

Don Bosco Institute of Technology Delhi Journal of Research

Year 2025, Volume-2, Issue-2 (Jul-Dec)



Dark Patterns: Understanding Consumer Awareness & Regulatory Mechanism

Ms. Priyanka Mavi

Research Scholar, School of Management & Commerce Manav Rachna University

ARTICLE INFO

Key words : Dark Patterns Consumer Awareness, Regulatory, Digital Platforms

doi: 10.48165/dbitdj.2025.2.02.04

Abstract

Persuasive interface designs are gaining a lot of importance in directing user behavior on digital platforms. While many of the tactics which form part of the interface are important & also within the legal boundaries, other design practices—known as “dark patterns”—cross ethical boundaries and are used purposively for deceiving the consumers through various social media channels. Three main aspects are examined in this conceptual paper: (1) the meaning and types of dark patterns; (2) the extent to which consumers are aware of these trends when using online platforms; and (3) the level of awareness among users regarding the legal protections and regulatory framework available against manipulative dark patterns used digitally. The paper focuses on how consumers are actually aware of the various types of dark patterns used on the digital platforms. The research paper is beneficial for the consumers as it creates awareness among them, for policymakers on how to create a user friendly digital user interface for digital literacy.

Introduction

Today's consumers are much more educated as compared to the earlier generation. Due to technology advancements, consumer's shopping behaviour, communication patterns & access of the services through various modes have changed a lot. The positive side of these are how any consumers can access the various services remotely & how easy it has become to shop according to their tailored requirements. But it also comes with certain limitations which the business uses to take advantage by using the consumer data for their benefits & to increase their engagement online. One such tactic

or one of the most recent trends is “DARK PATTERNS”. The term dark patterns was coined by Brignull (2010), who define them as deceptive interface elements designed to nudge users into choices they would not ordinarily make. Some of the examples include hidden costs, visually misleading tabs, or complicated subscription cancellation processes. Major regulatory bodies—including the FTC, European regulators, and India's Department of Consumer Affairs—have expressed their serious concerns regarding the ethical & legal implications of these practices. Consumer awareness is quite low despite of the regulatory scrutiny. Many users have come across these interfaces while

*Corresponding author.

E-mail address: pmavi494@gmail.com

Copyright @ DBITDJR (<https://acspublisher.com/journals/index.php/dbaskdf>)

surfing through online platforms but die to low awareness they are not able to recognize it as intentional manipulation. Thus, this study focuses mainly on three major areas :

1. To define what one understand by dark patterns & its types.
2. To understand how conscious customers are of this new trend called dark patterns while using internet platforms.
3. To gauge how much consumers are aware of the regulatory mechanism available for them against these deceptive patterns

This paper offers a comprehensive review on the meaning of dark patterns and their implications on the society, drawing on research in HCI, behavioural psychology, and role of digital governance.

Objectives

The study's objectives

Objective 1: Define the fundamental meaning of dark patterns and various types of dark patterns which are used by marketers.

Objective 2: Analysing the level of consumer awareness regarding the various dark patterns available which they encounter while using digital platforms

Objective 3: To examine consumer knowledge of the legal frameworks, complaint procedures, and regulatory measures currently available to protect the users from digital deception.

Review of Literature

Dark Patterns: An Overview and Definition

The phrase “dark patterns” was first used by Harry Brignull to characterize interface designs that are purposefully designed to trick users into doing things they might not have otherwise selected (Brignull, 2013). The deliberate effort of manipulation is what makes dark patterns different from bad design.

Academic researches already done tried linking dark patterns to behavioural science principles, particularly cognitive biases some of which are:

- Default bias: preference for pre-selected alternatives
- Scarcity bias: how one react to artificially limited availability shown to them
- Framing: influence of presentation of the alternatives available
- Loss aversion: avoidance of perceived losses

These psychological tendencies are applied universally , making users prone to these deceptive practices irrespective of how much familiar they are with the digital platforms

Kinds of Dark Patterns

The types of dark patterns have been given by a number of academicians; Brignull's taxonomy and subsequent iterations by Mathur et al. and Luguri & Strahilevitz provide a very thorough classifications. Important classification includes:

1. Sneaking: To hide important details, including hidden fees/costs or pre-selected services.
2. Urgency/Scarcity Cues: Using timers or stock alerts to prompt decisions, frequently without any supporting evidence.
3. Obstruction: Putting up complicated barriers to acts like cancelling or unsubscribing.
4. Mis-direction: Creating layouts to mislead consumers by drawing attention to certain specific options while trying to hide others.
5. Forced Action: Making unnecessary actions mandatory to move forward, such as mandatory sign-ups.
6. Social Proof Manipulation: Making up of activity alerts or reviews.
7. Confirm shaming: Trying to discourage users from exiting by using language that makes one feel guilty.
8. Roach Motel: where one can enter or subscribe easily but cancellation is very difficult.
9. Bait and Switch: Picturing one expectation while producing a completely different result.
10. Drip pricing: the final price is raised by adding many additional charges which were not exposed earlier.

