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A STUDY ON DARK PATTERNS IN ONLINE SHOPPING

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ABSTRACT :

Dark patterns are deceptive design strategies used by e-commerce platforms to manipulate consumer behaviour, leading to unintended purchases, forced subscriptions, and loss of autonomy. This study examines dark patterns in online shopping within the Indian context, focusing on their classification, impact on consumer behaviour and decision-making, ethical concerns, and regulatory challenges. Through secondary research, including literature review, website analysis, and expert interviews, this study evaluates consumer awareness of dark patterns and suggests recommendations to promote fair digital practices.

INTRODUCTION :

With the rapid expansion of e-commerce in India, online shopping has become an integral part of consumer behaviour, reshaping how people interact with digital marketplaces. The increasing penetration of the internet, affordable smartphones, and the widespread adoption of digital payment systems have made online shopping more accessible than ever. Leading e-commerce giants such as Amazon, Flipkart, and Myntra, along with emerging platforms, continuously refine their user interfaces to enhance engagement and drive sales. While many of these design choices aim to improve user experience and convenience, some deliberately manipulate consumer decision-making through deceptive strategies known as dark patterns. These subtle yet powerful design tricks exploit cognitive biases, such as urgency, social proof, and loss aversion, to influence users into making unintended purchases, sharing personal data, or subscribing to services unknowingly.

The presence of dark patterns in Indian e-commerce raises significant ethical and consumer protection concerns. Given the diverse demographic landscape of Indian consumers, including first-time internet users and individuals with limited digital literacy, the risks associated with these manipulative practices are even more pronounced. Many users unknowingly fall into subscription traps, hidden charges, and confusing UI elements that make opting out of unwanted services difficult. Such deceptive tactics not only lead to financial losses and frustration but also erode consumer trust in online platforms. Recognizing these concerns, regulators, including the Consumer Protection Authority of India, have started addressing the issue by introducing legal frameworks and guidelines to curb misleading digital practices. However, enforcing these regulations remains a challenge, as businesses continually adapt their strategies to bypass scrutiny. This study seeks to classify common dark patterns used in online shopping, analyse their psychological and behavioural impact on Indian consumers, and explore ethical and legal interventions to mitigate their negative effects.

RESEARCH OBJECTIVES :

1. To identify and classify dark patterns commonly used in online shopping platforms.
2. To understand their impact on consumer behaviour, decision-making, and user experience.
3. To identify ethical concerns surrounding the use of dark patterns by e-commerce websites.
4. To understand the awareness level of consumers regarding deceptive design practices.

RESEARCH METHODOLOGY :

This study follows a secondary research approach to examine the prevalence, impact, and ethical concerns associated with dark patterns in online shopping in India. Given the increasing use of manipulative design tactics in e-commerce platforms, this research employs multiple qualitative methods to gain comprehensive insights into the issue. The methodology consists of three key components: a literature review, website analysis, and expert interviews. These approaches provide a well-rounded understanding of how dark patterns operate, their consequences for consumers, and the rationale behind their implementation by businesses.

LITERATURE REVIEW :

The study begins with an extensive review of existing academic literature, case studies, industry reports, and legal frameworks concerning dark patterns in online shopping. The literature review examines previous research on the psychological impact of deceptive design tactics, their classification, and the ethical debates surrounding their use. Additionally, it explores global and Indian perspectives on consumer protection laws, regulatory guidelines, and policy measures designed to combat dark patterns. By synthesizing insights from various sources, this review helps establish a theoretical foundation for understanding the scope and implications of dark patterns in Indian e-commerce.

WEBSITE ANALYSIS :

To gain practical insights, the study conducts an in-depth analysis of popular Indian e-commerce platforms, including Amazon India, Flipkart, Myntra, Nykaa, and other emerging online marketplaces. The goal is to identify and categorize the types of dark patterns used in these platforms, such as forced continuity (automatic subscriptions with hidden cancellation policies), hidden costs (unexpected fees added during checkout), and deceptive UI elements (misleading buttons, false scarcity tactics, or confusing opt-out options). This analysis helps uncover the specific strategies employed by Indian e-commerce companies to manipulate consumer behaviour, highlighting patterns unique to the Indian digital marketplace. Screenshots, user testimonials, and industry reports are referenced to validate findings.

