behavior. These findings provide empirical support for Hypotheses H4 and H5.

4.3 Examination of the moderating effect of impulsive trait

This study examined the moderating role of impulsive trait using a moderated mediation model. The relevant test parameters are detailed in Table 2. The model fit indices demonstrated good explanatory power for the dependent variable equations ($R^2=0.274-0.300$, $F=47.48-53.93$, $p<0.001$). The results revealed that impulsive trait significantly moderated the mediating path of anticipated regret between scarcity tactics and impulse buying behavior, but had no significant moderating effect on the path involving anticipated surprise. Specifically, for the Time Scarcity model (Model 1), the moderating effect coefficient of the interaction term ($M \times W \rightarrow Y$) was $\beta = -0.093$ ($t = -2.57$, $p < 0.01$). For the Quantity Scarcity model (Model 3), the coefficient was $\beta = -0.104$ ($t = -2.84$, $p < 0.01$). Further Bootstrap conditional indirect effect tests showed that for consumers with low impulsive traits (-1 SD), the indirect effect of time scarcity on impulse buying behavior via anticipated regret was 0.074 (95% CI $[0.029, 0.134]$), and for quantity scarcity, it was 0.088 (95% CI $[0.035, 0.153]$), with both confidence intervals excluding zero. In contrast, for consumers with high impulsive traits ($+1$ SD), the indirect effects for both types of scarcity tactics were non-significant (effect sizes: 0.014 , 95% CI $[-0.025, 0.052]$ for time scarcity and 0.016 , 95% CI $[-0.028, 0.059]$ for quantity scarcity). A comparison of effect magnitudes indicated that the mediation effect values were significantly higher in the low-impulsivity group than in the high-impulsivity group ($\Delta\beta = 0.060$ for Time Scarcity; $\Delta\beta = 0.072$ for Quantity Scarcity). This confirms that impulsive trait weakens the cognitively-driven mechanism by which scarcity tactics influence impulse buying behavior through anticipated regret, thus providing partial support for Hypothesis H6.

Table 2. Results of Moderated Mediation Model Analysis (N=509)

Model (Dependent Variable: Y)	Path	β	t	Model Fit Indices (R^2/F)	Conditional Indirect Effect [95% CI]	
					Low W	High W
Model 1: TS→AR	X→M	0.354	9.14***	M-equation: $R^2=0.142$, $F=83.60$ ***	0.074 [0.029, 0.134]	0.014

	X→Y (Direct)	0.224	5.57***			[- 0.025,0.052]
	M→Y	0.124	2.96***	Y-equation: R ² =0.295, F=52.83***		
	M×W→Y	-0.093	-2.57**			
Model 2: TS→AS	X→M	0.455	11.50***	M-equation: R ² =0.207, F=132.30***		
	X→Y (Direct)	0.207	5.05***		0.096 [0.037,0.163]	0.058 [- 0.002,0.125]
	M→Y	0.168	4.08***	Y-equation: R ² =0.300, F=53.93***		
	M×W→Y	-0.045	-1.30			
Model 3: QS→AR	X→M	0.372	9.02***	M-equation: R ² =0.138, F=81.30***		
	X→Y (Direct)	0.167	3.88***		0.088 [0.035,0.153]	0.016 [- 0.028,0.059]
	M→Y	0.140	3.29**	Y-equation: R ² =0.274, F=47.48***		
	M×W→Y	-0.104	-2.84**			
Model 4: QS→AS	X→M	0.367	8.25** *	M-equation: R ² =0.118, F=68.09***		
	X→Y (Direct)	0.170	4.04** *		0.093 [0.045,0.151]	0.057 [0.004,0.114]
	M→Y	0.205	5.07** *	Y-equation: R ² =0.287, F=50.82***		
	M×W→Y	-0.052	-1.47			

Note: *p < 0.05; **p < 0.01; ***p < 0.001.

