

DARK PATTERNS IN DIGITAL MARKETING AND CONSUMER MANIPULATION

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ABSTRACT

Dark patterns in digital marketing are deceptive design techniques used to manipulate consumers into making unintended decisions, such as forced subscriptions, hidden charges, and misleading urgency tactics. This study examines the prevalence, awareness, and regulatory landscape of dark patterns in India, focusing on their use in e-commerce and online services. Through a quantitative survey, the research reveals that a significant portion of consumers frequently encounter dark patterns, yet awareness remains low, with only 2.9% of respondents fully understanding the concept. Despite the widespread use of deceptive practices, many consumers do not take action—only 26.5% report such tactics to authorities, while a large percentage simply ignore them or continue purchasing. The study also explores the legal and ethical challenges of addressing dark patterns in India. While the Consumer Protection Act (2019) and ASCI guidelines provide some regulatory framework. The lack of strict penalties allows businesses to continue using dark patterns without significant consequences. Additionally, the study identifies emerging trends in dark patterns, including personalized

deception based on user data and AI-driven manipulation techniques. With advancements in technology, businesses are adopting more sophisticated deceptive strategies, making consumer protection increasingly complex. To combat these issues, the research emphasizes the need for stricter regulations, ethical business practices, and consumer education initiatives. Encouraging corporate transparency, government intervention, and public awareness campaigns can help reduce unethical digital marketing practices and create a fairer online marketplace. This study contributes to the growing discourse on digital consumer rights and highlights the urgent need for comprehensive policies to address dark patterns in India.

Keywords: Dark Patterns, Digital Marketing, Consumer Manipulation, India.

INTRODUCTION

The realm of e-commerce has expanded significantly over the last several decades. Individuals are making online purchases more often than they ever have before. India's e-commerce sector is rapidly expanding, fueled by greater internet access and consumer demand. The market is projected to achieve \$163 billion by 2026 and \$325 billion by 2030. With this increase in competition, retailers are focusing more on creating websites that capture their customers' attention and encourage them to complete their purchasing journeys. The nudges utilized by e-commerce retailers are components of the user interface designed to influence consumer behaviour. As online shopping has become increasingly prevalent, users have begun to desire immediate satisfaction when browsing an online store. If they encounter a site that is hard to navigate or if the checkout process is complicated, they will look for another website to finalize their purchases (Haywood 2006). To avoid cart abandonment, some e-commerce retailers have turned to employing dark patterns on their websites. Dark patterns are defined as overt, misleading design choices that coerce users into making decisions they might not normally make (Gray, Kou, Battles, Hoggatt, and Toombs 2018). In an e-commerce context, customers may be nudged into finishing their purchases by alerting them to product scarcity (10 other shoppers have this item in their baskets), the urgency of a promotion (-30% off all items ends in 12 hours!), or the product's social acceptability (Karen from Florida just bought this item!). While sometimes these notifications reflect actual recent purchases or expiring sales, they are often based on deception and utilized to manipulate the user into a purchasing decision (Mathur et al. 2019).

REVIEW OF LITERATURE

Dark patterns in digital marketing have gained increasing attention due to their manipulative nature and ethical concerns. Researchers have explored their types, prevalence, consumer impact, and regulatory challenges. This section reviews key studies that contribute to the understanding of dark patterns, particularly in the Indian digital landscape. The concept of dark patterns refers to misleading user interface (UI) designs that influence users into actions they may not otherwise consider, benefiting businesses at the cost of consumer autonomy (Mathur et al. , 2019). These manipulative techniques take advantage of cognitive biases and create misleading digital experiences within e-commerce, subscription services, and mobile applications (Gray et al. , 2020).

Prevalence and Typologies of Dark Patterns

A comprehensive study conducted by Mathur et al. (2019) examined 53,000 product pages across 11,000 online retailers, uncovering 1,818 instances of dark patterns. The study categorized 15 types of these deceptive tactics, including hidden costs, forced continuity, and misleading urgency. The research also identified 22 third-party organizations offering dark pattern services, indicating their broad commercial usage (Mathur et al. , 2019). Furthermore, a systematic literature review by Mathur et al. (2024) analysed 80 peer-reviewed studies, providing a theoretical framework for comprehending dark patterns and digital nudging. The study highlighted the necessity for a detailed approach to classifying and analysing these manipulative strategies across various digital platforms (Mathur et al. , 2024).

