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False Urgency Dark Patterns in Indian E-Commerce:

An Empirical Study on Consumer Purchase Decision-Making

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Abstract

Dark patterns are interface designs that steer or trick users into choices they might not otherwise make, and they are now routine on e-commerce and quick-commerce platforms. False urgency is among the most common of them. It works through fake countdown timers, invented low-stock warnings and live "people are viewing this" counters, all of which cut short the time a shopper has to weigh a purchase. Earlier research has catalogued these designs and measured how widespread they are, but it has not explained why digitally literate consumers, who can often tell the cues are fake, still buy on impulse. This study calls that behavior the "Awareness-Action Paradox." Drawing on Kahneman's Dual-Process Theory and Cialdini's Scarcity Principle, it tests how false urgency shapes the purchase decisions of Indian consumers. Primary data came from 450 active online shoppers ($N = 450$), split between Metro Tier-1 cities ($n_1 = 270$) and Non-Metro Tier-2/Tier-3 cities ($n_2 = 180$), using a structured 5-point Likert questionnaire. Reliability was confirmed with Cronbach's Alpha ($\alpha \geq 0.812$), and the hypotheses were tested with Chi-Square (χ^2) tests of independence, Baron and Kenny mediation modeling and linear regression. Exposure to false urgency cues significantly raised impulse purchasing velocity ($\beta = 0.482$, $p < 0.001$), and impulse buying in turn predicted post-purchase cognitive dissonance and regret ($R^2 = 0.418$, $p < 0.001$). Fear of Missing Out (FOMO) partially mediated the link between urgency exposure and quick checkout ($\beta_{indirect} = 0.184$, $Z = 5.62$, $p < 0.001$). Susceptibility was markedly higher among Tier-2/Tier-3 consumers (68.3%) than among Tier-1 Metro consumers (42.6%; $\chi^2 = 28.64$, $p < 0.001$), a gap that may reflect greater sensitivity to promotional prices and lower algorithmic literacy. The paper closes with an ethical UI/UX design framework and evidence-based enforcement benchmarks for India's Central Consumer Protection Authority (CCPA).

Keywords—*CCPA guidelines, consumer decision-making, dark patterns, e-commerce, false urgency, fear of missing out (FOMO), impulse buying, perceived scarcity, post-purchase regret.*

I. INTRODUCTION

Over the past decade, India's digital commerce market has grown quickly, helped by cheap smartphones, affordable mobile data and easy digital payments through the Unified Payments Interface (UPI). In such a crowded market, platforms compete hard for limited consumer attention and for every extra checkout. Many of them do so by designing digital choice architecture with great care, a concept first described by Thaler and Sunstein [1] to explain how the way choices are arranged shapes the decisions people make.

Good choice architecture makes navigation easier and cuts the effort of searching. Deceptive choice architecture does the opposite and exploits cognitive biases through what are known as *dark patterns*. The term was coined by the user experience practitioner Harry Brignull in 2010 [2] for interfaces built to push, steer or mislead users into choices that work against their own considered interests. One of the most widespread types in India is *false urgency*, seen on e-commerce marketplaces, quick-commerce delivery apps and online travel aggregators. It creates time pressure or artificial scarcity through three main interface cues:

- *Artificial Countdown Timers:* Clocks that show a discount ending in a few minutes, yet often start over when the page is refreshed or the app is reopened.
- *Simulated Low-Stock Alerts:* Bold warning badges such as "Only 2 items left in stock!" that have no connection to real warehouse inventory.
- *Concurrent Demand Indicators:* Social proof pop-ups saying "18 people are viewing this offer right now," meant to make the shopper feel in competition with others.

In terms of behavioral economics and cognitive psychology, false urgency works through *Dual-Process Theory* [3]. A tight, artificial deadline discourages *System 2* thinking, which is slow and analytical and weighs price against usefulness. It pushes the shopper toward *System 1*, which is fast, emotional and driven by rules of thumb.

A. Statement of the Problem

On November 30, 2023, India's Central Consumer Protection Authority (CCPA), under the Ministry of Consumer Affairs, notified the *Guidelines for Prevention and Regulation of Dark Patterns, 2023* (F. No. CCPA-1/1/2023-CCPA-(Reg)) [4]. The guidelines prohibit 13 categories of dark patterns, and "False Urgency" is the first one listed in Annexure 1. Even though the Consumer Protection Act, 2019 backs this prohibition, deceptive urgency cues are still common on Indian e-commerce and quick-commerce interfaces such as Blinkit and Zepto.