INTERVIEWS WITH UX DESIGNERS AND INDUSTRY EXPERTS :

To understand the motivations behind the use of dark patterns, the study incorporates insights from user experience (UX) designers, digital marketers, and industry experts familiar with e-commerce strategies. These interviews aim to uncover the business rationale behind employing dark patterns, the ethical dilemmas faced by designers, and the extent to which companies prioritize profits over consumer trust. Experts also provide perspectives on potential alternatives to deceptive design practices and the feasibility of implementing fair digital strategies without compromising business goals. Additionally, discussions with legal experts help shed light on existing and emerging regulatory measures to address dark patterns in India.

By combining these three research approaches, the study provides a holistic understanding of dark patterns in Indian online shopping, their impact on consumer trust, and potential solutions for promoting ethical digital practices.

DARK PATTERNS: DEFINITION AND CLASSIFICATION :

Dark patterns refer to manipulative UI/UX design tactics that intentionally deceive, coerce, or confuse consumers into taking actions they may not have intended. These deceptive design strategies are crafted to exploit psychological biases, nudging users toward decisions that benefit businesses at the expense of consumer autonomy. While dark patterns exist in various online platforms, they are particularly prevalent in e-commerce, where companies aim to maximize sales, subscriptions, and engagement.

In the Indian e-commerce landscape, dark patterns have become increasingly common as platforms compete aggressively to capture consumer attention and drive conversions. Based on website analysis, the most prevalent dark patterns identified in Indian online shopping include:

1. **Forced Continuity** – This tactic involves automatically renewing subscriptions without explicit user consent or making the cancellation process complex and tedious. Consumers may unknowingly subscribe to premium services with no clear option to opt-out before being charged.
2. **Hidden Costs and Drip Pricing** – Many e-commerce platforms reveal additional charges, such as convenience fees, service charges, or delivery costs, only at the final stage of checkout. This strategy increases the likelihood of purchase completion since consumers have already invested time in the buying process.
3. **Scarcity and Urgency Tactics** – Websites frequently create a false sense of urgency by displaying messages like “Only 2 left in stock” or “Offer ends in 5 minutes,” pressuring consumers into making impulsive purchases without proper evaluation.
4. **Roach Motel (Difficult Subscription Cancellations)** – Companies make it easy to sign up for services but deliberately complicate the cancellation process. For example, users may need to go through multiple steps, contact customer support, or navigate confusing settings to terminate their subscriptions.
5. **Misdirection and Confusing UI Elements** – E-commerce platforms use misleading buttons, ambiguous labels, or tricky layouts to guide users toward unintended actions, such as signing up for promotional emails or purchasing additional services.
6. **Bait-and-Switch Tactics** – Consumers are lured with attractive offers or product descriptions, only to find that the actual item or service differs from what was initially advertised. This tactic is often seen in discount promotions and flash sales.
7. **Preselection of Unwanted Options** – Some platforms pre-select additional services, such as insurance, extended warranties, or donations, during the checkout process, requiring consumers to manually deselect them if they do not wish to pay extra.
8. **Disguised Ads and Fake Reviews** – Sponsored advertisements are often presented as organic search results or genuine user reviews, misleading consumers into believing they are unbiased recommendations. Additionally, fake reviews inflate product ratings to manipulate purchasing decisions.
9. **Device-Based Price Discrimination** – Some e-commerce websites display different prices for the same product based on the user’s device, location, or browsing history. Consumers using premium devices, such as iPhones, may see higher prices compared to those browsing on budget smartphones or desktops.

IMPACT OF DARK PATTERNS ON CONSUMERS :

Dark patterns in online shopping have far-reaching consequences, affecting consumer behaviour, decision-making, and overall trust in e-commerce platforms. While these deceptive tactics may generate short-term gains for businesses, they ultimately undermine consumer confidence, leading to dissatisfaction and potential regulatory scrutiny.

INFLUENCE ON CONSUMER BEHAVIOUR :

Dark patterns exploit psychological triggers such as FOMO (fear of missing out), urgency, and loss aversion, compelling consumers to make impulsive purchasing decisions. Many Indian consumers, particularly first-time online shoppers from semi-urban and rural areas, may not be familiar with these deceptive tactics, making them more susceptible to manipulation. Flash sales, countdown timers, and scarcity claims like “*Only 2 left in stock*” pressure users into quick purchases without thorough evaluation. Similarly, forced continuity tactics ensure that consumers remain subscribed to services they may not even need, leading to unintended financial commitments.

