The Dark Pattern Free Future of E- Commerce in India

Sanjay Awasthi, Ph.D., **Yogesh Soni,** Department of Management
Pt. Harishankar Shukla Smriti Mahavidyalaya, Raipur, Chhattisgarh, INDIA

ORIGINAL ARTICLE

Authors
Sanjay Awasthi, Ph.D.
Yogesh Soni
E-mail : prof.sanjayawasthi@gmail.com

shodhsamagam1@gmail.com

Plagiarism Checker X - Report
Originality Assessment

4%

Overall Similarity

Date: Dec 4, 2025 (07:33 AM)   **Remarks:** Low similarity detected, consider making necessary changes if needed.   **Verify Report:** Scan this QR Code
Matches: 88 / 2202 words
Sources: 4

ABSTRACT

Imagine you're thinking about getting a new pair of shoes. There's a specific style you like, but you're still unsure whether you really want or need them. You decide to look them up online, and as soon as you find them on a shopping site, you're greeted with a message like: "Only a few left buy now!" Suddenly, you feel pressured to make the purchase right away, worried that if you take a moment to think about whether you truly need them or can afford them, they might be gone. Sound familiar? These kinds of scarcity prompts along with tactics like countdown timers, guilt-tripping messages, and hidden subscription traps— are common "dark patterns" used by online retailers to push customers into making impulsive purchases. As competition in e-commerce increases, companies have created various strategies to capture consumers' attention and guide them through the online shopping process. Some retailers use digital nudges to assist shoppers in making decisions, while others rely on dark patterns interface designs that push users toward choices they likely wouldn't make if they were able to decide freely.

KEY WORDS

Dark Patterns, E-commerce, Website Design, Social Media Platforms, Roach Motel, Bait And Switch.

INTRODUCTION

Dark patterns are deceptive interface designs that push, pressure, or mislead people into making choices that favour businesses at the cost of user control and well-being. Although these tactics are well documented in Western contexts, the cultural factors shaping how dark patterns are created, understood, and experienced in non-Western regions particularly

India are still not well studied. India now has more than 1.03 billion internet users, and digital adoption is accelerating in areas such as e-commerce, social media, and financial services, making it increasingly important to examine these issues. Indian users often encounter manipulative design practices without strong consumer safeguards, and cultural traits like high collectivism, notable power distance, and moderate uncertainty avoidance may influence both the use of dark patterns and how users respond to them. Yet, research on how these designs are interpreted, experienced, and challenged within the Indian context remains scarce. The study explores growing concerns about dark patterns—deceptive strategies commonly used in e-commerce, especially on online shops operating through social media platforms, where users are often misled without realizing it. This investigative paper seeks to identify and highlight gaps within the e-commerce ecosystem. Although various laws, guidelines, regulations, and official directives exist to protect consumer rights in online markets, effective and accessible mechanisms for consumer grievance redressal are still insufficient.

Literature Review

Dark patterns, a term introduced by Brignull (2010), refer to subtle website design tactics that exploit human psychology to push users toward choices they might avoid if they had full information or more time to think. From a behavioural science standpoint, these designs are crafted to trigger fast, automatic System 1 thinking instead of slow, analytical System 2 thinking, often by leveraging cognitive biases such as scarcity or social proof (Stanovich & West, 2000; Kahneman, 2011). A major reason online retailers employ dark patterns is their influence on impulse buying. Impulse purchases - sudden, unplanned, emotionally driven decisions (Stern, 1962; Rook, 1987)—have surged alongside the rapid expansion of e-commerce. Surveys show that over five out of six Americans have made impulse buys, spending an average of $81.75 per session, which totals nearly $18 billion (McDermott, 2021). Additional research indicates that impulsive online purchases make up roughly 40% of consumers' digital spending (Liu et al., 2013). This behaviour intensified during the COVID-19 pandemic, with online shopping rising by 39.1% year over year in Q1 2021 (Census Bureau, USA 2021). Slickdeals, an online shopping platform, conducted surveys before the pandemic and again during lockdowns, revealing an 18% increase in impulse buying (Cain, 2020). Ultimately, this growing inclination toward impulse purchases significantly contributes to the larger issue of overspending in the U.S.A. today.

Broadly, the literature on dark patterns can be divided into three main streams. The first and most prominent builds on Brignull's (2010) foundational work by identifying, classifying, and analyzing different types of dark patterns (Bösch et al., 2016; Mathur et al., 2019; Di Geronimo et al., 2020). For instance, Mathur and colleagues created an automated web crawler to examine more than 11,000 shopping sites, uncovering nearly 2,000 unique dark patterns, which they organized into a seven-category taxonomy linked to distinct psychological principles.

The second research stream shifts from detection to evaluating how dark patterns affect consumers (Nouwens et al., 2020; Bongard-Blanchy et al., 2021; Luguri & Strahilevitz, 2021). Nouwens and his team conducted an experiment to test how different dark pattern designs influence users' consent to data collection. Their findings showed that not all dark patterns have the same level of effectiveness: interface approaches such as blocking notifications versus non-blocking consent banners did not significantly change consent rates, but omitting a "reject all" option on the initial page increased consent by 22–23 percentage points.