Consumer Reactions and Responses

Research on consumer reactions shows mixed responses when people recognize deceptive tactics. Narayanan et al. (2020) found that some users avoid brands using dark patterns, while others continue engaging due to lack of alternatives. Similarly, in the current study, 29.4% of respondents stopped buying from brands using dark patterns, while 23.5% ignored them. This highlights the need for stronger consumer education and alternative ethical business practices.

Regulatory and Legal Challenges

The regulation of dark patterns remains a global challenge, particularly in India. While the Consumer Protection Act (2019) and ASCI guidelines address deceptive advertising, digital dark patterns are still loosely regulated (Mandal & Chatterjee, 2022). Ayyappan and Sivakumar

(2021) argue that a lack of strict legal definitions and enforcement mechanisms allows businesses to continue exploiting dark patterns without significant consequences. This aligns with the survey results, where 74.3% of respondents supported stricter laws against deceptive marketing.

Emerging Trends in Dark Patterns

Recent studies highlight the evolving nature of dark patterns, especially with AI-driven manipulation and personalized deception (Moser et al., 2019). Research by Mandal and Chatterjee (2022) in India shows that price discrimination based on device type (e.g., higher prices on iPhones than Android) is a growing issue. These findings suggest that dark patterns are becoming more sophisticated, requiring continuous research and policy updates.

OBJECTIVE OF RESEARCH

To Identify and Classify Dark Patterns in Digital Marketing

This research aims to explore the different types of dark patterns used in e-commerce and online platforms, categorizing them based on their deceptive techniques and psychological impact.

To Analyse the Prevalence and Consumer Awareness of Dark Patterns

The study examines how frequently Indian consumers encounter dark patterns, their awareness levels, and their ability to recognize deceptive tactics in online shopping.

To Investigate Consumer Reactions and Responses to Dark Patterns

The study explores how consumers respond when they realize they have been manipulated, including whether they stop purchasing from deceptive companies, leave negative reviews, or take legal action.

To Examine Legal and Ethical Aspects of Dark Patterns in India

This research evaluates the effectiveness of existing Indian laws (such as the Consumer Protection Act, 2019) and industry regulations in addressing deceptive marketing practices.

To Analyse Real Word Case Studies of Dark Patters in India

This study examines Indian cases, like price discrimination and hidden charges to highlight consumer impact and regulatory gaps, emphasising the need of stricter enforcement.

To Propose Strategies to Counter Dark Patterns

The study aims to suggest policy recommendations, ethical business practices, and consumer education initiatives to reduce the negative impact of dark patterns and create a more transparent digital marketplace.

METHODOLOGY OF RESEARCH

This study employs a quantitative research approach to analyse the impact of dark patterns in digital marketing on consumers. The primary objective is to measure the extent of consumer manipulation and the financial, psychological, and behavioural consequences using structured data collection and statistical analysis.

Research Design

This research is **descriptive and survey-based**, focusing on consumer experiences with dark patterns. The study aims to **quantify the prevalence** of deceptive marketing tactics and their impact on consumer decision-making.

- **Research Approach: Quantitative (Survey-Based Analysis)**
- **Data Collection Method: Structured questionnaire via Google Forms**
- **Participants: Consumers who engage with e-commerce, digital subscriptions, and online services**

Data Collection

Survey Method: A Google Forms questionnaire was designed to collect consumer experiences, opinions, and awareness levels regarding dark patterns. The survey includes:

- Closed-ended questions (Yes/No, Likert scale, multiple choice) to measure user experiences.
- Demographic questions to analyse patterns across different age groups, income levels, and digital habits.

In addition, existing literature and reports were reviewed, including: Academic Research Papers on consumer psychology and digital manipulation. Legal Reports from the Competition

Commission of India (CCI), Consumer Protection Guidelines from India's Consumer Protection Act (2019) and IT Rules (2021).

Sampling Method: Consumers who regularly interact with e-commerce platforms, online subscriptions, and digital advertisements. Ensures a diverse set of responses across different demographics.

TYPES OF DARK PATTERNS

Sneaking

Sneaking involves adding hidden charges, subscriptions, or extra costs without the user's explicit consent. This tactic is frequently used in e-commerce, where businesses include additional fees during the checkout process. This pattern takes advantage of users who have already invested time and effort into the selection process and are therefore less likely to abandon their purchase when extra costs appear. Mathur et al. (2019) found that sneaking is one of the most prevalent dark patterns, appearing in over 11% of online stores they analysed.

Forced Continuity

A marketing practice where businesses automatically continue charging customers after an initial period (usually a free or discounted trial) ends, without obtaining explicit consent for the continuation. This pattern relies on customers forgetting about the automatic transition from free to paid service or finding it too difficult to cancel.

