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## **Behavioral and Ethical Implications of Dark Patterns in Online Retail: A Synthesis of Theoretical and Empirical Perspectives**

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**Abstract** The rapid maturity of digital and social media marketing has introduced a "dark side" to technology-mediated commerce. This paper explores "dark patterns"—user interface designs intended to manipulate consumers into making decisions that benefit the retailer—with a specific focus on urgency-based messages and sneak-into-basket strategies within the Indian online retail sector. By synthesizing classical economic theories of rationality with modern insights into bounded rationality, algorithmic bias, and the "privacy paradox," this study evaluates how these manipulative designs exploit cognitive limitations. The research highlights the critical need for responsible AI design, ethical governance, and enhanced data literacy to protect consumer well-being in an increasingly complex digital marketplace.

### **Introduction: The Digital Transformation and the Rise of Complexity**

The evolution of the digital retail environment has been defined by unprecedented global adoption. By early 2020, the global digital population reached approximately 4.54 billion active internet users, encompassing 59% of the world's population. This widespread adoption was further accelerated by the 2020–2021 global pandemic, which fundamentally altered consumer behavior. The temporary closure of stationary shopping outlets in regions such as Poland and South Korea forced a massive shift toward e-commerce, making digital channels the primary venue for business-to-consumer (B2C) relationships.

While this digital transformation offers organizations lower costs, improved brand awareness, and increased sales, it simultaneously presents significant challenges. Organizations are now navigating an environment characterized by "intrusive and irritating online brand presence". As retailers compete for attention in a crowded marketplace, many have turned to manipulative user interface designs—known as dark patterns—to influence the consumer's "path to purchase".

### **Conceptualizing Dark Patterns in the Retail Context**

Dark patterns represent behavioral and ethical disruptions to the standard shopping experience, designed to exert "invisible pressure" on users. In the context of Indian online retail, researchers have identified specific patterns that exploit psychological vulnerabilities.

## Urgency and the Fear of Missing Out (FOMO)

Urgency-based messages are a primary dark pattern used to trigger immediate action. By creating a perceived scarcity of time (e.g., "Deal ends in 10 minutes") or product availability (e.g., "Only 2 items left"), retailers exploit the consumer's **Fear of Missing Out (FOMO)**. This tactic bypasses rational decision-making, pushing individuals toward impulsive purchases to avoid the "regret" of losing a purported deal. This aligns with the "scarcity principle," where the perceived value of an item is artificially increased through time-bound limitations.

## Sneak-Into-Basket and Hidden Additions

Another prevalent pattern is the "**sneak-into-basket**" strategy, where additional items, such as insurance, small accessories, or service fees, are added to a digital cart without the consumer's explicit initial consent. This represents a "hidden addition" that relies on consumer inattention or the complexity of the checkout process to increase transaction value. Such practices are widely viewed as violations of generally accepted norms of conduct in consumption situations.

## Theoretical Foundations of Consumer Manipulation

The effectiveness of dark patterns is rooted in the transition from classical economic theories of perfect rationality to modern behavioral insights.

## From Rationality to Bounded Rationality

Classical economic models, notably those proposed by Adam Smith in *The Wealth of Nations* (1776), assume that consumer decisions are rational. This model posits that individuals take actions that bring the most significant benefits to themselves, assuming they have free access to information about alternatives. However, modern research, including the work of Daniel Kahneman and Amos Tversky, highlights the limitations of this theory through the lens of **bounded rationality**.

Bounded rationality suggests that consumers operate with limited information-processing capacity. In the digital environment, this is manifested as **information overload**, a phenomenon where the volume of data exceeds the individual's processing ability. In this state, consumers often fail to use diagnostic information (the actual value of a product) and instead rely on non-diagnostic cues (manipulative urgency timers or celebrity endorsements) to make quick judgments—a process known as the **dilution effect**.

## Social Status and Ostentatious Consumption

The "dark side" of consumption is also influenced by social pressures. Thorstein Veblen's theory of **ostentatious consumption** (1899) describes how individuals buy prestige goods to signal their social class. Dark patterns often exploit this by framing products as status symbols or using social media influencers to cultivate "para-social relationships" that drive impulsive spending. Consumers imitating the lifestyles of higher social strata become more susceptible to patterns that suggest exclusivity or social validation.

### **The Stimulus-Organism-Response (SOR) Framework**

Digital stimuli are often analyzed using the **SOR framework**, where dark patterns act as the "stimuli" that affect the consumer's internal state ("organism"). Manipulative interfaces trigger emotional responses, such as anxiety or excitement, which lead to specific "responses" like clicking an ad or completing a pressured purchase. Furthermore, the **Elaboration Likelihood Model (ELM)** suggests that when consumers are distracted or lack the competence to evaluate complex digital offers, they are more susceptible to the "peripheral route" of persuasion, which relies on emotional appeals rather than logical facts.