The third, and still emerging, stream of research focuses on testing interventions designed to reduce the effects of dark patterns (Mills, 2020; Moser, 2020). Although Moser (2020) did not specifically study price anchoring as a dark pattern, he carried out a series of experiments to evaluate how various intervention strategies influence impulsive buying and purchase intentions for discounted products.

Commonly Used Dark Pattern Practices

No.	Dark Pattern	Description	Example
1	**Forced Continuity**	Users receive a free trial but are automatically charged when it ends often without warning.	A streaming service requires a credit card for a free trial and then bills you yearly without sending a reminder.
2	**Roach Motel**	Easy to get into a situation but difficult to get out.	Signing up for a subscription takes one click, but cancelling requires calling customer support during specific hours.
3	**Sneak Into Basket**	Website adds items to your cart without clear consent.	An e-commerce site automatically adds insurance or accessories unless you manually uncheck a box.
4	**Confirm shaming**	Guilt-inducing language pressures users into choices.	A pop-up says: "No thanks, I prefer my skin to look bad." as the option to decline a newsletter.
5	**Hidden Costs**	Extra fees appear only at final checkout.	Airline tickets show a low price, but taxes and baggage fees appear only at payment.
6	**Bait and Switch**	User clicks expecting one action but gets another.	Clicking "Download" for free software instead installs bundled, unrelated apps.
7	**Disguised Ads**	Ads look like normal content or legitimate buttons.	Fake "Download" buttons placed next to real links.
8	**Trick Questions**	Confusing wording pressures users into undesired choices.	Checkbox says: "Uncheck this box if you don't want to stop receiving promotional emails."
9	**Privacy Zuckering**	Users are tricked into sharing more data than intended.	A social app asks for contact access "to find friends" but uses data for marketing.
10	**Misdirection**	Highlights desired action while hiding alternatives.	Bright "Accept All Cookies" button with a tiny "Manage Settings" link.
11	**Obstruction**	Process made intentionally difficult to discourage an action.	To delete an account, users must complete long surveys and wait days for confirmation.
12	**Pre selection**	Options are pre-checked to benefit the company.	A checkout box for "Add a 2-year warranty" is already checked.
13	**Social Proof Manipulation**	Fake engagement numbers or reviews influence decisions.	"162 people are viewing this item now!" shown on every product regardless of traffic.
14	**Nagging**	Frequent pop-ups interrupt users to push a choice.	Repeated full-screen prompts urging users to enable push notifications.
15	**Pay walling Essential Features**	Core features are free, but necessary actions cost money after user investment.	A resume builder lets users design a resume but requires payment to download it.

October to December 2025   www.shodhsamagam.com
A Double-Blind, Peer-Reviewed, Referred, Quarterly, Multi Disciplinary and Bilingual International Research Journal

Impact Factor
SJIF (2025): 8.019

1891

India offers a distinctive and important environment for examining dark patterns because of its cultural diversity, vast digital user population, and fast-paced technological advancements. With more than 1.03 billion internet users in 2025 many of whom rely primarily on mobile apps the country stands as one of the world's largest and quickest-expanding digital markets (Statista, 2025). The widespread adoption of digital platforms in areas such as e-commerce, social media, and financial services has brought in various design practices, often shaped by Western models that may not fully align with Indian cultural norms or user expectations. India's cultural characteristics—its multilingual nature, diverse demographics, economic disparities, and religious variety—suggest that users may interpret and react to dark patterns in unique ways.

Legal Framework Regarding Dark Patterns in India

India's primary framework for regulating dark patterns is the Guidelines for Prevention and Regulation of Dark Patterns, 2023, released by the Central Consumer Protection Authority (CCPA) under the Consumer Protection Act, 2019. These rules ban manipulative UI/UX designs, and violations can attract penalties under the Act, including fines and even imprisonment for repeated breaches an approach reflected in recent actions taken against platforms such as Book My Show and IndiGo.

The guidelines cover all platforms, advertisers, and sellers offering goods or services in India and identify 13 prohibited dark patterns, including practices like *basket sneaking* (adding items to the cart without consent), *confirm shaming* (guilt-based messaging), and *disguised advertisements*. The CCPA is empowered to direct companies to withdraw or discontinue services that breach these rules. Penalties include: First offense: Up to two years of imprisonment and fines up to ₹ 10 lakh for misleading or deceptive practices. Repeat offense: Up to five years of imprisonment and fines up to ₹ 50 lakh.

Users can avoid dark patterns by reading carefully, questioning scarcity tactics, checking for pre-selected options, scrutinizing final prices, and being persistent with difficult cancellation processes. Being mindful of deceptive designs like guilt-inducing language or misleading buttons also helps users avoid being tricked into unintended actions or purchases.