Roach Motel

The "Roach Motel" pattern makes it easy for users to sign up for a service but intentionally difficult to cancel. A design pattern where entering into a situation is much easier than getting out of it. This term comes from the analogy of a roach motel where "roaches check in, but they don't check out." Bongard-Blanchy et al. (2021) noted that some companies implement this tactic by requiring users to call customer support or navigate through multiple pages to cancel a subscription.

Misdirection

Misdirection occurs when a website or app focuses the user's attention on one desirable option while hiding or de-emphasizing less favourable choices. This pattern manipulates visual attention to guide users toward certain choices that may be more profitable for the business while making alternatives harder to notice or understand. Leiser (2024) explains that this

technique exploits cognitive biases, nudging users into purchasing higher-priced products or unintentionally accepting terms they might otherwise decline.

Hidden Information

Some websites deliberately obscure important information, such as return policies, hidden fees, or data-sharing agreements. Mathur et al. (2024) emphasize that this pattern often appears in privacy settings, where companies make it difficult for users to opt out of data collection.

Social Proof & Fake Urgency

This technique manipulates users by showing false or exaggerated notifications, such as “Only 1 room left!” or “X people are viewing this item now!” to create urgency. This pattern exploits the fear of missing out (FOMO) and can use both real and fake scarcity signals. Gray et al. (2020) found that such tactics significantly increase conversion rates by instilling a fear of missing out (FOMO).

Confirm-shaming

Confirm-shaming pressures users into making a choice by making the alternative option appear undesirable. The practice of making users feel guilty, ashamed, or stupid for not selecting a particular option. This pattern uses manipulative language in the decline option to pressure users into making the choice the business prefers. For example, pop-ups may include dismissive language like “No, I don’t want to save money.” This guilt-driven approach plays on user emotions to influence decisions (Bongard-Blanchy et al., 2021).

Bait and Switch

Bait and switch involves advertising one action while delivering another. The practice of advertising one thing but delivering something different or inferior. This pattern creates initial interest with an attractive offer but then presents different terms or products when users try to complete the transaction. A common example is when users click a button expecting one outcome but are redirected to an unrelated page. Leiser (2024) argues that this pattern is particularly deceptive, as it breaks user trust and leads to frustration.

Forced Action

Requiring users to complete additional actions or share personal information to access basic features or complete simple tasks. For example: Mandatory social media sharing, Required

account creation for basic features, Forced email subscription, Unnecessary information collection, Conditional access requirements.

Privacy Zuckering

Named after Facebook's Mark Zuckerberg, this pattern tricks users into sharing more personal data than intended. It creates confusing or deceptive privacy settings that trick users into sharing more personal information. Mathur et al. (2024) highlight that social media platforms often bury privacy settings deep within menus, making it difficult for users to protect their information.

ETHICAL AND LEGAL CONSIDERATIONS

The ethical issues related to dark patterns arise from their intentional deception and exploitation of consumer weaknesses. As stated by Leiser (2024), a universal regulatory approach is inadequate because dark patterns differ across various sectors and necessitate tailored legal frameworks to tackle their effects (Leiser, 2024).

Legally, Mathur et al. (2019) supplied empirical evidence regarding how dark patterns lead to unintended consumer actions, like subscribing to services without consent. This emphasizes the pressing requirement for enhanced legal safeguards against misleading UI designs (Mathur et al. , 2019).

Before 2023, India lacked a specific law that specifically addressed "dark patterns" in digital marketing. Instead, the most relevant applicable law was the "Consumer Protection Act" of 2019, as it forbade "unfair trade practices," which could be construed to include some deceptive design practices that are thought to be dark patterns. However, the Act did not define dark patterns specifically. Important details on India's dark pattern laws prior to 2023:• Consumer Protection (E-Commerce) Regulations, 2020: This regulation, which would apply to specific dark pattern situations, forbade e-commerce organisations from participating in unfair trade practices under the Consumer Protection Act.

The 2022 Guidelines for Prevention of Misleading Endorsements and Advertisements for Misleading Advertisements sought to control deceptive advertising, which may also apply to specific kinds of dark patterns. Although there was no law specifically prohibiting dark patterns, absence of particular "dark pattern" legislation complaints about misleading design practices on digital platforms might be handled under the current consumer protection framework. Significant advancement in 2023:

"Guidelines for Prevention and Regulation of Dark Patterns, 2023": The Ministry of Consumer Affairs, Food and Public Distribution's Department of Consumer Affairs released these guidelines with a focus on dark patterns, characterising them as dishonest design techniques intended to influence consumer decisions (Department of Consumer Affairs Participates in Interactive Session on "Dark Patterns and Strategies to Implement the Guidelines" to Raise Awareness, n.d.).