The central problem this research addresses is the *"Awareness-Action Paradox."* Preliminary consumer surveys suggest that most online shoppers know countdown timers and low-stock banners are artificially generated, and yet conversion speed under timer pressure stays disproportionately high. Most academic work so far has cataloged dark patterns across websites through automated crawls. It has rarely asked why awareness fails to calm the emotional arousal that builds during checkout. Little is known either about how susceptibility differs between Tier-1 metropolitan buyers and newer Tier-2/Tier-3 shoppers, or about the later business costs of post-purchase cognitive dissonance, product returns and app uninstallation.

B. Objectives of the Research

- To identify and categorize the main false urgency tactics used on Indian e-commerce platforms.
- To compare consumers' awareness of false urgency cues with their actual behavioral vulnerability to them across geographic tiers (Tier-1 Metro vs. Tier-2/Tier-3 Non-Metro cities).
- To analyze whether Fear of Missing Out (FOMO) mediates the relationship between false urgency exposure and impulse purchasing velocity.
- To measure the post-purchase outcomes of urgency-induced impulse buying, in particular regret and the intention to uninstall the app.
- To develop an ethical UI/UX design framework and practical policy recommendations that support compliance with the CCPA guidelines.

C. Hypotheses of the Study

- *H_1 (Alternative):* Exposure frequency to false urgency UI cues significantly increases consumer impulse purchasing velocity.
- *H_{10} (Null):* Exposure frequency to false urgency UI cues has no statistically significant effect on consumer impulse purchasing velocity.
- *H_2 (Alternative):* Fear of Missing Out (FOMO) significantly mediates the positive relationship between false urgency exposure and rapid checkout completion.
- *H_{20} (Null):* FOMO does not significantly mediate the relationship between false urgency exposure and rapid checkout completion.
- *H_3 (Alternative):* Consumers in Tier-2 and Tier-3 cities exhibit a statistically significant higher behavioral susceptibility to false urgency tactics compared to Tier-1 Metro consumers.
- *H_{30} (Null):* There is no statistically significant difference in behavioral susceptibility to false urgency tactics between Tier-1 and Tier-2/Tier-3 consumers.
- *H_4 (Alternative):* Impulse purchases driven by false urgency dark patterns lead to a statistically significant increase in post-purchase regret and platform app uninstallation intent.
- *H_{40} (Null):* Urgency-driven impulse purchases do not significantly lead to post-purchase regret or platform app uninstallation intent.

D. Significance of the Study

- *Theoretical Contribution:* This study tests the psychological mechanism behind the *Awareness-Action Paradox* and adds primary cross-sectional data from Tier-2/Tier-3 Indian digital consumers, a group that behavioral information systems research has covered thinly.
- *Regulatory Utility (CCPA Enforcement):* The findings give the Central Consumer Protection Authority (CCPA) and the Advertising Standards Council of India (ASCI) quantitative benchmarks they can use when auditing dynamic front-end scripts and enforcing rules against deceptive design.
- *Commercial & UX Design Value:* The study shows how the short-term conversion gains from false urgency turn into post-purchase regret and a 54.2% app uninstallation intent. This gives product managers evidence that dark patterns erode long-term Customer Lifetime Value (CLV).

II. Review of Literature

A. Theoretical Foundations and Prior Empirical Studies

Deceptive Choice Architecture and UX Taxonomies: Thaler and Sunstein [1] showed that default settings and framing effects reliably change how people behave. Building on Brignull's practitioner taxonomy of deceptive interfaces [2], [5], Gray *et al.* [6] analyzed user experience practice qualitatively and sorted dark patterns into five strategies: nagging, obstruction, sneaking, interface interference and forced action. Mathur *et al.* [7] later crawled 11,000 popular shopping websites with automated tools and found that more than 11% used dark patterns. Scarcity and urgency cues, including script-generated countdown timers, were among the most common.

Scarcity Heuristics and Perceived Competition: In the classic persuasion literature, Cialdini [8] proposed the Scarcity Principle: people value an opportunity more when its availability is limited. Applying this idea to retail, Aggarwal *et al.* [9] found that both limited-quantity and limited-time messages heighten the sense of competing with other buyers. That sense of competition creates urgency, speeds up purchase intentions and reduces price comparison.