Strategies for Useres to Avoid Dark Patterns

1. **Read thoroughly:** Take your time to review all choices, checkboxes, and fine print. If something seems unclear, go over it again or get a second opinion.

2. **Double-check totals:** Before completing a payment, carefully inspect your cart or booking summary to spot unexpected charges or added items.

3. **Treat urgency with caution:** Be wary of countdown timers or claims like "only a few left." Pause, compare alternatives, and verify whether the urgency is genuine.

4. **Watch for default selections:** Don't rely on pre-ticked boxes being beneficial. Deselect any add-ons, subscriptions, or newsletters you didn't intentionally choose.

5. I**gnore guilt-based wording:** Don't let emotionally manipulative language pressure you into agreeing to something you don't want. Stick to your preferences.

6. **Persist through tricky cancellations:** If a service makes cancelling or opting out difficult, stay determined. These obstacles are often deliberate.

7. **Be mindful of hidden charges:** Look for extra fees that may appear only at the last step of checkout.

8. Be cautious with "free" offers: Offers labeled as "free" may include conditions, future charges, or mandatory subscriptions verify the details first.

9. **Verify social proof:** Don't immediately trust displayed reviews or testimonials. Check multiple sources to ensure the feedback is authentic.

October to December 2025   www.shodhsamagam.com
A Double-Blind, Peer-Reviewed, Referred, Quarterly, Multi Disciplinary and Bilingual International Research Journal

Impact Factor SJIF (2025): 8.019 | 1892

CONCLUSION

Apart from established and big e-commerce organizations, the rapid growth of social media platforms—especially Instagram has made it incredibly easy for individuals to set up business profiles and promote products. Anyone can create an account without formal legal requirements and convert it into a business page to display items using photos. With this setup, users can apply various marketing techniques to draw consumers to their pages for shopping. All of these face immense competition so they utilize dark patterns. There is need of much strict laws and detecting mechanism regarding dark patterns to punish such marketers either big or small. It is very important that users become aware and cautious about such dark patterns so they do not become victims.

REFERENCES

1. Grover, A.; Gupta, S. & Garg, P. (2021) Dark Pattern Use In E-Commerce, *Turkish Online Journal of Qualitative Inquiry*, 12(7), 2466-2482.

2. https://iapp.org/news/a/india-s-ccpa-guidelines-on-dark-patterns-welcome-signal-but-law-is-still-soft, Accessed on 02/09/2025.

3. https://www.ndtv.com/india-news/dark-patterns-in-e-commerce-why-it-matters-to-indian-consumers-8526645, Accessed on 01/09/2025.

4. https://www.nls.ac.in/wp-content/uploads/2021/04/Dark-Patterns.pdf, Accessed on 29/08/2025.

5. https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1983994&reg=3&lang2, Accessed on 02/09/2025.

6. Narayanan, A.; Mathur, A.; Chetty, M. & Kshirsagar, M. (2020) Dark Patterns: Past, Present, and Future: The evolution of tricky user interfaces, *Queue*, 18(2), 67-92.

7. Ramteke, A.; Tembhurne, S.; Sonawane, G. & Bhimanpallewar, R. N. (2024) Detecting Deceptive Dark Patterns in E-commerce Platforms, *arXiv preprint* https://arxiv.org/pdf/2406.01608, Accessed on 20/08/2025.

8. Sarda, S.; Sharma, S. & Pal, R. (2022) Consumer Protection Regulation in Light of E-Commerce and Product Liability, *Indian JL & Legal Rsch.*, 4, Issue 2, p. 1-21.

9. Sharma J, S. (2023) Dark Patterns in a bright world: An analysis of the Indian Consumer Legal Architecture, *International Journal on Consumer Law and Practice*, 11(1), 7.

10. Sin, R.; Harris, T.; Nilsson, S. & Beck, T. (2025) Dark patterns in online shopping: do they work and can nudges help mitigate impulse buying?, *Behavioural Public Policy*, 9(1), 61-87.

11. Singh, V.; Vishvakarma, N. K. & Kumar, V. (2025) Dark patterns, dimmed brands: the erosion of equity through deceptive design in e-commerce, *Internet Research*, https://doi.org/10.1108/INTR-07-2024-1026, Accessed on 28/08/2025.

12. Singh, V.; Vishvakarma, N. K.; Mal, H. & Kumar, V. (2024) Prioritizing dark patterns in the e-commerce industry–an empirical investigation using analytic hierarchy process, *Measuring Business Excellence*, 28(2), 177-192.

13. Yadav, H. & Chhatiya, A. (2025) Scroll, Buy, Manipulate: The Dark Side Of Social Media Concerning E-Commerce, *Available at SSRN 5315304*, https://papers.ssrn.com/sol3/Delivery.cfm?abstractid=5315304, Accessed on 29/08/2025.

****

October to December 2025　　www.shodhsamagam.com
A Double-Blind, Peer-Reviewed, Referred, Quarterly, Multi Disciplinary and Bilingual International Research Journal

Impact Factor SJIF (2025): 8.019 | 1893