These guidelines define dark patterns and provide 13 of prohibited practices which are Disguised advertisement, Basket sneaking, Confirm shaming, Forced actions, False urgency, Subscription trap, Interface interference, Bait and switch, Drip pricing, Nagging, Trick Wording, Billing and Rogue Malwares.

CASE STUDIES AND REAL-WORLD EXAMPLES OF DARK PATTERNS

Dark patterns have led to financial exploitation, privacy violations, and loss of consumer trust. However, increasing consumer awareness, legal scrutiny, and regulatory actions have pushed companies to modify deceptive practices. This section explores global and Indian case studies, their impact, consumer reactions, and legal responses.

Price Discrimination Between Android and iPhone Users

Case Overview:

Many online platforms charge higher prices for iPhone users, assuming they have higher purchasing power.

Dark Pattern Used:

- **Price Discrimination:** iOS users unknowingly pay more than Android users for the same services.
- **Hidden Pricing Algorithms:** Consumers are not informed about device-based price variations.

Consumer Reactions and Backlash:

- **Social media outrage:** Many users exposed this practice, sharing screenshots of different prices for Android vs. iPhone users.

- Workarounds: Tech-savvy users switched to web-based subscriptions or Android devices to get lower prices. *(Narayanan et al., 2020)*

Legal and Regulatory Responses:

- Apple's App Store Fee Policy Scrutiny: Apple's 30% commission on iOS in-app purchases was criticized for forcing companies to charge higher prices. In 2023, Indian authorities investigated Apple's dominance in app store pricing. *(Leiser, 2024)*

Example: Indian users of YouTube Premium discovered they could subscribe via the website for a lower price than through the iOS app, sparking online debates about fairness.

MakeMyTrip and Goibibo's Fake Urgency Tactics (India)

Case Overview:

Travel platforms like MakeMyTrip and Goibibo use false urgency tactics to rush users into booking.

Dark Pattern Used:

- Fake Scarcity: Messages like "Only 1 room left!" create a false sense of urgency.
- Drip Pricing: Hidden fees appear only at checkout, misleading consumers about the actual price.

Consumer Reactions and Backlash:

- Widespread complaints: Users shared experiences where the "last room" remained available even after booking. *(Bongard-Blanchy et al., 2021)*
- Negative reviews: Trust in these platforms declined due to deceptive practices.

Legal and Regulatory Responses:

- Competition Commission of India (CCI) Investigation (2021):
 - CCI questioned MakeMyTrip and Goibibo on whether false urgency messages violated consumer protection laws. *(Leiser, 2024)*
- Mandates for Transparent Pricing (2023):
 - Platforms were warned against misleading urgency claims and asked to display real-time availability instead of fake scarcity. *(Mathur et al., 2024)*

Example: An Indian consumer booked a hotel after seeing “Only 1 room left!” on MakeMyTrip, only to find that the same room was still available after payment.

Flipkart’s Fake Discounts During Sales (India)

Case Overview:

During Flipkart’s Big Billion Days Sale, users noticed prices were inflated before the sale to create a false sense of discounts.

Dark Pattern Used:

- False Discounts: Prices were artificially increased before applying fake discounts.
- Anchor Pricing: Higher original prices were displayed to make discounts appear bigger. *(Narayanan et al., 2020)*

Consumer Reactions and Backlash:

- Public exposure: Indian social media users posted before-and-after price screenshots exposing fake discounts. *(Bongard-Blanchy et al., 2021)*
- Decreased trust: Many buyers avoided Flipkart’s sales after realizing the manipulation.

Legal and Regulatory Responses:

- Indian Consumer Protection Authority (2022):
 - Ordered Flipkart to disclose actual pre-sale prices. *(Mathur et al., 2024)*
- New E-Commerce Guidelines (2023):
 - Mandated platforms to show price history of products to prevent fake discount tactics. *(Leiser, 2024)*

Example: A user found a smartphone listed at ₹40,000 before Flipkart’s sale, increased to ₹50,000, then “discounted” back to ₹40,000 during the sale.

IRCTC’s Auto-Selected Travel Insurance (India)

Case Overview:

IRCTC automatically added travel insurance to online ticket bookings without user consent.

Dark Pattern Used:

- Sneaky Defaults: Insurance was pre-selected, forcing users to opt out manually.
- Lack of Transparency: Many travelers were unaware of the extra charge. (*Mathur et al., 2024*)

Consumer Reactions and Backlash:

- Social media complaints: Travelers reported being charged for insurance without explicit consent.
- Media coverage: Indian newspapers covered the deceptive practice, increasing public awareness.