Dual-Process Cognition and FOMO Mediation: Kahneman [3] set out Dual-Process Theory, which separates fast, automatic, emotion-driven thinking (System 1) from slow, effortful, logical deliberation (System 2). When time is artificially tight, digital interfaces overload working memory and keep System 2 from checking claims. Fear of Missing Out (FOMO) strengthens this shift. Przybylski *et al.* [10] defined it as a pervasive worry that other people are having rewarding experiences, or getting good deals, that one is missing. In digital settings, FOMO acts as an emotional trigger that overrides rational skepticism.

Post-Purchase Cognitive Dissonance and Legal Regulation: Festinger's theory of cognitive dissonance [11] explains the discomfort people feel when their actions clash with their beliefs or their financial interests. A shopper who finds out after checkout that a scarcity cue was fake is likely to feel strong regret. In a widely cited experimental and legal study, Luguri and Strahilevitz [12] found that aggressive dark patterns raised compliance with unwanted choices by a factor of two to four compared with neutral baselines. The same patterns also provoked backlash, a loss of trust in the institution and calls for legal intervention.

B. Comparative Literature Matrix and Research Gap

Earlier studies have shown that dark patterns exist and that they persuade, but a review of this work points to three gaps that justify the present study (Table I).

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TABLE I. COMPARATIVE LITERATURE MATRIX

Author(s) & Year	Core Research Focus	Methodology & Context	Identified Limitation / Gap	Contribution of Present Study
Mathur *et al.* [7]	Automated detection of dark patterns across 11,000 e-commerce websites.	Web-scraping & UI script auditing (Global/Western focus).	Examined supply-side website code only; did not measure consumer psychological mediation or post-purchase regret.	Captures demand-side consumer behavior (N = 450) linking UI exposure to FOMO and regret.
Aggarwal *et al.* [9]	Effect of scarcity messages (time vs. quantity) on buyer competition.	Controlled consumer experiments in traditional retail promotion contexts.	Assumed scarcity claims were authentic; did not examine deceptive digital timers that reset upon page refresh.	Investigates the *Awareness-Action Paradox*, where 71.6% of users recognize fake timers yet still purchase.
Luguri and Strahilevitz [12]	Empirical effectiveness of mild vs. aggressive dark patterns and legal remedies.	Online behavioral experiments on US consumers.	Focused on Western demographic samples; did not analyze emerging-market socio-geographic divides or app churn.	Compares Indian Tier-1 Metro (42.6%) vs. Tier-2/3 Non-Metro (68.3%) vulnerability and app uninstall intent.
CCPA Guidelines [4]	Statutory prohibition of 13 dark patterns in Indian digital commerce.	Regulatory notification under India's Consumer Protection Act, 2019.	Provides legal definitions but lacks empirical post-2023 compliance data on consumer susceptibility.	Provides post-regulation empirical evidence and technical UI/UX compliance frameworks for India.

III. RESEARCH METHODOLOGY

- *Research Philosophy and Approach:* The study takes a positivist stance and uses a deductive, quantitative, cross-sectional survey design. Participants gave electronic informed consent before answering the questionnaire. Responses were anonymous and confidential, and participation was entirely voluntary.
- *Target Population and Sampling Strategy:* The target population was active Indian online shoppers who had completed at least one e-commerce or quick-commerce transaction in the previous 30 days. Stratified convenience sampling was used so that the sample would cover different urban tiers, and data cleaning left N = 450 valid responses:
  - *Stratum 1 (Tier-1 Metro Cities—e.g., Mumbai, Pune, Bengaluru, Delhi-NCR):* n_1 = 270 respondents (60.0%).
  - *Stratum 2 (Tier-2 and Tier-3 Non-Metro Cities):* n_2 = 180 respondents (40.0%).
- *Data Collection Instrument:* Primary data came from a structured, self-administered online questionnaire. It contained demographic questions and 12 psychometric items, spread equally over four constructs: False Urgency Exposure (FU), Fear of Missing Out (FOMO), Impulse Purchasing Velocity (IPV) and Post-Purchase Regret (PPR). Every construct item was rated on a 5-point Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree (see Appendix).
- *Statistical and Analytical Tools:* All analysis was done in Python: pandas for data cleaning, scipy.stats for contingency tests and statsmodels for the regression models. Internal consistency was checked with Cronbach's Alpha (α). The hypotheses were tested with simple and multiple linear regression, Baron and Kenny's four-step mediation model [13] with a Sobel Z-test, and Pearson's Chi-Square (χ^2) test of independence.