5 Conclusion and Implications

Probabilistic products, leveraging their unique attributes of decision uncertainty and emotional stimulation, have emerged as significant innovative vehicles for boosting consumption growth. However, existing research lacks a systematic understanding of the differential effects of promotional constraint types within scarcity marketing and the underlying mechanisms of consumer anticipated emotions. Integrating the SOR framework and Expectancy Theory, this study, through empirical analysis of 509 valid samples, reveals the driving mechanisms of time limitation and quantity limitation on impulse buying behavior. The findings demonstrate that: (1) Both types of scarcity tactics not only directly stimulate impulse buying behavior but also exert indirect influences through the dual emotional pathways of anticipated surprise and anticipated regret. This indicates that promotional constraints co-stimulate consumption decisions by simultaneously evoking the "anticipation of acquiring rare rewards" and the "fear of missing opportunities." (2) Consumers' impulsive traits exert an asymmetric moderating effect on these emotional pathways. The high-impulsivity group exhibits a significant dominance of surprise emotions, with their decisions driven by affective gratification. Conversely, the low-impulsivity group demonstrates a regret-sensitive decision pattern characterized by typical loss aversion.

Based on these conclusions, this study proposes the following three strategic recommendations: Firstly, implement differentiated marketing strategies tailored to consumer segments. For high-impulsivity consumers, employ time limitation tactics coupled with surprise-emotion guidance mechanisms. This can be achieved through dynamic countdown tools prominently featured in live-streaming sales or flash promotions, combined with visualizations highlighting the probability of obtaining exclusive collectibles, as exemplified by successful blind box marketing campaigns like Pop Mart. These elements continuously stimulate affectively gratified decision-making. For low-impulsivity consumers, utilize quantity limitation tactics coordinated with regret-emotion priming schemes. Effective approaches include leveraging inventory cutoff mechanisms displaying real-time low-stock warnings (e.g., "Only 3 left!") and regional sold-out heatmaps showcasing the depletion of limited-edition items like sneakers or game skins across locations. These tactics effectively trigger loss aversion tendencies. Secondly, integrate the synergistic mechanism of dual emotions. Enhance the perceived scarcity value of products by combining elements like engaging unboxing animations with announcements of imminent discontinuation policies. Marketing messages such as "Final Chance" sales for seasonal product lines or retiring in-game items leverage the emotional resonance effect, amplifying consumption impulses through the interplay of anticipated surprise (excitement for the reveal) and anticipated regret (fear of permanent unavailability). Thirdly, establish a dynamic data-responsive system. Segment consumers based on behavioral characteristics and push customized content. Offer immediate reward channels, like exclusive access to rare items for first-time orders, to users exhibiting short decision cycles. For users with longer decision cycles, deliver social proof interventions, such as notifications reporting high-conversion-rate behaviors (e.g., "90% of viewers who saw this item bought within 5 minutes!").

While this study elucidates the dual emotional pathways of scarcity marketing, several limitations warrant acknowledgment. First, the empirical data were collected exclusively within China's cultural context, potentially limiting generalizability across diverse cultural settings. Second, the cross-sectional design constrains causal inferences about longitudinal behavioral outcomes such as scarcity fatigue or consumer habituation patterns. Third, systematic examination of boundary conditions—particularly distinctions between utilitarian and hedonic probabilistic goods—remains unaddressed. Future research should therefore investigate sustained consumer responses to scarcity tactics, including emotional adaptation dynamics and cross-cultural variations in how scarcity cues activate anticipated emotions to drive impulse buying, thereby advancing globally applicable theoretical frameworks.

References

1. Valarie A. Zeithaml. **1988**. Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence. *Journal of Marketing*, 52, 3, 2-22.
2. Belinda Barton, Natalina Zlatevska, and Harmen Oppewal. **2022**. Scarcity Tactics in Marketing: A Meta-analysis of Product Scarcity Effects on Consumer Purchase Intentions. *Journal of Retailing*, 98, 4, 741-758.