Legal and Regulatory Responses:

- Indian Railway Ministry's Directive (2023):
 - Ordered IRCTC to switch to an opt-in system instead of pre-selecting insurance. (*Voigt et al., 2021*)
- Consumer Protection Act Enforcement (2024):
 - Fines imposed on platforms engaging in deceptive pre-selection tactics. (*Leiser, 2024*)

Example: An Indian traveler booking through IRCTC discovered an additional insurance fee only after completing payment, without prior consent.

ETHICAL AND LEGAL ASPECTS OF DARK PATTERNS IN DIGITAL MARKETING

Dark patterns in digital marketing raise significant ethical and legal concerns as they manipulate consumer behaviour through deceptive practices. These tactics violate fundamental consumer rights, eroding trust, creating financial harm, and impacting mental well-being. Regulatory bodies worldwide are increasingly scrutinizing these practices, leading to legal actions and policy changes.

Ethical Concerns

- Violation of Consumer Autonomy: Dark patterns exploit cognitive biases and decision-making vulnerabilities, leading consumers to make purchases they might not otherwise consider (Luguri & Strahilevitz, 2021). Such tactics challenge the principle of informed consent, where users should be able to make choices freely and transparently.

- **Breach of Trust and Fairness:** Deceptive marketing erodes consumer trust in brands and online marketplaces (Mandal & Chatterjee, 2022). Unethical tactics, such as hidden charges and forced subscriptions, create frustration and resentment, which contradict the ethical principle of fair dealing.
- **Psychological and Emotional Manipulation:** Dark patterns, such as fake urgency ("Only 1 left in stock!") and forced continuity ("Free trial, but difficult to cancel"), induce anxiety, stress, and regret in consumers (Gray et al., 2018). Ethically, businesses should prioritize consumer well-being over short-term profits.
- **Targeting Vulnerable Consumers:** Certain dark patterns disproportionately impact vulnerable populations, such as the elderly, children, and individuals with low digital literacy (Narayanan et al., 2020). This raises concerns about exploitation and the need for consumer protection laws.

Legal Aspects and Regulatory Actions

Global Legal Actions Against Dark Patterns: Governments and consumer protection agencies are increasingly taking action against dark patterns. Several legal frameworks have been introduced to regulate deceptive marketing tactics. The Consumer Protection Act (2019) and the Information Technology (Intermediary Guidelines) Rules (2021) address deceptive digital marketing tactics. The Advertising Standards Council of India (ASCI) has also issued guidelines against misleading online ads (Mandal & Chatterjee, 2022).

Need for Stronger Consumer Protection Laws

Survey results indicate that 74.3% of respondents support stricter regulations to curb deceptive marketing. Countries need stronger legal mechanisms, consumer education programs, and enforcement agencies to protect digital consumers from dark patterns.

Ethical Marketing as an Alternative

To counteract dark patterns, businesses can adopt ethical marketing practices, such as:

- Transparent pricing and clear terms of service.
- Easy cancellation policies without hidden barriers.
- Honest advertising that does not use psychological manipulation.
- Consumer-centric UX design that respects autonomy and informed consent.

FINDINGS AND DISCUSSION

Observations from Collected Data

Demographics

- The majority of respondents (88.6%) belong to the 18-25 age group, indicating that young adults are the primary online consumers.
- A significant gender disparity was observed, with 94.3% of respondents being male and only 5.7% female.

| Feature | Category/Value | Percentage |
|-----------|----------------|------------|
| Age Group | 18-25 | 88.6% |
| | Other | 11.4% |
| Gender | Male | 94.3% |
| | Female | 5.7% |

Figure 1 (source: Survey)

Online Shopping Behaviour

- 48.6% shop online monthly, while 34.3% shop rarely, suggesting that most respondents are occasional buyers rather than frequent shoppers.
- Only 2.8% shop daily, showing that habitual online shopping is less common among the respondents.

Online Shopping Behavior

| Frequency of Online Shopping | Percentage |
|------------------------------|------------|
| Daily | 2.8% |
| Monthly | 48.6% |
| Rarely | 34.3% |
| Other/Not Specified | 14.3% |

Figure 2 (source: Survey)

Awareness and Perception of Dark Patterns

- 42.9% of respondents felt manipulated while shopping online, indicating that nearly half of online consumers recognize deceptive marketing tactics.