IV. PROPOSED WORK AND ETHICAL UX DESIGN FRAMEWORK

To connect the statistical results with practical software engineering and regulatory compliance, the research followed a four-stage pipeline of analysis and design:

- *Stage 1: Data Ingestion and Sanitization:* Raw survey responses were converted to numerical values (1 to 5) in Python (pandas). Incomplete submissions, straight-lined responses and speeders (respondents who finished too quickly) were removed, leaving the final dataset (N = 450).
- *Stage 2: Psychometric Construct Validation:* Inter-item correlations and Cronbach's Alpha (α) were calculated for each 3-item construct to confirm reliability ($\alpha > 0.70$) before composite scores were created.
- *Stage 3: Inferential Econometric Modeling:* Ordinary Least Squares (OLS) regressions were estimated for Impulse Purchasing Velocity (Y_1) and Post-Purchase Regret (Y_2). These were supplemented by Baron and Kenny mediation equations for FOMO (M) and Chi-Square (χ^2) cross-tabulations across urban tiers.
- *Stage 4: Ethical UX Design & Regulatory Synthesis:* The empirical findings were turned into an *Ethical Choice Architecture Framework*. The framework proposes replacing manipulative front-end JavaScript reset timers with verifiable inventory API bindings, and adding "cooling-off" checkpoints that introduce some friction, in line with the CCPA guidelines [4].

V. RESULTS AND DISCUSSION

A. Scale Reliability Analysis

Before the hypotheses were tested, the internal consistency of all four latent constructs was assessed with Cronbach's Alpha (α). As Table II shows, every construct cleared the usual psychometric threshold of $\alpha > 0.70$, which indicates high internal consistency.

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TABLE II. CONSTRUCT RELIABILITY AND PSYCHOMETRIC SUMMARY (N = 450)

Construct Name	Code	Measurement Items	Cronbach's Alpha (α)	Reliability Status
False Urgency Exposure	FU	FU1, FU2, FU3	0.842	High Internal Consistency
Fear of Missing Out	FOMO	FOMO1, FOMO2, FOMO3	0.812	High Internal Consistency
Impulse Purchasing Velocity	IPV	IPV1, IPV2, IPV3	0.865	High Internal Consistency
Post-Purchase Regret	PPR	PPR1, PPR2, PPR3	0.878	High Internal Consistency

B. Hypothesis Testing Outcomes

1) H_1: Direct Effect of False Urgency on Impulse Purchasing Velocity (Supported)

A simple linear regression showed that exposure frequency to false urgency UI cues is a significant, positive predictor of impulse purchasing velocity ($\beta = 0.482$, $t = 11.45$, $p < 0.001$, $R^2 = 0.232$). The null hypothesis H_{10} is therefore rejected. False urgency explains 23.2% of the variance in rapid, unexamined checkout behavior. This fits the Dual-Process account, in which simulated scarcity weakens System 2 comparison and triggers System 1 heuristics.

2) H_2: Mediating Role of FOMO (Supported—Partial Mediation)

To test whether Fear of Missing Out (FOMO) mediates the effect of False Urgency Exposure (FU) on Impulse Purchasing Velocity (IPV), the step-wise regression procedure of Baron and Kenny [13] was followed, together with a Sobel Z-test:

- *Step 1 (Total Effect, FU → IPV):* False urgency significantly predicts impulse purchasing velocity ($\beta = 0.482$, $p < 0.001$).
- *Step 2 (First-Stage Path, FU → FOMO):* False urgency exposure significantly raises consumer FOMO ($\beta = 0.521$, $p < 0.001$).
- *Step 3 (Combined Regression, FU + FOMO → IPV):* With FOMO controlled, the direct effect of false urgency on impulse purchasing velocity falls from $\beta = 0.482$ to $\beta = 0.298$ ($p < 0.001$). FOMO itself remains a strong, significant predictor ($\beta = 0.353$, $p < 0.001$).
- *Step 4 (Indirect Effect Verification):* The Sobel test shows that the indirect path is highly significant ($\beta_{indirect} = 0.184$, $Z = 5.62$, $p < 0.001$) and accounts for 38.2% of the total effect.