IMPACT ON DECISION-MAKING :

Dark patterns obstruct informed decision-making by hiding crucial information, presenting misleading options, and confusing users with deceptive UI elements. For instance, drip pricing—where extra costs like taxes, shipping, and convenience fees are revealed only at checkout—prevents consumers from accurately comparing product prices. Bait-and-switch tactics mislead shoppers into expecting one product or offer, only to receive something different. Such deceptive practices reduce transparency, making it difficult for consumers to make well-informed choices, ultimately leading to financial losses, frustration, and post-purchase regret.

EFFECT ON USER EXPERIENCE AND TRUST :

Although businesses may benefit from dark patterns in the short run, they risk damaging long-term consumer trust and brand reputation. Repeated exposure to deceptive practices creates frustration and dissatisfaction, discouraging repeat purchases. Consumers who feel tricked are likely to leave negative reviews, warn others through social media, or even switch to competitor platforms that offer more transparent policies. This erosion of trust can have a significant impact on customer retention and loyalty, making it clear that the use of dark patterns is not a sustainable business strategy. In the Indian market, where word-of-mouth and community recommendations play a significant role in online shopping, consumer distrust can severely impact a brand’s credibility and profitability.

ETHICAL CONCERNS AND CHALLENGES :

The widespread use of dark patterns in online shopping raises significant ethical concerns, as these manipulative tactics exploit consumer vulnerabilities and undermine fair digital practices. By limiting consumer autonomy, exploiting digital illiteracy, and breaching trust, dark patterns create an unfair online marketplace. Although India has introduced regulations to address these deceptive practices, enforcement remains a challenge due to low consumer awareness and the ever-evolving nature of digital manipulation strategies.

VIOLATION OF CONSUMER AUTONOMY :

One of the most pressing ethical concerns regarding dark patterns is their impact on consumer autonomy. Deceptive UI tactics limit consumers’ ability to make well-informed decisions by hiding essential information, restricting choices, or misleading users into unintended actions. For instance, forced continuity makes subscription cancellations deliberately difficult, trapping consumers in recurring payments they may not have willingly agreed to. Similarly, preselected add-ons or hidden costs take advantage of inattentiveness, making it challenging for users to opt out of unnecessary charges.

EXPLOITATION OF DIGITAL ILLITERACY :

A significant portion of India’s population, particularly those from rural and semi-urban areas, lacks digital literacy and may not fully understand deceptive UI practices. Many first-time online shoppers are unfamiliar with industry tricks, making them more susceptible to dark patterns such as disguised ads, bait-and-switch tactics, and misleading subscription models. This digital divide further widens the power imbalance between businesses and consumers, making it easier for companies to manipulate purchasing decisions without resistance or awareness from users.

BREACH OF CONSUMER TRUST :

Dark patterns significantly erode trust in e-commerce platforms by deceiving customers into unwanted transactions. When consumers realize they have been misled—whether through hidden fees, misleading urgency tactics, or false scarcity claims—it results in frustration, dissatisfaction, and reluctance to shop from the same platform again. In the long run, businesses that engage in such practices risk losing customer loyalty and damaging their brand reputation. In India, where word-of-mouth recommendations heavily influence purchasing decisions, negative experiences spread quickly, discouraging potential consumers from engaging with deceptive e-commerce platforms.

PSYCHOLOGICAL AND EMOTIONAL MANIPULATION :

Dark patterns do not just manipulate purchasing behaviour—they also exploit human psychology and emotions. Techniques such as urgency tactics (limited time offers, countdown timers) and confirm shaming ("Are you sure you want to miss out on this deal?") create unnecessary pressure, guilt, or anxiety, coercing consumers into making decisions they might later regret. These tactics prey on users' emotions, making them feel compelled to act against their best interests. Such manipulation raises ethical concerns regarding the responsibility of businesses to uphold fair and transparent consumer interactions.