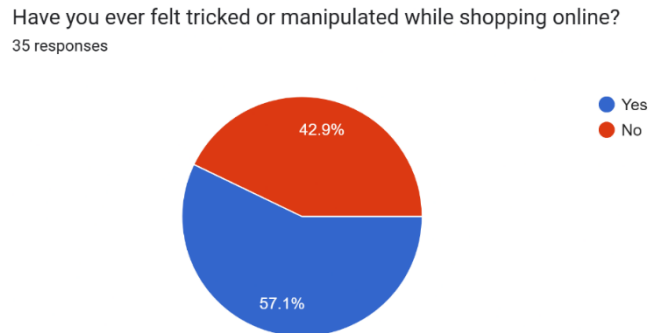


Figure 3 (source: Survey)

- However, 25.7% had never heard of the term ‘dark pattern’, while 71.4% had heard of it but did not fully understand it. Only 2.9% were well aware, highlighting a lack of widespread awareness about deceptive marketing strategies.

Common Dark Patterns Experienced

- The most frequently encountered dark patterns include difficulty in unsubscribing (18 responses), fake scarcity tactics (16 responses), and hidden charges (14 responses).

- Misleading buttons (6 responses) and unauthorized cart additions (5 responses) were also reported but with lower frequency.

Have you ever faced any of the following situations while shopping online? (Select all that apply)

34 responses

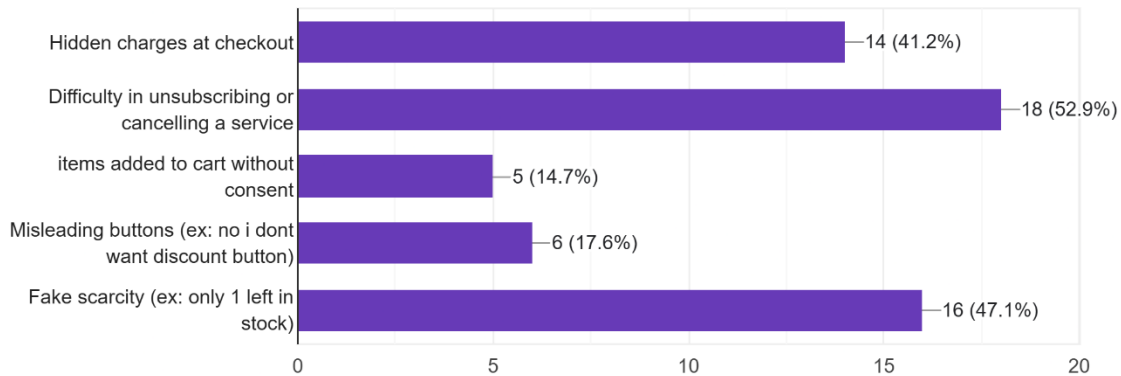


Figure 4 (source: Survey)

Consumer Reactions to Deceptive Tactics

- When encountering deceptive marketing tactics, 29.4% stopped purchasing from the company, 20.6% left negative reviews, and 26.5% reported the issue to authorities. However, 23.5% ignored it, indicating that not all consumers take action against unethical practices.

What action do you usually take when you realize a company uses deceptive marketing tactics? so

34 responses

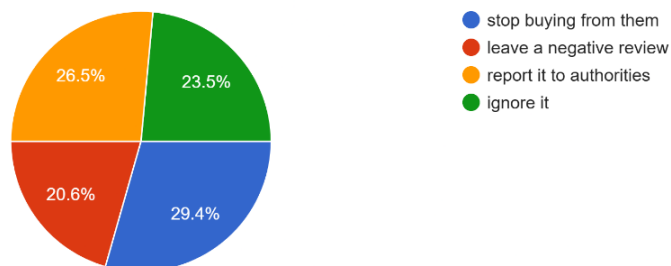


Figure 5 (source: Survey)

48.6% admitted to making regretful purchases due to dark patterns, revealing a significant influence on consumer decision-making.

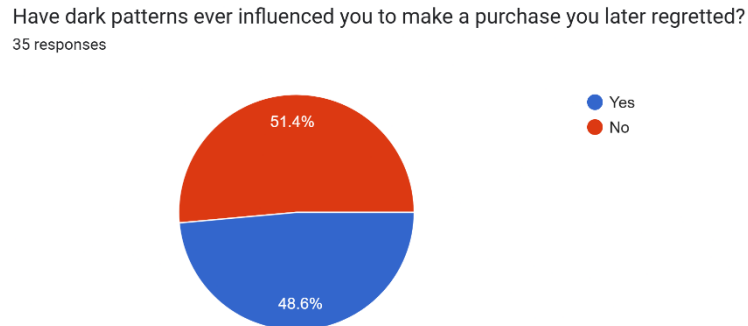


Figure 6 (source: Survey)

Psychological Impact and Consumer Sentiments

- Emotional responses to being tricked were mixed: 28.6% felt frustrated, 17.1% felt angry, while 25.7% never noticed such tactics.
- 74.3% believe that stricter laws should be implemented, showing a strong demand for regulatory intervention.