The null hypothesis H_{20} is therefore rejected. FOMO partially mediates the link between deceptive urgency cues and quick checkout, which helps explain the mechanism behind the *Awareness-Action Paradox*.

3) H_3: Demographic Variance Across Urban Tiers (Supported)

A Pearson's Chi-Square (χ^2) test of independence compared behavioral vulnerability between Tier-1 Metro shoppers ($n_1 = 270$) and Tier-2/Tier-3 Non-Metro shoppers ($n_2 = 180$). Vulnerability was defined as having completed at least one unintended purchase under countdown timer or low-stock pressure in the past 30 days.

The difference was statistically significant ($\chi^2 = 28.64$, $df = 1$, $p < 0.001$), so the null hypothesis H_{30} is rejected. Behavioral susceptibility to false urgency cues was shown by 68.3% (123/180) of Tier-2/Tier-3 respondents, against 42.6% (115/270) of Tier-1 Metro respondents. This gap of 25.7 percentage points may reflect greater sensitivity to promotional discounts and less familiarity with front-end algorithmic manipulation among newer non-metro digital shoppers.

4) H_4: Post-Purchase Regret and App Uninstallation Intent (Supported)

A linear regression on post-purchase outcomes showed that urgency-driven impulse purchasing velocity strongly predicts post-purchase cognitive dissonance and regret ($\beta = 0.647$, $t = 17.89$, $p < 0.001$, $R^2 = 0.418$). The null hypothesis H_{40} is therefore rejected: impulse buying under deceptive time pressure explains 41.8% of the variance in regret. Descriptive analysis of item PPR3 also showed that 54.2% of highly impacted respondents explicitly intended to uninstall the e-commerce app once they realized they had been manipulated by resetting timers or fake scarcity banners. Table III summarizes the results of all four hypothesis tests.

TABLE III. SUMMARY OF INFERENTIAL HYPOTHESIS TESTING RESULTS (N = 450)

Hyp.	Structural Path / Comparison	Analytical Method	Key Statistic	Test Stat.	p-Value	Verdict
H_1	FU → IPV (direct effect)	Simple Linear Regression	$\beta = 0.482$, $R^2 = 0.232$	$t = 11.45$	$p < 0.001$	Supported
H_2	FU → FOMO → IPV (mediation)	Baron & Kenny + Sobel Test	$\beta_{indirect} = 0.184$ ($\beta_{direct} = 0.298$)	$Z = 5.62$	$p < 0.001$	Supported (Partial)
H_3	Tier-1 (42.6%) vs. Tier-2/3 (68.3%)	Chi-Square (df = 1)	$\chi^2 = 28.64$	—	$p < 0.001$	Supported
H_4	IPV → PPR & app churn intent	Linear Regression	$\beta = 0.647$, $R^2 = 0.418$	$t = 17.89$	$p < 0.001$	Supported

VI. FINDINGS AND SUGGESTIONS

A. Key Empirical Findings

- *Pervasive Baseline Exposure:* Even after the CCPA guidelines came into force [4], 88.4% of surveyed Indian online shoppers said they meet false urgency dark patterns every week on e-commerce and quick-commerce platforms.
- *Validation of the Awareness-Action Paradox:* Although 71.6% of respondents knew that countdown clocks often reset on page refresh, awareness alone did not stop impulse buying once affective FOMO ($\beta = 0.353$) was triggered by perceived time scarcity.
- *Geographic Vulnerability Divide:* Tier-2/Tier-3 consumers showed much higher behavioral vulnerability (68.3%) than Tier-1 Metro buyers

(42.6%). Stronger loss aversion toward monetary discounts and lower algorithmic literacy may be behind this.

- *Erosion of Long-Term Brand Equity:* The short-term conversion speed gained through false urgency is associated with post-purchase cognitive dissonance (R^2 = 0.418), a 54.2% intention to uninstall the app and greater friction over product returns.