3. Sijie Ma, Wanjing Wei, Jiahui Wang, Haoyu Liu, Yujie Song, and Lei Yang. **2025**. Influencing Factors of Consumers' Impulse Purchase Intentions in Livestream E-Commerce Based on DEMATEL-AISM. *Journal of Theoretical and Applied Electronic Commerce Research*, 20, 2, 86.
4. Jingjing Zhang, Nan Jiang, Jason James Turner, and Saeed Pahlevan Sharif. **2021**. The Impact of Scarcity of Medical Protective Products on Chinese Consumers' Impulsive Purchasing during the COVID-19 Epidemic in China. *Sustainability*, 13, 17, 9749.
5. Richard P. Bagozzi, Daniel Belanche, Luis V. Casaló, and Carlos Flavián. **2016**. The Role of Anticipated Emotions in Purchase Intentions. *Psychology & Marketing*, 33, 8, 629-645.
6. Gustave Florentin Nkoulou Mvondo, Fengjie Jing, and Khalid Hussain. **2023**. What's in the Box? Investigating the Benefits and Risks of the Blind Box Selling Strategy. *Journal of Retailing and Consumer Services*, 71, 103189.
7. Chun Yang, Xuqi Chen, Jie Sun, Wei Wei, Wei Miao, and Chao Gu. **2022**. Could Surplus Food in Blind Box Form Increase Consumers' Purchase Intention? *Agriculture*, 12, 6, 864.
8. Yi Zhang and Tianqi Zhang. **2022**. The Effect of Blind Box Product Uncertainty on Consumers' Purchase Intention: The Mediating Role of Perceived Value and the Moderating Role of Purchase Intention. *Frontiers in Psychology*, 13, 946527.
9. Yin Xu and Wenjun Guo. **2023**. A Dual Perspective on Uncertainty—An Exploration Based on Blind Box. *Journal of Management Science*, 1, 36, 119-131.
10. Jingjing Zhang, Nan Jiang, Jason James Turner, and Saeed Pahlevan-Sharif. **2022**. The Impact of Scarcity on Consumers' Impulse Buying Based on the S-O-R Theory. *Frontiers in Psychology*, 13, 792419.
11. Dennis W. Rook and Robert J. Fisher. **1995**. Normative Influences on Impulsive Buying Behavior. *Journal of Consumer Research*, 22, 3, 305-313.
12. Xiyun Gong, Choy Leong Yee, Shin Yie Lee, Abu Naser Mohammad Saif, Meilian Liu, and Fariah Anonhi. **2024**. Unveiling the Enigma of Blind Box Impulse Buying Curiosity: The moderating Role of Price Consciousness. *Heliyon*, 10, 24, 40564.
13. Muhammad Arslan Sarwar, Jawaria Nasir, Binesh Sarwar, Muzzammil Hussain, and Ali Abbas. **2024**. An Investigation of Precursors of Online Impulse Buying and its Effects on Purchase Regret: Role of Consumer Innovation. *International Journal of Innovation Science*, 16, 5, 877-894.
14. Xiangxi Kong, Ren Wang, and Yuyang Zhang. **2025**. Exploring the Influence of 'Keeping Consumers in Suspense' in Live Streaming on Consumer Impulse Buying Behavior: A Test of the Mediating Effects of Consumer Inner States. *Acta Psychologica*, 253, 104762.
15. J. Jeffrey Inman and Leigh McAlister. **1994**. Do Coupon Expiration Dates Affect Consumer Behavior? *Journal of Marketing Research*, 31, 3, 423-428.
16. Praveen Aggarwal, Sung Youl Jun, and Jong Ho Huh. **2011**. Scarcity Messages—A Consumer Competition Perspective. *Journal of Advertising*, 40, 3, 19-30.
17. Itamar Simonson. **1992**. The Influence of Anticipating Regret and Responsibility on Purchase Decisions. *Journal of Consumer Research*, 19, 1, 105-118.
18. Adam Finn. **2005**. Reassessing the Foundations of Customer Delight. *Journal of Service Research*, 8, 2, 103-116.
19. Fengjie Jing and Suhong Xiong. **2008**. A Critical Review of the Intrinsic Mechanisms of Impulsive Consumption Behavior: The Role of Regulatory Focus in Impulsive Purchasing. *Advances in Psychological Science*, 5, 789-795.
20. Seounmi Youn and Ronald J. Faber. **2000**. Impulse Buying: Its Relation to Personality Traits and Cues. *Advances in Consumer Research*, 27, 1, 179.

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