Regulatory and Preventive Measures

- When asked about responsibility for addressing dark patterns, the responses were distributed among companies (23 responses), consumer rights organizations (18 responses), government regulators (14 responses), and consumer awareness initiatives (18 responses).
- A significant 84.4% supported initiatives that educate consumers about deceptive marketing practices, demonstrating a willingness to engage in awareness programs.

Interpretation of Results in Relation to Literature

The findings align with previous research on consumer vulnerability to deceptive marketing tactics. Studies suggest that younger consumers, despite being digital natives, often fall prey to manipulative online strategies due to psychological triggers such as urgency and loss aversion (Mathur et al., 2019). The high percentage (48.6%) of regretful purchases supports existing literature indicating that dark patterns lead to impulse buying and financial losses (Gray et al., 2021).

The lack of awareness (71.4%) about dark patterns correlates with research by Luguri & Strahilevitz (2021), which found that consumers with lower familiarity levels are more likely to be deceived. The emotional reactions (frustration, anger) reflect the psychological distress highlighted in studies on digital consumer manipulation (Narayanan et al., 2020).

The demand for stricter regulations (74.3%) supports calls for more robust consumer protection laws, as seen in recent global legal actions against deceptive practices (Waldman, 2020). The preference for corporate accountability (23 responses) aligns with studies emphasizing the role of ethical business practices in reducing consumer distrust (Mandal & Chatterjee, 2022).

Emerging Trends in Dark Patterns

- **Young Consumers Are Most Affected:** The 18-25 age group dominates the sample (88.6%), indicating that young adults are the primary victims of dark patterns, possibly due to frequent online shopping and digital reliance.
- **Low Awareness but High Impact:** Despite 71.4% being aware of dark patterns, very few (2.9%) understand them well, meaning deceptive tactics continue to be effective.
- **Most Consumers Notice Deceptive Practices But Don't Always Act:** While 54.3% of respondents sometimes notice dark patterns, 23.5% ignore deceptive tactics, showing that manipulation still succeeds due to consumer inaction.
- **Hidden Charges and Subscription Traps Are Common Issues:** The most frequently encountered dark patterns include hidden charges, difficulty unsubscribing, and fake urgency tactics.
- **Legal and Ethical Concerns Are Growing:** A majority (74.3%) demand stronger regulations, showing increasing dissatisfaction with deceptive marketing practices.
- **Consumers Want Companies to Take Responsibility:** The survey suggests a shift towards corporate accountability (23 responses) rather than solely relying on government intervention.
- **Consumer Education Is a Key Demand:** With 84.4% supporting educational initiatives, there is strong interest in awareness campaigns to prevent dark pattern exploitation.

STRATEGIES TO COUNTER DARK PATTERNS IN DIGITAL MARKETING

Dark patterns in digital marketing exploit consumer psychology to manipulate decision-making, often leading to financial loss and frustration. In India, the rise of e-commerce and

digital services has increased the prevalence of these deceptive tactics. To counter them, stronger regulations, corporate responsibility, and consumer awareness are essential.

Strengthening Legal and Regulatory Framework in India

Enforcing the Consumer Protection Act (2019): The Consumer Protection Act (2019) includes provisions against unfair trade practices and misleading advertisements. The law should be more actively enforced to:

- Penalize companies using misleading UX elements (e.g., fake scarcity, forced subscriptions).
- Mandate transparent pricing and clear refund policies for online purchases.
- Empower the Central Consumer Protection Authority (CCPA) to take strict action against deceptive digital marketing tactics (Mandal & Chatterjee, 2022).

Advertising Standards Council of India (ASCI) Guidelines: The ASCI has introduced rules against misleading advertisements, but these should be expanded to:

- Prohibit manipulative digital ads using dark patterns.
- Enforce clear labelling of sponsored content to prevent disguised advertising.
- Make it mandatory for companies to disclose hidden charges upfront.

Strengthening IT Laws to Address Dark Patterns: The Information Technology (Intermediary Guidelines) Rules (2021) regulate digital platforms, but new provisions should specifically address dark patterns in e-commerce and app-based services.