Consumer Awareness of Dark Patterns

Studies has consistently shown that while dark patterns are very commonly visible on digital platforms, most users are not able to identify them:

- Mathur et al. (2019) had shown in his research that thousands of dark patterns were clearly evident on purchasing websites, but users had hardly noticed them & had been a bait of these deceptive patterns very easily.
- Some of the papers have shown that young adults most commonly overlook privacy-related manipulation, but they are able to identify the urgency-based cues.
- Rather than classifying dark patterns as deliberate strategies, many users mistake these as bad design.
- Particularly little is known about data-driven dark patterns, such as cookie consent manipulation. Exposure is high overall, but comprehension is still low.

Knowledge of Regulatory Structures

There are various regulatory bodies available. Several jurisdictions have initiated a number of legal responses:

- GDPR (EU): restricts deceptive consent practices.

- The USA's Federal Trade Commission has taken action against subscription interfaces that are misleading.
- India (2023): Thirteen prohibited dark patterns were defined by official standards. However, studies show that:
 - Very few consumers know where or how to make complaints.
 - A lot of people think that manipulative design is either inevitable or legally acceptable
 - Very Few users are aware of their rights, such as the ability to seek the erasure of data or withdraw consent. Because of this, current regulations are frequently under-utilized.

Research Methodology

This paper uses a qualitative, conceptual research approach which is completely based so on secondary data, including:

- Peer-reviewed academic journals
 - Government and regulatory publications
 - Reports from digital rights organizations
 - Conference papers and meta-studies on digital manipulation
- The analysis synthesizes patterns, compares classifications, and evaluates consumer and regulatory perspectives.

Results & Conclusions

Results of Objective 1

After the review of literature available the definition of dark patterns is

- Dark patterns are deceptive.
- The pattern varies from one industry to another.
- Psychological biases are used to boost efficacy.
- Usage is confined to social media and e-commerce sites.
- With AI coming into picture, more customisations has come into picture and practice. Comprehending these classifications is essential for well-informed policy and user education.

Results of Objective 2
Important findings include:

- Consumers are unaware about dark patterns despite being used to it day in day out.
 - Few manipulative signs are figured out, that too by young users who are very tech savvy.
 - The baby boomers are exposed to subscription-based traps.
 - Due to ignorance, users frequently hold themselves responsible for subpar results.
 - Familiarity to such patterns is directly proportional to not getting exploited, fooled by marketers.
- Result of objective 3 -The analysis reveals:
- The public is not very aware of digital rights.
 - The users hardly contact official websites or grievance officers if any problem arises.

- Not may awareness creation programmes have been conducted. This is the main reason why the total effect of regulations is diminished.

Conclusion

Dark patterns is a new concept whose usage has been practiced for a very long period of time but the ones who are actually targeted, hardly are aware of the nature and the various risks which comes with it, how much exposed, vulnerable the customers get. Despite policies being in place, awareness still remains a very big question. Policymakers, platform designers, educators, and consumers must work together to protect digital autonomy.

Suggestions for Customers:

- Gain knowledge about various types of digital manipulation.
 - Keep a very strict watch and ensure close attention to consent features, subscription conditions, and privacy alternatives.
 - > Use official portals to report discrepancies, breach.
- For legislators:
- Increase adherence to current regulations.
 - Conduct awareness campaigns across the country.
 - Opt for ethical design and simple cancellation.
- Adopt ethical design standards for digital platforms.
- Identify user interfaces and promptly get rid of manipulative components.
 - Both consent and data usage are discussed.

Research Scope for the Future

- Field surveys that will be directed to quantify and measure awareness among various demographic groups.
- Comparing how religiously regulations are adhered to, formulated across nations.
- Study the effects of new policies and regulations in India.
- Research using eye tracking to understand and ponder upon how users react to manipulative practices.
- Create automatic tools for identifying dark patterns.

References

- Brignull, H. (2013). *Dark patterns: Deceptive design in user interfaces*. Retrieved from <https://darkpatterns.org>
- Gray, C. M., Kou, Y., Battles, B., Hoggatt, J., & Toombs, A. (2018). The dark (patterns) side of UX design.

- Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 1–14.
- Luguri, J., & Strahilevitz, L. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, 13(1), 43–109.
- Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11,000 shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1–32.
- Government of India. (2023). *Guidelines for prevention and regulation of dark patterns*. Department of Consumer Affairs.
- European Union. (2018). *General Data Protection Regulation (GDPR)*. Official Journal of the European Union.
- United States Federal Trade Commission. (2022). *Bringing dark patterns to light: Examination of manipulative user interfaces*. Washington, D.C.
- Narayanan, A., & Vallor, S. (2022). Manipulative design: A threat to autonomy. *Journal of Digital Ethics*, 2(1), 17–35.