B. Actionable Suggestions and Recommendations

1) For UI/UX Designers and E-Commerce Product Teams

- Replace client-side countdown scripts that reset with authenticated, real-time warehouse inventory counters, and show stock depletion only when inventory actually drops below verifiable thresholds.
- After high-urgency flash-sale checkouts, offer an ethical "5-Minute Cooling-Off Window" or a simple penalty-free cancellation button. This gives shoppers a chance for System 2 reassessment and reduces costly reverse-logistics returns.

2) For Regulatory Authorities (CCPA and ASCI)

- Move from complaint-based enforcement to automated algorithmic auditing of front-end DOM scripts and API endpoints, so that artificial timer resets can be detected under F. No. CCPA-1/1/2023-CCPA-(Reg) [4].
- Require standardized "one-click penalty-free return and refund channels" for transactions made under promotional countdown banners that are found to be non-compliant.

3) For Consumers and Digital Literacy Initiatives

- Run targeted regional-language consumer awareness campaigns in Tier-2 and Tier-3 cities that show how dynamic pricing and scarcity scripts work, and encourage people to use browser price-history tracking extensions.

C. Conclusion

This study offers empirical evidence that false urgency dark patterns remain a strong behavioral lever in Indian digital commerce. They work partly through the emotional effect of Fear of Missing Out (FOMO), which lets shoppers skip rational evaluation. Fake timers and fabricated stock alerts do speed up checkout, but they are associated with post-purchase cognitive dissonance and widespread intention to uninstall apps, and non-metro consumers are affected most. For India's digital economy to grow sustainably, e-commerce platforms need to bring their choice architecture in line with the CCPA mandate [4] and replace short-sighted manipulative interfaces with transparent designs that build trust.

VII. Future Scope

- *Biometric and Clickstream Neuro-IS Experiments:* Future studies could use laboratory eye-tracking, galvanic skin response (GSR) and real-time clickstream telemetry to capture physiological arousal while participants view resetting countdown timers.
- *Quick-Commerce (Q-Commerce) Hyper-Urgency:* Later work should look specifically at 10-minute delivery platforms (e.g., Blinkit, Zepto, Swiggy Instamart), where the promise of instant gratification adds to the pressure of artificial cart timers.
- *Longitudinal Customer Lifetime Value (CLV) Panels:* Panel studies lasting 12 to 24 months and using actual platform transaction logs could measure the true financial trade-off between initial conversion gains and later customer churn or return costs.

VIII. Limitations of the Study

- *Self-Reported Recall Bias:* The primary data rest on respondents' self-reported perceptions and 30-day recall, not on server-side clickstream observation.
- *Cross-Sectional Time Horizon:* The data were collected at a single point in time, so causal claims about long-term brand loyalty erosion are limited by the survey horizon.
- *Sample Boundary:* The sample (N = 450) covers only digitally active smartphone and web shoppers. Offline-only shoppers and rural populations without regular internet access are excluded.

Appendix: Measurement Items and Survey Instrument

All construct items were administered on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Construct 1: False Urgency Exposure (FU)

- *FU1:* I frequently encounter countdown timers indicating that a discount will expire shortly on e-commerce platforms.
- *FU2:* I often see messages like "Only 2 items left in stock!" when browsing products online.
- *FU3:* I frequently notice pop-up notifications stating that other users are currently viewing or buying the same product.

Construct 2: Fear of Missing Out (FOMO)

- *FOMO1:* I feel anxious that I will lose out on a good financial deal if I do not purchase immediately when a timer is running.
- *FOMO2:* Seeing limited-time deal alerts makes me worry that others will buy the item before I do.
- *FOMO3:* I feel compelled to finish checking out quickly when an app alerts me that stock is running low.

Construct 3: Impulse Purchasing Velocity (IPV)

- *IPV1:* False urgency cues cause me to complete my purchase much faster without checking alternative websites.
- *IPV2:* I often buy items under time pressure that I had not originally planned to purchase.
- *IPV3:* Countdown clocks lead me to bypass reading detailed product reviews or return policies.

Construct 4: Post-Purchase Regret (PPR)

- *PPR1:* After making a purchase driven by a limited-time deal, I often regret buying the item.
- *PPR2:* I feel tricked when I discover that a "limited-time" discount timer resets after refreshing the page.
- *PPR3:* I am likely to uninstall an e-commerce app if I realize it uses misleading tactics to pressure my purchases.

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