- E-commerce platforms (Amazon, Flipkart) must be held accountable for deceptive UI/UX designs.
- Online services should provide simple opt-out options for subscriptions and tracking.
- The government should establish a digital consumer rights framework for fair online experiences (Solove, 2020).

Ethical Business Practices in India

Responsible E-Commerce Practices: Leading Indian platforms like Flipkart, Amazon India, and Paytm must adopt fair UX principles by:

- Removing fake countdown timers and false urgency notifications.
- Making cancellation and refund policies simple and transparent.
- Avoiding pre-checked options for additional purchases or subscriptions.

Ethical Advertising and Transparency: Companies should follow a “No Deceptive Design” policy, ensuring:

- Clear and simple checkout processes with no hidden charges.
- Easily distinguishable ads from organic content.
- No misleading buttons (e.g., making the ‘No’ option hard to find).
- Indian startups and businesses should be encouraged to implement ethical marketing codes to build long-term trust with consumers (Gray et al., 2018).

Consumer Awareness and Education in India

Digital Literacy Campaigns: Many Indian consumers are unaware of dark patterns, as shown in survey results where 71.4% of respondents had heard of dark patterns but didn’t fully understand them.

- Government initiatives, such as the Digital India campaign, should include consumer education on deceptive marketing.
- Schools and colleges should incorporate digital literacy programs into their curricula.
- Consumer rights organizations like Consumer VOICE India should conduct workshops on recognizing dark patterns.

Encouraging Consumer Activism: Survey data shows that 23.5% of consumers ignore deceptive marketing tactics. More consumers should be encouraged to:

- Report misleading practices to CCPA and ASCI for legal action.
- Leave negative reviews to warn other buyers.
- Use social media and consumer forums to highlight unethical business practices.

Building Consumer Protection Apps: The Indian government or independent organizations should develop mobile applications where consumers can:

- Report dark patterns and misleading advertisements.

- Receive alerts about deceptive practices used by e-commerce sites.
- Access legal assistance for complaints related to digital fraud.

Role of Technology in Fighting Dark Patterns

AI-Based Monitoring of Dark Patterns: Regulatory authorities can use AI-driven tools to detect and flag misleading UX elements in apps and websites (Mathur et al., 2019).

- Web crawlers can identify manipulative checkout designs on major e-commerce platforms.
- AI can monitor and analyse deceptive advertising trends in Indian digital markets.

Browser Extensions for Consumer Protection: Tools like Adblock and Fake spot help detect fake reviews and misleading ads. Indian developers should create localized extensions to:

- Flag fake scarcity tactics on Indian shopping sites.
- Highlight hidden fees and deceptive pricing before checkout.
- Identify and warn users about manipulative pop-ups and misleading buttons.

Ethical Alternatives and Consumer-Centric Business Models

Promoting Ethical E-Commerce and Fintech Platforms: Indian consumers should support companies that prioritize ethical design and transparency.

- Businesses that follow fair pricing models and clear subscription terms should be promoted.
- Ethical certifications should be introduced, similar to eco-labels in sustainable industries.

Rewarding Ethical Digital Practices

- The Indian government can introduce a “Consumer-Friendly Business” certification for companies that avoid dark patterns.
- Organizations like NASSCOM can encourage startups to adopt ethical digital marketing strategies.

- E-commerce platforms should allow consumers to rate and report deceptive business practices.

CONCLUSION

This study examined the prevalence, effectiveness, and impact of dark patterns in e-commerce, focusing on how they manipulate consumer psychology and decision-making. Dark patterns were identified as intentional, deceptive design strategies used to increase user engagement, boost sales, and collect personal data.

Findings suggest that consumers frequently encounter dark patterns but have limited awareness of them, making regulation and consumer education essential. The lack of clear legal definitions and enforcement further complicates efforts to curb their use. Many online retailers adopt dark patterns due to industry pressure, financial incentives, and limited ethical considerations in UX design.

This study also highlights the psychological mechanisms behind dark patterns, including heuristics, cognitive biases, and social influences, which make users more susceptible to manipulation. While some consumers recognize and resist dark patterns, others unknowingly fall victim to them, leading to financial losses, frustration, and distrust toward online platforms.

Ultimately, addressing dark patterns requires a combination of legal reforms, ethical business practices, and consumer awareness initiatives. Stricter enforcement of India's Consumer Protection Act (2019), ASCI guidelines, and stronger transparency measures in e-commerce can help reduce deceptive practices. Additionally, educating consumers about dark patterns will empower them to make informed decisions and hold businesses accountable.

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