REGULATORY AND LEGAL CHALLENGES :

Recognizing the ethical and financial harm caused by dark patterns, the Indian government has introduced several regulations to curb deceptive digital practices. Key legal measures include:

1. **The Consumer Protection (E-commerce) Rules, 2020** – Prohibits unfair trade practices in e-commerce and ensures greater transparency in online transactions.
2. **Guidelines for Prevention of Misleading Advertisements, 2022** – Mandates truthful advertising and restricts exaggerated claims that may mislead consumers.
3. **The Digital Personal Data Protection Act, 2023** – Requires businesses to obtain **clear, informed, and unambiguous consent** before collecting and using consumer data.
4. **Guidelines on Prevention of Dark Patterns, 2023** – Defines various dark patterns and prohibits their use on e-commerce platforms and digital services.

While these regulations are crucial steps toward ensuring ethical online practices, enforcement remains a major challenge. Many consumers remain unaware of their rights or the existence of deceptive practices, making it difficult for them to report violations. Additionally, as businesses continue to refine and evolve their manipulation strategies, regulators must continuously update and strengthen legal frameworks to keep pace with emerging dark patterns.

Ultimately, addressing the ethical challenges posed by dark patterns requires a combined effort from policymakers, businesses, and consumers. Businesses must adopt more transparent and fairer UI/UX practices, while government agencies should enhance consumer awareness and strengthen enforcement mechanisms. Promoting ethical digital design will help build a more trustworthy and consumer-friendly e-commerce ecosystem in India.

RECOMMENDATIONS :

To mitigate the impact of dark patterns and promote ethical digital practices in India, a multi-pronged approach is necessary. The following recommendations outline key steps that government authorities, industry stakeholders, and consumers can take to reduce deceptive design tactics and improve the online shopping experience.

STRONGER CONSUMER PROTECTION LAWS

The Indian government should introduce stricter regulations and impose higher financial penalties on businesses that engage in deceptive digital practices. Additionally, consumer protection bodies should be empowered to conduct proactive investigations and take swift action against violators, ensuring that unethical e-commerce platforms are held accountable.

INCREASED CONSUMER AWARENESS

Public awareness campaigns should be launched through social media, advertisements, and educational initiatives to help consumers recognize and report dark patterns. Digital literacy programs, particularly in rural and semi-urban areas, can empower users to identify misleading tactics and make informed purchasing decisions.

INDUSTRY SELF-REGULATION

E-commerce platforms should adopt voluntary ethical guidelines that prioritize transparent and consumer-friendly UX design. Companies should establish internal compliance teams to review UI/UX practices and ensure they adhere to fair digital principles, promoting a trustworthy online shopping environment.

USER-FRIENDLY INTERFACES

Platforms must ensure clear and upfront pricing, simple and hassle-free subscription cancellations, and transparent checkout processes to enhance consumer trust. Additionally, the use of straightforward navigation, opt-in options instead of preselected add-ons, and clear consent mechanisms can prevent misleading transactions.

INDEPENDENT AUDITS AND REPORTING MECHANISMS

Regular third-party audits should be conducted to assess compliance with consumer protection regulations and ethical UX design standards. Moreover, the government and industry bodies should establish an easy-to-use grievance redressal system where consumers can report dark patterns and seek resolution for deceptive online transactions.

By implementing these measures, India can create a more transparent, ethical, and consumer-centric e-commerce ecosystem, reducing deceptive practices while fostering digital trust and fairness.

CONCLUSION :

Dark patterns in online shopping present a major ethical and consumer rights challenge, especially in India, where a large and diverse population is rapidly embracing digital commerce. Many e-commerce platforms leverage manipulative UI/UX tactics to influence consumer behaviour, often leading to unintended purchases, hidden charges, and difficulties in cancelling subscriptions. While these deceptive strategies may yield short-term revenue gains for businesses, they significantly undermine consumer trust, creating long-term reputational and financial risks for companies. As digital transactions become more prevalent across urban and rural areas alike, it is imperative to address these unethical practices to ensure a fair and transparent online marketplace.

The Indian government has taken proactive steps to regulate dark patterns through various consumer protection laws and digital policies, yet enforcement remains a challenge due to evolving deceptive tactics and low consumer awareness. Strengthening regulatory frameworks, improving legal enforcement, and fostering industry self-regulation are necessary to curb the misuse of dark patterns. Additionally, consumer education initiatives and transparent UX design practices can empower users to make informed choices, reducing their vulnerability to manipulative strategies. By prioritizing ethical digital practices, businesses can cultivate long-term customer loyalty, enhance user satisfaction, and contribute to a trustworthy and sustainable e-commerce ecosystem in India.