### **Ethical Implications of Digital Brand Strategies**

The transition toward a "post-modern" marketing phase, which leverages "leap-frogging technology," has revealed significant ethical risks.

### **The Personalization-Privacy Paradox**

Personalization is often framed as a benefit that improves the customer journey by providing relevant content. However, it is frequently used with manipulative intent. When brands leverage collected data to provide "hyper-personalized" experiences, it can heighten a consumer's sense of being monitored or manipulated. This creates the "**personalization-privacy paradox**," where consumers must weigh the benefits of a customized experience against the potential for data exploitation. Corporate data breaches and "weaponized ad technology" have further intensified these privacy concerns.

### **Algorithmic Bias and "Black Box" Systems**

Artificial Intelligence (AI) and machine learning allow retailers to implement dark patterns with unprecedented precision by analyzing a user's demographics, fears, and interests. However, many of these systems operate as "**black boxes**," where the rationale for a marketing decision is hidden. If these systems learn from biased data, they can reinforce structures of control and power, sometimes discriminating against marginalized populations. For instance, Amazon's AI-based hiring system was found to discriminate against women because it learned from historical data where men were overrepresented.

### **Polluted Data and the Erosion of Trust**

The digital environment is riddled with "**digital pollutants**" such as fake reviews, spam, and fraudulent social media identities. The surge of fraudulent content—often used to bolster a brand's credibility—has damaged the reliability of online consumer reviews (OCRs). When consumers perceive that a retailer is using manipulative patterns or "polluted data" to exploit them, the result is an erosion of foundational trust, which is a critical driver of long-term purchase intention.

## Mitigation: Responsible AI and Data Literacy

To counter the proliferation of dark patterns, experts propose a shift toward ethical design and public empowerment.

### Responsible AI and Explainability (XAI)

**Responsible AI** initiatives involve integrating ethics and transparency into the business planning process. This includes:

- **Explainable AI (XAI):** Moving from "black box" to "**glass box**" systems that provide a human-understandable explanation for why a specific recommendation or discount was offered.
- **Ethical AI Design:** Prioritizing data transparency and obtaining meaningful consent rather than relying on deceptive "opt-in" patterns.

### The Role of Data Literacy

There is a critical need for **data literacy** as a life-long commitment. Consumers who understand how their data is mined, how algorithms function, and how dark patterns are designed are better equipped to navigate the digital world safely. Data literacy should be reinforced by education, workplaces, and government to improve what researchers call "**marketing comfort**".

### Conclusion

Dark patterns represent a significant threat to consumer well-being and the integrity of the online retail ecosystem. By exploiting bounded rationality through urgency and hidden additions, brands may achieve short-term gains at the cost of long-term consumer trust. As we move toward a future where Augmented Reality (AR) and AI are as prevalent as the internet is today, it is imperative that retailers prioritize ethical design. Sustained success in the "post-modern" marketing era will require a renewed emphasis on "human truths," transparency, and a commitment to responsible technology use.

### References

Antonides, G., & Raaij, W. F. (1998). *Consumer behaviour: A European perspective*. John Wiley & Sons.

Cialdini, R. B. (2008). *Influence: Science and practice*. Allyn & Bacon.

Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2020). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168.

Fisher, I. (1930). *The theory of interest*. The MacMillan Company.

Jevons, W. S. (1888). *The theory of political economy*.

Kaushiva, A. (2020). Tracing the path from rationality to bounded rationality: The contributions of Daniel Kahneman and Amos Tversky. *Asian Journal of Management*, 17(2), 93-0.

Maslow, A. H. (1943). A theory of human motivation. In J. M. Shafritz & J. S. Ott (Eds.), *Classics of organization theory* (pp. 163-175). Wadsworth Publishing Company.

Nowakowski, K. R. (2020). New trends in consumer behaviour in 2020-2021: A comparative analysis of marketing strategies during the COVID-19 pandemic in Poland and South Korea. *European Research Studies Journal*, XXIV(Special Issue 3), 596-608.

Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. Springer-Verlag.

Ramya, L., & Kartheeswaran, K. (2020). *Future of digital marketing in 2020*. Department of Management, M. Kumarasamy College of Engineering.

Sivakami, R., & Sweitha, K. (2026). Invisible pressure and hidden additions: Behavioural and ethical impact of urgency and sneak-into-basket patterns in Indian online retail. *Asian Journal of Management*, 17(2), 121-6.

Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*.

Statista. (2020). *Global digital population as of January 2020*.

Veblen, T. (1922). *The theory of the leisure class: An economic study of institutions*. MacMillan Company.



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